

APPENDIX D — COMMENT LETTERS

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CONCISE EXPLANATORY STATEMENT AND RESPONSIVENESS SUMMARY

FOR THE ADOPTION OF
CHAPTER 173-303 WAC, Dangerous Waste Regulations

Prepared by:

Chipper Hervieux

Washington State Department of Ecology
Hazardous Waste and Toxics Reduction Program

November 12, 2004

Publication: 04-04-032

If you require this publication in an alternate format, please contact [program name] at [reception phone number], or TTY (for the speech or hearing impaired) 711 or 800-833-6388.

**Chemical Testing Methods for Designating Dangerous Waste
Draft for Public Review
Comment Form**

First and Last Name: Jeffrey L. Cizek
Organization or Affiliation: Puget Sound Naval Shipyard & Intermediate Maintenance Facility
Address: 1400 Farragutt Avenue
Bremerton, WA 98314-5001

Indicate if your comment is on the federal requirements _____ or state requirements X

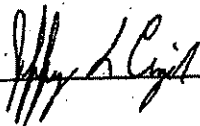
Appendix 5: HOC Chemicals of Concern

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Appendix 5 indicates that updates to the list of "HOC Chemicals of Concern" including the deletion and addition of specific compounds will occur as scientific information comes available indicating a specific HOC either is or is not an HOC of concern. In order to keep abreast of these deletions or additions, the list will be maintained on Ecology's web page (<http://www.ecy.wa/ecyhome.html>).

Since being listed on the "HOC Chemicals of Concern" is one of the criteria for a waste to pick up the characteristic of persistence, the list should be systematically and methodically updated in a way that is workable for waste generators. Ideally, the list provided by Ecology should be updated on an annual basis effective 1 January of each year. In this way, any changes made to the list would not impact dangerous waste reporting for the calendar year. If changes are made as chemicals are identified, waste might be disposed of as nonhazardous one day but be considered a hazardous waste the next day. This would significantly complicate the waste characterization process for large quantity generators with numerous waste streams to manage. Additionally, the list should annotate the effective date that a chemical was added. In this way, the generator can more easily determine whether changes to the list affect any of their waste streams. It would also be beneficial if the list were provided in multiple formats (e.g., Microsoft Word, Microsoft Excel) to make data comparisons easier to accomplish.

Signature: _____



OPTIONAL FORM 95 (7-99)

FAX TRANSMITTAL

of pages ▶ 1

To	Alex Stone	From	Jeff Cizek
Dept./Agency	WDOE	Phone #	
Fax #	360-407-6305	Fax #	

NSN 7540-01-317-7388

5089-101

GENERAL SERVICES ADMINISTRATION

Dangerous Waste Regulations Chapter 173-303 WAC Draft Amendments - March 2004 Comment Form

First and Last Name: Jeffrey L. Cizek
Organization or Affiliation: Puget Sound Naval Shipyard & Intermediate Maintenance Facility
Address: 1400 Farragutt Avenue
Bremerton, WA 98314-5001

Indicate if your comment is on the federal requirements _____ or state requirements X

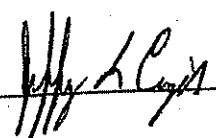
Section # 173-303-040 Page # _____ Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Delete the word "reliably" from the new definition for "Knowledge". Reliably is a somewhat ambiguous term that can be a point of confusion to generators, TSDf's and regulators alike.

Please provide specific language for your recommended change or addition.

"Knowledge" means there is sufficient information about both the waste constituents and the process generating a waste to substitute . . .

Signature: 

OPTIONAL FORM 09 (7-99)

FAX TRANSMITTAL

of pages ▶ 2

To	Chipper Hervieux	From	Jeff Cizek
Dept./Agency	HWTR Program	Phone #	
Fax #	360-407-6715	Fax #	

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Jeffrey L. Cizek
Organization or Affiliation: Puget Sound Naval Shipyard & Intermediate Maintenance Facility
Address: 1400 Farragutt Avenue
Bremerton, WA 98314-5001

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 173-303-040 Page # _____ Citation # _____

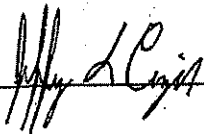
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The definition of persistence in this section is inconsistent with the new definition of persistence provided by "*Chemical Testing Methods for Designating Dangerous Waste*" (e.g. 60 days versus 365 days).

Please provide specific language for your recommended change or addition.

"Persistence" means the quality of a material which, as defined in WAC 173-303-040, is either a halogenated organic compound (HOC) or a polycyclic aromatic hydrocarbon (PAH), and retains more than half of its initial activity after two months (60 days) in either a dark anaerobic or dark aerobic environment at ambient conditions.

Signature: _____



September 10, 2004

Ms. Patricia Hervieux
Hazardous Waste & Toxics Reduction Program
P.O. Box 47600
Olympia, WA 98504-7600

RE: Comments to Proposed Changes to Washington Dangerous Waste Regulations

Dear Ms. Hervieux:

Thank you for the opportunity to comment on the Department of Ecology's draft changes to the Dangerous Waste Regulations. I am commenting on behalf of EcoLights Northwest LLC.

On the whole, I believe that the proposed revisions are thoughtful and well crafted. For the most part they will contribute to further protecting human health and the environment in Washington State. You and your staff are to be complimented on developing a good set of recommendations.

As you may know, EcoLights Northwest is the only fluorescent lamp and ballast recycling operation located in Washington State. We operate recycling equipment that can handle all Universal Waste Lamps. Further, we collect Universal Waste Batteries, Universal Waste Thermostats, and both PCB and non-PCB containing ballasts for shipment to properly permitted recycling/disposal facilities.

Universal Waste for Mercury-Containing Equipment

I believe that the proposal to expand the types of mercury bearing wastes covered by the Universal Waste Rules is a very positive revision to the Dangerous Waste Regulations.

Despite the fact that EcoLights Northwest only manages Universal Waste materials, we regularly get requests from our customers to pick up other types of mercury bearing material when we pick up their spent lamps. We must turn this material away and refer our customer to a city or county hazardous waste program or fully permitted hazardous waste company to manage the material. This is ironic, since the end destination for these non-Universal Waste mercury bearing materials is exactly the same as for Universal Waste mercury thermostats that we legally handle.

Further, we receive numerous calls from non-customer citizens or businesses requesting assistance in managing non-Universal Waste mercury bearing materials, such as switches, thermometers, manometers, mercury switches, or blood pressure monitor equipment. Again, we must refer these callers to their local city or county hazardous waste program or to permitted hazardous waste company to manage the material. Unfortunately, some of these generators may not have the persistence or resources needed to get these materials properly managed. As a result, a significant amount of mercury bearing waste may be improperly managed because there are not convenient, cost effective management alternatives.

One oversight in the drafting of the new rule is the exclusion of liquid mercury. EcoLights occasionally gets requests from citizens, businesses, or schools to provide assistance in managing liquid mercury not contained in equipment. While I recognize that the rule has been written to manage devices, I believe that small amounts of mercury should also be covered by this rule, if feasible.

WAC 173-303-120(4) – Recyclers who do not store – time to enter recyclable materials into active process.

Ecolights supports Ecology's proposal to extend the requirement to place recyclable material into the active recycling process within 24 hour requirement to 72 hours. As is quite clearly stated in the proposal, changing this rule will provide flexibility and efficiency of recycling facilities while resulting in no reduction in environmental protection. In addition, allowing additional time to enter the active recycling process will encourage more recycling of wastes.

Hazardous Waste Facilities Initiative

As you know, EcoLights Northwest is included in Ecology's list of Oil Processors, Hazardous Waste Facilities, and Recyclers and would be one of the facilities that would be impacted by this rule change.

EcoLights Northwest is already substantially in compliance with the requirements in this section of the revisions. We have an application pending with the EPA TSCA program to be a commercial storer of PCB bearing materials. As part of that application, we needed to prepare closure cost estimates and propose a financial assurance mechanism to fund closure. When we attempted to obtain a closure bond, insurance policy, or open a trust fund to finance closure, we were unable to procure these instruments. Either the instrument was not available in Washington or the costs of premiums were so high that it was cheaper to self-fund closure. Due to the problems we have encountered in acquiring the require financial assurance mechanism, we have been setting aside funds for the past 5 years to ensure that we can be in compliance with this requirement if the other portions or our application are approved.

As I stated in the meetings leading up to development of these proposals, I believe that the financial assurance requirements will be burdensome for smaller businesses and any potential new businesses that might want to begin service in Washington, because of lack

of availability. I do not believe that the market for this type of insurance in Washington has improved in the recent past. If anything, it has probably gotten worse.

I do not believe that it is Ecology's intent is to eliminate all small businesses active in the recycling and hazardous materials management business in Washington, but this proposal may result in exactly that because of the cost of acquiring adequate financial assurance of closure.

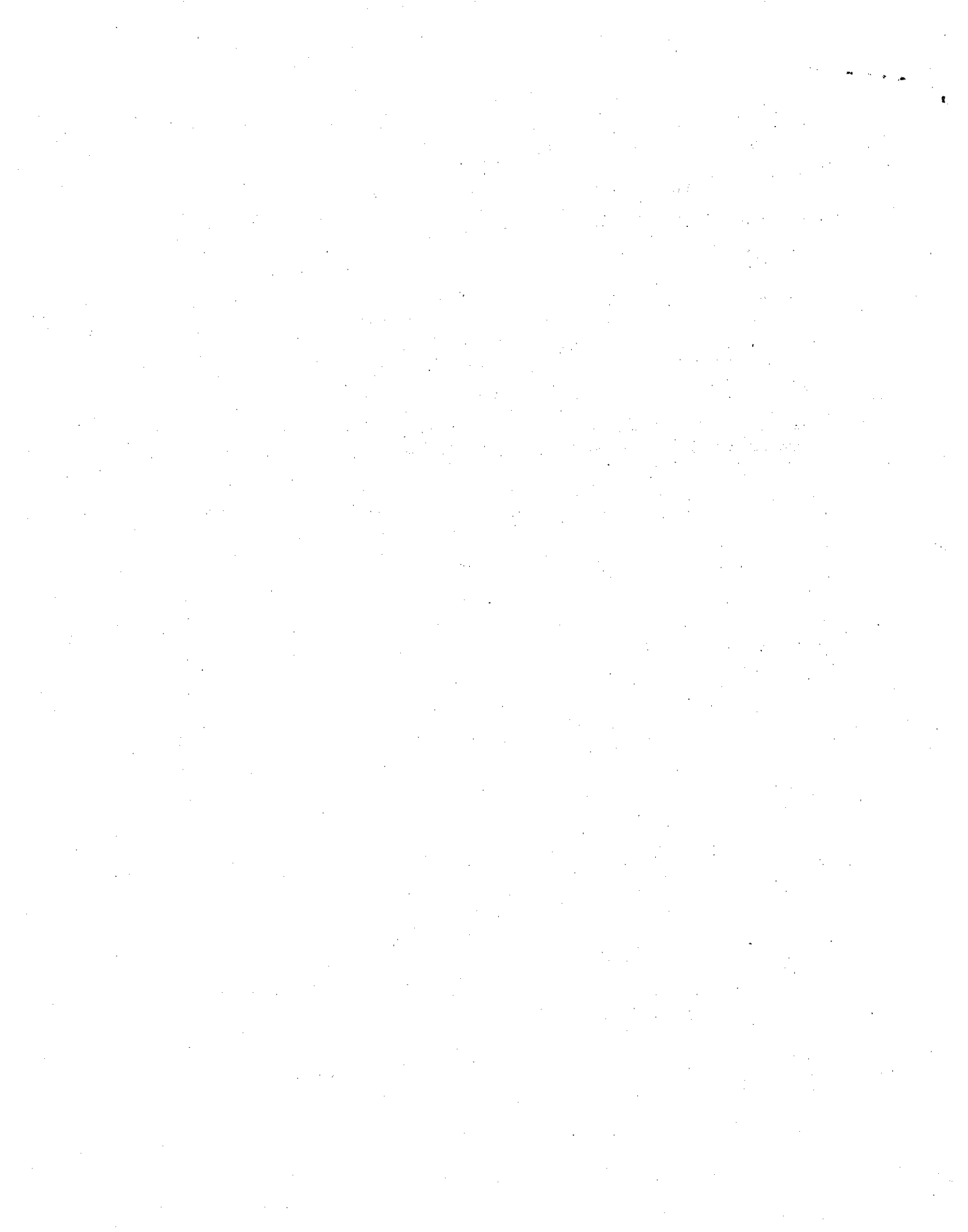
Prior to implementing this proposed rule change, I believe that Ecology staff should demonstrate that these mechanisms are truly available in Washington and determine the cost of such insurance to meet the proposed requirements prior to implementing them. Otherwise, the outcome may be that existing recycling facilities will be in violation of the regulations, with no way to comply.

Thank you again for the opportunity to comment on these draft changes to the Dangerous Waste Regulations. If you have further questions, please contact me at (206) 343-7443.

Thank you for your consideration.

Sincerely,

Craig Lorch
EcoLights Northwest, LLC





TOTAL RECLAIM INC.

ENVIRONMENTAL SERVICES

September 10, 2004

Ms. Patricia Hervieux
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments on Proposed Changes to Washington Dangerous Waste Regulations

Dear Ms. Hervieux:

I am writing to provide comment on the proposed revisions to the Washington State Dangerous Waste Regulations on behalf of Total Reclaim, Inc.

On the whole, I believe that the proposed revisions are thoughtful and Ecology staff is to be commended for their work. For the most part they will help to protect human health and the environment in Washington State.

I take exception with one issue, the addition of CFC/HCFC reclaimers under the requirements that recycling operations provide closure planning and financial assurance. I believe inclusion of reclaimers under this proposal to be excessively burdensome, not thoroughly researched, and unreasonable given the relative risk that this industry poses to public health and the environment.

Since Washington has no history of problems with or enforcement actions against with the reclaiming industry or any of its members, including Total Reclaim, this proposal seems very selective and arbitrary.

EPA already regulates reclaimers under the US Clean Air Act but does not require development of closure plans or financial assurance mechanisms. A comparison can be drawn to the way that EPA regulates PCB handlers under TSCA. In the case of PCBs, EPA determined that there was a compelling reason to require PCB storers and handlers to develop closure plans and obtain financial assurance mechanisms. Despite regulating the reclaiming industry for over 13 years, EPA has not determined that there is a compelling reason to require reclaimers to obtain these closure mechanisms, nor to my knowledge, are they considering any at this time.

To determine the number of businesses that would be impacted by this change, I consulted the current list of EPA certified CFC/HCFC reclaimers found on the internet at <http://www.epa.gov/ozone/title6/608/reclamation/reclist.html>. Total Reclaim is the only

reclaimer listed in Washington State. The only other reclaimer listed in EPA Region 10 is St. Vincent de Paul in Eugene (for which I strongly doubt the Oregon Department of Environmental Quality is considering regulations requiring closure planning or financial assurance mechanisms).

Since the merits of this proposed regulation can only be judged in relation to the activities of one facility in the state, I will be very specific in my comments and refer to the types and quantities of material actually generated and managed by Total Reclaim.

Material Generation

In January of each year, as required by federal law, Total Reclaim submits data to the EPA Stratospheric Protection Division as to the amount of refrigerant gas collected from customers and reclaimed on site and the amount of waste oil generated through these activities. A summary of these results for Total Reclaim for 2003 is as follows:

- Total refrigerant handled – 269,464 lbs
- Total refrigerant reclaimed in-house – 187,808 lbs
- Total amount of mixed refrigerants – 26,931 lbs
- Total un-reclaimed refrigerant sold to other reclaimers – 54,725 lbs
- Total gallons of refrigerant oil from reclaiming – 357 gallons

Refrigerant Reclaiming

When refrigeration contractors, appliance repairmen, or recyclers recover refrigerants, they utilize specially designed recovery equipment and pressure vessels. When filled, these tanks must be sent to an EPA certified reclaimer for processing.

It should be noted that unlike other types of waste containers, refrigerant tanks normally remain the property of the contractor or repairman, not the receiving reclaimer. Each tank is stamped with a unique serial number and reclaimers track these numbers to ensure that the tank is returned to the proper owner. Further, the refrigerant contained in the tank remains the property of the contractor until the reclaimer moves the refrigerant to another container. As a result, reclaimers do not face the same issue of unknowns in containers that other waste companies face, and in the event of abandonment, refrigerant tanks can be tracked back to their original owner who can be held responsible to manage the tank and its contents.

On arrival at the reclaimer, all tanks refrigerants are immediately screened to determine if the refrigerants contained in the tank are pure enough to be reclaimed or if the tank contains a mixture of more than one type of refrigerant gas. Refrigerants are then bulked into larger cylinders of like material awaiting reclaim.

Refrigerant reclaiming is a relatively straight forward process involving the evaporation of refrigerants in a chamber and condensation and recompression of the refrigerant into a receiving tank. The residual material left behind is refrigerant oil, water, and any particulate contaminants.

The only waste products generated by reclaimers are used refrigerant oils and mixed refrigerants.

Un-reclaimed Refrigerants

It should be emphasized that non-mixed un-reclaimed refrigerants have a positive market value. Un-reclaimed refrigerants are frequently purchased by other reclaimers to meet their current customer demands or production schedules. For example, approximately 20% of the refrigerants collected by Total Reclaim in 2003 were sold to other reclaimers. This represented a total of 54,725 lbs of refrigerant.

In the proposed rule changes, Ecology requests comment on a prohibition of facility operators to use salvage value of materials in considering the cost of facility closure. While this proposal may make sense with regard to some hazardous materials or recycling facilities, this does not make sense with refrigerant reclaimers. Refrigerant gases retain substantial market value in the un-reclaimed form and are very easy to market to other reclaimers. A fitting analogy would be to require aluminum recyclers to provide closure plans and financial assurance but not allowing them to take into account the value of the aluminum scrap in inventory.

Mixed Refrigerants

Refrigerants become mixed in one of two ways. They are:

1. Accidental mixing – Manufacturers label refrigeration equipment with tags to prevent technicians from using the wrong refrigerant during servicing. Sometimes tags are removed or become unreadable and the refrigerant must be recovered as an unknown refrigerant. On other occasions, technicians may not know the type of refrigerant in a system or cylinder when adding new refrigerant.
2. Sloppy workmanship – Technicians may be fully aware of the content of a refrigerant cylinder and choose to mix the refrigerants out of convenience.

A number of refrigerant reclaimers have developed separation technologies for use on mixed refrigerants. Total Reclaim has not developed separation technologies and does not plan to do so. Instead, we utilize another reclaimer for this service.

Companies with separation technologies do not customarily charge for separation services. Instead, they create sufficient value from separation of refrigerants to pay for the cost of destruction of the non-separated residual gas. In 2003, Total Reclaim shipped 26,931 lbs of mixed refrigerant for separation at no cost. Our separation contractor was able to recover approximately 25% of the product for reuse. The remaining material was sent to a permitted incinerator for destruction.

Refrigerant Oils

Refrigerant oil becomes mixed with refrigerant gas as a result of both occupying the same closed refrigerant system. When refrigerants are recovered from a system, a small amount of oil is recovered with refrigerant. The total amount of oil generated by Total Reclaim from reclaiming activities in 2003 was 357 gallons. This is a very small quantity of oil requiring management.

The vast majority of refrigerant oil in a system remains in the sump of the compressor after the refrigerant is recovered. Total Reclaim also collects oil from compressor motors removed from domestic and commercial appliance compressors for management. Total Reclaim's total used oil generation from compressors for 2003 was 3,158 gallons. This material is identical to the oils that result from refrigerant gas reclaiming.

While Total Reclaim collects and manages oils from compressors, this activity does not necessarily occur at all reclaimers as many do not manage compressors or scrap metals. Further, to my understanding, this activity is not the subject of this rule revision. Total Reclaim combines the oils collected from compressors and reclaiming activities and manifests the oils to a Washington oil recycler for management as off-specification oil.

On a side note, in August 2003, Tiffany Yelton from the Department of Ecology visited Total Reclaim and took several samples of refrigerant oil for evaluation. One set of samples came from commercial equipment and the other came from domestic appliances. The results of these tests indicated that the oil from commercial equipment was on-specification oil, possibly not requiring management as hazardous oil, while the oil from domestic appliances was off-specification oil. Despite these initial findings, Total Reclaim has not changed the way we manage our refrigerant oil because of the relatively small quantity of oil we handle and the possibility that oils in our custody could become inadvertently mixed prior to shipment to our oil recycler.

Finally, because the oils generated through management of refrigeration equipment contain chlorine due to contact with refrigerant gases, rather than mixing with hazardous materials, by my reading of the proposed revisions, refrigerant oils could fall under the new proposed amendments to WAC 173-303-515(13).

Conclusion

As noted above, I do not believe that there is a compelling justification for requiring reclaimers to develop closure plans or obtain financial assurance in terms of protection of human health and the environment. A summary of these reasons follows:

- 1) EPA already regulates reclaimers under the Clean Air Act. If EPA felt there were a compelling need to require closure plans or require closure funding, they would have already done so;
- 2) Intentional releases of refrigerant gases are already regulated on the federal level by the U.S. Clean Air Act, and on the state level by the Washington Clean Air Act. Additional regulation of refrigerant gas releases are unnecessary;
- 3) This proposal is not consistent with the requirements in other nearby states and would represent an enormous regulatory burden;
- 4) Used un-reclaimed refrigerant gas has residual value;
- 5) The waste products of reclaiming are limited in quantity and do not represent a significant cost to properly manage;
- 6) In regards to the potential for long-term site contamination through improper management of materials, a number of factors should be recognized:
 - a. Refrigerant gases are not persistent as they evaporate almost instantly on release to the atmosphere;
 - b. Refrigerant gases are not flammable, but rather act as potent fire suppressants (halon gas is a type of refrigerant);
 - c. Refrigerant gases are recognized as non-hazardous unless they are under pressure or in large quantities (Note: CFC R-12 was the original propellant used in inhalers for asthma treatment, which has been replaced with another refrigerant HFC R-134a). (Material Data Safety Sheets on all

refrigerant gases are readily available and we can provide them on request).

- 7) Due to the limited number of reclaimers in Washington and no record of past compliance problems with reclaimers, this regulation is selective and arbitrary.

Finally, any additional regulation of reclaimers can only result in higher costs to the contractors that recover and provide refrigerants to reclaimers. Increasing the costs to contractors will only discourage the recycling of these products and may actually encourage the illegal venting of refrigerants rather than managing them properly.

In conclusion, I believe that CFC and HCFC refrigerant reclaimers are already adequately regulated under the rules of the US Clean Air Act, the Washington Clean Air Act, and the existing Washington Dangerous Waste Regulations, and there is no justifiable reason that reclaimers should be required to develop closure plans or provide financial assurance for closure.

If you have further questions or require additional information on the reclaiming industry or Total Reclaim's services, please contact me at (206) 343-7443.

Thank you for your consideration.

Sincerely,

Craig Lorch
Total Reclaim, Inc

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Fred Miller

Organization or Affiliation: Radi-Chem Environmental, LLP

Address: P.O. Box 103
Albion, WA 99102

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 200(2)(a)(ii) Page # 85 Citation # na

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Radi-Chem Environmental, LLP is requesting that the comment period be extended. The notification of amendments inadequately explained the extent of the proposed changes, specifically, satellite accumulation areas (SAA) and generator knowledge. The scope and nature of the proposed changes are such that an extended period of time is required for the industry to adequately study them and formulate comments.

Please provide specific language for your recommended change or addition.

Do not adopt the proposed changes to these sections.

Signature: _____

Fred Miller



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Seattle, WA 98104
(206) 264-8207
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ANDREW M. KENEFICK

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Direct (206) 264-3062 Fax (866) 863-7961
akenefick@wm.com

September 10, 2004

BY U.S. MAIL AND E-MAIL – PHER461@ECY.WA.GOV

Chipper Hervieux-HWTR Program
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504

RE: Proposed Amendments to Dangerous Waste Regulations – Chapter 173-303 WAC

Dear Ms. Hervieux:

Thank you for the opportunity to provide the Department of Ecology with written comments regarding your proposed changes to the Dangerous Waste Regulations Chapter 173-303 WAC. Waste Management, through a number of operating subsidiaries, provides comprehensive solid waste and hazardous waste management services throughout the United States – including the State of Washington. Waste Management is therefore keenly interested in these proposed regulations and the impacts they may impose on Waste Management's facilities located inside and outside the State of Washington.

FEDERAL STANDARDS AND CAMU RULE PROVISION

Comment 1. Waste Management supports the adoption and revision to the Corrective Action Management Rule, WAC 173-303-646 to -646920.

Waste Management strongly supports those provisions related to maintaining consistency with the federal hazardous waste rules. We particularly support the inclusion of the language from the federal rules related to the offsite management of CAMU eligible wastes in new WAC 173-303-646910 and 646920 – addressing both in-state and out-of-state facilities. We believe that this provision will afford Washington the maximum flexibility for the safe and effective management of CAMU eligible wastes in accordance with the federal rules. We strongly support the inclusion of these provisions in the final regulations adopted by Ecology.

FINANCIAL ASSURANCE REQUIREMENTS

Comment 2. The financial assurance requirements should be consistent with federal regulations; the financial assurance requirements, as proposed, will likely impact the financial assurance market negatively.

5

September 10, 2004

Unfortunately, there are certain provisions of the proposed regulations that deviate unnecessarily and substantially from federal hazardous waste regulations related to financial assurance for hazardous waste facilities. Unlike the proposed CAMU standards that serve to provide maximum flexibility, the proposed Financial Assurance requirements will restrict the types of financial assurance mechanisms that are available for use at dangerous waste facilities within the Washington. Although Waste Management does not currently operate a dangerous waste facility in Washington subject to these financial assurance requirements, we are very concerned about the stated rationale for making these changes and the negative impact these regulatory changes may have if applied to areas of the country where Waste Management does operate solid and hazardous waste facilities that are required to provide financial assurance.

In summary, the proposed changes will substantially reduce the range of financial assurance options that facility owners and operators may choose, will eliminate the use of performance surety bonds, prohibit the use of captive insurance companies, and require that financial institutions maintain *only* an "excellent" by national rating agencies. In general we believe that such sweeping changes to the State of Washington's financial assurance framework for dangerous wastes should be postponed until EPA has completed its ongoing review of financial assurance requirements under federal law.

Comment 3. Ecology should not merely rely on OIG's Financial Assurance Report, but should also (1) consider relevant information responding to the report, and (2) defer revising the financial assurance requirements until EPA has completed its rulemaking process.

From information supporting the proposed revisions, it appears that Ecology has relied heavily on the views and conclusions from EPA's Office of Inspector General (OIG) audit report, *RCRA Financial Assurance for Closure and Post-Closure*, No. 2001-P-007 (Mar. 30, 2001) (the "*OIG Report*"). As a threshold, it must be noted that the EPA regulatory process that developed from that *OIG Report*, although initiated in October 2001, has yet to be concluded. In addition, it would appear that Ecology has not considered the information that was provided to EPA after the release of the *OIG Report*, including comments submitted to EPA in response to the proposed regulations.

As an example, I have attached electronic versions of two letters that were submitted to EPA in response to the *OIG Report*. We would like to have these included in the record for your proposed rulemaking:

- December 11, 2001 letter from Edmund J. Skernolis of Waste Management to EPA's Office of Solid Waste.
- November 9, 2001 letter from Lisa Ventriss of the Vermont Captive Insurance Association to Elizabeth Cotswold of EPA's Office of Solid Waste.

Both of these letters raise significant concerns about the conclusions reached by the *OIG Report* – which we believe only provides a single, skewed point of view. Waste Management strongly requests that changes to the Financial Assurance regulations, as further discussed below, be postponed until such time as the EPA rule-making process can be finished and a complete and thorough record is available on these issues.

September 10, 2004

Comment 4. Ecology should not eliminate the use of performance surety bonds for closure and post-closure financial assurance.

One financial mechanism that is allowed through state and federal rules is a Surety Bond that guarantees that closure activities will be performed and paid for by the surety company holding the bond. Waste Management understands that no facilities in Washington are currently using this mechanism. As Ecology's preamble to the proposed rule change points out, "... the (Surety Bond) concept appears to be valid (end result is clean closure of facilities according to regulatory and permits requirements)." However, Ecology also reaches what we believe to be a mistaken conclusion that this mechanism "... is complex and difficult for facilities to maintain and for the department to administer." As a result, the department is proposing to delete this mechanism from WAC 173-303-620.

Waste Management strongly requests that this mechanism be retained for the above reasons as well as the following additional reasons:

- Waste Management uses a broad range of financial assurance mechanisms across the United States. In fact, Surety Bonds represent approximately 41% (or approximately \$1.3 billion) of the total dollar amount of financial assurance instruments we currently use for closure and post-closure care. We are not aware of any "complexities" or "difficulties" that make this type of financial assurance instrument harder to use than any other form of financial assurance. In fact, the wide variety of state agencies we work with, as do we, believe that this is one of the most effective instruments available for solid and hazardous waste facility financial assurance.
- While the Surety Bond market was tight a few years ago (as pointed out in the letter from Edmund J. Skernolis attached), it has rebounded considerably in the past few years. This points to the need to maintain maximum flexibility – when one financial assurance instrument is tight there may be a need to shift coverage from one instrument to another. However, if a state limits accessibility to only a few mechanisms it is much more difficult for companies to shift their financial assurance resources to alternative mechanisms. Indeed, by limiting mechanisms to only those that are currently in use, Ecology could inadvertently exacerbate the situation if limited availability with one of the other "approved" mechanisms were to ever occur. The solid and hazardous waste industry requires flexibility in allowable mechanisms to ensure that the financial assurance requirements of their facilities can be met.

Recommendation: In view of these concerns, we strongly request that the following language related to Surety Bonds for closure and post-closure care that is proposed for deletion be re-instated into WAC 173-303-620 on pages 182 (closure) and 185 (post-closure care) of the proposed regulatory changes.

Surety bond guaranteeing performance of closure (or post-closure care):

September 10, 2004

Comment 5. Waste Management strongly disagrees with the proposal to eliminate the use of captive insurance as a financial assurance alternative.

To establish captive insurance financial assurance, a corporation creates a subsidiary insurance company that provides insurance solely to other companies owned, or held in majority ownership, by the same parent corporation – in accordance with the laws of the state in which it is domiciled and licensed. Although captive insurance is mistakenly believed by some to be a high-risk activity, it actually provides the parent corporation with much greater control over the risks they manage. Instead of combining a company's risks (over which a company has considerable control) with those of others (over which the company has no control), captive insurance allows a company to focus its risk resources on its own activities – i.e., those over which the company has the most control. Although the *OIG Report* raised concerns about the use of "captive insurance", we believe, as pointed out in the attached December 11, 2001 letter by Edmund J. Skernolis, the *OIG Report* contains many inaccuracies and misperceptions. We ask that Mr. Skernolis' attached letter be incorporated into the rule-making file and that you carefully consider its contents.

Waste Management currently uses a captive insurance company named National Guaranty Insurance Company (NGIC) and which is closely regulated pursuant to the captive insurance laws of the State of Vermont – recognized as the strictest in the country. NGIC currently underwrites about 30% (about \$850 million) of Waste Management's closure and post-closure care obligations. As Mr. Skernolis points out in his letter, captive insurance – at least as licensed by the State of Vermont – is historically the most secure form of financial assurance. Over 120 of the Fortune 500 companies have captive insurance companies domiciled in the State of Vermont. In the 30 years, that Vermont has been licensing captive insurers, there has never been a failure of a Vermont regulated pure captive to meet its financial obligation. No other financial assurance instrument in the country can make such a claim – including trust funds.

Accordingly, there is no basis or evidence to support the statements in the proposed rule's preamble that "insurance policies issued by a 'captive' insurance company do not provide an adequate level of assurance because (the Department) found no independence between facility failure and failure of the mechanism." In reality, based on historical performance, Vermont domiciled captive insurers provide the most secure type of financial assurance – bar none – and there is simply no evidence of any failure of the mechanism. This is because only the most stable and secure companies are allowed to establish captive insurance companies under the laws of the State of Vermont.

Further, Ecology clearly recognizes that no facilities in Washington are currently relying on captive insurance. Thus, there are no existing problems warranting the elimination of this financial assurance mechanism. This should be ample reason alone to defer action on this matter, at least until EPA completes its pending deliberations on financial assurance.

Recommendation: In view of these concerns, Waste Management requests that the following language (or similar language) be deleted from WAC 173-303-620 on pages 183 (closure), 185 (post-closure) and 186 (liability) of the proposed regulatory changes:

September 10, 2004

~~Financial or insurance institutions may not be used that are owned solely, or held in majority ownership, by the parent company of the TSD, off site recycling or used oil processing facility seeking financial assurance;~~

Comment 6. Ecology should not establish minimum ratings for insurance companies who provide financial assurance.

Ecology is proposing to require insurance companies to meet minimum ratings as established by Moody's, Standard & Poor's or A.M. Best. While this proposal is similar to the approach initially suggested by EPA in its proposed rule for standardized permits and financial responsibility, 66 Fed. Reg. 522371 (Oct. 12, 2001) – EPA has yet to indicate how it will ultimately decide this issue. We believe their preliminary proposed approach is overly simplistic and should be substantially amended to be much more flexible.

One problem with Ecology's proposal is that – arguably – an insurance provider would have to immediately cease the provision of insurance services if, say, their A.M. Best rating ever fell from A- (excellent) to B++ or B+ (very good) – even for one month. An A.M. Best rating of B++ or B+ is still a very secure rating – particularly if it is only due to a short-term fluctuation in market conditions (e.g., 2 hurricanes hitting the same state in a single month which only happens once every 50 years). While it might be appropriate to place a closer “watch” on facilities that decline below an A- rating (or some other level), there should not be a drop off a “precipitous cliff” if an insurance company falls below an A- rating for either a short period of time or due to a clear and justifiable reason (e.g., two hurricanes in a month).

In addition, Mr. Skernolis provides several other arguments in his attached letter of December 11, 2001 as to why arbitrary insurance ratings should not be imposed on providers of solid and hazardous waste financial assurance. These valid arguments were made almost 3 years ago to EPA – which is still deliberating taking any final action in this area and which there is yet to be any final resolution at the federal level. To help avoid a patchwork quilt of regulations in this arena, and in view of their pending regulations, Ecology should not make any changes in this regulations until such time as EPA makes a determination as to what action, if any, is warranted at the federal level. Then, once EPA makes a final decision, Ecology can amend the regulations based on the full record before EPA – with an eye towards maximum consistency with federal standards.

Recommendation: In view of these concerns, we strongly request that the following language be deleted from WAC 173-303-620 on page 183 (closure), 185 (post-closure care) and 186 (liability) of the proposed regulatory changes – at least until EPA makes a final recommendation in this area:

~~Insurance companies providing closure (or post closure care, or liability) coverage must have a current rating of financial strength of:~~

~~(A) AAA, AA, A as rated by Standard and Poor's;~~

~~(B) Aaa, Aa, A as rated by Moody's; or~~

~~(C) A. +. +, A. +, A, A, as rated by A.M. Best;~~

September 10, 2004

Comment 7. The proposed regulations should clarify that insurance payouts are made to the owner and/or operator, and only to Ecology as a secondary beneficiary.

Although apparently not discussed in the preamble, Ecology is also proposing to add language to require that closure insurance payments may only be made to Ecology. This does not make sense if the insurance policy is relied upon by the facility owner or operator to provide the funds necessary for their own closure activities. The owner or operator could not use these funds if Ecology were to be the only beneficiary of the policy. Although Ecology's motivation to impose this requirement is not clear due to the lack of supporting rationale, other states have addressed similar concerns regarding the need to receive payments – if necessary – by becoming a secondary beneficiary on the policy if the regulatory agency is forced to take regulatory action.

Recommendation: In view of these concerns, we suggest that the following modification be made to WAC 173-303-620 on page 183 of the proposed regulatory changes:

(iv) Ecology must be named as the beneficiary on an insurance policy; If either partial or complete closure is ordered by the Department or its designee as a result of failure by the operator or person authorized to conduct such activities, the policy shall also guarantee that the insurer shall be responsible for paying out funds to the Department for closure activities at the facility.

Comment 8. Ecology should not raise the financial means test to \$20 million.

In the proposal, Ecology is seeking to increase the level of tangible net worth in the financial test and corporate guarantee from \$10 million to \$20 million. The reason for proposing this change apparently rests on the degree of inflation since 1981 when the \$10 million requirement was first established in federal law.

Once again, Ecology is proposing to make a regulatory change to a provision that is originally based on EPA regulations – even as EPA is considering making changes in the same area. Thus, Waste Management is also requesting that no changes be made at this time – at least until EPA makes a determination in this area.

Moreover, Waste Management is not aware of any historical problems that can be attributed to the \$10 million tangible net worth requirement. While on the surface it may seem reasonable to simply increase the existing \$10 million requirement due to inflation – but that still does not mean that \$20 million is the right level today. Given that there are not any documented problems with this mechanism, the argument could be made that the tangible net worth limit of \$10 million was set too high in 1981. If the proper number were, for example \$5 million, then 20 years of inflation would raise the level to \$10 million – which is where it is today.

In the absence of any documented need to make such a change today, the best course of action is to not make substantive changes in this area until EPA takes final action on the parallel set of regulations they are currently considering.

September 10, 2004

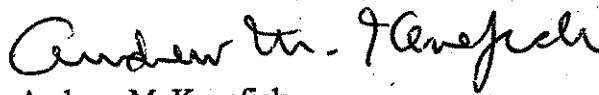
Recommendation: In view of these concerns, we strongly request that the following language be deleted from WAC 173-303-620 on pages 183 (closure) and 185 (post-closure care) of the proposed regulatory changes – at least until EPA makes a final recommendation in this area:

~~Facility owners/operators requesting the use of the financial test and corporate guarantee must meet a minimum tangible net worth criterion of twenty million dollars.~~

* * *

Thank you for the opportunity to provide these comments. Please contact me if you have any questions or require further information regarding comments and concerns.

Sincerely,



Andrew M. Kenefick

Attachments:

1. December 11, 2001 letter from Edmund J. Skernolis of Waste Management to EPA's Office of Solid Waste (electronic version).
2. November 9, 2001 letter from Lisa Ventriss of the Vermont Captive Insurance Association to Elizabeth Cotswold of EPA's Office of Solid Waste (electronic version).

LL re Comments on Washington CAMU Rule (9/10/04)



WASTE MANAGEMENT

Government Affairs

601 Pennsylvania Avenue, NW
North Building, Suite 300
Washington, DC 20004
Phone: 202/628-3500
FAX: 202/628-0400

December 11, 2001

RCRA Docket Information Center
Office of Solid Waste (5305G)
U.S. Environmental Protection Agency Headquarters
1200 Pennsylvania Avenue, NW
Washington DC 20460

RE: F-2001-SPRP-FFFFF

To Whom It May Concern:

Waste Management, Inc. (WM) is pleased to comment on EPA's proposed regulations: Hazardous Waste Management System: Standardized Permit; Corrective Action; and Financial Responsibility for RCRA Hazardous Waste Management Facilities. WM's comments are limited to the request for comments and information on financial responsibility. WM understands that EPA is not proposing at this time any changes to the financial assurance provisions of Parts 258, 264, or 265.

Statement of Interest

WM currently operates approximately 300 land disposal facilities, most of which are subject to the Financial Responsibility provisions of Part 258 (for municipal solid waste (MSW) landfills) or Part 264 (for hazardous waste treatment, storage, and disposal facilities). WM is the largest waste services company in the United States and its total assets exceed \$22 billion. The value of the company greatly exceeds its financial assurance obligations.

WM deploys a variety of means for its financial assurance obligations, including letters of credit, surety bonds, corporate financial test, and insurance. The decision to deploy any particular instrument at a site is a function of State requirements, market factors that influence the cost of the instruments, and prudent management of the company's finances. Because WM's asset base is so diverse and substantial, the company considers it prudent to use captive insurance for a sizable percentage of its financial assurance responsibilities.

Formed by WM and licensed by the State of Vermont in 1989, the National Guaranty Insurance Company of Vermont (NGIC) is a wholly owned subsidiary of WM. As such, it is considered a "pure captive insurance company" and is authorized to write insurance and issue surety bonds for WM only. While WM is the parent of NGIC, NGIC is a separate, regulated entity financially solvent in its own right. NGIC can meet its closure, post-closure, and corrective active obligations because the assets dedicated to those programs are not available to the parent company for alternative uses. Nonetheless, due to its financial strength, WM is currently financing scores of closure, post-closure, and corrective action activities without having to use the assets of NGIC.

Comments

- 1. The Office of Inspector General Audit Report, *RCRA Financial Assurance for Closure and Post-Closure*, is seriously flawed in its analysis of captive insurance and should not be used by EPA as the basis for limiting or eliminating the use of captive insurance.**

The OIG report's analysis is superficial in the extreme. Having determined that "independence" of risk is critical to the financial assurance mechanism, the report simply assumes that pure captive insurance provides no independence of risk, regardless of the financial strength of the parent company, the asset requirements of the captive, or the state's licensing and regulatory oversight process. Instead, the Report demonstrates a notable misunderstanding of how insurance works, and seems to largely reflect viewpoints, concerns, and fears of state officials whose expertise lies outside insurance law, regulation, and standard practices.

The Report inexplicably provides no analysis or case study on any captive insurance program. The Report fails to review and discuss the track record of captive insurance relative to other financial assurance mechanisms. Most notably, the Report fails to articulate any standards of licensing and oversight by which captive insurance policies may be evaluated *and compared against other instruments*. In one example, the Report appears to be critical of the assets of one company's pure captive (the Report's information was, tellingly, out of date), but the Report contains no analysis of the criteria or oversight by which the State of Vermont determined the asset base was adequate to satisfy the risk. Another example is found in the Report's finding that "there are few RCRA regulatory requirements on insurance established for financial assurance because insurance is primarily regulated by the States." The Report suggests that state oversight is a defect of captive and other insurance programs. On the contrary, deference to professional insurance regulators of a State is in fact a commendable aspect of the financial assurance requirements. In the case of captive insurance, it is entirely appropriate for federal and State regulators to defer to those State insurance agencies with professional expertise and extensive experience in regulating captive insurers. Indeed, captive insurance (as well as other insurance) may be a superior form of financial assurance in light of the regulatory oversight by agencies whose primary responsibility is insurance regulation.

- 2. A more complete understanding and analysis of captive insurance demonstrates that captive insurance is a viable and vital form of risk management for RCRA entities and should be retained as an acceptable instrument for financial responsibility.**
- There are currently over 4,000 captives licensed worldwide. Captive insurance helps States and regulated entities to fulfill their financial obligations consistent with EPA's stated policy of providing a broad array of mechanisms to facilitate the economically sound financing of financial assurance obligations. One of the chief functions of a captive is to facilitate the efficient financing of risk within an organization. In addition, captives form part of an overall financial planning structure for a corporation and can act as a shield against upswings and downswings in the commercial market.
 - Vermont has licensed over 500 captives, which makes it the largest domicile in the U.S. This is attributable chiefly to the excellence of its regulatory control and administration. One hundred twenty (120) of the Fortune 500 companies have opted to domicile their captives in Vermont.
 - *There has never been a failure of a Vermont regulated pure captive to meet its financial obligations.*

- The owners of captive insurance companies are typically sophisticated entities with the ability to manage and retain their own risk.
- WM's captive, NGIC, is currently active in 18 states for financial assurance and 28 states for performance/miscellaneous obligations.
- Vermont holds captives to a rigorous set of requirements before licensing, and then monitors the ongoing operations and financial stability of captives. Captive insurers are required annually to provide to the Vermont Insurance Department the following information:
 - Audited financial statements
 - An actuarial certification of loss reserves, calculated by an approved actuarial firm
 - A statutory annual report including financial and insurance operational information
 - Parent company financial statements
 - Biographical affidavits outlining the background of every officer, director, and key employee
 - In addition, the Department also monitors press releases and other public disclosures about the parent companies.
- The Vermont Department of Banking, Insurance, Securities, and Health Care Administration (DBISHCA) examines captives every 3-5 years. The purpose of the examination is to determine if the Company is operating within its by-laws and is conforming to Vermont Statutes and its plan of operation as submitted to the Department. A review of the Company operations is performed including an analysis of financial condition, a review of the corporate records, and tests of various income and disbursement items as deemed appropriate.
- In WM's case, there has never been a claim submitted to NGIC and currently there are no claim reserves established (including incurred but not reserved). The independent actuaries, auditors, A.M. Best and the Vermont regulators have approved not carrying any cash reserves. It has been independently verified that due to the nature of the exposure, it is highly unlikely any claims will ever be submitted. Indeed, WM's total closure/post-closure costs are an extremely small percentage of the company's total assets or annual revenues.
- NGIC is required to operate with a limits-to-surplus ratio of 3:1. On average, NGIC will have a minimum of 33 cents in surplus for every dollar in limits written. This ratio is well above the standard for the commercial insurance industry.
- As of April 2001, the A.M. Best rating for NGIC was B++. It is uncommon for a captive to undergo a rigorous rating process such as this.
- NGIC has irrevocable, evergreen letters of credit in favor of the State of Vermont for \$168 million, and an inter-company note, payable upon demand, with Waste Management for an additional \$157 million. The State of Vermont can require this inter-company demand note to be replaced with letters of credit or cash if WMI fails to meet required financial standards at any time. This ability to call the inter-company demand note allows Vermont to ensure that sufficient funds are available to NGIC to cover any foreseeable claim or demand for payment – fully independent of Waste Management.

- NGIC's management company is Marsh Management Services, Inc. Marsh is the largest manager of captive insurers in the country. Their knowledge of and experience with insurance companies of all kinds, including experience with captives, was a key element of WM's decision to contract with them. Marsh provides key services including issuance of policies, assistance in determining appropriate rate and policy conditions, statistical information for regulators, premium billings, accounting, regulatory compliance and actuarial certifications.
 - If at any time Vermont determined that NGIC was not adequate for its intended purpose, WM would have to replace that vehicle in 60 days.
- 3. EPA's long-standing policy is to promote a diversity of financial assurance instruments. Current market conditions support the need for continuation of that diversity policy to include retention of captive insurance as an acceptable instrument.**

It is important for EPA to recognize that many Fortune 500 companies have moved aggressively in recent years to establish captive insurance mechanisms as a response to the volatility and uncertainty of the commercial financial assurance marketplace. Companies seek to establish well run and fully regulated captive insurance companies for those risks they know and can directly manage – as compared to using a commercial carrier that forces the risks of the insured party to be commingled with the risks of other parties over which there is absolutely no control. As discussed below, the volatility and uncertainty of the commercial financial assurance marketplace has increased dramatically in recent months – and weeks. As a result, for some companies and for the integrity of the RCRA program, captive insurance may be the most secure financial assurance mechanism available for use.

Capacity has become extremely tight and very unstable for financial assurance instruments in the commercial marketplace. At the same time, the cost of the instruments has escalated; some rates have tripled since the summer of 2000. Surety capacity started tightening in 2000 when the number of primary surety companies began to shrink due to mergers, consolidations and business failures. For instance, as EPA is aware, Frontier Insurance Company, a major surety providing financial assurance to the waste industry for landfill obligations, lost their treasury listing in May 2000, which required replacement of virtually all of their bonds within a sixty-day time period. In response, Waste Management moved quickly to comply with regulatory agency requirements in light of Frontier's changed status, without any violations; however having to replace Frontier bonds significantly reduced available capacity in the commercial marketplace.

This year, the tight surety market continues as the surety industry has begun to experience an increase in both contract and commercial bond losses. The economic downturn has begun to negatively affect many surety clients. The surety companies normally reinsure a large portion of their book of business with a small group of reinsurers. The reinsurance companies are now sustaining large losses and in turn are pulling back or refusing to renew the reinsurance treaties. This is resulting in large reductions in capacity and the exclusion of many classes of more difficult bonds from their reinsurance treaties. Although the waste industry has not incurred any losses suffered by the surety industry, the reinsurers have pulled back on all of their treaties.

A few of the commercial insurance companies offered significant capacity in 1999 by writing insurance policies. As the market continues to harden, capacity is shrinking and underwriters are not writing new policies without collateral from the client. New capacity is available on a case-by-case basis; the rates are significantly higher with a collateral requirement of up to 100% of the policy limits.

Letter of credit (LOC) capacity has shrunk due to the consolidations occurring in the banking industry. Some banks have changed their global strategy and made the decision to exit the commercial banking business altogether.

Further, the recent tragedies that occurred in New York and near Washington, D.C. will have a severe impact on the commercial insurance and surety markets. The insurance companies will see a decrease in their capital base due to the losses incurred; this will restrict the capacity offered to their clients. The commercial surety industry is geared toward the economy. The impact on the U.S. economy from these acts will put tighter restrictions on the capacity offered by the sureties. As recently stated in *Waste Industry News* (September/October 2001),

"The terrorist attack on September 11 is unquestionably the most significant event in the history of the insurance industry. Loss estimates continue to rise with current estimates as high as \$40 billion. This will undoubtedly cause significant financial repercussions to primary insurers, reinsurers, and policyholders alike. These events will result in the largest workers' compensation loss in history, the most expensive aviation disaster in history, one of the largest property losses in history, the most expensive business interruption loss in history, the largest life insurance catastrophic loss in history, and potentially the largest liability claim in history. It is predicted that this single chain of fortuitous (sic) events could cause the capacity of the reinsurance market worldwide to shrink significantly, perhaps, by one-third or even more."

It is important to note that none of the waste industry captive insurers suffered any losses due to the unfortunate events of September 11, 2001.

4. **Assignability as it relates to captive insurance is an anomalous provision of the RCRA financial assurance requirements, and there is no evidence to indicate that the provision was intended to impede the use of captives.**

The OIG Report did not reach a judgement on the merits of the assignability provision, but simply pointed out the potential anomaly. Indeed, at a July 18, 2001, meeting between representatives of WM and EPA, EPA staff suggested that the apparent intent of the assignability provision was to provide some protection for the insured, and was not intended as a barrier to the use of captive insurance. At its July 31 meeting with the Association of State and Territorial Solid Waste Management Officials, EPA cautioned against a presumption that the assignability provision was intended to limit or prohibit the use of captives. EPA acknowledges that the record for the development of the assignability provision is sketchy or non-existent, and one can only turn to other events to provide context for the provision.

- For MSW landfills subject to Part 258, the assignability provision at Section 258.74(d)(5), is sandwiched between two other provisions in the regulations. Both of these provisions are intended to protect the owner operator, apparently in the context of commercial insurance. Section 258.74(d)(4) allows the owner/operator to receive reimbursements for undertaking closure or post-closure activities. Section 258.74(d)(6) protects the insured, the owner/operator, against cancellation except for premium default. The placement of the assignability provision in context indicates an attempt to protect the insured against an unreasonable failure to reassign by the insurer, in which case the provision may only be read to be appropriate for commercial insurance, as a captive insured would have no need for such protection.
- In 1988, in preamble language to amendments of the financial responsibility provisions of Parts 264 and 265, EPA acknowledged the existence of captive insurance as an acceptable instrument. This notice took place several years after the assignability provision was first established in these sections, and was already being used by the regulated community.

- As noted above, captive insurance has been used with unmatched success as a financial assurance instrument for at least 16 years, and in that time, EPA has not raised the issue of the anomalous assignability provision.

Given the above circumstances, there is no reason for EPA to conclude at this juncture that the assignability provision should be an impediment to the continued use of captive insurance.

Recommendations

1. **To resolve the assignability issue, EPA should promptly proceed with an interpretive guidance, direct final rule, or a technical correction to the RCRA regulations at §258.74 and § 264.143, 264.145, 265.143, and 265.145 of Title 40 of the CFR governing the use of financial assurance instruments.**

EPA, the States, and the regulated community have proceeded for over a decade on the assumption that captive insurance was a viable financial assurance instrument, and the history of its use and effectiveness support the merits of that assumption. Captive insurance fulfills the principal purpose of financial assurance as identified by EPA in its rulemakings, to provide assurance only in the event that an owner/operator is unwilling or unable to pay for closure/post-closure care. In that regard, WM understands that no captive has ever been called upon to fund a closure or post-closure obligation. In addition, there is no evidence that the assignability provision was intended to limit or prohibit the use of captive insurance. If that were not the case, there would be no explaining EPA's long silence on the use of the instruments or EPA's determination in another rulemaking that captive insurance is a viable instrument. All evidence suggests that the existence of the assignability provision came about without EPA consideration or judgement as to its potential effect on the captive insurance instrument, and was not identified as an issue until the recent OIG Report. With this history, it is entirely appropriate for EPA to expeditiously correct the regulations in one of several ways:

- (1) EPA can amend the language of the assignability provision to remove its applicability to captive insurance policies.
- (2) EPA can amend the language of the assignability provision to provide an alternative condition that in the case of captive insurance, in lieu of assignability, there will be no lapse of coverage for financial assurance in the event of a change of ownership and/or operation to a new permittee.
- (3) EPA can provide clarifying language that the assignability provision is intended solely for non-captive insurance policies where an issue of asset recovery for the insured may exist.

With the appropriate resolution in place, the States may then be free to consider continuing the use of captive insurance without any ambiguity regarding the assignability provision.

2. **EPA should examine the record and financial integrity of captive insurance programs, with the Vermont program as a model, and retain the use of captive insurance for meeting financial responsibility obligations. By doing so, EPA will maintain its policy of diversity in the market place, preclude a crisis atmosphere in the financial assurance market place, and prevent an unwarranted flight to riskier mechanisms.**

A thorough review of the Vermont program will provide strong evidence that captive insurance should remain among the instruments for use by the regulated community. In that regard, WM recommends that EPA consider developing guidance or regulatory amendments for the use of the captive insurance instrument which contains the following elements:

- (1) The licensing state should establish an annual review process for the captive insurer which will include the submission and review of audited financial statements, an annual report by the company with financial and insurance operational information, financial statements of the parent company, and biographical affidavits on the officers and directors of the captive insurance company.
- (2) Captive insurers writing coverage for RCRA financial assurance should have a minimum 1:3 capital-to-limits ratio (minimum of \$1 of equity for every \$3 of policy limits in force).
- (3) If loan backs are to be used as part of the captive insurer's capital base, the parent company should have equity of at least \$100 million. Provisions should be established to require repayment of the loan if the financial condition of the parent company should so warrant.
- (4) The combined ratio generally should not be greater than 100%. (The combined ratio is simply the measure of insurance company expenses (including losses and administrative expenses) compared to premium dollars received. A ratio above 100 means that for every premium dollar taken in, more than a dollar went for losses and administrative expenses.)
- (5) Premiums written to surplus ratio should not generally exceed 300%. (This ratio attempts to measure the adequacy of an insurer's surplus, relative to its operating exposure. A low ratio indicates stronger surplus support for net premiums written and less exposure to a material reduction in surplus arising from a sudden downturn in underwriting results.)

3. WM opposes the establishment of the minimum insurance rating suggested by EPA.

EPA suggests in its notice that a minimum insurance rating for all insurance coverage would provide an extra measure of confidence in the insurance mechanism. WM believes that such a measure would be counterproductive and would only increase costs and flexibility for owner/operators without any substantive improvement in the financial responsibility program.

- The establishment of the specific minimum rating suggested by EPA appears to be arbitrary and does not identify any analysis of what problem EPA is trying to solve, other than one of appearances, nor does EPA articulate how the rating will improve the program compared to any other rating. EPA is making the same mistake found in the OIG Report, in that it is attempting to address the *fears* of regulators unfamiliar with insurance practices or risk management methods, rather than any substantive concerns with the insurance instrument itself. EPA stated policy is to promote a variety of financial assurance instruments. Any proposal that may restrict the use of an otherwise viable instrument, such as insurance, must meet a threshold test for necessity or program integrity. EPA has failed to undertake such an analysis in its proposal for a minimum insurance rating.

- EPA has not analyzed how any specific minimum insurance rating may affect the cost of insurance to the regulated community. As stated above, market circumstances have tightened the market for financial assurance instruments, and further restrictions on the participation of insurance providers will only serve to exacerbate the costs. EPA must analyze and document those potential costs before it can determine whether the marginal benefits of confidence or

protection it may superficially obtain with a minimum insurance rating exceeds the likely costs or the potential flight to riskier instruments.

-EPA's justification for a minimum insurance rating for insurance companies addresses those circumstances where the risks of many companies are pooled, which is not the case for captives. EPA must undertake an analysis of how its minimum insurance rating might affect the availability of captive insurance vs. commercial insurance providers.

- EPA's proposal for a minimum insurance rating, if applied to captives, is illogical and inconsistent with past EPA analysis. The financial test requires an "investment grade" bond rating. EPA has recognized that an investment grade bond rating - even those at the lower end of the investment grade scale - demonstrated an appropriate level of financial strength: "An investment grade bond rating was believed to be a good demonstration of financial strength because it reflected the expert opinion of the bond rating service and the financial community. ... Moreover, the Agency performed a quantitative analysis indicating that bond ratings have historically been a reasonably good indicator for predicting default, and noted that none of the firms in its sample of bankrupt firms between 1966 and 1979 had an investment grade rated bond issuance." 56 Fed Reg. 30201(July 1, 1991). If EPA maintains on one hand that an investment grade rating may be appropriate for the financial strength for the parent company, then a separate test for a wholly owned subsidiary is redundant. Finally, if EPA were to adopt, as recommended above, a set of minimum criteria for captive insurance instruments, then the minimum insurance rating is again redundant, as all the needed protection is provided by the implementation of the criteria.

WM offers its resources and support for a more thoughtful review by EPA of the issues raised by the OIG Report. Please contact me at your convenience if you have any questions or concerns regarding these comments or if WM can be of any further assistance.

Sincerely yours,

Edmund J. Skernolis
Director of Government Affairs

November 9, 2001

Elizabeth Cotsworth, Director
Office of Solid Waste and Emergency Response
United States Environmental Protection Agency (US EPA)
Washington, DC 20480

RE: EPA OIG, Audit Report No. 2001-P-007: RCRA Financial Assurance for Closure and Post-Closure

Dear Ms. Cotsworth:

On behalf of the captive insurance industry that is thriving in the State of Vermont, I wish to provide you with comments pertaining to the industry as raised in the aforementioned EPA report. My comments contained herein speak to the sterling reputation of Vermont as a domicile and to the integrity of the captive industry in general:

1. A captive insurance company is a legitimate insurance company formed under the laws of the State of Vermont. The Vermont Insurance Department – which has oversight of this industry - is accredited by the National Association of Insurance Commissioners (NAIC). Its reputation has been built on the quality of its regulatory oversight and legislative innovation in response to industry need.
2. Over 20 U.S. states have endorsed the captive concept by passing special purpose legislation allowing the establishment and operation of these types of entities. The general validity of the captive approach is clearly understood and embraced outside Vermont's borders as well.
3. Vermont's approach to solvency regulation of captives has performed better than traditional insurance regulation; a discussion with captive regulators about the thoroughness of their evaluations and the constancy of their oversight will demonstrate their desire to maintain an unblemished reputation in this regard.

The VCLA's concerns about the adverse impacts of the proposed regulations can be summarized as follows:

1. VCIA believes that if EPA regulators have concerns about an individual program, due to a material problem, they should attempt to **condition the use** of a particular captive insurance company, rather than outlaw an entire industry, which serves a critically important role in the risk management strategies of companies (both for- and non-profit) around the world.
2. By outlawing captive insurance companies, VCIA believes that EPA would set a **dangerous precedent**, which could open the door to the wholesale exclusion of captives for other legitimate purposes.
3. Captive insurance is a sophisticated and legitimate financial strategy that benefits the large and medium-sized insurance consumer by providing them with greater control over their risk programs, the ability to achieve cost savings and efficiencies that are passed on throughout their organizations, and to customize the kinds of insurance coverages that are unique to that company. Barring the use of captives will **force corporations to buy more costly traditional insurance** and create additional pressure on the commercial market, where there is already limited capacity to cover all these types of risks and little interest in providing such coverage, if it is available at all.

Because of the complex nature and vitally important role of the captive insurance industry, the VCIA respectfully requests that the US EPA not adopt the proposed regulations to exclude the use of captive insurance for financial assurance purposes.

In his letter to Administrator Christine Todd Whitman, dated July 20, 2001, Vermont's US Senator James Jeffords outlined his concerns about two aspects of this OIG report in particular: the assignability of a policy and the independence of captives. I urge you to consider the arguments he puts forth on those two points, and to accept his invitation to work with you "to ensure the integrity of the financial assurance program while maintaining this necessary pool of viable instruments."

I thank you for your consideration.

Sincerely,

Lisa Ventriss
President

Pacific Northwest National Laboratory

Operated by Battelle for the
U.S. Department of Energy

September 9, 2004

Ms. Patricia Hervieux
Hazardous Waste and Toxics Reduction Program
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Hervieux:

COMMENTS ON PROPOSED AMENDMENTS TO THE DANGEROUS WASTE REGULATIONS

Pacific Northwest National Laboratory (PNNL) is pleased to provide the attached comments on the Washington Department of Ecology (Ecology) proposal to modify the Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code (WAC). The comments are submitted in the format requested by Ecology. We appreciate Ecology's consideration of several comments submitted in response to the pre-proposal in March 2004.

We would like to emphasize that Ecology's proposal to modify the satellite accumulation requirements would have a significant operational and cost impact on PNNL and, we suspect, on many other commercial and research laboratories in the State of Washington. We cannot foresee an environmental benefit commensurate to the cost of the proposal. These proposed changes to the satellite area requirements were added since the pre-proposal and should be carefully analyzed for impact on the regulated community. See our detailed comments attached.

We also express our appreciation for Ecology's expeditious adoption of the U.S. Environmental Protection Agency's National Environmental Performance Track (Performance Track) incentives in proposed WAC 173-303-200(5). As a member of Performance Track, PNNL expects to utilize this rule to reduce its need for permitted storage facilities while accruing cost savings resulting from reduced transportation volumes and waste consolidation.

902 Battelle Boulevard • P.O. Box 999 • Richland, WA 99352

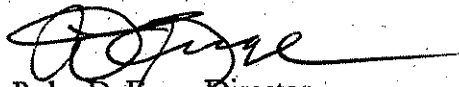
Telephone (509) 376-5309 ■ Email Roby.Engel@pnl.gov ■ Fax (509) 376-1187

6

Ms. Patricia Hervieux
September 9, 2004
Page 2

If you have any questions or need further information concerning the attached, please contact
Mr. Harold Tilden at (509) 375-2966.

Sincerely,



Roby D. Enge, Director
Environment, Safety, Health and Quality

RDE:HTT:vjg

Attachment

cc: TL Aldridge, PNSO
TL Davis, PNSO
AC McKarns, RL
AG Miskho, FH

ATTACHMENT

Ecology Comment Forms
Dangerous Waste Regulations (WAC 173-303)
Proposed Amendments, July 2004

Comments from:
Pacific Northwest National Laboratory
Richland, Washington

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Harold Tilden
Organization or Affiliation: Pacific Northwest National Laboratory
Address: P.O. Box 999, MSIN K3-75, Richland, WA 99352-0999
For brevity, citations to sections of WAC 173-303 will be noted without the full reference to the Chapter. For example, "-010" will imply reference to WAC 173-303-010.
Comment is on federal requirements _____ or state requirements <u> X </u>
Section # <u> 2 </u> Page # <u> 14 </u> Citation # <u> -040 </u>
<p>Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?</p> <p>The definition of "knowledge" proposed is unnecessarily prescriptive and is inconsistent with the existing requirements in -070(3)(c)(ii) and -300(2). The proposed definition in -040 prescribes that knowledge, to be sufficient, must substitute for direct testing of the waste and include chemical, physical, and/or biological characteristics of the waste. -070(3)(c)(ii) requires that the generator's knowledge assure that the waste was designated properly. -300(2) requires that the receiving facility obtain sufficient information to manage waste safely and properly. These three standards are clearly not identical and are not consistent. Overlaying this proposed definition on the existing rules exacerbates the inconsistency.</p> <p>A great deal of information can be garnered from direct testing of a waste, including information not relevant to the actual designation or safe management of a waste (e.g. viscosity, color.) However, the wording of the -040 definition as proposed appears to make encyclopedic knowledge of the waste (physical, chemical, and/or biological) necessary in order to substitute for laboratory analysis ("sufficient information ... to reliably substitute"). Direct testing of a waste seldom reveals information about the process sufficient to designate waste, especially listed waste¹. Hence the proposed definition's requirement that knowledge about the process must be sufficient to substitute for direct testing appears to be unnecessarily stringent and would pose significant implementation problems and expense for generators. In practice, most waste designation utilizes at least some process knowledge. For instance, a waste is analyzed for toxic heavy metals (D004-D011) but is not analyzed for toxic organics (D012-D043) based on process knowledge that such materials were not used.</p> <p>We note that this proposal appears to be inconsistent with the book designation procedures of WAC 173-303-100(5)(b). This widely used procedure does not appear to provide the level of "knowledge", as defined, necessary to substitute for direct testing of the waste.</p> <p>We are also concerned that mixed waste generators may be required to perform additional analysis work on mixed waste if the requirements proposed are adopted. Testing of mixed</p>

¹ See, e.g., RCRA Online, Faxback 12171, 12392, 14291.

waste generally results in radiation exposure to generators. Joint Nuclear Regulatory Commission/EPA guidance² (NRC/EPA guidance), Sections II and III, encourages generators of, and TSD facilities for, mixed waste to utilize waste knowledge to characterize their wastes to eliminate unnecessary or redundant waste testing. The NRC/EPA guidance then describes several types of knowledge that can be utilized. The proposed rule does not fully accommodate the types of knowledge described in the NRC/EPA guidance.

Finally, the note following the -040 definition indicates that the definition is to be used for compliance with both the generator and TSD facility regulations. Ecology notes in the preamble (page 17, first paragraph of change at -300) that the purpose for the definition is to "clarify requirements for confirming and documenting information from a generator on a waste profile for a waste stream." This proposed requirement appears to be intended to affect the TSD facility regulations, but Ecology is seeking a change that will broadly impact generators.

Please provide specific language for your recommended change or addition.

Delete this definition. Alternatively, revise definition to read: "Information about a waste stream that is sufficient to identify a waste accurately and completely." This substitute definition language is taken from page 1-14 of the EPA guidance³ used to develop the proposed rule at -300.

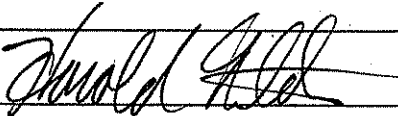
Signature:




² NRC/EPA, "Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste", 11/20/1997, 62 FR 62079.

³ U.S. EPA, "Waste Analysis At Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes: A Guidance Manual", OSWER 9938.4-03, April 1993. Faxback 50010.

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Comment is on federal requirements <input checked="" type="checkbox"/> or state requirements _____
Section # <u>1</u> Page # <u>9</u> Citation # <u>-081(3)</u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? The proposed change references an exclusion in -070(2)(d). No such section exists or is proposed. Leaving this text in place may create confusion for the regulated community.
Please provide specific language for your recommended change or addition. Revise proposed change to read: "...unless it has been excluded under WAC 173-303-070 (2)(c) or (d) ."
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Comment is on federal requirements _____ or state requirements <u> X </u>
Section # <u> 2 </u> Page # <u> 17 </u> Citation # <u> -200(2)(a)(ii) </u>
<p>Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?</p> <p>The addition of significant new requirements to satellite accumulation is unwarranted. Ecology's contention that this change is merely a "clarification" and inferences that Ecology has always expected satellite accumulation to comply with inspection and contingency planning requirements are not consistent with current Ecology or EPA policy. For instance, Ecology's 1993 amendments adding this provision to the Dangerous Waste Regulations did not propose or mention the requirements currently being proposed. Further, Ecology has maintained comprehensive, user-friendly guidance for operators of satellite accumulation areas since 1994 (Ecology Publication 94-120, "Satellite Accumulation", most recently revised January 2003.) This guidance has never mentioned or referenced the requirements that Ecology is proposing to add to -200(2)(a)(ii). These omissions indicate that it is not current Ecology policy to expect all generators to comply with the requirements proposed to be added.</p> <p>We have seen Ecology propose to add these requirements to certain satellite areas, but always in the context of the authority granted in -200(2)(c), i.e. Ecology determines that the characteristics of certain satellite accumulation situations pose a threat to human health and the environment, thus requiring more stringent requirements of 90-day accumulation to be implemented. Ecology has always had the authority to impose these more stringent requirements when merited in isolated/unique cases, without requiring them of all generators statewide.</p> <p>The addition of contingency planning requirements for locations that do not currently require it is of questionable value. Many of these requirements were designed for dedicated hazardous waste management areas (including 90-day accumulation areas and TSD facilities) and are not a good match to small locations having one or a few satellite accumulation areas. Note that the required submittal of these plans to emergency response agencies (-350(4)(b)) will give these agencies significantly more paperwork to cope with.</p> <p>Although Ecology states in the preamble (page 17) that the amendment is to "clarify" that contingency planning and general facility inspections apply to satellite accumulation, the reference to -200(1)(e) also mandates personnel training. This step adds yet more complexity for generators, as the scope of personnel to be trained is unclear and potentially</p>

very broad. Access to 90-day areas is usually more restricted than access to satellite areas due to multiple operators and shifts at facilities, along with the requirement that a satellite area must be located "at or near" the point of generation. The definition of "facility personnel" given in -330 is likely to apply to many more staff, including staff whose role does not include hazardous waste management activities, when the rule is applied to satellite accumulation areas by reference to -200(1)(e).

Another issue regarding inspections is raised by the reference to -200(1)(e). The sections of -320 referenced in -200(1)(e) generally require an inspection plan and schedule and prompt response to problems identified. However, an inspection frequency is not specified. (This is addressed for 90-day areas in -200(1) by referencing -630(6) for containers, which requires inspection at least weekly.) The proposal could result in different generators specifying widely variable inspection frequencies, depending on their individual needs evaluation. In turn this situation would result in inconsistency and potential enforcement concerns based on an individual inspector evaluating the given facility's inspection frequency.

Ecology's comments at the public hearing on August 10, 2004 indicated that the proposed action is consistent with previous EPA direction regarding satellite areas. However, the opposite is actually true. EPA determined when adopting the satellite accumulation rule in 1984, and has held consistently since, that personnel training, weekly inspections and contingency plan requirements are unnecessary and inapplicable to satellite accumulation areas (see 49 FR 49568 at 49570; also RCRA Online, Faxback 11373, 11317, 14418, and 14703.) EPA has determined that accumulation of up to 55 gallons of non-acutely hazardous waste in a satellite area is "reasonable and safe and does not pose a threat to human health or the environment." (49 FR 49569) Ecology has not explained in the proposal how it has determined that more stringent regulation of satellite accumulation is necessary to protect human health or the environment, or why it believes satellite accumulation poses a threat sufficient to justify the addition of these additional requirements.

Since satellite accumulation must take place at or near any point of generation, PNNL currently operates approximately 800 satellite accumulation areas adjacent to analytical instruments and other locations where waste is generated. The added expense of training, inspection, and contingency planning for these areas is substantial. The added cost of performing weekly inspections at PNNL alone would be approximately \$500,000 per year, based on 15 minutes per week to inspect each area and document these inspections in accordance with -300(2)(d) (included as part of the reference from -200(1)(e) proposed for addition.) Applying the training and contingency planning requirements would be a large additional cost. We cannot foresee an environmental benefit commensurate to the cost of this proposal.

These proposed changes were added since the pre-proposal and should be more carefully analyzed for impact on the regulated community before Ecology considers final adoption of this proposed change. Due to the significant impact of this requirement, we recommend that Ecology make this change part of a separate rulemaking effort.

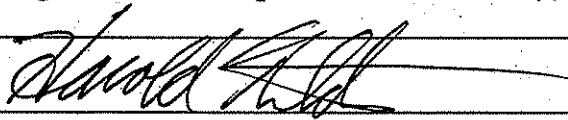
We do not object to the addition of the reference to -200(1)(f) for compliance with Land

Disposal Restrictions.

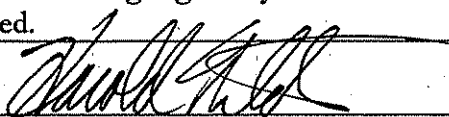
Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this Section."

Signature:

A handwritten signature in black ink, appearing to read "David A. H.", written over a horizontal line.

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Section # <u>1</u> Page # <u>13</u> Citation # <u>-200(5)</u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? We support the adoption of this provision for EPA's National Environmental Performance Track members in the State of Washington. We appreciate Ecology's expeditious consideration of adoption of this provision. As a Performance Track PNNL expects to utilize this rule to reduce its dependence on permitted storage facilities while accruing environmental benefits and cost savings resulting from reduced transportation volumes and enhanced waste consolidation.
Please provide specific language for your recommended change or addition. No change proposed.
Signature: 

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Comment is on federal requirements _____ or state requirements <u> X </u>
Section # <u> 2 </u> Page # <u> 25 </u> Citation # <u> -300(2) </u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? Ecology's proposal to add further requirements to waste analysis planning is unnecessary and not always consistent with Federal guidance, as claimed. Existing Federal regulations (40 CFR 265.13(a)(2)) allow for published data on waste from similar processes to be utilized as acceptable knowledge. Use of published data or studies on such similar processes is also defined as acceptable knowledge at p. 1-11 of the EPA guidance document ⁴ (hereinafter referred to as the "Waste Analysis Guidance") used to prepare certain parts of the Ecology proposed rule. Ecology proposes to delete use of published data on waste from similar processes without explanation. Ecology's proposal to require facilities to confirm all waste profiles using specified methods (-200(2)(a)(i) through (iii)) is also beyond existing requirements and inconsistent with the Waste Analysis Guidance, with which the proposal claims to be consistent. First, the placement of the requirement in -300(2) results in its application to waste shipments not expected to be subject to the Waste Analysis Guidance, i.e. shipments to TSD facilities from other sites owned by the same company (including onsite shipments.) Page 1-15 of the Waste Analysis Guidance states "...if you own/operate an off-site (facility) and rely on information provided by a generator ..." This makes it clear that verification of one's own processes and procedures for waste data generation is redundant and not appropriate for this rulemaking. The application of comprehensive waste analysis requirements for onsite shipments is costly and inconsistent with the Waste Analysis Guidance. Second, the preamble states (p. 18, second paragraph) that the verification processes cited are consistent with existing requirements in commercial dangerous waste management facilities. If this is true, then there is little or no need for the rulemaking as presented; any deficiencies at existing facilities could be addressed through permit modifications rather than rulemaking. Third, the preamble states that it is directed at waste profiles for waste streams, implying waste acceptance at commercial TSD facilities. However, most of the impact is on generators and onsite TSD facilities, both through the operation of the definition in -040 and due to the existence of similar requirements in commercial TSD permits.

⁴ U.S. EPA, "Waste Analysis At Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes: A Guidance Manual", OSWER 9938.4-03, April 1994. Faxback 50010.

We note that this proposal appears to be inconsistent with the book designation procedures of WAC 173-303-100(5)(b). This widely used procedure does not appear to provide the level of "knowledge", as defined, necessary to substitute for direct testing of the waste. The confirmation procedures of proposed -300(2)(a)(i)-(iii) also do not match up to information derived by generators according to the book designation process.

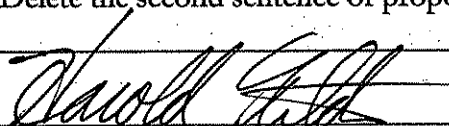
We are also concerned that mixed waste facilities may be required to perform additional analysis work on mixed waste if the requirements proposed are adopted. Testing of mixed waste generally results in radiation exposure to TSD workers. Joint Nuclear Regulatory Commission/EPA guidance⁵, Section V, indicates that TSD facilities managing mixed waste should utilize flexibility in their waste analysis plan to avoid unnecessary waste testing. The proposed rule reduces this flexibility by introducing strictures on the types of knowledge that can be used for designation. The placement of the proposed requirements in -300(2) requires that they be complied with in the waste analysis plan by the wording of -300(5).

Finally, the Waste Analysis Guidance requirement that Ecology seeks to adopt is dated and thus of dubious value. One reason cited in the Waste Analysis Guidance for the verification of acceptable knowledge is "...for example, because EPA recently revised the criteria that qualify a waste as a hazardous waste due to being characteristically toxic." (page 1-15) This rule, a sweeping change to the dangerous waste characteristics, was published March 29, 1990 (55 FR 11862) and required a new test method (the Toxicity Characteristic Leaching Procedure) as well as identifying 25 new characteristically toxic wastes. The verification requirements in the Waste Analysis Guidance were intended to avoid the use of outdated or inapplicable knowledge to designate waste in lieu of performing updated, current laboratory analysis using current methods and analyzing for all regulated constituents. The most sweeping change to waste identification since 1990 has been the identification of underlying hazardous constituents, part of the land disposal restrictions, first instituted in May 1993 (58 FR 29860) and expanded in 1996. Hence it is much less likely at this point that generators are inappropriately relying on outdated information to try and designate their waste, or that TSD facilities are overlooking significant constituents that would adversely affect their ability to manage the waste safely, properly and compliantly.

Please provide specific language for your recommended change or addition.

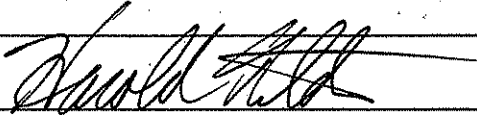
Delete the proposed changes. Alternatively, delete the added words "analytical data from" in paragraph (2). Delete the second sentence of proposed -300(2)(a) and subparagraphs (i) through (iii).

Signature:

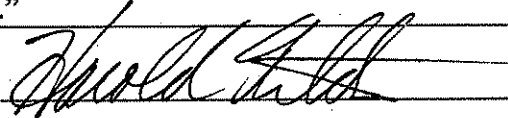


⁵ NRC/EPA, "Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste", 11/20/1997, 62 FR 62079.


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Section # <u>2</u> Page # <u>19</u> Citation # <u>-400(3)(c)(ix)</u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? This proposed amendment appears to have the unintended effect of repealing the existing requirements cited, and does not properly cite 40 CFR 265 sections intended to be included. By saying the section "is modified to read" when the intent is to add additional language to the existing regulation, Ecology appears to be repealing the existing requirements in that section. We doubt that is Ecology's intent.
Please provide specific language for your recommended change or addition. Revise the change to read as follows: “(ix) ‘Subpart G – closure and post-closure’ section 265.112(4)(d)(1) is modified to read <i>include the following</i> : ‘The owner or operator must submit the closure plan to the department at least 45 days prior to the date on which they expect to begin closure of a tank, container storage, or incinerator unit, or final closure of a facility with such a unit.’ In addition, section 265.112(4)(d)(1) is modified to read <i>include the following</i> : ‘Owners or operators with approved closure plans must notify the department in writing at least 45 days prior to the date on which they expect to begin closure of a tank, container storage, or incinerator unit, or final closure of a facility with such a unit.’ <i>The first sentence of</i> section 265.115 is modified to read ‘Within 60 days of closure of each dangerous waste management unit (including tank systems and container storage areas) and within 60 days of completion of final closure, the owner or operator must submit to the department, by registered mail, a certification that the dangerous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan.’ In addition, the clean-up levels for removal or decontamination set forth at WAC 173-303-610(2)(b) apply.”
Signature: 

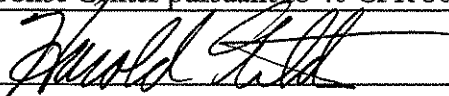
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Section # <u> 2 </u> Page # <u> 31 </u> Citation # <u> -610(12)(b) </u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? The introductory language proposed in subsection (12) states that a recycler or used oil processor must have a written closure plan. Paragraph (b) states that Ecology can deny a closure plan submitted pursuant to paragraph (a). However, subsection (12) is silent on the status of a recycler that has prepared a closure plan but Ecology has denied it. Since there is no permit at stake, Ecology has no apparent ability to resolve disagreement between Ecology and an owner/operator over closure plans unless there is a threat to human health and the environment. Generators may not know whether to continue utilizing the reclamation facility if there is no path forward for resolution of issues. We suggest Ecology add a requirement to address closure plan rejection through modification of the closure plan.
Please provide specific language for your recommended change or addition. Revise the second sentence of paragraph (e) to read: "A major change may include the addition of a recycling or recovery process that is subject to WAC 173-303-120 (3) or (4), any increase in the maximum inventory of dangerous waste or used oil described in the previously approved closure plan, the closure of an existing resource reclamation unit, Ecology denial of the closure plan pursuant to paragraphs (b) or (e), or a change in ownership or operational control."
Signature: 

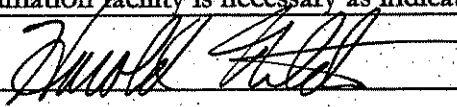
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Comment is on federal requirements <input type="checkbox"/> or state requirements <input checked="" type="checkbox"/>
Section # <u>2</u> Page # <u>33</u> Citation # <u>-620(6)(a)(iv)(B)(III)</u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? The proposed addition of the words "or financial test and corporate guarantee for post-closure care" to this section is not appropriate. The subject of subparagraph (B) is criteria for financial strength for insurance purposes. This may be a typographical error.
Please provide specific language for your recommended change or addition. Revise proposed subparagraph (III) to read "A++, A+, A, A-, as rated by A.M. Best; or Financial test and corporate guarantee for post-closure care; or "
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Section # <u>2</u> Page # <u>21</u> Citation # <u>-640(7)(d)</u>
<p>Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?</p> <p>The proposed language of this paragraph fails to bring the requirement into alignment with other sections of the Dangerous Waste Regulations. Instead, the proposed language requires reporting of any release from tank systems regardless of potential impact to human health or the environment, in conflict with the reporting requirements of -145, <u>which only requires reporting when a release threatens human health or the environment</u>. The stated purpose of the modification was to relieve conflicts with the reporting requirements of -145.</p> <p>The proposal also deletes the exception provided in Federal regulations (40 CFR 264.196(d)(2)) and the current -640(7)(d)(ii) for very small releases that are immediately cleaned up. We suggest that this exception be retained in the proposal. Small, inconsequential releases can occur with tank systems (e.g. transfers from containers into the system) and should not be included in this rule if they are immediately cleaned up. We recognize that immediate reporting of any release to the environment is required under the corresponding Federal requirement unless it meets the small release exemption. To harmonize this requirement with the use of the -145 reporting mechanism, while retaining the small release exemption, we suggest that the wording of this paragraph clarify that it relates to releases from tank systems only. For consistency with -145, the release should not only be less than or equal to one pound (or a Reportable Quantity established in 40 CFR 302 if that is less) and cleaned up immediately, but must not have an impact to human health and the environment. Our suggested language reflects these considerations.</p>
<p>Please provide specific language for your recommended change or addition.</p> <p>Revise proposed subsection (d)(i) to read: "Any release <i>from a tank system</i> to the environment must be reported to the department and other authorities immediately in accordance with WAC 173-303-145, <i>unless the release is: less than or equal to the lesser of one pound or its Reportable Quantity established in 40 CFR 302; does not impact human health or the environment; and is immediately contained and cleaned up.</i> Any release above the 'reportable quantity' must also be reported to the National Response Center pursuant to 40 CFR 302."</p>
<p>Signature: </p>

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Section # <u>2</u> Page # <u>34</u> Citation # <u>-960(2)</u>
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments? The substitution of the term "a significant threat" for the term "an imminent and substantial endangerment" should be reconsidered. The term "imminent and substantial endangerment" is well understood and established in nearly three decades of practice. The term "a significant threat" is vague, undefined, and could be implemented inconsistently across the state. Many routine dangerous waste activities could be interpreted to be a "significant threat" from an individual viewpoint, including transportation, handling, treatment, and land disposal. The authorities conferred by -960 are broad and equally applicable throughout WAC 173-303 to all persons who handle dangerous wastes and solid wastes that may designate as dangerous waste, including wastes that are otherwise excluded (see -071, -073, -077, -120, and -573 among others.) Hence a clear and reasonable standard should be utilized in this section. -960 is also used to help determine whether a material is a solid waste or dangerous waste (see -016(1)(b)(ii)), so this change could also result in the expansion of the universe of regulated wastes. We believe that "imminent and substantial" is the proper standard for use in this section. The language of this section does not abridge the powers of Ecology to utilize the authority granted in RCW 70.105.120.
Please provide specific language for your recommended change or addition. Delete the proposed modification. Consider returning the proposed language to -120 (as in the March 2004 preproposal) if Ecology feels the ability to curtail acceptance of recyclables at a troubled reclamation facility is necessary as indicated in page 35 of the preamble.
Signature: 



STATE OF WASHINGTON
DEPARTMENT OF CORRECTIONS
OFFICE OF ADMINISTRATIVE SERVICES
CAPITAL PLANNING AND DEVELOPMENT
P.O. Box 41112 • Olympia, Washington 98504-1112 • (360) 586-6131
FAX (360) 586-8723

September 10, 2004

Ms. Chipper Hervieux
HWTR Program
Washington Department of Ecology
P.O. Box 47600
Olympia, Washington 98504

Dear Ms. Hervieux:

RE: Proposed Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC

Thank you for the opportunity to comment on the proposed amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC.

In short, the Department of Corrections opposes the amendment to the section of the rules pertaining to satellite accumulation areas, WAC 173-303-200(2)(a)(ii). Suggested substitute language is offered below.

WAC 173-303-200(2)(a)

(i) Complies with the requirements for use and management of containers in WAC 173-303-630 (2), (4), (5)(a) and (b), (8)(a), and (9)(a) and (b); and

(ii) Clearly marks or labels each accumulation container and tank with the words "dangerous waste" or "hazardous waste." Each container or tank must also be marked with a label or sign which identifies the major risk(s) associated with the waste in the container or tank for employees, emergency response personnel and the public. (Note—if there is already a system in use that performs this function in accordance with local, state, or federal regulations, then such system will be adequate.)

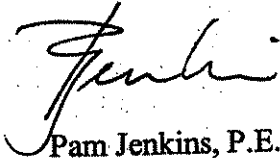
(iii) Generators are not required to include satellite accumulation areas in the general inspection, personnel training, preparedness and prevention, and contingency plan and emergency provisions of WAC 173-303-320 through -350.

"Working Together for SAFE Communities"

Chipper Hervieux
September 10, 2004
Page 2 of 6

An explanation of the reasons behind our position is provided in the attachment. Thank you for your consideration of these comments.

Sincerely,



Pam Jenkins, P.E.
Director of Environmental Services

Enclosure

cc: Eldon Vail
Tracy Guerin
Bill Phillips
Dick Morgan
Nancy Winters
Shane Loper
Tom Skjervold
Deborah Cade

**Department of Corrections' Comments
on Proposed Amendment to WAC 173-303-200(2)(a)(ii)**

1.0 Ecology's Summary

WAC 173-303-200(2)(a)(ii)

WAC 173-303-200(2)(a) is being amended to clarify that contingency planning and general facility inspections are required for satellite accumulation. Under the current rule, it is not clear that contingency planning and general facility inspections are required in satellite accumulation areas. WAC 173-303-200(2)(a)(ii) specifies compliance with (d) of subsection 200(1). This has been interpreted to eliminate the area of satellite accumulation (essentially the footprint of the waste storage container) from contingency planning and general facility inspections. This is not consistent with the way this regulation has been interpreted or implemented in the past by Ecology. This clarification provides consistency with Ecology's intent and practice of requiring contingency plans (-350) and general facility inspections (-320) in areas where there is the potential for impact on public health and the environment in the event of an emergency circumstance (-350), and where malfunctions and deterioration, operator errors, and discharges...may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health (-320). Including subsection (1)(f) makes it clear that LDR requirements apply to waste that is shipped directly from a satellite area.

2.0 Department of Corrections' Comments

The Washington Department of Corrections opposes Ecology's proposed changes in WAC 173-303-200(2)(a)(ii). The reasons for this objection are the following:

2.1 These changes are a clear departure from the federal rules that are the basis for this regulation.

Ecology's summary of this proposed rule amendment indicates that the change in WAC 173-303-200(2)(a)(ii) is simply a clarification. In fact, the change is a significant expansion of authority, and clearly not a case of increased stringency. RCRA (40 CFR 262.34 and 265.171-178) specifically exempts satellite accumulation areas from most of the requirements that apply to 90-day storage areas and permitted treatment, storage, and disposal facilities.

Reproduced on the following page is a table from McCoy's RCRA Unraveled, 2004 Edition. This table summarizes the differences between requirements for satellite accumulation areas (SAAs) and requirements for 90-day areas in the RCRA regulations. Personnel training is not required for SAAs. Compliance with requirements for preparedness, prevention, contingency plan, and emergency procedures is also not required for SAAs.

Also note the discussion of what a satellite accumulation area is (McCoy's RCRA Unraveled, Section 6.2.1):

Federal Requirements for Satellite Accumulation Areas vs. 90-Day Areas

Requirement	Satellite Accumulation Areas	90-Day Storage Areas
Must be in good condition	Yes	Yes
Must be compatible with the hazardous waste in the container	Yes	Yes
Must be closed at all times except when adding or removing waste	Yes	Yes
Inspection requirement	None	Weekly
Marking requirement	"Hazardous waste" or other	"Hazardous waste" only
Dating requirement	On the date 55 gallons (or 1 quart for acute wastes) is exceeded	On the date waste first goes in the container
Maximum length of storage	Unlimited	90 days
Maximum waste volume in storage	55 gallons (or 1 quart for acute wastes)	Unlimited
Personnel training required	No	Yes
Can treat hazardous waste in a unit	No	Yes
Special requirements for ignitable/reactive wastes	No	Yes
Special requirements for incompatible wastes	No	Yes
Must comply with Subpart CC air emission standards	No	Yes
Must comply with preparedness, prevention, contingency plan, and emergency procedures in Part 265, Subparts C and D	No	Yes
Closure requirements	No	Yes

Source: McCoy's RCRA Unraveled, 2004 Edition, Table 6-2; adapted from 40 CFR 262.34 (a-c) and 265.171-178.

As we begin our discussion of SAAs, note that although the satellite accumulation regulations refer to "containers," the provisions actually relate more to "areas." The preamble establishing SAAs stated "Satellite areas are those places where wastes are generated in the industrial process or laboratory and where those wastes must initially accumulate prior to removal to a central area." [49 CFR 49569]

2.2 The inclusion of these additional requirements for satellite accumulation areas represents a significant increase in level of effort on the part of the generator, for a negligible gain in environmental protection.

Contingency Plans. Contingency plans, when updated, must be transmitted to the agencies that provide emergency response or emergency medical support to the generator. The federal rules recognize that SAAs may be of a more transitory nature than 90-day storage areas. In fact, some SAAs may be used only once. Again, a discussion from McCoy's (Section 6.2.3):

EPA interprets the SAA provisions to be available on a one-shot basis. [FAXBACK 14337] For example, in a laboratory, wastes from an analytical instrument drain into a 5-gallon jug under an instrument table. When the jug is full, the operator empties it into a 55-gallon drum that he/she considers to be the SAA (as opposed to an integral part of the instrument), the drum must be a 90-day storage unit because wastes can't move from one SAA to another.

If SAAs must be included in contingency plans, how would a facility deal with a "one-shot" SAA as described above in the contingency plan? The "one-shot" SAA probably has a more fleeting existence than the typical SAA, but in practical terms, SAAs have to be flexible. They need to move with the generating equipment and the generating operations. If an industrial facility has to update and redistribute its contingency plan each time that it moves a piece of equipment and its associated SAA, the fire departments, local emergency response agencies, and facility environmental specialists will be overwhelmed with plan revisions. It is highly unlikely that such a profound increase in paperwork will in any way result in reduced potential impact on public health and the environment.

Personnel training. The federal rules exempt satellite accumulation areas from the personnel training requirements for 90-day areas and permitted facilities. McCoy explains (Section 6.4.1.1.1):

Believe it or not, RCRA training is not required for personnel whose hazardous waste management activities are limited to working in or near satellite accumulation areas. EPA's position is that "since only one waste will normally be accumulated at each satellite area, and since only limited quantities are allowed to accumulate, contingency plans and training plans are not necessary." However, when waste generated in a satellite accumulation area is transported to a 90-day storage area regulated under 262.34(a) or to a permitted or interim status storage, the RCRA training requirements

will apply. [January 3, 1983; 48 FR 1129, December 20, 1984; 49 fr 49570, FAXBACK 11373]

Risk reduction. A SAA is typically a container of 55 gallons or less. Some SAAs have more than one container, but only one container per waste stream, and each container must be 55 gallons or less. Thus, the quantity of material in a SAA is small. The corresponding risk to the environment and human health from a SAA is also small. Imposing requirements for inspection, preparedness, contingency plan, and personnel training on low risk areas does not make sense. Ecology already has the ability in the WAC to impose such requirements at facilities where SAA operating history (e.g., spills) indicates a need for tighter management. Imposing these requirements on all SAAs is unnecessary, will be burdensome to the generator, and will not result in improved environmental protection.

2.3 These additional requirements also represent a substantial increase in Ecology staff workload in order to monitor and enforce these requirements.

Ecology's description of the proposed amendment indicates a lack of understanding of two significant operational issues. First, this proposed change is not trivial for many large quantity generators. Ecology, in its advertisement of the proposed rule changes and in its description of this particular revision, appears to think that this revision is not a big deal and should be easy to implement. Ecology asserts that it has interpreted this WAC and implemented it as if inspections and contingency plans were required for SAAs. In fact, this has not always been Ecology's interpretation, nor has Ecology attempted consistent application or enforcement of these requirements among all Ecology regions. Many large quantity generators in Washington are not aware that this has been Ecology's interpretation, and many large quantity generators are surprised Ecology would assume this change would have little impact on generator operations.

Second, Ecology does not seem to be aware of the impact of this proposed rule change on its own staff workload. At one DOC facility, we have 20 satellite accumulation areas and a single 90-day storage area. Will Ecology inspectors now want to inspect the spill kits and fire extinguishers at each SAA, as well as review the inspection records and personnel training records for 20 additional sites? If this scenario is multiplied by all of the large quantity generators in the state, Ecology's workload will increase substantially as a direct result of this proposed rule change.

Particularly in this climate of economic uncertainty and reduced state agency budgets, we should be looking for ways to achieve environmental protection more cost effectively. This particular proposed rule change would lay a heavier compliance and enforcement burden on both generators and regulators, resulting in greater costs for both. Little or no improvement in environmental protection would be attained.



Local Hazardous Waste Management Program in King County

September 7, 2004

King County
Solid Waste
Division

King County
Water and Land
Resources Division

Urban Cities
Association

Seattle Public
Utilities

Public Health -
Seattle & King
County

Participating
Cities:

Algona

Auburn

Beaux Arts

Village

Bellevue

Black

Diamond

Bothell

Burien

Carnation

Clide Hill

Everett

Des Moines

Duvall

Enumclaw

Federal Way

Hunts Point

Issaquah

Kenmore

Kent

Kirkland

Lake Forest

Park

Maple Valley

Medina

Mercer

Island

Newcastle

Normandy

Park

North Bend

Pacific

Redmond

Renton

Sammamish

Sea Tac

Seattle

Shoreline

Snoqualmie

Tukwila

Woodinville

Yarrow Point

Dear Chipper,

Attached are the Local Hazardous Waste Management Program in King County's comments on the proposed changes to the Washington State Dangerous Waste Regulations (173-303 WAC).

The Local Hazardous Waste Management Program in King County is a multi-agency, multi-jurisdictional partnership that works to protect and enhance public health and environmental quality in King County by helping citizens, businesses and government reduce the threat posed by the use, storage and disposal of hazardous materials. The comments provided represent input from the Program's partner agencies (King County Water & Land Resources Division, King County Solid Waste Division, Seattle Public Utilities, Public Health - Seattle & King County), as well as the 37 partner cities within King County.

Questions regarding the details contained in the attached comments should be referred to Alice Chapman, who can be reached at 206-263-3058. Please feel free to call me if you have any other questions.

Thank you for this opportunity to comment on the proposed regulation changes.

Sincerely,

Kenneth W. Armstrong
Administrator
The Local Hazardous Waste Management Program in King County
150 Nickerson Street, Suite 100
Seattle, WA 98109
206-352-8163

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman
Organization or Affiliation: Local Hazardous Waste Management Program in King County
Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Dangerous Waste Regulations
Section # WAC 173-303-104 **Page #** 70 **Citation #** _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Thank you for putting all the Washington State Codes in one place. This is much easier to use than before, when all other designation sections had to be scanned for waste codes unique to Washington.

Please provide specific language for your recommended change or addition.
NA

Signature: Alice J. Chapman

Dangerous Waste Regulations Chapter 173-303 WAC Draft Amendments – March 2004 Comment Form

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements X or state requirements _____

Dangerous Waste Regulations

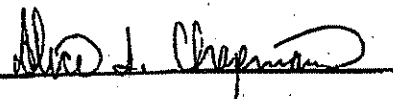
Section # 173-303-070(2) Page # 31-32 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Thank you for incorporating the Federal rule change regarding listed wastes and the mixtures/derived from rule wastes listed solely because they have the characteristic of ignitability, corrosivity and reactivity. As proposed in this amendment, wastes that no longer have those characteristics aren't managed as hazardous waste. This is a rule that makes practical sense and prevents over-regulation or over-management of wastes that are not hazardous. The rule saves money for small businesses. For example, medical facilities no longer need to manage waste nitroglycerin patches as hazardous waste.

Please provide specific language for your recommended change or addition.

NA

Signature: 



Local Hazardous Waste Management Program in King County

Office of the Program Administrator

Mailing Address:
130 Nickerson Street, Suite 100

Street Address:
150 Nickerson Street, Suite 107

Seattle, WA 98109

AX Transmittal

From: Ken Armstrong , Program Administrator
Date: 24 SEP 2004
Phone: (206) 352-8163
Subject:

To: ALEX STONE
Fax number: 360-407-6305
Phone:
Number of pages: 11

Comments:

*Chipman
FYI, I have a copy
Amy*

8



Local Hazardous Waste Management Program in King County

September 23, 2004

- King County Solid Waste Division
- King County Water and Land Resources Division
- Suburban Cities Association
- Seattle Public Utilities
- Public Health - Seattle & King County
- Participating Cities:
- Algona
- Auburn
- Beaux Arts Village
- Bellevue
- Black Diamond
- Bothell
- Burien
- Carnation
- Clyde Hill
- Covington
- Des Moines
- Duvall
- Enumclaw
- Federal Way
- Hunts Point
- Issaquah
- Kenmore
- Kent
- Kirkland
- Lake Forest Park
- Maple Valley
- Medina
- Mercer Island
- Newcastle
- Normandy Park
- North Bend
- Pacife
- Redmond
- Renton
- Sammamish
- Sno Tac
- Seattle
- Shoreline
- Skykomish
- Snoqualmie
- Tukwila
- Woodinville
- Yarrow Point

Dear Alex,

Attached are the Local Hazardous Waste Management Program in King County's comments on the proposed changes to the Chemical Testing Methods for Designating Dangerous Waste.

The Local Hazardous Waste Management Program in King County is a multi-agency, multi-jurisdictional partnership that works to protect and enhance public health and environmental quality in King County by helping citizens, businesses and government reduce the threat posed by the use, storage and disposal of hazardous materials. The comments provided represent input from the Program's partner agencies (King County Water & Land Resources Division, King County Solid Waste Division, Seattle Public Utilities, Public Health - Seattle & King County), as well as the 37 partner cities within King County.

Questions regarding the details contained in the attached comments should be referred to Alice Chapman, who can be reached at 206-263-3058. Please feel free to call me if you have any other questions.

Thank you for this opportunity to comment on the proposed regulation changes.

Sincerely,

Kenneth W. Armstrong
Administrator
The Local Hazardous Waste Management Program in King County
150 Nickerson Street, Suite 100
Seattle, WA 98109
206-352-8163

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Chemical Testing Methods for Designating Dangerous Waste, Typographical Corrections
Section # _____ Page # _____ Citation # _____ (see table below)

Section # Appendix 1 Page # 1 Citation # Glossary, Chemicals of Concern

Section #	Page #	Proposed text says:	Change to:
Appendix 1	1	"Chemicals of Concern"	"HOC Chemicals of Concern"
Appendix 5	5-32	"...to provide date in the detection..."	"to provide data in the detection..."
Appx 5, Tables 1&2	5-33 to 5-52	NA	Please repeat table headings on each page.
Appx 5, Tables 1&2	5-42 & 5-52	NA	Table Footnotes 1-3 aren't used in the tables, delete footnotes.
Appendix 5	5-46, 5- 47, 5- 48, 5- 49, 5-51, 5-52	"...N.O.S. \1\" (13 occurrences)	"...N.O.S."
C.2.b.2	25	"...conducted in preparation for this change..."	"...conducted in preparation for this document..."
C.2.c	28	"...HOC either is or is not concern."	"...HOC either is or is not of concern."
C.2.c	28	"The list (Appendix 4)..."	"The list (Appendix 5)..."
Table 3-3	30	Heading "SW-846 Method NR:"	"SW-846 Method No:"

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?
Improve document readability through correction of typographical errors

Please provide specific language for your recommended change or addition.
See table above.

Signature: Alvin J. Chapman

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

**Chemical Testing Methods for Designating Dangerous Waste
Section # C.2.a Page # 22 Citation # Decision Tree 1**

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The suggestions below will clarify the meaning of these terms in the flowchart and help keep the reader oriented. With the proposed chart, it was hard for me to understand that "dw" meant the broad term Dangerous Waste, not the more specific designation of DW or EHW.

Please provide specific language for your recommended change or addition.

- Consider the title "Decision Tree #1, HOC General Evaluation"
- In Note 1, correct typographical error, change "polyaromatic hydrocarbons" to "polycyclic aromatic hydrocarbons"
- Instead of using the abbreviation "dw" for Dangerous Waste; consider using "dw#" with a definition of "dangerous waste number (4 digit code)" in the legend. In the first diamond box, the question "Does it already designate as dw?" could be shortened to "Does it already designate?" The conclusion box could then read, "Assign dw#. State-only persistence dw# are optional. Designation complete."

Signature: 

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman
Organization or Affiliation: Local Hazardous Waste Management Program in King County
Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

**Chemical Testing Methods for Designating Dangerous Waste
Section # C.2.a Page # 22 Citation # Second end box**

"Assign dw codes. State-only persistence codes are optional. Designation Complete!"

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Could there be circumstances where additional designation for persistence is required? According to WAC 173-303-070(5)(b) & (c), the generator must determine whether waste is EHW if it will be:

- discharged to a POTW under permits by rule
- burned for energy recovery as used oil
- land disposed within the state

Please provide specific language for your recommended change or addition.
NA

Signature: Alice Chapman

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman
Organization or Affiliation: Local Hazardous Waste Management Program in King County
Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Chemical Testing Methods for Designating Dangerous Waste
Section # C.2.a **Page #** 23 **Citation #** Decision Tree 2

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The suggestions below will clarify the meaning of these terms in the flowchart and help keep the reader oriented. With the proposed chart, it was hard for me to understand that "dw" meant the broad term Dangerous Waste, not the more specific designation of DW or EHW.

Please provide specific language for your recommended change or addition.

- Consider the title "Decision Tree #2, HOC Specific Chemical Evaluation"
- Instead of using the abbreviation "dw" for Dangerous Waste; consider using "dw#" with a definition of "dangerous waste number (4 digit code)" in the legend.
- In the end boxes at the bottom of the page, change "Assign waste code: WP02" to "Assign dw# WP02" and change "Assign waste codes: WP01, EHW" to "Assign dw# WP01, EHW"
- In the references to Table 1, note that this table is in Appendix 5.

Signature: Alice J. Chapman

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Dangerous Waste Regulations

Section # Definitions **Page #** 18 **Citation #** 173-303-040

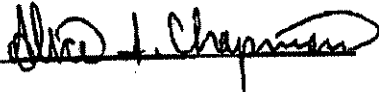
Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The definition of persistence still has a half-life of one year (365 days) and does not match the proposed changes to the definition of half-life described in *Chemical Testing Methods for Designating Dangerous Waste* (see p 19 Section C.1.a and Appendix 1 Glossary).

Please provide specific language for your recommended change or addition.

Change the definition of persistence to a half-life of 2 months (60 days).

Signature:



**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Chemical Testing Methods for Designating Dangerous Waste
Section # C.2.d.1 **Page #** 31 **Citation #** 2., 3.,

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Currently these 2 examples have the chemical names only. It is easier for generators to identify a chemical by CAS number. Also, structure diagrams would help understand the concepts.

Please provide specific language for your recommended change or addition.

Please add the Chemical Abstract Service numbers and chemical structure diagram for the organic compounds in the examples.

Signature: Alice D. Chapman

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Chemical Testing Methods for Designating Dangerous Waste

Section # Appendix 5 **Page #** 5-42 & 5-52 **Citation #** Footnotes 1-3

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?
Table Footnotes 1-3 aren't used in the tables. However, they are useful references for determining half-life.

Please provide specific language for your recommended change or addition.
List these references as examples of where to look for half-life data, on page 28, section C.2.c.

Signature: Alice J. Chapman

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Alice Chapman

Organization or Affiliation: Local Hazardous Waste Management Program in King County (LHWMP)

Address: 130 Nickerson St, Suite 100 Seattle, WA 98109

Indicate if your comment is on the federal requirements _____ or state requirements X

Chemical Testing Methods for Designating Dangerous Waste
Section # _____ Page # _____ Citation # _____ General Comments

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Thank you for the valuable research Ecology has conducted into HOCs and the wealth of resources added to the guidance document. The requirements and options for designation are much clearer than before. Particularly noteworthy are the sections about solid polymers, polymer additives, Appendix 4 with resources about chlorinated paraffins, and Appendix 5 with specific chemicals of concern and test methods. Many halogenated compounds that the LHWMP encountered while researching small quantity generator wastestreams are addressed, for example paint pigments and VOC-exempt solvents.

The new guidance recommends using SW-846 test methods which the LHWMP has little or no experience with. We don't yet know what the tests will cost, whether local labs are prepared to implement them, whether lab standards are readily accessible, or other possible barriers to implementation. We will continue to work closely with Ecology if these issues arise.

Ecology has proposed reducing the persistence half-life criteria from 1 year (365 days) to 2 months (60 days). This change brings Ecology's criteria into alignment with national and some international standards.

Because these proposed changes can only address dangerous waste management and simply clarify regulations that date back to the 1970s, the LHWMP and other moderate risk waste programs are still left with significant implementation challenges. Washington State recognized that several halogenated organic compounds (HOCs) such as DDT, PCBs and halogenated solvents caused environmental and human health problems when released. Broad persistence criteria addressed those unique risks. Since then, HOCs have continued to be used in products that small quantity generators and households regularly use, often purchased without knowing that HOCs are present or that HOCs are regulated when disposed.

To seriously address the environmental and health risks of HOCs, solutions that manage the problem at the source, as well as end-of-pipe waste management, should be considered. Some possibilities could be:

- Require that products containing HOCs be identified and inform purchasers that the products need to be managed as dangerous waste when disposed. Often, research and waste characterization staff in the LHWMP can't identify the specific source of HOCs in wastes that test positive for halogens. If Washington businesses were able to identify halogen-free products, they could make informed choices instead of unknowingly purchasing products with high testing and hazardous waste disposal costs.
- Limit the types of products that use HOCs. Developing a PBDE action plan that bans certain uses of PBDEs is a step in the right direction. However, with this proposal Ecology has clarified that polymers containing halogenated additives must be managed as dangerous waste if they have sufficient concentrations of HOCs. Further, the screening level concentrations (10 ppm) are quite low. Even if PBDEs are addressed, many other HOC additives will continue to be used. It will be a challenge to educate small quantity generators that common, everyday materials made of plastic, rubber, polyurethane or other polymers are likely dangerous wastes.

Please provide specific language for your recommended change or addition.

NA

Signature: 

NORA, An Association of Responsible Recyclers

Used Oil Antifreeze Oil Filters Parts Cleaning Solvents Wastewater Absorbents Oily Solids

**1511 West Babcock
(406) 586 9902**

**Bozeman, Montana 59715
(406) 586 9903 (fax)**



**Christopher Harris
General Counsel**

**David Ramsey
Senior Policy Analyst**

Comments of NORA, An Association of Responsible Recyclers on Certain Proposed Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC State of Washington, Department of Ecology September 10, 2004

NORA, An Association of Responsible Recyclers (formerly the National Oil Recyclers Association) submits the following comments on the Department of Ecology's proposal to impose (1) requirements for financial assurance for closure on facilities storing or processing used oil; and (2) requirements for pollution liability coverage for such facilities. NORA is a national trade association, founded in 1984, whose members collect and recycle used oil, oil filters, antifreeze, parts cleaning solvents and waste water throughout the entire United States, including the State of Washington.

NORA strongly endorses the principal of assuring the availability of sufficient resources to implement prompt and proper closure of used oil processing facilities. At the same time, used oil processing facilities, which serve an extremely important environmental protection function, should not be eliminated as the result of crushing financial burdens or impossible-to-meet compliance requirements.

It should be recognized at the outset that the used oil recycling industry is predominantly comprised of small businesses. A few very large companies are also involved in the business of collecting and recycling used oil. In the current regulatory environment (governed by the used oil management standards) small businesses are capable of competing with larger companies for a wide range of reasons.

The principal reason is that compliance with the used oil management standards, as well as all related requirements such as SPCC plans, does not impose an unreasonable burden on small to medium sized small businesses. It should also be recognized that oil recyclers constitute a small niche within a much larger petroleum fuels market. An on-specification used oil fuel product, although containing the same BTU content as its virgin oil fuel counterpart, is competitive only if it is priced significantly lower than the virgin fuel product. The price of used oil closely tracks the cost of virgin petroleum fuel

– and must stay competitive with natural gas. Accordingly, as the price of virgin petroleum rises, the price that oil recyclers must pay to obtain used oil from generators also rises. At present, the prices paid to used oil generators has never been higher. In addition to the cost of obtaining used oil from the generators, the fixed costs of labor, plant operations, insurance, transportation, and regulatory compliance, in the context of an ever-present lock-step competitive environment, means that the profit margin for oil recyclers is small, typically less than ten percent.

Any proposal to add an additional layer of regulatory requirements on oil recyclers should take into account their financial ability to come into compliance. NORA is not aware of any study conducted by the Department of Ecology (“DOE”) that evaluates oil recyclers’ ability to pay for the proposed financial assurance requirements. Had such a study been undertaken, it would have demonstrated that small to medium-sized oil recyclers struggle to afford their fixed operating costs and do not have sufficient capital reserves to pay for any major expense. One of the five problems identified in the Department’s 2002 report to the Legislature is that “resource levels are inadequate for current demands on Ecology’s permitting and compliance programs.” The same economic recession that adversely affects the State of Washington’s tax revenues also adversely affects small businesses operating in the Northwest.

While appropriate financial assurance for closure would be determined on a case-by-case basis, financial assurance for each site would presumably be based on a worst case scenario. If DOE adopts this approach, financial assurance for closure would be impossible to achieve. The worst case scenario approach would presumably assume that all tanks at a given used oil processing were 100 percent full and that they constituted hazardous waste. Neither assumption is likely to reflect reality. First, the used oil should be presumed to be a valuable commodity, not a waste material. Currently, the market price in the State of Washington for unprocessed used oil is \$.20 a gallon and \$.55 a gallon for processed used oil. In contrast, the price for properly disposing of hazardous waste is approximately \$3.00 a gallon. Second, the normal operating procedures of an oil recycler (in combination for the demand for oil) would almost certainly guarantee that an oil recyclers tanks are not filled to capacity.

Even if a worst case scenario is not adopted, DOE should carefully evaluate what financial assurance instruments are actually available to small businesses. Bonds, insurance, letters of credit and other such instruments may simply not be available. DOE must address this question before, not after, it adopts financial assurance requirements.

If DOE’s financial assurance requirements are too burdensome, thereby forcing small to medium-sized oil recyclers to leave the State of Washington, there is one certain consequence: a lack of competition. The well-capitalized oil processor (the last player standing) will dominate the market, dictating the price that must be paid by used oil generators for collection services. DOE should seriously consider the economic impact on generators of (1) a monopolistic economic model in the used oil collection/processing industry; and (2) the ability of the last remaining processor to pass along all regulatory costs to generators.

If DOE considers the prospect of a used oil processing monopoly in Washington to be far-fetched, it should carefully examine the used oil market in California. DOE will find that one processor dominates the market and that it effectively controls the price of used oil paid by generators for collection services. (While some degree of competition exists at the borders, it is not a significant factor.) The principal reason for the lack of competition is that used oil processing facilities in California must meet the same requirements as hazardous waste facilities, including requirements for financial assurance.

Finally, while NORA generally supports DOE's proposed requirement for sudden and accidental pollution coverage, DOE should first investigate whether such coverage is actually available and, if so, at what cost. This cost should be considered *in combination with* the financial burden that would be imposed by the financial assurance for closure requirements. NORA suggests that the economic burden on the small businesses that would be affected by these proposals should not be ignored. It would be counterproductive in the extreme if the environmental protection work of oil recyclers is demolished because so-called environmental protection measures imposed by DOE force such companies out of business.

Respectfully submitted,



Christopher Harris
General Counsel

September 10, 2004

The Boeing Company
P.O. Box 3707
Seattle, WA 98124-2207

September 10, 2004
G1240-JPK-029

Attn: Chipper Hervieux
HWTR Program
P.O. Box 47600
Olympia, WA 98504



RE: Amendment Dangerous Regulation Chapter 173-303 WAC

The Boeing Company submits the following comments in response to the Washington Department of Ecology draft Amendment to the Dangerous Regulation Chapter 173-303.

Boeing manufactures commercial and military related components in the State of Washington. Boeing currently employs approximately 157,000 workers in 27 states. Of those, about 50,000 are in the State of Washington. We have about 30 facilities generators, 11 of which have large quantity status.

The Boeing Company appreciates the continue effect that WDOE is demonstrating to involve the regulated community in rule development. The partnership that is formed would ensure more effective rulemaking and provide better understanding between the agency and the regulated community.

Enclosed are the comments in the format that WDOE has requested. Should you have addition questions, please contact Jimmy Ko at 425-865-2708.

Very truly yours,

A handwritten signature in black ink that reads 'Kirk Thomson'.

Kirk J. Thomson
Director, Environmental Affairs
Phone: 425-930-6122

Enclosure

The Boeing Company
P.O. Box 3707
Seattle, WA 98124-2207

September 10, 2004
G1240-JPK-029

Attn: Chipper Hervieux
HWTR Program
P.O. Box 47600
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Very truly yours,

A handwritten signature in black ink that reads "Jimmy Ko for Kirk Thomson".

Kirk J. Thomson
Director, Environmental Affairs
Phone: 425-930-6122

Enclosure

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko

Organization or Affiliation: The Boeing Company

**Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124**

Section # _____ Page # _____ Citation # 173-303-802(5) and WAC 173-303-040

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

This change is a very positive improvement. The regulated community can be flexible about how to manage the wastes in a cost effective manner yet still ensure protection of the environment.

Please provide specific language for your recommended change or addition.

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # 35 Page # 19 Citation # WAC 173-303-300(2) (a) and (b) and related WAC 173-303-40 "Knowledge"

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The preamble to the proposed rule changes emphasizes the need to establish knowledge so that a waste is properly designated and managed safely. The preamble states that the requirements are already in the current regulations. The proposed regulations do not change those requirements, but restricts the owner/operator to fewer methods that result in additional testing and assume that the generator does not know the waste stream. These methods should remain guidance and not be codified.

Keeping the method as guidance, would allow for other methods for designation and meet the safety requirements. For example, if a generator's record indicates PAHs were never purchased in a product that should be sufficient evidence. It is reasonable to expect that the generator communicates the basis to the TSDf with a certification form, which indicates the information is true and accurate to the best of their knowledge.

Restricting the methods that the TSDFs can accept for "knowledge" will result in more testing by both the generators and TSDFs. Either the generators will have to perform additional testing when TSDFs question a designation based on "knowledge" or the TSDFs will when the additional cost for testing is less then the time needed to determine the basis for the generator decision. These additional costs and delays will be passed on to the generator.

Washington TSDFs will be at a competitive disadvantage because of the additional requirements. Generators would choose a out of state disposal facilities that would not required to perform additional testing and who were compliant with Federal requirements for "generator knowledge. This effect would not only be fiscally detrimental to generators and Washington TSDFs but also be more detrimental to the environment on two counts. The first is that increasing the distance a waste would have to travel would increase the risk of potential discharges to the environment due to accidents. The second is that increasing the transporting distance increases emission from the transportation vehicle

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # 35 Page # 19 Citation # WAC 173-303-300(2)(a) and (b) and related WAC 173-303-40 "Knowledge" (continuation)

It is reasonable for generators' to describe the basis of their "knowledge" and provide that basis to the TSDF. It is not reasonable to require the TSDF to conduct the research or to ensure the sample data is representative and the appropriate test methods were used. Short of observing all samples being taken, the TSDFs will have to rely upon a certified statement from the sampler that the samples were representative, or upon a certified statement from the laboratory, or a certified statement from author of the study. The generator is required to use representative sampling and approved methods of analysis. A certification by the generator that all information is true and accurate should be sufficient. Generators provide that statement when they sign the TSDFs waste stream description.

Please provide specific language for your recommended change or addition.

WAC 173-303-40 "Knowledge" means there is sufficient information about both the waste constituents and the process generating a waste to reliably designate the waste and ensure safe and proper management. Such information must include the chemical, physical, and/or biological characteristics of the waste. (For example, if all chemical constituents used in an industrial process generating a waste are known and the formation of the waste by-products from that industrial process are understood, that information is sufficient without direct laboratory analysis to describe the waste for safe management under this

WAC 173-303-302(2) The owner or operator must obtain a detailed chemical, and/or biological analysis of a dangerous waste, or non-dangerous wastes if applicable under WAC 173-303-610 (4)(d), before he stores, treats, or disposes of it. This analysis must contain the information necessary to manage the waste in accordance with the requirements of this chapter. (173-303 WAC). The analysis must include or consist of either existing published or documented data on the dangerous waste, or on waste generated from similar processes, or data obtained by testing, or documented generator knowledge, or a combination of these.

(a) When a dangerous waste management facility uses

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # 35 Page # 19 Citation # WAC 173-303-300(2)(a) and (b) and related WAC 173-303-40 "Knowledge" (continuation)

information or knowledge from the generator to complete a waste profile for a waste instead of direct analysis of a sample, that information must meet the definition of "knowledge" as defined in WAC 173-303-040. To confirm the reliability of the information or knowledge, the facility must do the following:

- (i) Receive copies of that "knowledge" from the generator, or;
- (ii) Receive a description of that "knowledge" and
 - (A) a reference to the location of the basis for knowledge, if public, or;
 - (B) a statement that the knowledge is located in the generator's files, if private, and;
- (iii) Receive a certification from the generator that the "knowledge" is true and accurate to best of the generator's knowledge.
- (b) as suggested in the preamble.

**Dangerous Waste Regulations
Chapter 173-303 WAC
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Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # _____ Page # _____ Citation # 173-303-120(3) Hazardous Waste Facilities Initiative

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

We support WDOE intent to require recycler and oil process to demonstrate financial assurance for closing the facility. However, we are concerned about the impact and resource requirement to the industry. The following list the concerns.

- Since this will only affect facilities in Washington State, will the new financial requirements be anti-competitive resulting in higher cost for generators using Washington State facilities.
- Are there financial mechanisms in place to support this initiative for small business?

Please provide specific language for your recommended change or addition.

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # _____ Page # _____ Citation # _____ WAC 173-303-100 (5) (b)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

WAC 173-303-100(5)(b)(ii) uses a formula in which the hazards are additive for fish bioassay, rat inhalation, and rabbit dermal toxicities. WDOE should provide clear evidence that using the additive method is sound and reasonable. A preferable approach is to rate the components of a mixture and add only each toxicity criteria, rather than adding the highest hazards from across the different toxicity groups.

In addition, please change the calculated formula to eliminate conservative factor that can increase the toxicity quotient up to 10 times and replace it with one that calculate the total effective toxicity. The change would remove common household product used in industrial such as hand lotions.

WAC 173-303-100(5)(b) provide a method for book designation. Based on inhalation toxicity data, wastes could be designate as DW or EHW. The waste could be in a physical state which would not result in an inhalation hazard. WDOE should exempt waste from being DW or EHW if designation is based solely on toxicity data via a specific route of exposure (inhalation data) and the physical state does not exhibit the hazard or exposure pathway.

Please provide specific language for your recommended change or addition

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # _____ Page # _____ Citation # WAC 173-303-100 (b) and Appendix 4 & 5

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

WDOE should reconsider the basis for designating HOC as a class persistent Dangerous Waste. Compounds can range from highly toxic to chemically inert. An example is chlorinated paraffins (CP), which are toxic, carcinogenic, and can bioaccumulate as short chain CP (C10-C13), but are relatively inert. CP (CP20-C30) has no hazardous characteristic as long chain. Chemicals within this broad category need to be addressed specifically. Referring to Chemical Test Methods does not resolve the inaccurate designation. It would be preferable if WDOE classified each chemical or closely related chemical group based on available acute and chronic toxicity data. See also comment on the Chemical Testing Methods document.

Comments on CTMDDW, Appendix 4

Boeing appreciates Ecology's effort to clarify determination of HOC as DW or EHW at Appendix 4. However, information referenced in Appendix 4 from OZPAR and IARC is limited to short chain chlorinated paraffins (SCCP). WDOE has included all chlorinated paraffins as persistent DW in Appendix 5 rather than limiting the list to SCCP.

The following web links and documents provide support to include only SCCP.

- EPA (www.epa.gov/oppinr/chemtest/chloropf.htm)
- Environment Canada
(http://www.ec.gc.ca/substances/ese/eng/psap/PSL1_chlorinated_paraffins.cfm)
- United Kingdom Marine Special Areas of Concern Project sponsored by the European Union (http://www.ukmarinesac.org.uk/activities/water-quality/wq8_35.htm,
- EU document EC-181, and the OZPAR and IARC studies you cite as reference.

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko
Organization or Affiliation: The Boeing Company
Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # _____ Page # _____ Citation # _____ WAC 173-303-100 (b) and Appendix 4 &5
(continuation)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

When trying to determine the category of a HOC, WDOE should consider not only toxicity concentration but the carcinogenic effect. For example, SCCPs are often acutely toxic to fish at 1-5 mg/l, while LCCPs show toxic effects at levels well beyond their solubility, and exhibit no tendency to bioaccumulate. This generally applies to all HOC, which should at the very least be assigned to "potency" categories similar to the existing toxicity categories "X" through "D". Dioxins, for example, pose a much more severe hazard than FREON 113, yet both are regulated under this section at identical concentrations. "Chlorinated Fluorocarbons, N.O.S." is another large group of compounds related only by a carbon-halogen bond, yet Ecology, without any scientific basis, has identified all such compounds as equally hazardous. Compare this approach to the CERCLA and MTCA cleanup levels, which were determined by specific data.

Please consider removal all compounds from Appendix 5 (HOCs of Concern) for which there are no data to support such designation, and revise the determination process to include weighted concentration level for each compound based on its relative hazard.

**Dangerous Waste Regulations
Chapter 173-303 WAC
Draft Amendments – July 2004
Comment Form**

First and Last Name: Jimmy Ko

Organization or Affiliation: The Boeing Company

Address: P.O. 3707 Mail Code 7A-WH
Seattle, WA 98124

Section # _____ Page # _____ Citation # 173-303-200(2)(a)(ii)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The change proposed for this regulation is unnecessary and could add to confusion regarding generator requirements instead of making them clearer.

Sections –320 and -350 are requirements applicable to a facility. The requirements they define are not limited in scope to accumulation container areas. In all likelihood an LQG will accumulate waste on site in both 90 day dated containers and in satellite containers, it is unlikely that an LQG will only have satellite containers on site. As such they will be subject to –320 and -350 throughout the facility.

This change adds to the confusion regarding what is required in a contingency plan. It implies that waste accumulation containers or the “footprint” they occupy are somehow specified in a contingency plan. They are not.

Proposed Amendments
Dangerous Waste Regulations Chapter 173-303 WAC
July 2004

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: John Reed
Organization or Affiliation: Washington State University
Address: Environmental Health and Safety Department
Pullman, WA 99164-1172

Indicate if your comment is on the federal requirements _____ or state requirements x

Section # 040 Page # 14 Citation # na

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Washington State University (WSU) requests omission of the second sentence in the definition of "knowledge", "*Such information must include the chemical, physical, and/or biological characteristics of the waste.*", and as applicable in WAC 173-303-070(3)(c)(ii) and WAC 173-303-300(2).

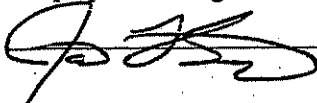
As a research institution, WSU has more than 1,200 laboratories generating thousands of waste containers every year, generally of very small size (milliliter to 4 liter). A lab may have multiple processes in operation at any given time, and processes may vary within a short period of time. It is required at WSU that all waste containers be labeled as to contents and content percentages as generated. As highly trained individuals, researchers are fully capable of providing data as to the waste composition. Analysis of each of these small waste containers/streams would be extremely expensive, would require accumulation of wastes in labs while awaiting analysis, and would add little or nothing to waste composition knowledge. Researchers know, and can and have provided the necessary information to EH&S for safe collection and storage and shipment of their wastes. Although most process information for routine facilities operations is collected at WSU, detailed experimentation procedure data for all the research conducted at the institution would be both unnecessary and extremely burdensome.

The specificity of the language in the definition and TSD requirements is not necessary to protect life, health and the environment, will be extremely costly to waste generators like WSU, and negatively impact existing environmental programs such as pollution prevention/waste minimization efforts, emergency preparedness and emergency response programs and community outreach.

Please provide specific language for your recommended change or addition.

Do not adopt the proposed changes in this section.

Signature:



for John Reed 9/10/04

Proposed Amendments
Dangerous Waste Regulations Chapter 173-303 WAC
July 2004

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: John Reed
Organization or Affiliation: Washington State University
Address: Environmental Health and Safety Department
Pullman, WA 99164-1172

Indicate if your comment is on the federal requirements _____ or state requirements x

Section # 200(2)(a)(ii) Page # 85 Citation # na

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Washington State University does not agree with the statement in the Preamble for State-Initiated Amendments for WAC 173-303-200(2)(a)(ii), "WAC 173-303-200(2)(a) is being amended to clarify that contingency planning and general facility inspections are required for satellite accumulation." This is not a clarification, but a proposal for several substantial changes to the waste generator satellite accumulation area standards.

The proposed changes to the regulation would require generators of small quantities of waste at satellite accumulation areas (SAA) to comply with WAC 173-303-320 – 360 (inspection, training, and emergency planning.) except 355.

The proposed changes to WAC 173-303-200(2)(a)(ii) would be significant, complex, and cumbersome at WSU where there are more than 1,500 satellite accumulation areas at four campuses and research stations located throughout the state. These changes to WAC 173-303-200 would provide minimal environmental protection or safety benefits and would take an excessive amount of valuable resources away from research labs, academic labs, and other environmental health and safety programs. The reallocation of the limited resources from other environmental programs to address this proposed change would lead to environmental degradation.

While WSU agrees that satellite accumulation areas (SAA) require a certain level of attention, they in no way merit the dedication of personnel and resources called for in this proposed amendment.

WSU requests the following points be considered

1. There are over 1,200 potential points of dangerous waste generation on the Pullman Campus alone. System wide, the number exceeds 1,500. 173-303-320 is unclear as to the frequency and elements required for inspections. Assuming that it would take 15 minutes to inspect and document each area and using WSU's minimum labor charge rate, the cost to perform such inspections would range from a low of \$16,000 for annual inspection to a high of \$5,750,000 for daily inspections. Weekly and monthly inspections would cost \$820,000 and \$190,000, respectively.
2. Over 7000 employees, students and associated personnel would require some level of initial training and annual retraining under the proposed amendment. WSU conservatively estimates yearly personnel turnover of 10 percent. This would result in a burden of 700 initial trainees per year (ref. 173-303-330). The initial cost of training would exceed \$500,000. Initial training and retraining costs would exceed \$180,000 each year thereafter.
3. 173-303-330(1)(d) is unclear as to the nature of required training. If training to the level of that required for 90 day area operators is what is intended, this should be clarified. If not, further guidance is requested.
4. Inclusion of hazardous waste handling duties in job descriptions of existing employees is problematic. It will most likely lead to litigation and increased labor cost (ref. 173-303-330(2)(a)). This would exacerbate the budgetary burdens as detailed above.
5. WSU's facilities are constructed and operated in such a manner as to facilitate safe chemical handling and waste accumulation. In the past decade WSU has expended in excess of \$2,000,000 to construct and remodel existing satellite accumulation areas in order to insure that no hazard to the environment or public health would result from their operation under existing rules.
6. The quantity of wastes allowed within a satellite accumulation area is unlikely to cause significant harm to the environment, by design. EPA determined when adopting the satellite accumulation rule in 1984, and has held consistently since, that personnel training, weekly inspections and contingency plan requirements are unnecessary and inapplicable to satellite accumulation areas (see 49 FR 49568 at 49570; also RCRA Online, Faxback 11373, 11317, 14418, and 14703.) EPA has determined that accumulation of up to 55 gallons of non-acutely hazardous waste in a satellite area is "reasonable and safe and does not pose a threat to human health or the environment." (49 FR 49569) Ecology has not explained in the proposal how it has determined that more stringent regulation of satellite accumulation is necessary to protect human health or the environment, or why it believes satellite accumulation poses a threat sufficient to justify the addition of these additional requirements.
7. Faculty and staff at WSU are highly educated and trained in safe chemical handling methods. Imposition of a new, redundant training and documentation requirement will not benefit the environment nor will it encourage compliance.
8. WSU has implemented a performance based Environmental Management System that addresses waste accumulation and minimization procedures.
9. WSU's commitment to protect the environment is demonstrated by its acceptance into EPA's Performance Track program.
10. WSU has and maintains a facility wide Contingency Plan, Emergency Response Plan and Spill Prevention Control and Countermeasures Plan that encompasses the major aspects of operations related to the prevention of environmental pollution caused by the release of wastes or other hazardous materials. If it is Ecology's intent to require individual contingency plans for each SAA, this would be redundant and wasteful as well as

unmanageable, given our number of potential points of waste generation. (ref. 173-303-350(2))

11. WSU maintains a fully trained and equipped spill response and cleanup staff. They participate and provide personnel and resources to the Greater Palouse HAZMAT Team (GPHT). GPHT personnel and equipment are stationed at WSU. Average response time to emergencies is less than five minutes.
12. WSU is concerned that the proposed rule could be construed as requiring inappropriate supplies and equipment be provided at each SAA. Not only will this create an unmanageable financial burden but as these items do not have unlimited shelf lives. The task of maintaining fresh materials at each area will be unachievable. (ref. 173-303-340) Additionally, it is unclear if lists of such equipment will be required only in the general plan or if they must be present at each SAA(ref. 173-303-350(3)(e))
13. Dedication of the resources required to implement the proposed rule changes would directly and negatively impact existing environmental programs such as pollution prevention/waste minimization efforts, emergency preparedness and emergency response programs and community outreach.

Please provide specific language for your recommended change or addition.

1. Do not adopt the proposed changes in this section
2. If changes are adopted, exempt colleges, universities and other research laboratory complex operations.
3. If changes are adopted, exempt Performance Track members

Signature



for John Reed

9/10/04

September 8, 2004
GO2-04-152

Hazardous Waste and Toxics Reduction Program
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Attn: Patricia Hervieux

Subject: **COMMENTS ON PROPOSED AMENDMENTS TO
DANGEROUS WASTE REGULATIONS (WAC 173-303)**

We have reviewed the proposed revisions and additions to Ecology's dangerous waste rules that were filed with the Code Reviser's Office on June 7, 2004 and offer comments below for your consideration.

Sections 040 and 300(2). The *Focus Sheet* on the proposed rule changes states, "Knowledge," as used for waste designation, will be defined to help generators know when they can use knowledge instead of testing their waste." Rather than clarify waste designation, the real intent of the rule change, as evidenced by the preamble discussion, is to assure that TSDs acquire sufficient documented information to support waste management decisions. Unfortunately, Ecology has not provided any evidence that the current language is inadequate and that wastes are being mismanaged because of it. Furthermore, clarity is not enhanced by the proposal. The proposed definition of "knowledge" has to do with the sufficiency of information about the waste, yet the proposed insertion to WAC 173-303-300(2)(a) addresses the use of "information or knowledge" to characterize the waste. Since Ecology has not identified a problem with the existing language, we request that the proposed changes be deleted.

Section 200(2)(a)(ii). The change to this section is described in the preamble, and in the accompanying economic impact statement, as a clarification of existing rule interpretation. Since the change would impose new requirements on satellite accumulation, this strikes us as a mischaracterization of Ecology's stated intent. The preamble implies that the current rule has been misinterpreted as not subjecting satellite areas to the requirements referenced in WAC 173-303-200(1)(e) & (f). To the contrary, any reasonable interpretation must conclude that those requirements (e.g., personnel training, contingency planning, general inspection) do not presently apply to satellite accumulation. Ecology, in its 10-year old guidance (WDOE Pub. No. 94-120),

COMMENTS ON PROPOSED AMENDMENTS TO DANGEROUS WASTE REGULATIONS

itemized the satellite accumulation provisions and made no mention of the requirements that are now proposed for insertion. Ecology has not provided a good explanation why the additional requirements should now be imposed. Given the nature of satellite accumulation (e.g., operator control, limited quantities), we believe the existing regulation is sufficient for protection of human health and the environment.

The Environmental Protection Agency does an excellent job explaining the rationale behind its rules and interpretations. We suggest that Ecology review again relevant federal guidance before deciding that more state requirements are needed for satellite accumulation. A March 2004 memo (R. Springer to Regional RCRA Directors) provides good background, as does the Federal Register preamble on the original satellite accumulation rule (49 FR 49568-49572).

Had the change to Section 200(2) been included in the draft version released for comment in March 2004, we are confident that you would have received ample input to help determine if an amendment is warranted. Unfortunately, Ecology has proceeded directly to a formal proposal and doesn't mention the change in the *Focus Sheet*. We believe this proposal merits more visibility and discussion.

Section 640(7)(d). The proposed change to the tank release reporting requirement is intended to align this section with the general spill reporting requirements of Section 145. Instead, the proposed revision can be read to require an immediate report of any release to the environment without regard to the circumstances. If consistency is indeed the objective, we suggest the following wording for subsection (7)(d)(i): "Any release to the environment that threatens human health and the environment must be reported in accordance with WAC 173-303-145."

We appreciate your consideration of these comments.

Respectfully,



D.W. Coleman, Manager
Regulatory Programs
(Mail Drop PE20)

"Washington's only exclusive representative of small businesses"



INDEPENDENT BUSINESS ASSOCIATION

September 10, 2004

Pat Hervieux
Washington Department of Ecology
PO Box 47600
Olympia, Washington 98504-7600

Re: **Comments On Proposed Revisions To Washington's Dangerous Waste Rule – WSR 04-14-094**

Dear Ms. Hervieux and Department of Ecology Leadership:

On behalf of the thousands of small business owners participating in Independent Business Association, we offer the following comments on the proposed revisions to the state's dangerous waste rules proposed in WSR 04-14-094.

New Plant Closure and Financial Assurance On Recyclers – Do Not Adopt

The Independent Business Association urges the Department of Ecology to NOT adopt the new requirements at this time for recycling of items like used oil, used anti-freeze, used solvents, etc. The IBA finds there are more risks – especially to the environment – from the proposed rule than likely benefits as described below. IBA recognizes the risk to generators of not having closure plans and financial assurance in place but we believe the risks of the current rule outweigh the risks of not imposing the closure and financial assurance requirements contained in this rule in Washington State at this time. We strongly believe that an alternative approach to that proposed in the rule is needed to address the concerns trying to be addressed and IBA is committed to working with the Department to research and identify an appropriate alternative.

For example, we are advised that insurance and bonding is not generally available for small firms for closure assurance. Also, small businesses will have a very difficult time providing a letter of credit or meet the "financial test" option. This means that small businesses are effectively unable to utilize four of the five options to meet the financial assurance requirement. Clearly, small businesses are put at a competitive disadvantage because of this. An option that certainly should be explored is utilizing the PLIA program as a possible source for meeting the insurance option. It would take legislation but given the extreme nature of this issue, it is an option that certainly needs to be explored along with other options. The fact is, the current option is certainly unfair and inadequate for small firms.

The IBA finds the following to be excessive risks resulting from the current proposed rule:

- The costs imposed by the new financial assurance requirements - projected by your agency – are 40 times higher for small business than large business. This puts small recycling



businesses at a HUGE competitive disadvantage and puts at risk their very survival in Washington State. This is not acceptable.

- Access to required insurance for most small firms is extremely limited or not available. If it is not available or not affordable, the facility is put out of business by this rule requirement. This is not acceptable.
- The costs imposed by the new requirements will be shifted to those who generate the materials to be recycled. In many cases, this will be a substantial cost shift. For example, business are currently receiving up to 20-cents a gallon for their used oil. It is projected that the proposed rule will result in them having to pay up to 20-cents per gallon to have the oil collected. This creates many problems:
 - The cost shift could be as much as 40-cents per gallon. The result of this cost increase will be an increased cost to the customer of about \$2.65 just to recover this higher cost. The higher costs to customers will encourage more "do-it-yourselfers" to change their own oil or anti-freeze and dispose of it.
 - Those with small volumes of used oil – primarily small businesses – will find it more difficult and more costly to dispose of their used oil than larger competitors, putting the firms that generate small volumes of used oil at a competitive disadvantage. This is exactly OPPOSITE the premise of waste reduction and incentives to encourage waste reduction where a smaller volume of waste should reduce disposal costs.
- The proposed rule increases risks to the environment as more "do-it-yourselfers" change their own oil or anti-freeze and unfortunately many "do-it-yourselfers" do NOT properly dispose of the used oils or anti-freeze they collect. Their improper disposal results in contamination of soils, wetlands, creeks, streams, rivers, lakes, etc.
- Washington State currently has very limited in-state capacity for recycling used oil, used anti-freeze, spent solvents etc. Effectively, there is only one in-state recycler of used oil while about 50% of the used oil generated is shipped out of state. The state generates over 12 million gallons of used oil each year. The proposed rule revisions will further discourage in-state recycling facilities. This puts Washington businesses that generate (collect) used oil and other materials to be recycled at serious risk. With little to no in-state recycling available, competition for collection and recycling is greatly reduced and prices generally increase when competition is reduced. Higher costs encourage illegal dumping of wastes.

Application of Plant Closure and Financial Assurance on CFC and HCFC Recycling – Do Not Adopt

The IBA urges the Department of Ecology NOT to adopt the proposed rule revision that will require plant closure and financial assurance for firms that recycle CFCs and HCFCs. The Dangerous Waste rules are authorized by RCW 70.105 and 70.105A and 15.54 while CFCs and HCFCs are regulated under RCW 70.94.970. CFCs and HCFCs do NOT exhibit the same characteristics as do dangerous waste because CFCs and HCFCs are gasses and evaporate into the atmosphere if released. While harmful to the environment, there is nothing to clean up if they are released so there is no need for a closure plan or financial assurance for clean-up. RCW 70.94 provides for penalties and enforcement for illegal releases of CFCs and HCFCs.

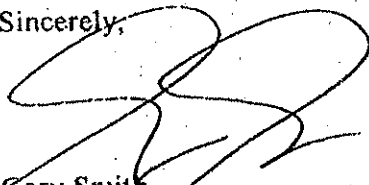
There is also a very convincing environmental reason NOT to adopt the plant closure and financial assurance requirements for CFCs and HCFCs. The plant closure requirements will increase the costs on the firms that collect CFCs and HCFCs. Higher costs to the recyclers will result in higher costs to the generators to dispose of their CFCs and HCFCs. Higher costs to the generators discourages the capture of CFCs and HCFCs and encourages more releases into the environment resulting in more harm to the environment, not less. Such a risk is excessive and unnecessary. Thus this provision of the rule should not be adopted.

Classifying Mercury As A Universal Waste – Adopt

The IBA encourages the Department to adopt the proposed rule revision to classify mercury as a universal waste to facilitate its collection and proper disposal. This is important to the effective collection and proper disposal of mercury in Washington State.

Thank you for your consideration of our comments. We will be pleased to answer any questions or provide additional information you may request.

Sincerely,



Gary Smith
Executive Director

- Cc: Senator Bob Morton
Senator Karen Keiser
Rep. Mike Cooper
Rep. Bob Sump
Rep. Mark Miloscia
Rep. Toby Nixon



Hervieux, Patricia R.

From: Johnson, Mark [Mark.Johnson@NFIB.ORG]
Sent: Friday, September 10, 2004 4:49 PM
To: Hervieux, Patricia R.
Subject: Comments on Proposed Dangerous Waste Rules

September 10, 2004

Patricia Hervieux
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Ms. Hervieux:

On behalf of the National Federation of Independent Business' (NFIB) 15,000 small business owners in Washington state, most of which have 6 or fewer employees, I am writing to comment on WSR 04-14-094 Dangerous Waste Regulations.

After reading the Small Business Economic Impact Statement (SBEIS) it has become blatantly clear that the proposed rule has an extremely negative impact on small businesses. First; the financial responsibility requirement WAC 173-303-120 will impose \$3,657 in costs per employee on small businesses opposed to \$89 per employee for larger businesses. Secondly, the expanded requirement for marking packages of dangerous waste WAC 173-303-190 (5) (b) will cost small business owners \$5.89 per employee and large business owners \$3.92 per employee. Again a greatly disproportionate cost for small business owners. Finally, proposed WAC 173-303-515 (13) testing of used oil is expected to cost small business owners \$0.48 per employee and large businesses \$0.31 per employee

If the intended goal of these rules is to eliminate small businesses from this area of business, these proposed rules work towards that means. I encourage the department to seriously reconsider adopting these rules unless significant modifications are made to lessen the negative impact. One possible solution to explore for the financial responsibility rule is utilizing the PLIA program as another option for small firms to meet this requirement.

NFIB supports proposed WAC 173-303-040 mercury disposal and proposed WAC 173-303-071 (3) (oo)(pp) concerning fertilizer. Both rules should result in ease of compliance and a likely cost savings for small business owners.

I appreciate the opportunity to provide comments on these important proposed rules. Please contact me if I may be of further assistance.

Mark Johnson, Assistant State Director
National Federation of Independent Business - Washington
4160 6th Ave. S.E., Ste. 201, Lacey, WA 98503
PH: (360) 786-8675 - FAX: (360) 943-2456 CELL (360) 280-6428
mark.johnson@nfib.org
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**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

**Mr. Morris Azose
Philip Services Corporation
18000 – 72nd Avenue South, Suite 217
Kent, Washington 98032**

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # overall Page _____ Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

We would like to thank you for the opportunity to comment on the proposed Chapter 173-303 WAC, the Dangerous Waste Regulations (“DWRs”). Ecology’s proposal signifies a policy shift in Washington’s dangerous waste law, and will adversely impact state hazardous waste treatment, recycling and management resources as well as the state’s economy with little benefit to human health or the environment. Members of the state’s regulated community, particularly those that are small and medium-sized businesses, are among the most heavily regulated in the country and are disadvantageously impacted by increasingly stringent Ecology regulations. Rather than reduce regulatory burdens, these proposed revisions to the DWRs further increase the likelihood that hazardous wastes will not be reclaimed, recycled or reused within the state. Because of the economic burden caused by the high costs of following regulatory requirements, Ecology is (intentionally, or not) encouraging the disposal of hazardous materials over treatment, waste reduction, reclamation and recovery.

Ecology’s regulations have a significant impact on the competitiveness of Washington businesses. While environmental protection is imperative, all regulations should be held to a reasonable cost-benefit standard. As the United States Environmental Protection Agency moves toward rulemakings that reduce the burdens of hazardous waste management, Ecology has increased or duplicated state environmental mandates. Although Ecology has recognized and adopted changes in federal Resource Conservation and Recovery Act (“RCRA”) regulations (e.g., exemption for the reclamation of valuable metals from F006 electroplating sludge and zinc fertilizers that meet applicable treatment standards for application to land), adoption of other requirements such as increasing

reporting, record keeping and other compliance requirements are not likely to further reduce the potential for harm to human health and the environment or promote excellence in environmental stewardship.

As such, Philip Services Corporation ("PSC"), as the owner and operator of two of the few remaining commercial treatment, storage and disposal facilities ("TSDFs") in the state, has serious concerns about the burdensome impact of the proposed changes to the DWRs on its continued operations and its ability to provide quality and cost-effective services to its industrial customers in Washington. If Ecology moves forward with adoption of these proposed changes, we encourage Ecology to allow greater opportunity for review and comment on all aspects of the proposed changes by the regulated community. A summary of PSC concerns is included in the attached comment sheets. We would welcome the opportunity to discuss them with Ecology representatives in greater detail.

Please provide specific language for your recommended change or addition.

Signature: _____

M. Age

9/10/04

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

**Mr. Morris Azose
Philip Services Corporation
18000 – 72nd Avenue South, Suite 217
Kent, Washington 98032**

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 173-303-64620(4) Page 234 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

PSC supports the continued use of the Model Toxics Control Act ("MTCA") model and regulations (Ch. 173-340 WAC) in the enforcement of corrective action requirements in the DWRs. This promotes consistency in cleanup actions at facilities and other industrial sites within the state, in keeping with the federal EPA policy of "one cleanup action." To further encourage cleanups and more equitably allocate responsibility for corrective actions, PSC believes that Ecology should incorporate the private right of action provision from the MTCA (WAC 173-340-545) in new section WAC 173-303-6420(4) for corrective actions that sets forth the minimum requirements of chapter 173-340 WAC with which it must be consistent. While 173-303-64620(4) does not exclude this section, it does not explicitly include it either.

Please provide specific language for your recommended change or addition.

For purposes of clarity, we believe Ecology should include "WAC 173-340-545, "Private rights of action" as item (g) in new section WAC 173-303-64620(4). That would make the existing item (g), new item (h) "WAC 173-340-700 through 173-340-760, cleanup standards."

Signature: _____

M. Azose

9/10/04

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

**Mr. Morris Azose
Philip Services Corporation
18000 – 72nd Avenue South, Suite 217
Kent, Washington 98032**

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 173-303-010(1) Page 1 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

Ecology has inserted a note stating that “[t]he terms public health and human health are used in this chapter interchangeably.” However, neither term is defined within the regulations. In general usage and industry usage, the terms “public health” and “human health” have very different meanings.

The term “public health” generally means the level of well being of the general population. See RCW 70.38.025(12). In TSDf industry usage, “public health” generally means the health of individuals in the general public beyond the facility. Whereas, the term “human health,” in terms of a risk or hazard, may include employees as well as members of the general public that might be affected. Some clarification may be necessary depending upon the particular use of the terms. Otherwise, Ecology should clarify in the introductory provisions or definition section that these two terms are used synonymously.

Please provide specific language for your recommended change or addition.

Signature: _____

M. Azose 9/10/04

**Dangerous Waste Regulations Chapter 173-303 WAC
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Comment Form**

**Mr. Morris Azose
Philip Services Corporation
18000 – 72nd Avenue South, Suite 217
Kent, Washington 98032**

Indicate if your comment is on the federal requirements _____ or state requirements _____

Section # 173-303-040 Page 10-11 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

Ecology has changed the definition of the term "Designated facility" to allow a facility that has a "permit by rule" ("PBR") under WAC 173-303-802(5) to receive federal hazardous waste from another facility off-site so long as the off-site generator is within the "same industry" as determined using the North American Industry Classification System ("NAICS") codes. This change will allow these PBR facilities to receive and treat RCRA regulated hazardous wastes without a TSDf permit and without the regulatory scrutiny or stringent requirements applicable under such permits. PSC believes this will increasingly impact TSDf's and make them an uncompetitive alternative for the treatment of the waste streams that will fall under this new exclusion. Although the new section will impose requirements on these treatment facilities, that do not apply to their operations under current regulations, the additional regulations are not among those that are the most costly and burdensome to TSDf's that will compete for these same waste streams (e.g., closure and post-closure financial assurance, reporting and record keeping requirements).

Neither this section nor the definitions in the DWRs define what constitutes "wastewater" for purposes of this section. Nor does the section define what is meant by "generated within the same industry" or by "the wastewaters will be effectively treated by the wastewater treatment unit." The NAICS codes are complex, and a single six-digit code may involve one industry that produces numerous waste streams or different waste streams based upon the chemicals or products used in the particular industrial process. Further, because the term "wastewater" is not defined, it should be required that these PBR facilities are in fact treating "wastewaters" and not concentrated chemicals or

non-aqueous wastes. PSC believes that Ecology should promulgate a formal definition for "wastewaters" that refers to wastes that are substantially water with contaminants amounting to a few percent at most. A formal definition of "wastewaters" has been promulgated by EPA under RCRA for the purpose of determining treatability group under the Land Disposal Restrictions regulations, Section 268.2(f):

"Wastewaters" are wastes that contain less than 1% total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS), with certain exceptions for K011, K013, K014. Wastes that do not meet the criteria for wastewaters are defined as "nonwastewaters."

Although this definition may be unnecessarily restrictive if a PBR facility is designed to remove solids as an integral part of the process, some criteria must be met for a hazardous waste to qualify as a "wastewater" and for the exclusion to apply to a wastewater treatment facility receiving waste from off-site sources. Further, to meet this exemption, any PBR and each unit thereof, must meet the definition of "tank" and should exclude other unit operations which are obviously not tanks, such as furnaces, boilers, presses, filters, sumps, and many other types of processing equipment that would allow a facility to treat non aqueous waste materials. The exemption should be limited to only those units that are part of a waste water treatment facility subject to regulation under the appropriate permit. Whether a unit is part of a waste water treatment facility may have to be determined on a case-by-case basis but, in any case, the unit should be directly involved in the actual treatment. Further, in no event should a waste water treatment facility that generates a waste water treatment sludge, be allowed to receive such sludge which is a hazardous waste from an off-site generator.

The relative reduction in regulatory oversight of dangerous wastes is inconsistent with Ecology's general trend to increase regulation over TSDFs, oil processors, and recycling facilities. In addition to the foregoing, PBR facilities that elect to take off-site wastes should be required to meet all of the requirements of WAC 173-303-380 to ensure that adequate records are available for regulatory scrutiny of dangerous wastes that are entering these facilities for "treatment" as well as the actual quality and effectiveness of the PBR facility treatment process in eliminating or reducing the quantity and toxicity of hazardous wastes. These facilities should also meet requirements for tank systems (WAC 173-303-640) and financial requirements (WAC 173-303-620).

Please provide specific language for your recommended change or addition.

Signature: _____

M. Agone

9/10/04

Dangerous Waste Regulations Chapter 173-303 WAC
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Mr. Morris Azose
Philip Services Corporation
18000 – 72nd Avenue South, Suite 217
Kent, Washington 98032

Indicate if your comment is on the federal requirements _____ or state requirements _____

Section # 173-303-802(5) Page 263 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

See comments to changes in New Section 173-303-040.

Please provide specific language for your recommended change or addition.

Signature: _____

M. Azose 9/10/04

**Dangerous Waste Regulations Chapter 173-303 WAC
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**Mr. Morris Azose
Philip Services Corporation
18000 – 72nd Avenue South, Suite 217
Kent, Washington 98032**

Indicate if your comment is on the federal requirements _____ or state requirements _____

Section # 173-303-300(2) Page 100 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

Ecology has proposed to amend the definition of "knowledge" as it relates to a generator's understanding and documentary evidence of each hazardous waste stream it generates. The revisions and additions to this section create a broad expansion of federal mandates. The changes impose mandatory responsibility on TSDFs to insure that each description of dangerous waste received into these TSDFs is accurate and that waste designations are complete and appropriate in accordance with federal and state dangerous waste regulations. In addition, a significant burden is removed from a generator under the proposed regulations, in that generators may shift the burden of ensuring that all such information is valid to the TSDF.

The proposed changes to a TSDF's duties under WAC 173-303-300(2)(a) undoubtedly will present an additional competitive disadvantage for in-state TSDFs. Generators may simply force in-state TSDF's to assume more of the waste identification burden or simply ship their wastes to out-of-state TSDFs to avoid paying the compliance costs that will be incurred by the TSDFs and likely passed on to the generators.

TSDFs in the state currently have detailed waste analysis plans developed in accordance with the regulations, and waste profiles that have been developed over time in appropriate reliance upon both supplied generator information, and physical and chemical testing of waste streams. However, TSDFs have not been required under current regulations to either seek out confirmation or specifically document the basis for relying upon a generator's representation of the nature of its waste streams (by auditing a generator's operations or by demanding chemical analysis of a generator's materials).

Currently, before a TSDF treats, stores, or disposes of any hazardous waste, it must obtain a full characterization of the waste stream. This full characterization of the waste stream may be supplied either through sampling and laboratory analysis or through the generator's acceptable knowledge. Acceptable knowledge has always been defined broadly to include process knowledge (obtaining data from existing published or documented waste analysis or studies), waste analysis data obtained from the generator, MSDS information and other sources. Ecology has not demonstrated why the existing screening methods are inadequate or what additional benefits will accrue as a result of these mandatory procedures. Despite Ecology's assurance in the Preamble, the options presented in 173-303-300(2) create mandatory requirements in place of the less burdensome and more flexible alternatives in the current regulations.

This new requirement will require each TSDF to revise its waste analysis plan and profiles to document "knowledge" to meet the new mandatory requirement before wastes may be received into the TSDF. Because most options are unrealistic and burdensome given the number of generators and waste streams managed at a TSDF, it is likely that a TSDF will be forced to perform chemical and physical analysis in the event a generator will not provide such information. The unfavorable alternative is to refuse to accept a generator's waste. The economic impact to TSDFs from compliance with these proposed mandatory requirements will be significant and must be carefully considered. A TSDF may have no alternative to testing and analysis of incoming wastes. These costs will either be borne by the TSDF or passed on to the generator, a result that will not be well received in either case.

Please provide specific language for your recommended change or addition.

Signature: _____

M. Agre

9/10/04

Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form

Mr. Morris Azose
Philip Services Organization
18000 72nd Avenue South, Suite 217
Kent, Washington 98032

Indicate if your comment is on the federal requirements _____ or state requirements _____

Section # WAC 173-303-610(3)(c)(i) Page 168 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

PSC requests that Ecology provide that permitted TSDFs be allowed to use the Class I permit modification process to implement any permit modifications prompted by this proposed change that does not result in the permanent closure of a unit. An example would be the case where a tank is due for closure and replacement. In the alternative, Ecology is asked to clarify the regulation to apply only to final closure of units that will not be replaced to maintain existing capacity at a TSDF.

Please provide specific language for your recommended change or addition.

Signature: _____

M. Azose 9/10/04

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

**Mr. Morris Azose
Philip Services Organization
18000 72nd Avenue South, Suite 217
Kent, Washington 98032**

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 173-303-960(2) Page 348 Citation # _____

Please state your comment, question, or recommendation. Explain your concern. How will your recommendations improve the proposed rule amendments?

Under the proposed Hazardous Waste Facilities Initiative, Ecology is proposing to change the threshold for taking enforcement action against a facility. It is unclear if this provision will apply to on-site recycling or on-site used oil processing, collection of used oil or household hazardous wastes by cities and counties (or their vendors), permit-by-rule facilities or collection of farm pesticides by the Washington State Department of Agriculture. It appears as though the focus of the regulation is on TSDFs and off-site recycling operations. Ecology is proposing to remove the threshold requirement that before it takes action, it must demonstrate that the particular hazardous waste activity or the presence of a hazardous waste, "may present an imminent and substantial endangerment to health or the environment." Under the new proposed regulation, Ecology need only show "a significant threat" to health or the environment to enter onto a facility for investigation and monitoring or sampling, or to seek a court order through litigation to enjoin a facility's operations.

In its preamble, Ecology indicated that it believes the "imminent and substantial endangerment" threshold presents too great a burden on Ecology to invoke its enforcement powers. However, the "imminent and substantial endangerment" requirement is tested and well-understood by the regulated community and the courts. Despite Ecology's opinion to the contrary, the "imminent and substantial endangerment" threshold is a minimal one and is met whenever there is a present risk that is more than negligible. The term appears in RCRA § 7003, 42 U.S.C. § 6973, which was enacted in

1976 to provide EPA with authority to direct property owners, operators and other responsible persons to take action to abate potential risks from solid or hazardous waste releases. In relevant part it provides as follows:

Notwithstanding any other provision of this chapter, upon receipt of evidence that the past or present handling, storage, treatment, transportation or disposal or any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, the Administrator may bring suit on behalf of the United States in the appropriate district court against any person (including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage or disposal facility) who has contributed or is contributing to such handling, storage, treatment, transportation or disposal to restrain such person from such handling. . . or. . . to order such person to take such other action as may be necessary, or both. . . . The Administrator may also, after notice to the affected State, take other action under this section including, but not limited to, issuing such orders as may be necessary to protect human health and the environment.

RCRA § 7003(a), 42 U.S.C. § 6973(a) (emphases added).

Congressional intent in enacting § 7003 was to confer upon the courts and EPA the authority to require affirmative equitable relief to the extent necessary to eliminate risks posed by toxic wastes. *United States v. Price*, 688 F.2d 204 (3rd Cir. 1982). The courts have held that § 7003 is to be construed in a liberal manner. *United States v. Valentine*, 856 F.Supp. 621, 626 (D. Wyo. 1994) (citing *United States v. Aceto Agric. Chem. Corp.*, 872 F.2d 1373, 1383 (8th Cir. 1989); *United States v. Waste Indus., Inc.*, 734 F.2d 159, 167 (4th Cir. 1984)). Further, as § 7003 itself provides, EPA can require abatement action under this section not only for "hazardous waste" but also the broader category of "solid wastes," respectively defined at RCRA §§ 1004(5) and (27), 42 U.S.C. §§ 6903(5) and (27). A § 7003 order can require any person who has handled, stored, treated, transported or disposed of any solid or hazardous waste to investigate and remedy the risks such actions have created. *Ross Incineration Services, Inc. v. Browner*, 118 F.Supp.2d 837, 844, (N.D. Ohio 2000). As amended in 1980 and 1984, RCRA § 7003 provides that any person who has contributed or is contributing to the creation, existence, or maintenance of an imminent and substantial endangerment is subject to the equitable authority of § 7003, without regard to fault or negligence. H.R. Conf. Rep. No. 1133, 98th Cong. 2nd Sess. 114 (1984); *United States v. NEPACCO*, 810 F.2d 726, 740 (8th Cir. 1986).

Thus, RCRA § 7003 applies to past or present solid and hazardous waste management that may create a current "imminent and substantial endangerment" to public health or the environment. Only risks that have been abated are outside its scope. As such, Ecology does not need to show a release to demonstrate that site conditions may present such an endangerment. *Valentine*, 856 F.Supp. at 627. Likewise, Ecology does

not need to prove that an endangerment actually exists—it is sufficient to demonstrate that the waste handling *may* create such an endangerment. 42 U.S.C. § 6973(a); *Valentine*, 856 F.Supp. at 626. Also, “imminent” does not necessarily mean “immediate.” This criterion is satisfied so long as the threat is a current one, even though the potential impact of that threat may not be apparent until later. *Christie-Spencer Corp. v. Hasman Realty Co., Inc.*, 118 F.Supp.2d 409 (S.D.N.Y. 2000); *United States v. Conservation Chem.*, 619 F.Supp. 162, 193-194 (D.Mo. 1985). Similarly, an endangerment is not actual harm, but a threatened or potential harm. *Dague v. City of Burlington*, 935 F.Supp. 1343, 1355 (2nd Cir. 1991), *rev’d in part on other grounds*, 502 U.S. 1071 (1992).

Although an “endangerment” can be either actual or potential, it must be “substantial” before § 7003 can require abatement action. An endangerment is “substantial” if it creates reasonable cause for concern for the integrity of the public health or the environment. *Valentine*, 856 F.Supp. at 626, *Conservation Chem.*, 619 F.Supp. at 194. Ecology’s burden under established law to prove that past or present waste handling has resulted in an actual or potential “imminent and substantial endangerment” to public health or the environment requires no more than a finding that site conditions at a facility may present an “imminent and substantial endangerment.” Given the relatively low threshold for this finding, Ecology is not justified in proposing a new standard that has no legal context and provides Ecology what would be unfettered enforcement authority with limited basis for judicial review.

If Ecology wants a broader standard, it should look to those more expansive standards already established (e.g., the “substantial hazard” standard under RCRA § 3013). RCRA § 3013 authorizes EPA to issue administrative orders mandating the monitoring of facilities and disposal sites where hazardous wastes are located. P.L. 96-482; 42 U.S.C. § 6934. In relevant part it provides as follows:

If the Administrator determines, upon receipt of any information, that—

- (1) the presence of any hazardous waste at a facility or site at which hazardous waste is, or has been, stored, treated, or disposed of; or
- (2) the release of any such waste from such facility or site may present a substantial hazard to human health or the environment, he may issue an order requiring the owner or operator of such facility or site to conduct such monitoring, testing, analyses, and reporting with respect to such facility or site as the Administrator deems reasonable to ascertain the nature and extent of such hazard.

RCRA § 3013(a), 42 U.S.C. § 6934(a). This section provides Ecology a basis unilateral to issue a administrative order requiring the owner or operator of a hazardous waste facility to carry out such investigative work as Ecology “deems reasonable” to determine the nature and extent of a potentially substantial hazard to human health or the environment. *Rohm and Haas Co.*, 2 F.3d 1265, 1269 (1993). The recipient of such an order must provide Ecology with a proposal for carrying out the specified investigation ~~within 30 days of its issuance. RCRA § 3013(c), 42 U.S.C. § 6934(c).~~

RCRA § 3013 has a broad scope. It is not restricted to ordering the reporting of available information, or the sampling of only the pollutants or wastes that the recipient of the order generated. The required investigation can be wide-ranging and include source characterization, groundwater monitoring and risk characterization. If Ecology meets the few prerequisites under this section, it could use § 3013 to require monitoring, testing, analysis, and reporting essentially equivalent to what could be required under a RCRA Facility Investigation and Corrective Measures Study (RFI/ CMS). This conclusion is supported both on the basis of the statutory language and EPA policy.

In policy documents EPA has discussed the nature of the "information" it will consider sufficient to support a § 3013 order. The information must be reliable and the type a reasonable person would use to base a decision. *See EPA Guidance on § 3013 Orders*. Normally, an unsubstantiated citizen complaint would not be considered sufficient basis to support the issuance of an order. *Id.* However, if the complaint were supported by corroborating evidence, gathered by an appropriate government agency or provided by the recipient himself, such evidence would be considered "information" upon which an order might be based. *Id.*

Whether a "substantial hazard" exists involves consideration of some of the same factors that determine whether an "endangerment" exists under RCRA § 7003. *See EPA Guidance on § 3013 Orders*. Courts have interpreted the term "endanger" as used in § 7003 as preventative or precautionary, holding that evidence of potential as well as actual harm may be deemed evidence of endangerment. *Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976). This broad meaning of "endanger" gives similar breadth to "substantial hazard." Once EPA establishes each of the RCRA § 3013 prerequisites, it may issue an administrative order directing whatever monitoring, analysis and reporting it considers reasonable to ascertain the nature and extent of the hazard. EPA's judgment as to what is "reasonable" regarding the order's study, scope, design, and parameters would likely be sustained. *In the Matter of an Order Pursuant to Section 3013(d) of RCRA*, 550 F.Supp. 1361 (W.D.Wash. 1982).

Although a § 3013 order is limited to investigative orders and cannot compel remediation, EPA can require remedial work under RCRA §§ 3008(h) or 7003 as appropriate subsequent to a § 3013 investigation. These enforcement tools are already available to Ecology as are a number of other state and federal statutory and regulatory powers. It is unnecessary for Ecology to create yet another broad basis for enforcement, simply to avoid the minimal constraints imposed in the interest of due process.

Please provide specific language for your recommended change or addition.

Signature: _____

M. Agre

9/10/04

GOODRICH

Goodrich Aviation Technical Services, Inc.

3100 112th St. SW
Everett, WA 98204-3500
Tel: 425 347 3030
Fax: 425 423 3006
www.aerospace.goodrich.com

September 10, 2004

Chipper Hervieux
HWTR Program
P.O. Box 47600
Olympia, WA 98504

Dear Chipper Hervieux,

Please accept and consider the accompanying comment on the Proposed Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC.

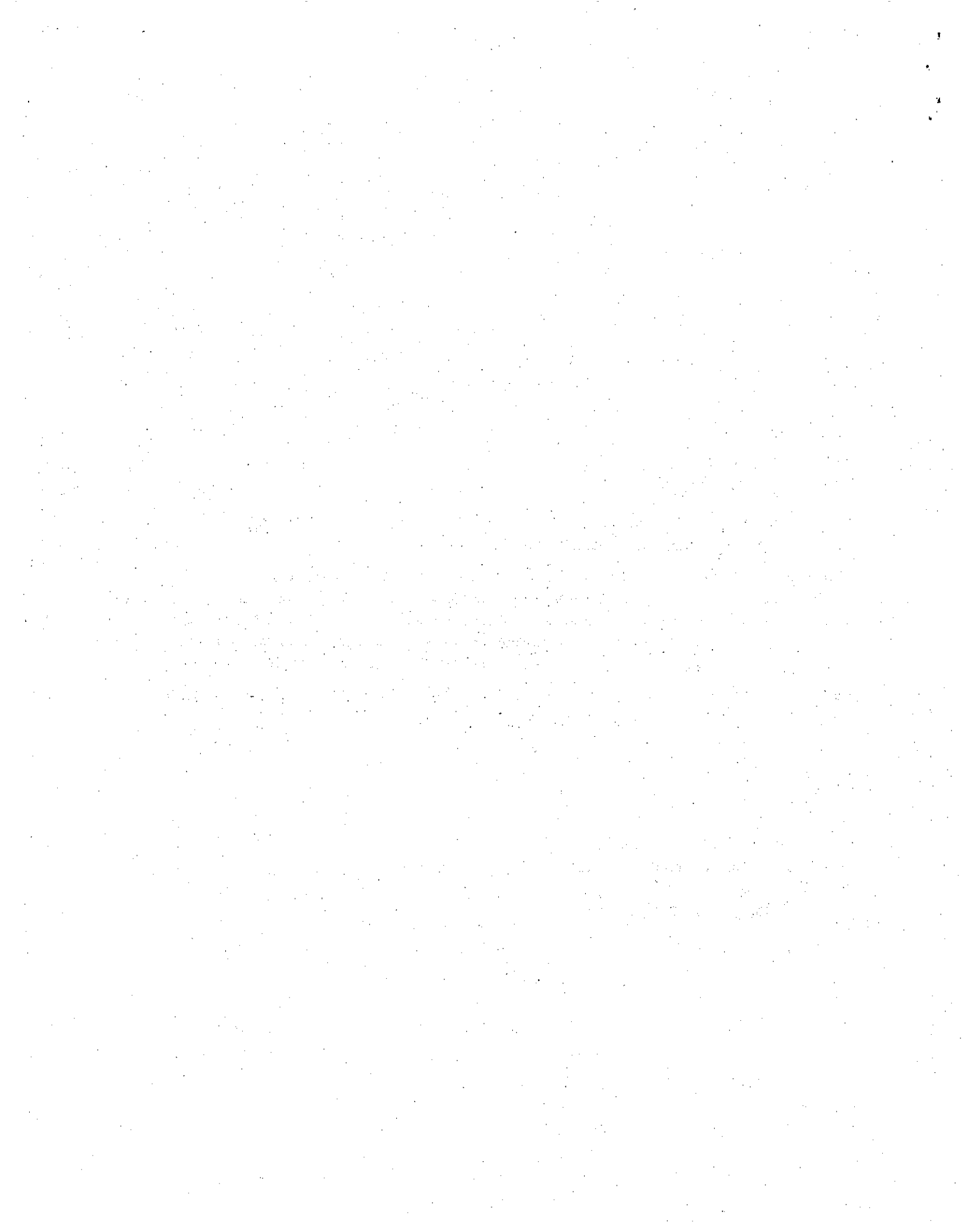
Although we are glad to see the proposed amendment to the Permit-by-Rule WAC173-303-802(5), which would allow us more flexibility between Goodrich sites and potentially with other aerospace facilities for wastewater treatment options, we feel that at least in certain cases, it should not be necessary to wait until the current permit is up for renewal and reapplication to take advantage of being able to ship/receive wastewaters to other like-facilities for treatment.

Please see the accompanying Comment Form for our full comment. If any questions should arise regarding this comment, please feel free to contact me.

Sincerely,

Bobette Plendl
Supervisor, Environmental Protection
Goodrich Aviation Technical Services, Inc.
(425) 423-3368
bobette.plendl@goodrich.com

16



**Dangerous Waste Regulations Chapter 173-303 WAC
Proposed Amendments – July 2004
Comment Form**

First and Last Name: Bobette Plendl
Organization or Affiliation: Goodrich Aviation Technical Services, Inc.
Address: 3100 112th St. SW, Everett, WA 98204

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 173-303-802 **Page #** 263/264 **Citation #** 173-303-802(5)(b)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

If the owner/operator of a wastewater treatment unit would like to treat dangerous wastewater received from off-site, and that wastewater is generated within the same industry and the wastewaters will be effectively treated by the wastewater treatment unit, there should be in some circumstances and on a case-by case basis, a way to accomplish this without having to re-apply for a modification to the discharge permit or to wait a number of years for the current permit to expire before reapplying.

Reapplication/permit modification may be necessary if the wastewater received from off-site created a significant volume increase in the wastewater intake to the treatment plant, or if the wastewater had significantly different levels of similar contaminants than the receiving treatment plant typically receives from on-site sources.

However, there will be cases where the water received from off-site will be virtually identical to what is normally received on-site and received from off-site in quantities of a much lesser volume than is normally received at the permitted facility. If the received wastewater is not contributing significantly to the volume through-put of the plant and contaminants are virtually identical, then there would seem to be no need for a formal reapplication for a new or modified permit. Instead, an option could be inserted into the regulation for a submittal of a Letter of Request to Ecology outlining the proposal and the reason it is believed a formal reapplication would be unnecessary. Ecology could then review the case and issue an approval letter (jointly with the local sewage utility approval if applicable). If Ecology does not agree that justification is sufficient to avoid the reapplication process, then they may deny the request and insist that the company will not be able to proceed without going through the application process.

This option would afford much more flexibility to companies and will avoid the excessive use of resources both at Ecology and at the company making the request. When this option could be taken, it would avoid the time and resources necessary for the permit application process, review of permit, public comment on new or modified permit, issuance of a new permit and all other related documentation and activities.

Please provide specific language for your recommended change or addition.

173-303-802(5)(b) The owner or operator of a wastewater treatment unit may treat dangerous wastewater received from off-site provided the wastewater is generated within the same industry and the wastewaters will be effectively treated by the wastewater treatment unit, if:

- (i) The owner or operator complies with (a) (i) through (iv) of this subsection, or
- (ii) The owner or operator complies with (a) (i) and (iii) through (iv) of this subsection, and receives approval from the department on a case-by-case basis, by submitting a Letter of Request to the department which indicates the wastewater to be received from off-site is virtually identical in characteristics and contaminants, and that the volume received from off-site is not a significant change from what is normally handled and permitted by that facility. The letter must include a reference to the permit that is currently active for the proposed receiving permitted treatment plant.
- (iii) The Letter of Request will be reviewed and either approved or denied within 30 days of receipt by the department.

Thank you for your consideration:

Signature: Bobette Plendl

Hervieux, Patricia R.

From: Shawn Waliser [mswalbo@earthlink.net]
Sent: Friday, September 10, 2004 9:51 PM
To: Hervieux, Patricia R.
Subject: Comment on Zinc Fertilizer Rule



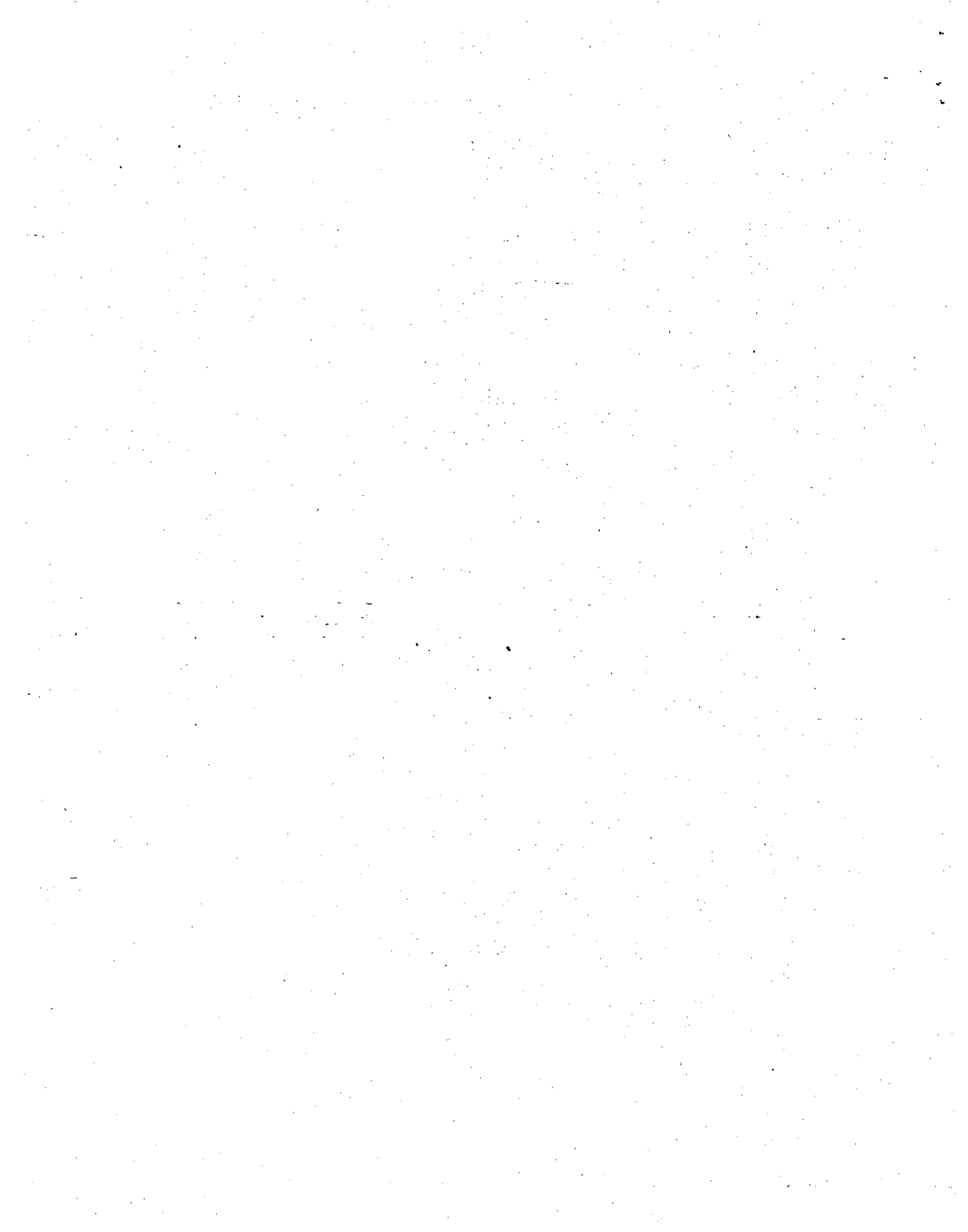
Waliser
ment on zinc rul

Please accept my comments on the proposed adoption of the federal zinc fertilizer rule in the attached Word file.

Thank you.

Shawn Waliser

Safe Food and Fertilizer



September 10, 2004

To: Ms. Chipper Hervieux
HWTR Program
P.O. Box 47600
Olympia, WA 98504

Fm: Shawn Waliser, Safe Food and Fertilizer

Re: Comment on Dept. of Ecology's Proposed Adoption of the Zinc Fertilizer Rule

Thank you for the opportunity to comment on the Department of Ecology's proposal to adopt the Zinc Fertilizer Rule. While I believe stronger regulation of toxic hazardous constituents in fertilizers is necessary, the Zinc Fertilizer Rule as finalized by the EPA is not the right answer. Further, it is not yet the right time for Ecology to expend resources adopting the Zinc Rule given the D. C. Court's remand of the rule back to the EPA to justify that the rule is, based on some rational science, protective of human health and the environment.

Ecology has the authority to not adopt non-HSWA rules that are less stringent than existing regulation. EPA has not shown that the Zinc Rule is as stringent, or more stringent than existing regulation and has expressly disclaimed that it has made such a finding.¹ I strongly urge Ecology to adopt only the provision of the Zinc Rule removing the preexisting exemption for K061 and the concentration-based standards.

The rest of this comment elaborates on my concerns with the Zinc Rule's exemption of toxic hazardous industrial waste from the definition of solid waste and from the cradle-to-grave regulations mandated by RCRA. I strongly urge Ecology to not adopt the non-HSWA exclusion from the definition of solid waste

Washington's statutory definition of Solid Waste precludes exempting industrial wastes and recyclable materials

Exempting industrial waste feedstocks and products from the definition of solid waste and the attendant cradle-to-grave regulations, by state regulation, is impermissible under Washington statute. The Washington statutory definition of solid waste is significantly different than the definition in RCRA that EPA claims is ambiguous regarding whether industrial wastes and sludges from air pollution control devices is solid waste.² RCW 70.95.030(23) clearly defines industrial wastes and recyclable materials as solid waste.³

¹ 67 Fed. Reg. 48,408/2 (July 24, 2002).

² "The term "solid waste" means any garbage, refuse, *sludge* from a waste treatment plant, water supply treatment plant, or *air pollution control facility* and *other discarded material*, including solid, liquid, semisolid, or contained gaseous material *resulting from industrial, commercial, mining, and agricultural operations, ...*." Solid Waste - 42 U.S.C. § 6903(27) (emphasis added)

³ WASH. REV. CODE § 70.95.030(23) (2002) "Solid waste" or "wastes" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to; garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

Because industrial wastes and recyclable materials are solid waste they may qualify as hazardous wastes. Many of the toxic heavy metals and organo-chemicals commonly found in waste-derived fertilizers are, in fact, classified as hazardous substances and wastes by Washington Statute.⁴

Because industrial wastes and recyclable materials are defined as solid waste by *statute* Ecology does not have authority to exclude these materials from that definition by *regulation*.

Ecology has authority to not adopt non-HSWA rules that are less stringent than existing law

In the Final Zinc Fertilizer Rule, the EPA unequivocally stated that authorized states are only required to update the authorized waste management regulations when the federal rule is as or more stringent, or more broad than the existing state law.⁵ The EPA continued to state that the Zinc Rule's exclusion from the definition of solid waste is a non-HSWA rule and is less stringent than the current federal rule.⁶ Thus, it is within Ecology's discretion whether to adopt the Zinc Rule's provisions that exclude characteristic and listed toxic hazardous wastes from regulation and RCRA's cradle-to-grave tracking provisions.

The Legislature, Executive, and General Public have previously expressed opposition to the kind of practices that will become unregulated by adoption of the challenged Zinc Rule provisions.

Ecology should not adopt these provisions because they contradict the will of the Legislature and the Public. First, the provisions violate clearly expressed legislative intent to protect public health and welfare and the environment from land use and/or disposal of hazardous wastes and other toxic chemicals.⁷ Second, the Washington legislature has officially recognized that significant state agricultural revenues are dependent upon public confidence in the safety of products they purchase.⁸ Significant state revenues are placed in jeopardy as the public becomes increasingly aware of the presence and risk of toxic constituents in fertilizer products and the food and environment where these products are used. Third, eliminating tracking and reporting of dissemination and use of toxic hazardous substances such as mercury and dioxin

⁴ WASH. REV. CODE §§ 70.105.030 (2002) (emphasis added)

(14) "Hazardous substances" means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, *regardless of quantity, that exhibits any of the characteristics or criteria of hazardous waste as described in rules adopted under this chapter.*

(15) "Hazardous waste" means and includes all dangerous and extremely hazardous waste, "

⁵ 67 Fed.Reg. 48,408/3 (July 24, 2002).

⁶ 67 Fed.Reg. 48,409/1 (July 24, 2002).

⁷ See, e.g., Wash. Rev. Code § 15.54.265 (2002) (Legislative intent to protect human health and the environment by setting standards for metals in waste-derived fertilizer products); also § 15.92.005 (2002) (Legislative findings that surface and ground water contamination from chemical fertilizers raises concerns of environmental deterioration warranting legislation in favor of sustainable agriculture.)

⁸ WASH. REV. CODE § 15.92.005 (2002) (Legislative findings that "[c]onsumers have demonstrated their apprehension in the marketplace by refusing to purchase products whose safety is suspect and consumer confidence is essential for viable agriculture in Washington.") .

contradicts several initiatives in progress by Ecology.⁹ It is an obvious waste of limited governmental resources to reduce use of toxic substances in consumer products such as lamps and batteries which are, usually, properly disposed in landfills only to allow uncontrolled dissemination of heavy metals and organo-chemicals into food, homes, and parks.

Fourth, the public wants the regulation and tracking of hazardous wastes strengthened, not eliminated.¹⁰ Adopting the Zinc Rule's exclusion from the definition of solid waste flatly contradicts the expressed will of the Public. Finally, there is no public support for these provisions by the Executive branch thereby begging the question - why is Ecology even proposing adoption of these provisions? Whose interests will be served?

The existing regulation is not unduly burdensome so cost-savings from excluding the wastes from regulation does not justify shifting to the public the risk from contaminated fertilizer use.

Prior analysis by the WA Department of Agriculture claimed that compliance with the 1998 Fertilizer Regulation Act was "not likely to cause a substantive loss of sales revenues for large or small businesses."¹¹ While the greatest compliance costs were estimated to be for laboratory testing (an on-going cost), the second greatest cost was for legal counsel/consultants to understand the requirements of the 1998 amendments (a one-time sunk cost). This means that exclusion from the RCRA tracking and reporting regulations will not provide significant savings in compliance costs or revenues to fertilizer manufacturers.

Using industrial waste in fertilizer has never been proven to provide a net economic, agronomic, or social benefit to Washington or the nation.

In the Zinc Rule the EPA's cost-benefit analysis compared the "cost" and "benefits" of the Zinc Rule versus the baseline situation which exempts K061-derived zinc oxysulfate fertilizers. It did not analyze the Zinc Rule as the baseline versus banning industrial wastes in fertilizer.

The primary *economic* benefits were compliance cost saving by industry, savings in landfill disposal costs, and turning waste into a revenue stream. The primary *health and environmental* benefit was reduced contamination levels achieved by removing the exemption for K061-derived zinc oxysulfate fertilizers.

⁹ See, e.g., Initiatives to address arsenic and lead soil contamination at http://www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html (last visited Feb. 2, 2003); also WASHINGTON STATE DEPARTMENT OF ECOLOGY, PUB. 00-03-054 PROPOSED STRATEGY TO CONTINUALLY REDUCE PERSISTENT, BIOACCUMULATIVE TOXINS (PBTs) IN WASHINGTON STATE 9 (2000) (Funded initiative to reduce PBTs. The first action plans were developed for eliminating mercury from select consumer products within only a few years. Dioxin is to be the second contaminant to have action plans developed for).

¹⁰ See, e.g., numerous public comments received by EPA during comment period for the Zinc Fertilizer Rule expressing outrage that toxic hazardous wastes are used in fertilizers going to food crops, home gardens, and other places where, particularly, children may be present.

¹¹ WSR 98.19.128 Proposed Rule to Implement SSB 6474 (Sept. 28, 1998).

I suggest that banning hazardous waste-derived fertilizers would almost certainly achieve greater health and environmental benefits and likely achieve similar economic benefits. For example, the EPA Zinc Rule's net benefit was due to reduced lead, cadmium, chromium, and dioxins pollution. While the AAPFCO standards in SUIP #25 have sometimes been proposed as alternatives to Washington's soil-loading standards, these benefits can not be achieved by the AAPFCO's standards because the AAPFCO proposed standards for adulterated fertilizer don't include limits for chromium VI or dioxin.¹²

Similarly EPA notes that zinc fertilizers have relatively high *silver* content and there is a toxic characteristic level and Universal Treatment Standard for silver, but neither EPA, nor AAPFO set limits for silver in fertilizers.

The Zinc Rule is also not likely to achieve the reduction in environmental releases due to improved management practices. This is because, for example, EPA noted severe damage to wetlands and surface water at American MicroTrace Corp, Fairbury, NE in 1996 when these materials already had "value", i.e. they were already at the fertilizer manufacturer, not stored waste at the generator.¹³ There is no reason to believe these materials will be considered more valuable and thus better managed when relaxed regulation lowers their cost.

Industry has never been made to prove their claim that waste must either go to fertilizer and animal feed or it must go to a landfill. Contrary to EPA's assumptions, EAF dust generators like Nucor Steel should not have to landfill their entire waste stream because other economically and technologically viable uses for reclaimed zinc-bearing wastes (including EAF dust) are available. These include bricks (which, unlike fertilizer, immobilize the hazardous constituents), lead sulfate is used in PVC, cadmium may be purchased by users of pure cadmium. Such a recovery plant has been in operation in Ohio since 1997.¹⁴

Fertilizers contaminated with toxic constituents are widely distributed into the environment so they require greater, not less, regulation.

Other hazardous wastes that are liberally distributed into the environment such as road de-icers are subject to regulation.¹⁵ The DC Circuit Court of Appeals has held that even asphalt and cement made from contaminated soil placed on the land "pose greater environmental risks than similar soils *placed in land disposal units*"¹⁶ so they require more stringent standards than the characteristic hazardous waste standards.

¹² See OFFICE OF SOLID WASTE, U.S. ENVIRONMENTAL PROTECTION AGENCY, ECONOMIC ANALYSIS FOR REGULATORY MODIFICATIONS TO THE DEFINITION OF SOLID WASTE FOR ZINC-CONTAINING HAZARDOUS WASTE-DERIVED FERTILIZERS, NOTICE OF FINAL RULEMAKING 6-3 (July 2002) available at http://cascade.epa.gov/RightSite/dk_public_home.htm, then enter docket item number: RCRA-2000-0054-0634.

¹³ See EPA, Economic Analysis for Regulatory Modifications to the Definition of Solid Wastes for Zinc-Containing Hazardous Waste-Derived Fertilizers, Notice of Final Rule-making (July 2002) at 6-3.

¹⁴ Recycling Steel Mill Waste, Consolidated Materials Broker.

¹⁵ WASH. ADMIN. CODE § 173-303-505(b)(ii) (2004)

¹⁶ Assn of Battery Recyclers, Inc. v US EPA, 208 F.3d 1047, 1059-60 (D.C. Cir. 2000) (emphasis added).

While treated wastes may be placed in land disposal facilities, the facilities must be designed to prevent migration of the hazardous wastes and have, at a minimum, double liners and leachate collection systems. The EPA's rule defies this scheme, by allowing hazardous wastes--including untreated wastes--to be disposed of on farmlands and home gardens.

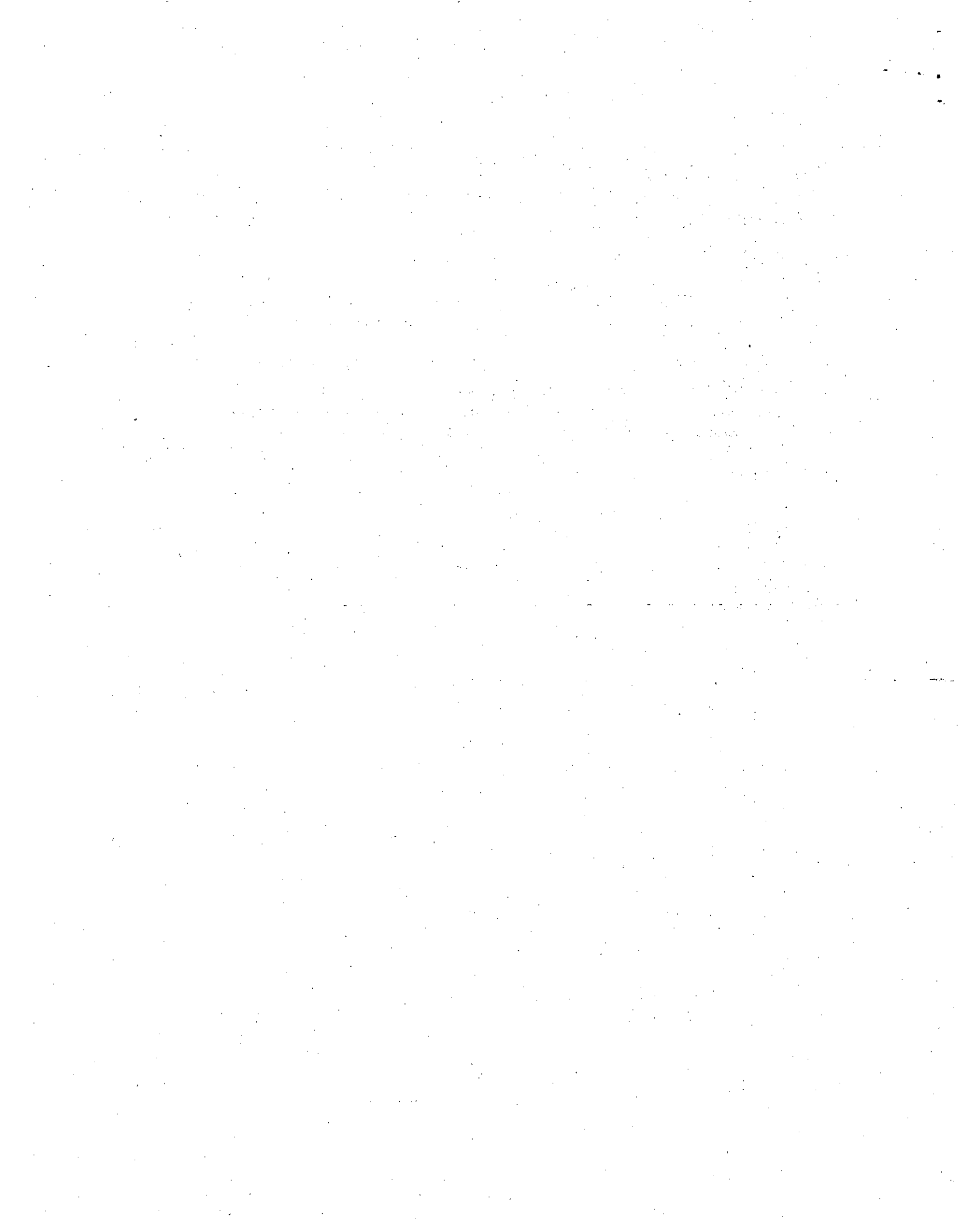
In 1994, the EPA banned a similar type of practice, in which hazardous wastes were being used in road de-icing chemicals. The EPA justified that ban by noting that hazardous wastes could not legally be applied to the land in an uncontrolled manner.

Again, I support the adoption of the Zinc Fertilizer Rule's standards and removing the exemption for K061. However, there is simply no reason to adopt the provisions excluding toxic hazardous wastes from the definition of solid waste and Ecology does not have that authority under Washington law anyway.

Thank you for your consideration of my comments.

Sincerely,

Shawn Waliser
Safe Food and Fertilizer



Hervieux, Patricia R.

From: Waliser, Shawn [walises@seattleu.edu]
Sent: Friday, September 10, 2004 9:06 AM
To: Hervieux, Patricia R.
Subject: Public comment on proposal to adopt Zinc Fertilizer Rule

Dear Mr. Hervieux,

Please accept the attached comment (in MS Word format) on DOE's proposal to adopt the EPA's Zinc Fertilizer Rule.

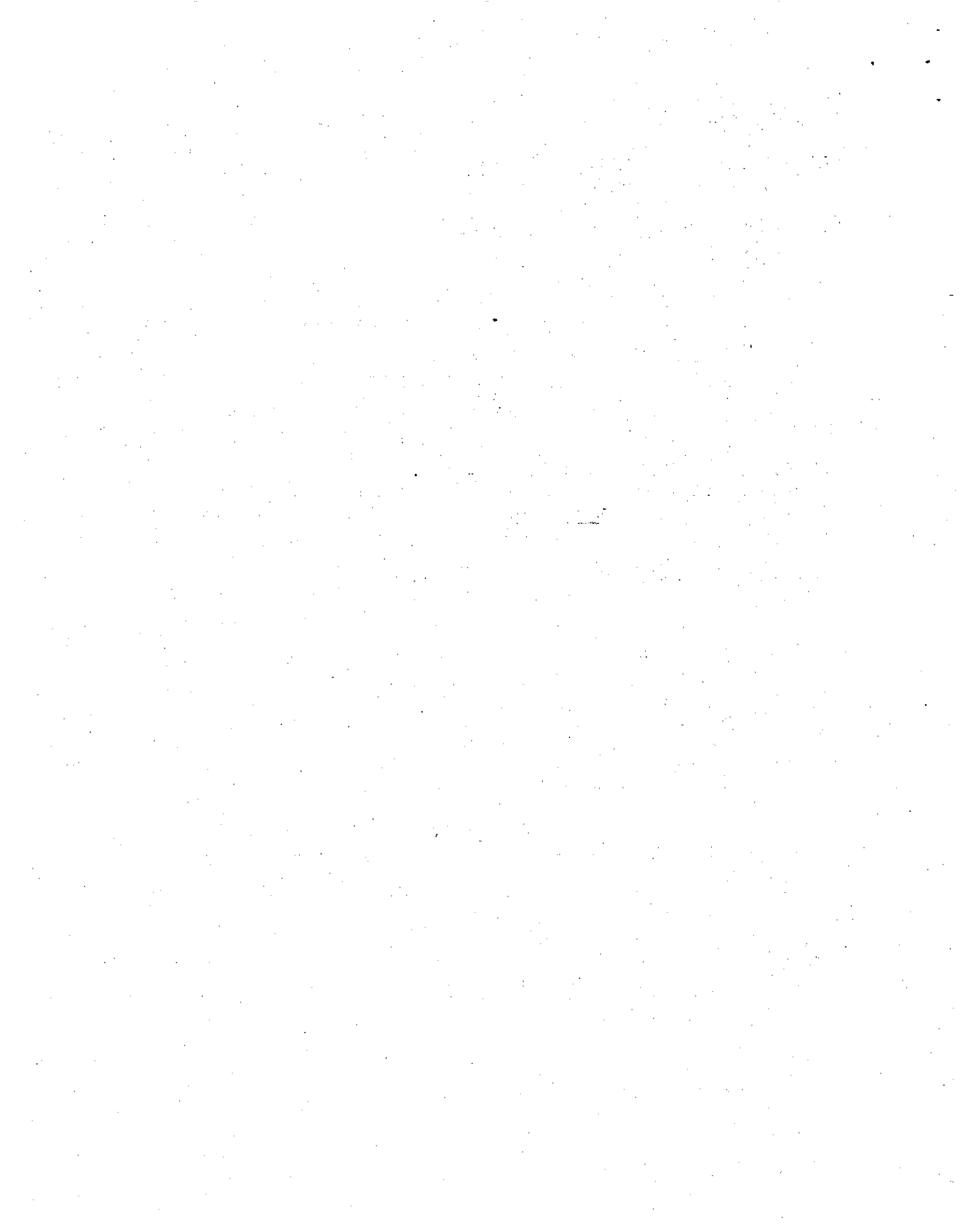
Thank you.

Sincerely,

Shawn M. Waliser
Director of Legal and Regulatory Programs
Safe Food and Fertilizer

9/10/2004

(17)



September 10, 2004

To: Mr. Chipper Hervieux
HWTR Program
P.O. Box 47600
Olympia, WA 98504

Fm: Shawn Waliser
Director of Legal and Regulatory Programs
Safe Food and Fertilizer

Re: Proposal to adopt the Zinc Fertilizer Rule into Washington Administrative Code

Thank you for the opportunity to comment on Department of Ecology's proposal to adopt the U.S. EPA's Zinc Fertilizer Rule into Washington's administrative code. While I believe the Zinc Rule is based on a seriously flawed risk assessment and there are a number of flaws in the Rule itself, in this comment I argue that the Zinc Rule's exemption of industrial waste feedstocks and fertilizers from regulation is unconstitutional under Washington's Constitution.

The rest of this comment is a paper I wrote for Supreme Court Justice Charles Johnson's Washington Constitutional Law course at Seattle University School of Law where I contend that Washington should not adopt the federal rule as promulgated because it may be unconstitutional under the Washington Constitution's art. 1, § 12 as a grant of a special privilege and immunity. This paper presumes that the Zinc Rule's HSWA provision removing the exemption for K061 is segregable and is adopted into Washington code. Also, while we opposed the concentration-based standards in the Zinc Rule and the "identity principle" upon which they are based, we favor their adoption in Washington only because they appear to be more stringent than Washington's existing standards. Otherwise, all other provisions of the Zinc Rule, including the exemption from the definition of solid waste and the cradle-to-grave regulations that would otherwise apply to the wastes, provide an unfair economic advantage to select waste generators and fertilizer manufacturers, and grants this privilege at the expense of the general public's health and welfare and the environment.

The attached paper includes an extensive discussion called a *Gunwall* analysis which would be required in a brief to the Washington Supreme Court if adoption of the Zinc Rule were ever challenged on Washington constitutional grounds. The *Gunwall* analysis' purpose is to demonstrate to the court that the Washington constitution provides different protection(s) than the United States constitution so that the court will exercise its authority to decide the case strictly under Washington law. The Washington Supreme Court is the final arbiter of a case brought under only the Washington constitution. Thus, a decision by the Washington Supreme Court, under the Washington constitution, would render the decision final and protect it from appeal to any federal court.

Because the majority of the Zinc Rule's provisions are less stringent than existing regulation, Ecology has the discretion, under RCRA, to not adopt most of the Zinc Rule's provisions. Further, the Zinc Rule could, potentially, negate or conflict with the existing Washington waste-derived fertilizer statute because it exempts select industrial wastes even from the definition of waste but the existing Washington law applies only to "waste"-derived products.

I strongly urge Ecology to adopt only the Zinc Rule's removal of the exemption for K061 and the concentration-based standards and to reject the rest of the Zinc Rule's provisions.

Thank you for your consideration of my comments.

Whether the Zinc Fertilizer Rule's exclusion of select hazardous waste generators and fertilizer manufacturers from regulation is unconstitutional under Washington's privileges and immunities clause.

Justice Johnson
State Constitutional Law Seminar
Seattle University School of Law

April 28, 2003

(edited 9/7/04)

I. Introduction

In July, 2002, the U.S. EPA issued the Final Zinc Fertilizer Rule (Zinc Rule) which excludes select hazardous waste generators, and fertilizer manufacturers who use that waste, from many of the existing hazardous and solid waste regulations.¹ The Zinc Rule sets treatment standards for four heavy metals and dioxin in zinc-bearing hazardous waste so that when a waste generator treats its waste to that level, and has a buyer for the treated waste, the 'waste' is excluded from the hazardous and solid waste classification.² A substance that is excluded from hazardous or solid waste classification relieves the generator, transporter, and manufacturer from a set of burdensome regulations known as the RCRA subtitle C regulations.³ The specific content and procedures covered by most of these regulations is not important for purposes of the following constitutional analysis. However, EPA estimates that relief from these regulations will benefit 23 Brass Fume Dust Generators approximately \$1.4 million, aggregate, annually, and three to four zinc fertilizer manufacturers approximately \$2.24 million, aggregate, annually.⁴

The Zinc Fertilizer Rule has not yet been adopted into Washington's regulations but the Department of Ecology intends to begin the regulatory amendment process that will adopt the pertinent portions of the federal rule into Washington's law within the next few months.⁵ In this paper I contend that Washington should not adopt the federal rule as promulgated because it may be unconstitutional under Washington Constitution's art. 1, § 12 as a grant of a special privilege and immunity.

The next section provides background on federal and state hazardous waste laws and the fertilizer laws to put the Zinc Rule into context. Section II provides a *Gunwall* analysis that

¹ U.S. EPA, Zinc Fertilizers Made From Recycled Hazardous Secondary Materials: Final Rule, 67 Fed. Reg. 48,393 (July 24, 2002), available at <http://www.epa.gov/epaoswer/hazwaste/recycle/fertiliz/fert-fr.pdf> (on file with author) [hereinafter EPA FINAL ZINC FERTILIZER RULE].

² *Id.* at 48,395, § D.

³ *Id.*

⁴ *Id.* at 48,409, § A.

⁵ Telephone conversation with Miles Kuntz, Department of Ecology, Hazardous Waste and Toxic Reduction (Apr. 28, 2003).

indicates an independent analysis is most likely warranted. This is followed by an independent interpretation applying the Washington courts' "reasonable grounds" standard.

A. Hazardous Waste Recycling and Fertilizer Regulations

Under the Resource Conservation and Recovery Act (RCRA), Congress established a dual federal and state program regulating solid wastes and the cradle-to-grave management of hazardous wastes as a category of solid waste.⁶ EPA administers the federal responsibilities and authorizes and oversees the state programs for hazardous waste treatment. Of EPA's several responsibilities, the one most relevant here is promulgating national standards.⁷ States must then adopt either the EPA regulatory standards or standards more stringent. The states may, upon approval by EPA, directly manage and enforce the regulations within the state.⁸ Washington's hazardous waste management system has been so approved.

The RCRA statute's objectives include

promot[ing] the protection of health and the environment ... by — . . . assuring that hazardous waste management practices are conducted in a manner which protects human health and the environment; [and] requiring that hazardous waste be properly managed in the first instance thereby reducing the need for corrective action at a future date⁹

Congress also set national policy that wherever feasible the first priority is to reduce or eliminate waste generation. "Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment."¹⁰

The priority for hazardous waste management is to protect health from improper waste disposal by "minimizing the generation of hazardous waste and the land disposal of hazardous waste by encouraging process substitution, materials recovery, properly conducted recycling and reuse, and treatment".¹¹

⁶ AMERICAN BAR ASSOCIATION, THE RCRA PRACTICE MANUAL 1 (Theodore L. Garrett ed., 1994).

⁷ 42 U.S.C.A. § 6926(b) (2001).

⁸ Id.

⁹ 42 U.S.C.A. § 6902(a) (2001).

¹⁰ 42 U.S.C.A. § 6902(b) (2001).

¹¹ 42 U.S.C.A. § 6902(6) (2001).

Because the RCRA statute grew out of a concern that waste material was being disposed of by dumping onto land with the resultant leaching of hazardous substances into ground water,¹² EPA's regulations contain an extensive set of regulations for land disposal known as the Land Disposal Rules (LDR).¹³ The LDRs presume hazardous substances are disposed in a waste disposal facility so the LDR standards are set at a level where the treated waste is no longer hazardous when disposed in a landfill. In a landfill the main risk to be avoided is the hazardous substance leaching into groundwater¹⁴ so EPA's LDR treatment¹⁵ standards are based on leaching models, not soil persistence, plant uptake, or food residue models that would be more appropriate measures of harm from hazardous substances used in fertilizer.¹⁶

To maximize landfill space and conserve virgin materials, RCRA encourages "properly conducted" recycling of hazardous waste. Depending upon the specific conditions under which the hazardous waste is "recycled," the resulting "product" may be regulated as a solid waste under a set of regulations known as Use Constituting Disposal (UCD).¹⁷ Asphalt made from hazardous waste is a use constituting disposal because the asphalt is spread on the ground. While UCD normally requires treatment to only the LDR standard (i.e. where it is no longer hazardous for disposal in a landfill) in *Association of Battery Recyclers v. EPA*¹⁸, the D.C. Circuit held that such widespread dissemination into the environment required a more stringent standard.¹⁹

¹² EPA's regulations implementing RCRA's Subpart C, or hazardous wastes control requirements, may be found at 40 C.F.R. § 260.1 (2001).

¹³ U.S. EPA, *MANAGING HAZARDOUS WASTE – RCRA SUBTITLE C, SECTION III, CHAPTER 6; LAND DISPOSAL RESTRICTIONS III-101*, available at <http://www.epa.gov/epaoswer/general/orientat/rom3.pdf> (last visited Jan. 14, 2003).

¹⁴ See, *Ass'n of Battery Recyclers, Inc. v. U.S. EPA*, 208 F.3d 1047, 1061-62 (D.C. Cir. 2000).

¹⁵ "The term "treatment", when used in connection with hazardous waste, "means any method, technique, or process, ..., designed to change the physical, chemical, or biological character or composition of any hazardous waste so ... as to render such waste nonhazardous, ... [or] amenable for recovery" 42 U.S.C.A. § 6903(34) (2001).

¹⁶ Requirements for Zinc Fertilizers Made From Recycled Hazardous Secondary Materials: Proposed Rule, 65 Fed. Reg. 70,953, 70,968 (Nov. 28, 2000), available at <http://www.epa.gov/epaoswer/hazwaste/recycle/fertiliz/fert-fr.pdf> (on file with author) [hereinafter EPA Proposed Zinc Fertilizer Rule].

¹⁷ *Id.* at 70956; also 40 C.F.R. § 261.2.

¹⁸ 208 F.3d 1047.

¹⁹ *Ass'n of Battery Recyclers, Inc.*, 208 F.3d at ____.

Because the states must adopt the federal standards, unless the state promulgates standards more stringent than the federal standards, adoption of EPA's regulations does not indicate the Legislature deliberated on these standards and affirmatively agreed they are appropriate for this state. Even when the state adopts standards state officials believe are more stringent than the federal standards, the EPA makes the final determination and, after a process lengthy review process, the EPA has refused to authorize some standards.²⁰ If Washington adopts the Zinc Rule as promulgated it will adopt into Washington's law regulations that provide an economic advantage and immunity from burdensome regulation to a small group of companies that generate hazardous waste and the fertilizer manufactures that use that waste.

The following section's *Gunwall* analysis will show that this situation calls for an independent analysis of Washington's privileges and immunities clause.

II. Analysis

This would be a case of first impression in Washington of whether article 1, § 12 calls for an interpretation independent of the U.S. Constitution's equal protection clause in the context of an exception to solid and hazardous waste regulations where the waste is used in a product, here fertilizer, that is widely disseminated onto the land, air, and water, and applied to food. The following *Gunwall* analysis will show that, not only is an independent analysis warranted, but that Washington's privileges and immunities clause provides greater protection, in this case, than the federal equal protection clause.

A. Gunwall Analysis

The first *Gunwall* factor looks at the text of the privileges and immunities clause, which reads as follows:

No law shall be passed granting to any citizen, class of citizens, or corporation other than municipal, privileges or immunities which upon the same terms shall not equally belong to all citizens, or corporations.²¹

²⁰ EPA, Washington: Final Authorization of State Hazardous Waste Management Program Revision, 67 Fed. Reg. 17636, 17642 (Apr. 11, 2002).

²¹ U.S. CONST. amend. XIV.

Consistent with tenants of statutory construction, the court looks first at differences in the text and plain meaning of the textual language.²² The plain meaning of the text indicates the framers' and ratifiers' intent to limit government authority to pass laws that grant undue favor to some.²³

While the 'special interest' law at issue here was passed at the federal level, and will eventually be merely adopted by the state, article 1, § 12's text is a blanket prohibition on special interest laws. The constitution does not specify that it prohibits only state statutes that effect a privilege or immunity so other forms of "law" that effect a privilege or immunity would most likely be prohibited. For example, in *Ex parte Camp*²⁴, a city ordinance was held unconstitutional. Whereas this would also be a case of first impression in Washington whether a regulation that effects a privilege or immunity is prohibited by article 1, § 12, regulations have the force of law when promulgated after the full notice and comment process. Thus, it is reasonable to assume that the Zinc Rule's regulations would be subject to the same scrutiny as statutes or ordinances.

Since the effect of the regulation is to grant a privilege and immunity to some companies that does not belong equally to all similarly situated companies, the operation and effect fit within the plain meaning of the actions prohibited by article 1, § 12. It, therefore, appears that factor one favors an independent interpretation.

The second *Gunwall* factor focuses on whether there are "[s]ignificant differences in the texts of parallel provisions of the federal and state constitutions. Such differences may also warrant reliance on the state constitution. Even where parallel provisions of the two constitutions do not have meaningful differences, other relevant provisions of the state

²² *State v. Slavin*, 75 Wash.2d 554, 557-58, 452 P.2d 943, 945-46 (1969).

²³ See Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, 1251 (1996).

²⁴ 38 Wn. 393, 80 P. 547 (1905).

constitution may require that the state constitution be interpreted differently."²⁵ The two provisions' text is clearly different. The Washington clause reads as follows:

No law shall be passed granting to any citizen, class of citizens, or corporation other than municipal, privileges or immunities which upon the same terms shall not equally belong to all citizens, or corporations.²⁶

Whereas the 14th amendment reads, in pertinent part:

No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States;

Despite the clear differences in the text, the court has only recently articulated the difference in meaning from the differences in text. A significant difference in the text is that the federal clause limits the government's ability to restrict rights that are otherwise enjoyed by all citizens, but the state clause limits government's ability to grant favored treatment to some. The *Grant County Fire District*²⁷ court described this as "the federal constitution is concerned with majoritarian threats of invidious discrimination" while "the state constitution protects against laws serving private interest to the detriment of the majority."²⁸

Other relevant provisions of the state constitution indicate the state constitution is concerned with protecting the citizenry against laws serving private, or special, interests and therefore rates an independent interpretation. The granting of special privileges was often accomplished through the practice of "logrolling" whereby one bill incorporates several distinct measures, "none of which ... could singly obtain the assent of the legislature, and then procuring its passage by a combination of the minorities in favor of each of the measures into a majority that will adopt them all."²⁹ "Logrolling, or "bargain and sale," ..." seems to have been a common practice especially during the political turmoil of the 1860s"³⁰

²⁵ State v. Gunwall, 106 Wn.2d 54, 61, 720 P.2d 808, 812 (1986).

²⁶ U.S. CONST. amend. XIV.

²⁷ Grant Co. Fire Protection Dist. No. 5 v. City of Moses Lake, 145 Wn.2d 702, 42 P.3d 394 (2002).

²⁸ Grant Co. Fire Protection, 145 Wn.2d at 726.

²⁹ BLACK'S LAW DICTIONARY 942 (6th ed. 1992).

³⁰ Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, fn.32 (1996) (quoting Airey, supra, at 209-10 (newspaper citations omitted)).

By the time of the Constitutional Convention, "[m]ore than they feared majority oppression, Western populists feared the ability of small groups of wealthy and influential persons to obtain the passage of laws that appeared pernicious to the relatively underrepresented majority"³¹ This fear of special interest privilege is incorporated into article 1, § 12 while the mistrust of the legislature's favorite mechanism to grant the special privileges, i.e. logrolling, is prohibited by article 2, § 19, and irrevocable privileges, immunities or grants is prohibited by article 1, § 8. In contrast, the United States Constitution does not prohibit Congress from logrolling, the practice occurs frequently, and often raises concerns that special interests' favor is being carried.³²

This court has previously held that the framers intended to confer greater protection than offered by the federal constitution when the "issue concerns favoritism rather than discrimination."³³ Thus, in circumstances where, as here, the law's effect is to grant special rights to distinct private interests at the expense of others similarly situated and at the expense of a politically unorganized citizenry, the second factor weighs in favor of not only an independent analysis but that the state constitution provides greater protection.³⁴

The third *Gunwall* factor focuses on whether the state constitutional and common law history provide indications of an "intention to confer greater protection from the state government than the Federal Constitution affords from the federal government. The history of the adoption of a particular state constitutional provision may reveal an intention that will support reading the provision independently of federal law."³⁵

³¹ *Id.* at 1253-54.

³² See, e.g., ZYGMUNT J.B. PLATER ET AL, ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 684 (2nd ed. 1998) (noting the Tellico dam was completed by a last minute rider onto the House appropriations bill despite the fact that the statutorily created "Cabinet-level review board" had rejected the project as "ill-conceived and uneconomic", and the U.S. Supreme Court had held there was no support in the Endangered Species Act to override the review committee's decision).

³³ *Grant Co. Fire Protection Dist. No. 5 v. City of Moses Lake*, 145 Wn.2d 702, 727-729, 42 P.3d 394, 406-07 (2002).

³⁴ See *Grant Co. Fire Protection Dist. No. 5 v. City of Moses Lake*, 145 Wn.2d 702, 726-27, 42 P.3d 394, 406 (2002)

³⁵ *State v. Gunwall*, 106 Wn.2d 54, 61, 720 P.2d 808, 812 (1986).

In addition to the framers' intent, the court should consider the ratifiers' intent as deduced from the specific events of the time.³⁶ The 14th amendment was ratified in 1868, twenty-two years before the Washington Constitutional Convention. Thus, the Washington framers and ratifiers would have been familiar with the events prompting the 14th amendment and could have adopted that clause if they believed it to provide the same or similar protections they sought. At the time, however, the 14th amendment's primary function was believed to protect former slaves' newly granted rights of citizenship from being abridged by discriminatory governmental acts.³⁷

On the other hand, "The Washington constitutional convention was noted for its distrust of legislative power and of the influence of large corporations The convention's distrust of the legislature may have resulted from the fact that the territorial legislature had been notorious for spending "much of its time granting special acts and privileges."³⁸

Because the history of the Washington constitution indicates the framers and ratifiers intended the privileges and immunities clause to address a different form of discrimination, the third factor weighs in favor of an independent analysis. Further, because the framers and ratifiers were concerned with, and attempted to prevent a situation where, like here, a special privilege and immunity has been granted to private interests at the expense of the public, the Washington constitution provides greater protection than the 14th amendment.

Gunwall factor four focuses on preexisting state law and "requires an analysis of the degree of protection that Washington State has historically afforded in similar situations."³⁹ Preexisting state law in this case involves at least two distinct bodies of law: 1) the solid and hazardous

³⁶ Robert F. Utter, *Freedom and Diversity in a Federal System: Perspectives on State Constitutions and the Washington Declaration of Rights*, 7 U. Puget Sound L. Rev. 491, 511.

³⁷ Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, 1252 (1996)

³⁸ Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, fn.32 (1996) (citing Wilfred Airey, *A History of the Constitution and Government of Washington Territory* 208 (1945) (unpublished Ph.D. dissertation, University of Washington)).

³⁹ *Grant Co. Fire Protection Dist. No. 5 v. City of Moses Lake*, 145 Wn.2d 702, 729, 42 P.3d 394, 407 (2002) (citing *Gunwall*, 106 Wash.2d at 61-62, 720 P.2d 808).

waste laws, and 2) the fertilizer laws. In addition it is reasonable to consider whether Washington's preexisting environmental protect laws were more protective than their federal counterpart because once the waste-derived fertilizer is "placed on the land, ... the hazardous constituents they contain (few, if any, of which contribute to the recycling activity) could escape via all conceivable exposure pathways - air, runoff, leaching, even (as here) foodchain uptake."⁴⁰

Waste laws

At the time of statehood there were no laws related to waste as a noun (i.e. garbage, discarded), waste was used as a verb providing a cause of action (i.e. 'to waste the beneficiary's property'). There was, however, recognition that some substances, generically referred to as 'filth', carried contagion or otherwise caused sickness and should be controlled. As early as the 1891 Code causes of sickness, even on private property, were regulated by the state. Contrary to the Zinc Rule's effect whereby the state would permit "filth or other cause[s] of sickness" to be disseminated on land, the first public health law in this state authorized government officials to enter private property to remove it.⁴¹

By 1915, scientific and public health understanding of chemical contamination and its effects on health, welfare and the environment had progressed to the point where the state prohibited active or passive transmission into any state water of "any ... waste, lime, ... chemical substances or any refuse or waste material substance or matter at any time whatsoever deleterious to fish or shell-fish."⁴²

Fertilizer laws

Fertilizer regulation is historically a state function; the federal government does not regulate fertilizers per se. The EPA zinc fertilizer regulations at issue here were promulgated under the federal authority to regulate hazardous waste. While there were no state laws related to

⁴⁰ Zinc Fertilizer Final Rule, at 48402.

⁴¹ Hill's Annotated Statutes and Codes of Washington, tit. XLVIII, ch. 2, § 2649 (1891).

⁴² Remington's Compiled Statutes of Washington, tit. XXXV, ch. 1, § 5734 (1922). (" : Provided, however, that the director of fisheries and game shall have the power to grant permits for the sawing of logs in such waters as in his judgment can be used for that purpose without injury to food or game fish. [L. '21, p. 713, § 6. Cf. L. '15, p. 230, §§ 1 and 2; L. '15, p. 103, § 82.]")

fertilizer quality control in the 1881 code, we may deduce from the first fertilizer law, codified in 1899, that Washington takes a dim view of unsavory materials being passed off as fertilizer.

No person shall sell, offer or expose for sale in this state any pulverized leather, raw, steamed, roasted, or in any form, as fertilizer or manure without an explicit printed certificate of the fact, to be conspicuously affixed to every package of such fertilizer or manure, and to accompany or go with every lot or parcel of the same.⁴³

Although the statute did not prohibit leather use in fertilizer, unlike existing Washington labeling regulations or the Zinc Rule, express labeling on every package allowed consumers to make their own decision whether they wanted to pay for such contamination.

Further, Washington's legislature sent a clear message that it intends to protect the public and environment from practices like the EPA's regulations when it passed the first law in the nation specifically addressing hazardous substances in fertilizer. The legislature's findings read in pertinent part:

Commercial fertilizers that ... fail to meet the Washington standards for total metals pose an emergency situation because they may contain certain metals at levels which are harmful to Washington soils and plants and may contain substances which are harmful to the public without its knowledge. ... [Such] fertilizers ... are subject to immediate stop sale, stop use, or withdrawal from distribution in this state⁴⁴

The Zinc Fertilizer Rule will at least undermine, and potentially nullify the benefit of Washington's law as applied to zinc fertilizers because Washington's law is triggered by use of "waste" but the Zinc Rule exempts hazardous material from classification as "waste".⁴⁵ Further, in an effort to regulate formerly waste-derived zinc fertilizers, it is unlikely that Washington could use its authority to pass "more stringent" regulations that brought the excluded former waste back into hazardous waste regulations because it would most likely violate both field preemption and equal protection scrutiny.

⁴³ Remington's Compiled Statutes of Washington, tit. XVI, ch. XI, § 2832 (1922) [L. '99, p. 81, § 4].

⁴⁴ WASH. REV. CODE § 15.54.440 (2002).

⁴⁵ Wash. Rev. Code § 15.54.820 Waste-derived fertilizer standards (requiring the department of ecology to evaluate a *waste-derived* fertilizer's heavy metal content against the state waste laws and RCRA).

Environmental Protection Laws

As early as 1960, Washington attempted to protect public health from hazardous discharges to air, land, and water.⁴⁶ This regulation was very broad, covering acts by all natural and legal persons, in a wide variety of industries, regardless of whether the release was to air, water, or land, and regardless of whether it was intentional or accidental. Not only was this regulation promulgated ten years before the federal Clean Air Act, twelve years before the federal Clean Water Act, and sixteen years before the first federal prohibition on hazardous waste dumping⁴⁷, it was more inclusive than the federal acts.

Unlike the federal environmental protection acts, the Objectionable Establishments and Industrial Wastes regulation does not exempt any harmful substances based on cost-effectiveness or whether there is a willing consumer for the waste. So, while it is debatable how effective the state regulation was in reducing the quantity of hazardous substances entering the air, land, and water, the language is clearly more stringent than the federal regulation at issue.

Then, in 1970 the Washington Legislature provided conclusive evidence that the state intends to provide stronger protection of health and the environment than federal law when it created the Department of Ecology with this Legislative declaration of state policy on environment and utilization of natural resources:

The legislature recognizes and declares it to be the policy of this state, that it is a fundamental and inalienable right of the people of the state of Washington to live in a healthful and pleasant environment⁴⁸

⁴⁶ The Objectionable Establishments and Industrial Wastes regulation reads in pertinent part: No person, partnership, firm or corporation maintaining . . . Paper mill, by-product coke oven, dye works, oil refinery, . . . or engaged in the manufacture of gas, chemicals, . . . , fertilizers, . . . shall allow any noxious . . . gases that are deleterious or detrimental to public health to escape into the air, or . . . to accumulate upon the premises; or be thrown or allowed to discharge into any . . . public place; or be thrown or allowed to discharge into any . . . waters of the state.

WASH. ADMIN. CODE § 248-50-170 (Supp. # 13, 7/1/74). Effective 3/11/60, decodified by 91-02-051. Under authority of RCW 43.20.050, recodified as WAC 246-203-170.

⁴⁷ Clean Air Act, 42 U.S.C. §§ 7401 et seq. (1970); Clean Water Act, 33 U.S.C. §§ 1251 et seq. (1972); Solid Waste Disposal Act, 90 Stat. 2795, 2815 (1976) (codified as 42 U.S.C. § 4005(c)).

⁴⁸ WASH. REV. CODE. § 43.21C.020(3) (2002)

In contrast, no branch of the federal government has found that citizens have a fundamental right to a healthy environment.

This long history of Washington providing more protection for its citizens through its waste management, fertilizer, and environmental laws than any federal counterparts supports an independent interpretation and a rigorous review where the law, as here, will reduce the level of protection enjoyed by Washington's citizens.

This court has previously found that "factor five--the structural differences between the state and federal constitutions--will always support an independent analysis."⁴⁹ Thus, the fifth factor also falls in favor of an independent analysis.

The final *Gunwall* factor focuses on whether the subject of the law in question is of "particular state interest or local concern" or whether there's a need for national uniformity.⁵⁰ Here, there is no need for national uniformity. Although the federal waste management laws set a minimum standard that all states must follow, by structuring RCRA as a dual-authority model Congress recognized that a state may need and desire the authority to provide more protection to its citizens. Further, the EPA regulations exempting hazardous waste in zinc fertilizers crossed the line into regulating fertilizer which is historically an exclusive state function -- the federal government does not regulate fertilizer.

Fertilizer regulation is a matter of local concern because differences in soils, crops and weather affect the blend of plant nutrients that are most effective in each area. Thus, almost all of the forty-eight states with a comprehensive fertilizer quality statute require quality testing to be performed under conditions similar to those existing in the state.⁵¹ Also, no state legislature has expressed an intent for regulatory consistency among the states on any aspect of fertilizer regulation.⁵² One of the American Association of Plant Food Officials missions is to maintain

⁴⁹ Grant Co. Fire Protection Dist. No. 5 v. City of Moses Lake, 145 Wn.2d 702, 729-30, 42 P.3d 394, 407-08 (2002).

⁵⁰ State v. Gunwall, 106 Wn.2d 54, 62, 720 P.2d 808, 813 (1986).

⁵¹ E.g., CAL. FOOD & AGRIC. CODE § 14601 (West 2002).

⁵² Except that Kentucky, Mississippi, Ohio, and South Carolina set their labeling requirements contingent upon a finding that it would not cause an economic hardship to distributors or users.

consistency in plant food regulation that they try to accomplish by drafting Uniform Bills.⁵³

However, the states that have amended their fertilizer acts within the past 5 years have actually all taken different paths and become less consistent.⁵⁴

The potential risks from contaminated fertilizers are also a matter of local concern because a plant's uptake rate of hazardous substances is, like nutrient requirements, based on soil, crop, and weather.⁵⁵ For example, wheat appears to have an affinity for cadmium⁵⁶ so legislatures in wheat growing states, such as Washington, are rightly concerned with federal regulations that potentially put significant state revenues and jobs at risk.

Thus, all six *Gunwall* factors favor an independent interpretation of whether the zinc fertilizer rule's exclusion of select hazardous waste generators and fertilizer manufacturers is unconstitutional under Washington's privileges and immunities clause.

B. Independent Interpretation

Court decisions stretching back almost 100 years define the process to analyze a privileges and immunities claim. Where the challenged state statute is regulatory in nature, especially when granting an economic advantage to the privileged class, the court follows a four step process, which is: 1) to determine the threshold question of whether the law creates a privilege or immunity, 2) to determine what the purpose of the law is⁵⁷, 3) to determine whether the act bears "equally on all persons similarly situated with reference to the subject-matter and purpose

See Shawn M. Waliser, *Federalism and the Trend in State Regulation of Hazardous Substances in Fertilizer Appendix A(5)* (Mar. 14, 2003) (unpublished manuscript, on file with Prof. Carmen Gonzalez).

⁵³ See AAPFCO Purpose statement at <http://www.aapfco.org/#model>; see also Rhode Island Division of Agriculture, Department of Environmental Management, 2001 Report of the Inspection & Analysis of Commercial Feeds, Fertilizers and Liming Materials 4 (2001) at <http://www.state.ri.us/dem/programs/bnatres/agricult/pdf/feedinsp.pdf> (last visited Jan. 26, 2003).

⁵⁴ Shawn M. Waliser, *Federalism and the Trend in State Regulation of Hazardous Substances in Fertilizer 20-22* (Mar. 14, 2003) (unpublished manuscript, on file with Prof. Carmen Gonzalez).

⁵⁵ Lawrence R. Curtis & Brian W. Smith, Dept of Env. and Molecular Toxicology, Or. State U., *Heavy Metals in Fertilizers: Considerations for Setting Regulations in Oregon* 3 Fig.1 (Aug. 2, 2002) at <http://www.oda.state.or.us/pesticide/pubform/FertHeavyMet.pdf>.

⁵⁶ CALPIRG, TOXIC WASTE IN FERTILIZER. at <http://www.pirg.org/calpirg/enviro/fertilizer/index.htm> (on file with author) (last visited Oct. 28, 2001).

⁵⁷ *City of Seattle v. Dencker*, 58 Wn. 501, 506, 108 P. 1086, 1088 (1910).

to be served by the regulation."⁵⁸, and 4) to determine whether reasonable grounds exist for making a distinction between those who fall within the class and those who do not.⁵⁹

The legislature may classify individuals for purposes of regulation. While the court generally defers to the legislature's classification choice by giving "every reasonable presumption is in favor of the constitutionality of a law or ordinance"⁶⁰, the court exercises greater scrutiny than the federal court's rational basis review. "For example, early Washington cases deciding whether a regulatory statute, as opposed to a taxation statute, granted an economic privilege inquired whether the classification rested on "real and substantial differences bearing a natural, reasonable, and just relation to the subject matter of the act."⁶¹

The Zinc Fertilizer Rule grants an economic privilege to certain companies generating hazardous waste and fertilizer manufacturers who use that waste and an immunity from burdensome regulations to a small number of generators and manufacturers.

A law grants a privilege when it effects a benefit for the recipient vis a vis its economic competitors.⁶² A law grants an immunity when the recipient is immune from otherwise generally applicable burdens, regardless of whether anti-competitive effects occur.⁶³ Here, the EPA regulation sets up a game of 'musical chairs' where generators of zinc-bearing hazardous waste try to match up with zinc fertilizer manufacturers. The parties that match up receive an economic benefit vis a vis their competitors, the generators without a match. The generators receive their benefit by defraying at least part, if not all of the treatment cost by selling the

⁵⁸ *Bacich v. Huse*, 187 Wn. 75, 80, 59 P.2d 1101, 1104 (1936), overruled on other grounds by *Puget Sound Gillnetters Ass'n v. Moos*, 92 Wash.2d 939, 603 P.2d 819 (1979).

⁵⁹ *Bacich v. Huse*, 187 Wn. 75, 80, 59 P.2d 1101, 1104 (1936), overruled on other grounds by *Puget Sound Gillnetters Ass'n v. Moos*, 92 Wash.2d 939, 603 P.2d 819 (1979).

⁶⁰ *City of Seattle v. Rogers*, 6 Wn.2d 31, 106 P.2d 598 (1940).

⁶¹ Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, 1265 (1996) (citing *Huse*, 187 Wash. at 84, 59 P.2d 1101) cf. *Camp*, 38 Wash. at 397, 80 P. 547 (recognizing that classification may be valid under article I, section 12, "if the object of the legislation is revenue, and invalid if the object is regulation only").

⁶² Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, 1269-71 (1996)

⁶³ Jonathan Thompson, *The Washington Constitution's Prohibition on Special Privileges and Immunities: Real Bite for "Equal Protection" Review of Regulatory Legislation?*, 69 TEMP. L. REV. 1247, 1268 (1996)

material to the fertilizer manufacturer. Generators who do not have a partner-manufacturer will continue to bear the costs to treat their waste to the landfill disposal level and then disposal costs, but will not be able to defray the cost by selling the treated waste. Similarly, to the extent that treated material is less expensive than increasingly scarce virgin material, manufacturers who use this material receive an economic benefit not available to manufacturers that use virgin material or make non-zinc fertilizers.

The classification serves the Zinc Fertilizer Rule's purpose which is to define the treatment level at which certain hazardous wastes will be comparable and thus competitive with virgin materials. This is an economic purpose. However, this purpose is not consistent with the RCRA statute's purpose which is to protect health and the environment from land disposal of hazardous waste. Further, the EPA has not made the requisite finding in the Zinc Rule that allowing this exclusion will "protect human health or the environment."⁶⁴ EPA has not made a finding that the new treatment standards will be any more protective than the preexisting standards. Because the Zinc Rule's purpose and method of achieving that purpose differ so significantly from the RCRA statute's purpose it makes the regulation and its classification method suspect.

The Zinc Fertilizer Rule creates a privileged class of hazardous waste generators whose waste contains zinc. This classification is germane to the purpose of the regulation, which is to divert from landfills hazardous waste that has some value as fertilizer. However, the regulation's purpose and effect manifests the antithesis of the RCRA statute's purpose, which is to protect health, welfare and environment by banning land disposal of hazardous waste.⁶⁵

As mentioned above the Zinc Rule does not bear equally on all hazardous waste generators within the privileged class because the privilege is conditioned upon a buyer for the treated waste. It is patently unreasonable to distinguish the privileged class of hazardous waste that is safe enough to escape even being labeled waste versus the hazardous waste that is not

⁶⁴ 42 U.S.C. § 6922 (2003).

⁶⁵

safe enough to be relieved of full EPA regulatory requirements on whether there is a buyer for the waste.

The Zinc Fertilizer Rule allows any zinc-bearing hazardous waste to be treated and sold as an ingredient in zinc micronutrient fertilizers. By operation the rule requires only five hazardous substances to be treated to below a level relative to the amount of zinc. These treatment standards were based on achieving a contamination level for these five substances that is similar to some non-waste zinc sources. EPA can not confirm that these treatment standards are the same or lower than the preexisting standards that justified only downgrading from hazardous waste to solid waste regulatory burden.⁶⁶ EPA never established that the preexisting standards would be safe for substances that will be widely disseminated into the environment and the foodchain.

III. Conclusion

In conclusion, it appears that the Zinc Fertilizer Rule will effect a special economic privilege and immunity from regulation to a small group of companies that generate zinc-bearing hazardous waste and fertilizer manufacturers. Because the Rule's purpose and effect differ so significantly from Congress's intent as expressed in the RCRA statute and that the classification is not germane to the purpose of the statute, it appears that the Zinc Fertilizer Rule is not the result of a deliberative agency process that would warrant deference by the court. The federal Zinc Fertilizer Rule being adopted by the Department of Ecology into Washington law appears, instead, to be the result of a suspect "bargain and sale" political process that has been continuously condemned by Washington voters since statehood. As such, these regulations would likely be an unconstitutional grant of a privilege and immunity under article 1, § 12 and I would urge the Department of Ecology to not adopt this regulation into Washington's hazardous waste administrative code.

⁶⁶ Zinc Fertilizer Final Rule, at 48403.

Hervieux, Patricia R.

From: Patty Martin [martin@nwi.net]
Sent: Friday, September 10, 2004 6:39 AM
To: Hervieux, Patricia R.
Cc: Kuntz, Miles M.; Shawn Waliser
Subject: Comments on WA's adoption of federal zinc rule, etc.

Dear Chipper:

Please accept my comments on the proposed adoption of the federal zinc rule and changes to fertilizer testing requirements. Miles Kuntz has kindly printed, at my request, a copy of the HWIR metal standards and will deliver them to you as an attachment to my comments (neither his computer nor mine would allow a printable range of pages). Also attached is a summary of fertilizers tested in the US and aboard.

Please do not hesitate to contact me if you require more information or clarification.

Thank you.

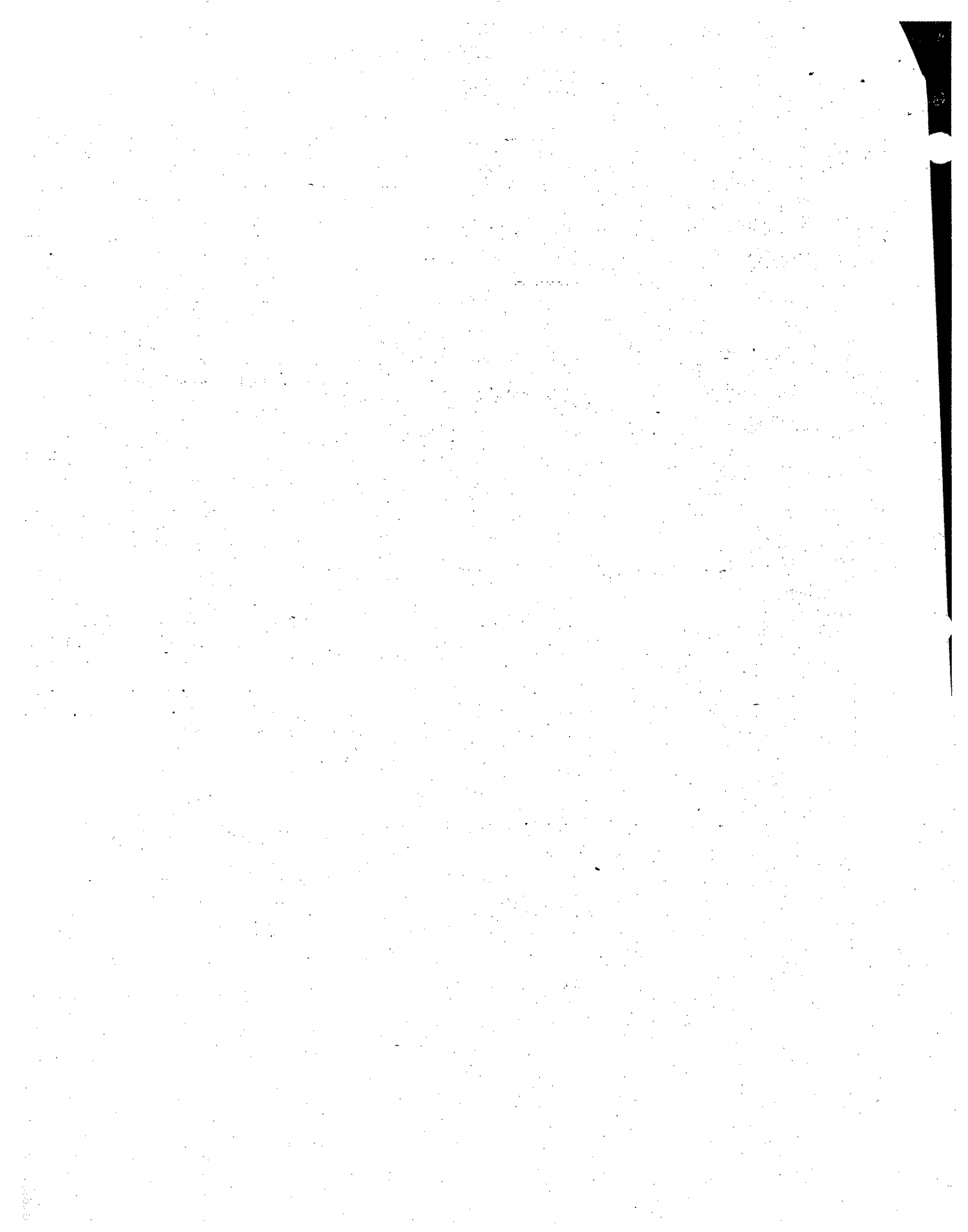
Patty

Patricia Anne Martin
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Safe Food and Fertilizer is a project of Earth Island.

9/14/2004

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September 10, 2004

Chipper Hervieux
HWTR Program
P.O. Box 47600
Olympia, WA 98504

RE: Fertilizer rule changes

Dear Ms. Hervieux:

Please accept my comments for consideration before adopting the federal zinc fertilizer rule and amending the testing requirements for waste-derived fertilizers.

First, let me say that Safe Food and Fertilizer does not support the adoption of the federal zinc fertilizer rule for a variety of reasons, including the metal standards. However, in light of the state's failure to adopt any metal standards for fertilizer, we feel we would be remiss not to support an opportunity to create some limit – albeit an arbitrary one – on heavy metals disposed to land in our state. In light of the fact that the state legislature has provided direction for adoption of the Canadian standards, and that Canada has now adopted total metal standards in addition to the maximum accumulation standards adopted by Washington State in 1998, we would propose that the Department of Ecology adopt the most stringent components from each of these two standards. This as an interim step only until standards demonstrating safety can be developed.

Additionally, I have attached a copy of the Hazardous Waste Identification Rule (HWIR) currently under consideration by the Environmental Protection Agency and would ask that the Department of Ecology review the rule and consider adopting these metal levels, adjusting for distance to assure protection at point of contact. The HWIR utilizes multiple pathways of exposure, and is designed to protect sensitive reproductive and developmental endpoints. The rule seeks to establish levels at which wastes can be safely removed from the definition as hazardous (as you will note, these levels are in many cases much lower than those established under the federal zinc rule, and/or the Canadian standards). Because the levels are based on developmental and reproductive threats to local residents; carcinogenic potential, and damage to sensitive ecosystems, the HWIR more appropriately accounts for the variety of risks, and their pathways, from heavy metal contamination found in fertilizers. No other comprehensive review has been conducted regarding the Canadian standards or the federal zinc rule. In fact, the EPA¹, CDFA² and TFI³ risk assessments have all failed to assess risk to the environment and

¹ Chapter 8.1.1.5.1 "significant uncertainties and unknowns exist regarding the estimation of lifetime cancer risks in children. In addition, the method of estimating cancer risks in children used in this analysis has not been externally peer-reviewed." Chapter 1.2 - "Groundwater exposure pathway was not evaluated..."

² Sec. 2-13 -- No direct contact with fertilizer, fugitive dust, food-animal produce, ingestion of fish. Risk to infants and toddlers not considered.

have seriously underestimated the risk to children through various omissions within their assessments.

I have also included a summary of fertilizers analyzed from around the world for your consideration. As you will note, heavy metal contamination in U.S. fertilizers far exceed levels found in the rest of the world.

We would recommend the following interim standards for use with all fertilizers, and until such time as safety can be proven:

Metal of Concern	Interim Standards	Zinc rule	Canadian standard	Worldwide mean concentrations
Arsenic	10.7	10.7	75	1.6
Cadmium	20.0	49.7	20.0	2.07
Mercury	5.0	10.7	5.0	0.007
Lead	99.4	99.4	500	16.6
Chromium	21.3	21.3	N/A	N/A

We take exception to the fact that the Department of Ecology is intending to adopt the non-HWSA provisions of this rule which will exclude zinc-containing hazardous wastes from the definition of solid waste when used as a feedstock or fertilizer. We question the WSDOE's statutory authority to adopt this provision. The Revised Code of Washington 70.95.030 (23) specifically identifies industrial waste as a solid waste:

(23) "Solid waste" or "wastes" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, **industrial wastes**, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

Additionally, 15.54.325 Sec. 4(3)(f) requires "Identification of those products that are (i) waste-derived fertilizers, (ii) micronutrient fertilizers..." Excluding zinc-containing waste-derived micronutrient fertilizers would be contrary to this directive.

We also take exception to the Department's proposal to waive additional testing requirements for a waste-derived product, under any circumstance. Federal regulations found at 40 CFR 268.7(b)(6) require that a certification that LDRs have been met is attached to every shipment and that information, together with information typically included on a manifest (see (b)(4) below), be sent to the Regional Administrator. I have included all of the relevant portions of 40 CFR 268.7(b)(6) below for ease of reference.

³ "Whole product toxicity" is not evaluated. (page viii). Exposure – inhalation, ingestion, contact – occurs only after fertilizer has been diluted with soil.

40 CFR 268.7(b)(6) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of Sec. 268.20(b) [please note: this should reference 266.20(b)] regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) is not required to notify the receiving facility, pursuant to paragraph (b)(3) of this section. With each shipment of such wastes the owner or operator of the recycling facility must submit a certification described in paragraph (b)(4) of this section, and a notice which includes the information listed in paragraph (b)(3) of this section (except the manifest number) to the Regional Administrator, or his delegated representative. The recycling facility also must keep records of the name and location of each entity receiving the hazardous waste-derived product.

(b)(3) A one-time notice must be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice must be placed in the treatment facility's file.

(i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a copy placed in the treatment facility's file.

(ii) The one-time notice must include these requirements:

Treatment Facility Paperwork Requirements Table

Required information	Sec.
268.7(b)	
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment.....	[bcheck]
2. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.....	[bcheck]
3. The notice must include the applicable wastewater/nonwastewater category (see Secs. 268.2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)	[bcheck]
4. Waste analysis data (when available).....	[bcheck]
5. For contaminated soil subject to LDRs as provided in 268.49(a), the constituents subject to treatment as described in 268.49(d) and the following statement, "this contaminated soil [does/does not] exhibit a characteristic of hazardous waste and [is subject to/ complies with] the soil treatment standards as provided by 268.49(c).....	[bcheck]
6. A certification is needed (see applicable section for exact wording).....	[bcheck]

-
- (b) (4) The treatment facility must submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (i) A copy of the certification must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the file.
- (ii) Debris excluded from the definition of hazardous waste under Sec. 261.3(e) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, Sec. 268.45, and debris that the Director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraph (d) of this section rather than the certification requirements of this paragraph.
- (iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in Sec. 268.40(d), the certification, signed by an authorized representative, must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater

organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (iv) For characteristic wastes that are subject to the treatment standards in Sec. 268.40 (other than those expressed as a method of treatment), or Sec. 268.49, and that contain underlying hazardous constituents as defined in Sec. 268.2(i); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (v) For characteristic wastes that contain underlying hazardous constituents as defined Sec. 268.2(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in Sec. 268.48 Universal Treatment Standards, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in Sec. 268.2(i) have been treated on-site to meet the Sec. 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

There are no provisions within the regulations for removing this requirement.

Additionally, and as cited above, the state has a federal mandate that LDRs are met and underlying hazardous constituents are removed from waste-derived products. This is repeated in RCW 15.54.325 Sec. 4 (h), "Waste derived fertilizers and micronutrient fertilizers shall include at a minimum, information to ensure the product complies with 70.105 RCW and RCRA 42, USC Sec. 6901 et seq." Erroneously, the Department of Ecology failed to adopt the Phase IV LDRs (effective August 28, 1998) and continues to require that wastes used in a manner constituting disposal meet the less stringent Phase III LDRs. This is incorrect, and illegal. Federal requirements specifically state that "Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation provided they meet these same treatment standards or prohibition levels for each recyclable material they contain"

(40 CFR 266.20(b)). Furthermore, Washington State statute requires that the final product also meet this requirement.

The Department's attention to these omissions is greatly appreciated.

Finally, I would like to remind the Department of Ecology that the requirement for measuring chromium is not based on the presence of hexavalent chromium, but on "total chromium", i.e., the presence of both trivalent and hexavalent chromium. Correcting this error will provide additional protections to local residents and consumers, as well as, protect against groundwater and soil contamination.

Again, we support the adoption of the federal zinc fertilizer standards as an interim step toward total metal concentration based standards that are demonstrated to be safe. As the Department is aware, total metals are always at least 20 times TCLP, but just how much is anyone's guess. Adopting the federal zinc metal standard, and based on methods other than 3050B, can be the first step towards a definitive standard and greater protections to human health and the environment.

Thank you for your consideration of my comments.

Sincerely,

Patricia Anne Martin
Safe Food and Fertilizer

Occurrence of Heavy Metals in Fertilizers from Around the World

Nicolas Bloom and Beth Kuhn, Frontier Geosciences, Seattle, WA 98109

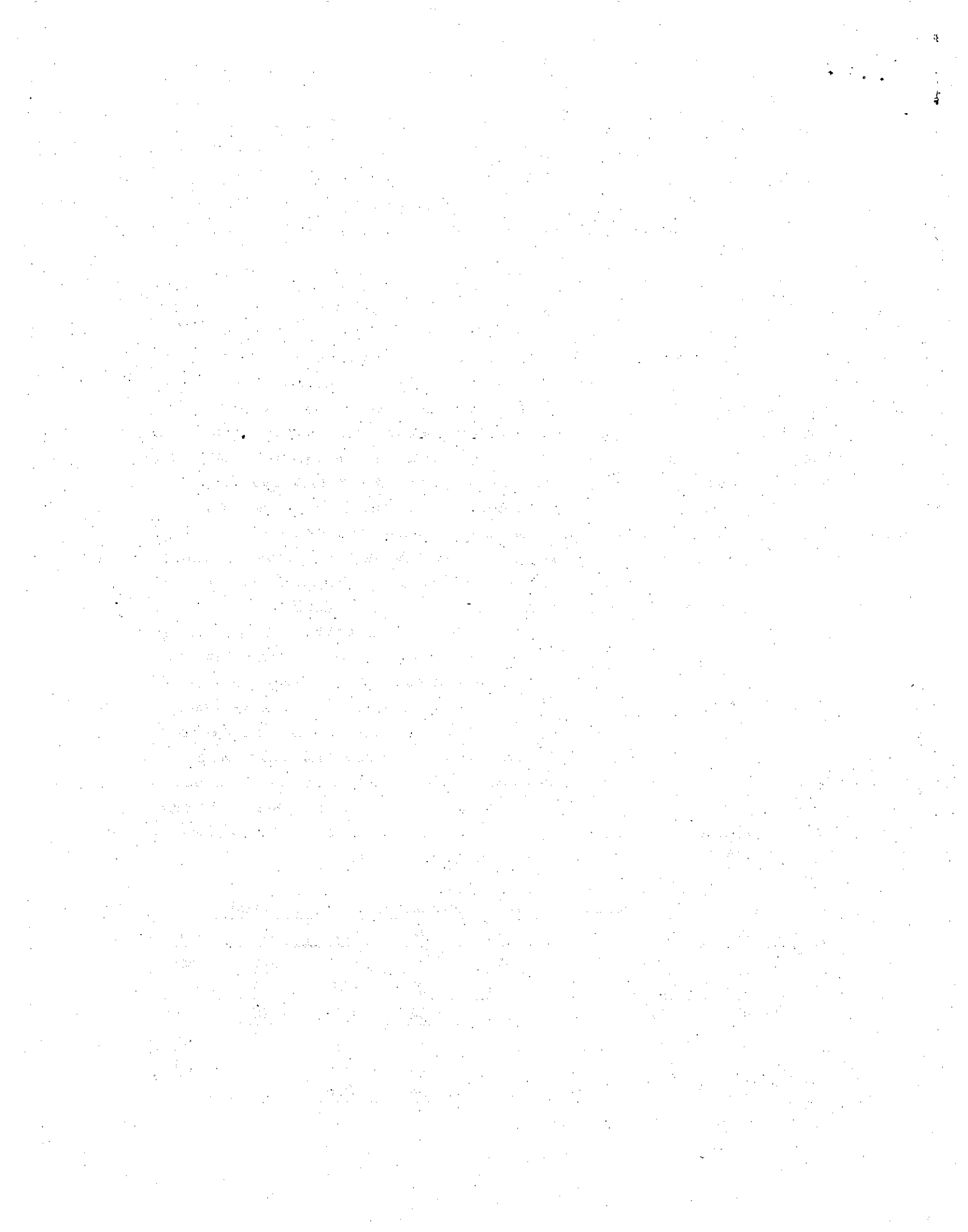
Patricia Martin, Safe Food and Fertilizer, Quincy, WA 98848

Duff Wilson, The Seattle Times, Seattle, WA 98109

21 trace elements (Be, Al, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Mo, Ag, Cd, Sb, Ba, Pb, Hg, Th, U) were quantified in 80 fertilizer samples from nine countries around the world. Samples were first digested by refluxing for several hours in ultra-pure HNO₃. Most trace metals were analyzed by inductively coupled plasma mass spectrometry (ICP-MS), while Hg was analyzed by cold vapor atomic fluorescence spectrometry (CVAFS). Although not used extensively in these data sets, the detection limits for Se and As can be reduced by about an order of magnitude (from about 0.3 ppm to 0.02 ppm) through the use of hydride generation flame atomic fluorescence spectrometry (HG-AFS). Detection limits were sufficiently low (ppb to ppm) to allow quantification of most analytes in all samples. Concentrations for each metal varied by 3 orders of magnitude between samples, with those samples which were elevated in one metal tending to be elevated in many. Overall, the elements showing greatest enrichment factors compared to background soils were Cd, Pb and U, although we also observed significant elevations of As, Hg, Ag, Cr and Sb. Of course, Cu and Zn were extremely elevated in some samples, as these can be deliberately added as micro-nutrients. Though the number of samples is not sufficient to warrant quantitative conclusions, the trace metals concentrations observed in fertilizers from the USA averaged 6-125 times higher than those from the remaining world. In some cases, not all of a sample dissolved in boiling HNO₃, leading to questions as to whether total metals were recovered. Targeted comparisons of the HNO₃ digestion with a complete solubilization using HF + HNO₃ + HCl in Teflon bombs showed small, but statistically unimportant differences between digestion type. In addition to total metals concentrations, some of the more elevated samples were selectively extracted with deionized water and with pH 5 acetate buffer (TCLP) as a preliminary estimate of their bioaccessibility.

Parameter	Mean Trace Metals Concentrations, µg/g (n = 25-55)						
	Hg	As	Pb	Sb	Cd	U	Cu
USA	0.826	109	382	3.52	24.8	46.8	1,859
World	0.007	1.6	16.6	0.27	2.07	7.15	130
Rural soil	0.051	4.9	9.5	0.54	0.19	1.90	23
EF _{USA}	16.2	22.3	40.3	6.5	130	24.7	80.5
EF _{World}	0.13	0.32	1.8	0.51	10.9	3.8	14.3
USA/World	125	70.4	23.1	12.8	12.0	6.5	5.6

Note: EF (enrichment factor) = $[M]_{\text{fert}}/[M]_{\text{soil}}$



DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG-209640-93]

RIN 1545-AR69

TeleFile Voice Signature Test

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Withdrawal of cross-referencing notice of proposed rulemaking.

SUMMARY: This document withdraws the notice of proposed rulemaking relating to the Telefile Voice Signature test that was published in the *Federal Register* on December 27, 1993. The notice of proposed rulemaking cross-referenced temporary regulations published on the same day that provided that an individual federal income tax return completed as part of the Telefile Voice Signature test would be treated as a return that is signed, authenticated, verified and filed by the taxpayer as required by the Internal Revenue Code.

EFFECTIVE DATE: These regulations are effective July 18, 2000.

FOR FURTHER INFORMATION CONTACT: Beverly A. Baughman (202) 622-4940 (not a toll-free number).

SUPPLEMENTARY INFORMATION:**Background**

On December 27, 1993, the IRS issued proposed regulations (REG-209640-93) in the *Federal Register* (58 FR 68335) under sections 6012, 6061, and 6065 relating to the TeleFile Voice Signature test. The notice of proposed rulemaking cross-referenced temporary regulations published in the *Federal Register* for the same day (58 FR 68295). Although written comments and requests for a public hearing were solicited, no written or oral comments were received and no public hearing was requested or held. Because the applicable temporary regulations apply only to 1992 and 1993 calendar year returns, the IRS has decided not to finalize those regulations and, thus, is withdrawing the proposed regulations.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Withdrawal of Notice of Proposed Rulemaking

Accordingly, under the authority of 26 U.S.C. 7805, the notice of proposed rulemaking that was published in the

Federal Register on December 27, 1993, (58 FR 68335) is withdrawn.

Robert E. Wenzel,

Deputy Commissioner of Internal Revenue.

[FR Doc. 00-18118 Filed 7-17-00; 8:45 am]

BILLING CODE 4830-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[FRN-6838-1]

RIN 2050-AE07

Hazardous Waste Identification Rule (HWIR): Identification and Listing of Hazardous of Hazardous Wastes; Notice of Data Availability and Request for Comments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of data availability and request for comment; extension of the public comment period.

SUMMARY: The Environmental Protection Agency (EPA) is making available for public comment human health and ecological risk data and information relating to an exemption from hazardous waste management that we discussed in a *Federal Register* notice published on November 19, 1999 (64 FR 63382).

That exemption, also known as the Hazardous Waste Identification Rule (HWIR) exemption, would exempt listed hazardous wastes that meet chemical-specific exemption levels from hazardous waste management requirements. We plan to develop these exemption levels based on results from the Multimedia, Multipathway and Multireceptor Risk Assessment (3MRA) Model. The model evaluates simultaneous chemical exposures across several environmental media and multiple exposure pathways to human and ecological receptors in order to estimate the health and ecological effects in the vicinity of waste disposal units that may receive exempt listed hazardous waste.

We presented the underlying methodology and assumptions for the 3MRA Model in the *Federal Register* (64 FR 63382, November 19, 1999). However, because of technical difficulties, we were unable to propose exemption levels in that notice. Since then, we have made numerous revisions to correct and improve the model. On April 12, 2000, we provided an updated version of the 3MRA Model (beta Version 0.98) and results for five chemicals in Docket number F-99-

WH2P-FFFFF. On April 19, 2000 (65 FR 20934), we also extended the original deadline of May 17, 2000 for public comment on the modeling methodology to August 15, 2000 to allow additional time for review and comment.

Today's notice makes available the results for 36 chemicals, including the five already in the docket, using an updated version of the model (Version 0.98r). In addition, today's notice again extends the comment period for the November 19, 1999 HWIR exemption discussion until October 16, 2000, to coincide with the comment period for today's notice.

Before using a revised risk assessment to support a final regulatory action, we would propose the HWIR exemption. Comments on the 1999 HWIR discussion and on today's notice will be helpful to us in developing such a proposal.

Please note that today's notice does not re-open the comment period on the revisions to the mixture and derived-from rules that were proposed in the November 19, 1999 *Federal Register* notice (64 FR 63382, Sections I-IV, Sections XXI-XVI (as applicable) of the preamble and the proposed regulatory language amending 40 CFR Part 261).

DATES: We will accept comments through October 16, 2000 on: (1) The concentration-based HWIR exemption discussed in the November 19, 1999 *Federal Register* notice; (2) the possible revisions to the Land Disposal Restriction (LDR) treatment standard which were also discussed in the November 19, 1999 *Federal Register* notice; and (3) the additional data presented today. The discussions of the HWIR exemption and possible LDR treatment standard revisions are in Sections V-XX and Sections XXI-VVCI (as applicable) of the preamble, 64 FR 63382 (November 19, 1999).

ADDRESSES: Commenters must send an original and two copies of their comments referencing docket number F-2000-WH2A-FFFFF to: (1) If using regular U.S. Postal Service mail: RCRA Docket Information Center, Office of Solid Waste (5305G), U.S. Environmental Protection Agency Headquarters (EPA, HQ), 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0002, or (2) if using special delivery, such as overnight express service: RCRA Docket Information Center (RIC), Crystal Gateway One, 1235 Jefferson Davis Highway, First Floor, Arlington, VA 22202. Comments may also be submitted electronically through the Internet to: rcra-docket@epa.gov. Comments in electronic format should also be identified by the docket number

F-2000-WH2A-FFFFF and must be submitted as an ASCII file avoiding the use of special characters and any form of encryption and should include commenter's mailing address and phone number. If comments are not submitted electronically, we are asking prospective commenters to voluntarily submit one additional copy of their comments on labeled personal computer diskettes in ASCII (TEXT) format or a word processing format that can be converted to ASCII (TEXT). It is essential to specify on the disk label the word processing software and version/edition as well as the commenter's name and address. This will allow EPA to convert the comments into one of the word processing formats utilized by the Agency. Please use mailing envelopes designed to physically protect the submitted diskettes. We emphasize that the submission of comments on diskettes is not mandatory, nor will it result in any advantage or disadvantage to any commenter.

Commenters should not submit electronically any confidential business information (CBI). An original and two copies of CBI must be submitted under separate cover to: RCRA CBI Document Control Officer, Office of Solid Waste (5305W), U.S. EPA, 1200 Pennsylvania Ave., N.W., Washington, DC 20460-0002.

Public comments and supporting materials are available for viewing in the RCRA Information Center (RIC), located at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, VA. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, excluding federal holidays. To review docket materials, it is recommended that the public make an appointment by calling 703-603-9230. The public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost \$0.15/page. The notice and other material associated with this action can be electronically accessed on the Internet at <http://www.epa.gov/epaoswer/hazwaste/id/hwirwste/index.htm>.

The official record will be kept in paper form. Accordingly, EPA will transfer all comments received electronically into paper form and place them in the official record, which will also include all comments submitted directly in writing. The official record is the record maintained at the address in ADDRESSES at the beginning of this document. The comments and other documents associated with the November 19, 1999 HWIR notice (64 FR 63382) are kept in docket Number F-99-WH2P-FFFFF.

We will respond to submitted comments, whether written or electronic, in a notice in the *Federal Register* or in a response to comments document placed in the official record. We will not immediately reply to electronically submitted comments other than to seek clarification of comments that may be garbled in transmission or during conversion to paper form, as discussed above.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at 800-424-9346 or TDD 800-553-7672 (hearing impaired). In the Washington, DC, metropolitan area, call 703-412-9810 or TDD 703-412-3323.

For specific information on the risk modeling, contact David Cozzie, (703) 308-0479, cozzie.david@epa.gov, Stephen Kroner, (703) 308-0468, kroner.stephen@epa.gov, or Zubair Saleem, (703) 308-0467, saleem.zubair@epa.gov, all at: Office of Solid Waste, U.S. Environmental Protection Agency (5307W), 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0002.

SUPPLEMENTARY INFORMATION:

Outline

- I. How does today's notice relate to the November 19, 1999 notice?
- II. How has EPA revised the 3MRA Model since the November 19, 1999 notice?
- III. What are the results from the revised 3MRA Model?
- IV. What are possible next steps for the HWIR exemption development?

I. How Does Today's Notice Relate to the November 19, 1999 Notice?

The November 19, 1999 *Federal Register* notice includes (among other things) a discussion of a concentration-based exemption (the "HWIR exemption") from the definition of hazardous waste (64 FR 63382 and docket number F-99-WH2P-FFFFF; see also the web site at: <http://www.epa.gov/epaoswer/hazwaste/id/hwirwste/index.htm> for accessing the background documents electronically). Included in this discussion is an extensive explanation of the risk assessment methodology that would support this exemption. The version of the 3MRA Model that we discussed was beta Version 0.93. However, because of unresolved technical issues, we did not have results from the risk assessment modeling, other than for acrylonitrile, to include in the *Federal Register* notice.

Since then, we have addressed many technical issues and have revised the 3MRA Model. Today's notice and materials placed in the docket explain the revisions to the 3MRA Model and

present results for 36 chemicals using beta Version 0.98r of the revised model.

II. How Has EPA Revised the 3MRA Model Since the November 19, 1999 Notice?

The details of all the improvements and corrections made to beta Version 0.93 of the model and incorporated in beta Version 0.98r of the model are presented in the RCRA docket number F-2000-WH2A-FFFFF. Selected examples of changes we made are listed below.

(1) We changed the aerated tank and surface impoundment modules so that exceedance of constituent solubility in either the leachate or the waste management unit (WMU) causes an error that terminates the model instead of issuing a warning that allows the model to continue. We changed this because solubility exceedance indicates that the modules were not operating within the intended range of simulation; that is, the modules were not intended to model concentrations that lead to the formation of non-aqueous phase liquids.

(2) We changed the national data table in the aquifer module so that it simulates the effects of fractures and heterogeneities on the transport of chemical constituents. We did this to better reflect the nature of the subsurface environment in the vicinity of the WMUs.

(3) We corrected an error in the data transfer between the ecological risk module and the exit-level processor (ELP-I). Previously the ELP-I misread the ecological receptor group descriptors. In beta version 0.98r, the ecological module outputs the ecological receptor groups directly to the ELP-I; and

(4) We changed the exit-level processor (ELP-II) to correct the exposure pathway tables to include only those pathways relevant to the chemical. The ELP-II now refers to flags in the human health benchmarks database to identify appropriate exposure pathways for each chemical. This specific change has occurred since Version 0.98.

III. What Are the Results From the Revised 3MRA Model?

We are presenting the draft chemical-specific results estimated for the three waste forms (liquids, solids, and semi-solids) and one WMU type (landfill) for the four Protection Groups. The Protection Groups are based on five different types of protection criteria: (1) Cancer risk level, (2) human health hazard quotient (HQ) for non-cancer risks, (3) ecological hazard quotient, (4) population percentile, and (5)

probability of protection. We summarize below these five risk protection criteria, which are explained more fully in the November 19, 1999 Federal Register notice (see 64 FR 63440-41).

1. Cancer Risk Level. The cancer risk level refers to an individual's increased chance of developing cancer over a lifetime due to potential exposure to a specific chemical. A risk of 1×10^{-6} translates as an increased chance of one in a million of developing cancer during a lifetime. EPA generally sets regulations at risk levels between 10^{-6} and 10^{-4} (in other words, from one in a million to one in ten thousand increased chance of developing cancer during a lifetime). In the RCRA hazardous waste listing program, a 10^{-6} risk is usually the presumptive "no list" level, while 10^{-5} is often used to determine which wastes are considered initial candidates for listing (see, for example the petroleum listing at 63 FR 42117). We present the exemption levels that result from both the 10^{-6} and 10^{-5} risk levels.

2. Human Health Hazard Quotient (HQ). The HQ refers to the likelihood that exposure to a specific chemical would result in a non-cancer health problem (for example, neurological effects). The hazard quotient is developed by dividing the estimated exposure to a chemical by the reference dose (RfD) for oral ingestion pathways or reference concentration (RfC) for inhalation pathways. The RfD and RfC are estimates of the highest dose or concentration that might be considered

safe. An HQ of one or lower indicates that the given exposure is unlikely to result in adverse health effects. We present the exemption levels that result from both an HQ of 0.1 and an HQ of one.

3. Ecological Hazard Quotient. The ecological hazard quotient is analogous to the human health HQ, except that the estimated exposure is compared with an ecological toxicity value rather than the human health RfD or RfC. For this analysis, we developed two types of toxicity values: (1) An ecological benchmark that is calculated as a dose (mg/kg-day); and (2) a chemical stressor concentration limit (CSCL) that is calculated as a concentration in media (for example, mg/l). The ecological hazard quotient protects ecological health at the population or community level, and, therefore, focuses on reproductive and developmental effects, rather than the mortality of individual organisms. In developing ecological toxicity values for this risk assessment, we used the geometric mean between a No Observed Effects Level (NOEL) and a Lowest Observed Effects Level (LOEL). (Human health reference doses are based on NOELs.) We present the exemption levels that result from an ecological hazard quotient of one and ten.

4. Population Percentile. The population percentile is the percentage of the population protected at the specified risk level and hazard quotient for a single environmental setting. A setting is a specific WMU at a specific

site, and is defined by combining site-based information (such as unit size, and unit placement) with variable environmental information (such as rainfall and exposure rates) from regional and national databases. We present the exemption levels that result from population protection percentiles of 99% and 95%.

5. Probability of Protection. The probability of protection is defined as the percentage of WMU settings that meet the population percentile criteria. We present the exemption levels that result from probability of protection levels of 95% and 90%.

Four Protection Groups are defined below in Table 1. These four groups serve to indicate the potential range of risk decision measures, from most conservative (Group 1) to least conservative (Group 4), that we could use to determine the final HWIR regulatory exemption levels. These groups are not an exhaustive look at all possible combinations of potential risk protection criteria; we could choose a different combination altogether. An example of how these protection groups are interpreted is provided below with respect to the Group 2 criteria for cancer and hazard effects, respectively:

- 99% of the population are subject to cancer risks of less than 10^{-6} across 90% of the environmental settings;
- 99% of the population experience exposure levels below an HQ of 1 across 90% of the environmental settings.

TABLE 1.—PROTECTION GROUPS EVALUATED

	Protection group 1	Protection group 2	Protection group 3	Protection group 4
Risk Level	10^{-6}	10^{-6}	10^{-5}	10^{-5}
Human Health HQ	0.1	1	1	1
Ecological HQ	1	1	1	10
Population Percentile	99	99	99	95
Probability of Protection	95	90	90	90

In addition to the five risk criteria set forth in the November 19, 1999 notice and summarized above, we present a sixth risk criterion: the distance to human and ecological receptors from the WMU. We developed draft chemical-specific waste concentrations for each of the 36 chemicals that are presented in Tables 2 through 13. These tables present results using 3MRA Model beta Version 0.98r for the four Protection Groups based on the above five protection criteria and for various distances to human receptors corresponding to 500, 1000, 2000 meters

and for a fixed distance of 2000 meters for ecological receptors.

We also are presenting in the RCRA Docket (Docket Number F-2000-WH2A-FFFFF) the following results for the same 36 chemicals:

1. Protection Group Results. Draft chemical-specific waste concentrations identified for the additional four waste management unit types (waste piles, aerated tanks, surface impoundments, and land application units);

2. Sub-Population Results. Risk or hazard quotient estimates for each sub-population (residents, gardeners, beef/dairy farmers, and fishers) for each

Protection Group and the three waste forms and the five waste management unit types;

3. Cohort Results. Risk or hazard quotient estimates for each cohort (infants, children 1-12, and adults 13 and older) for each Protection Group and the three waste forms and the five waste management unit types; and

4. Exposure Pathway Results. Risk or hazard quotient estimates for each exposure pathway (air inhalation, soil ingestion, water ingestion, crop ingestion, beef ingestion, milk ingestion, fish ingestion, shower inhalation, breast milk, all inhalation, all ingestion, all

ingestion and inhalation, and groundwater total) for each Protection Group for the three waste forms and for the five waste management unit types.

Copies of beta Version 0.98r of the 3MRA Model are in the RCRA docket on a CD. Beta Version 0.98r of the 3MRA model can also be accessed at: <http://www.epa.gov/ceampubl/hwir.htm>.

IV. What Are Possible Next Steps for the HWIR Exemption Development?

Since the results of the HWIR risk assessment model presented in today's notice are intrinsically related to the discussion of the HWIR risk assessment found in the November 19, 1999 Federal

Register notice, we have harmonized the comment periods for both to end on October 16, 2000. However, please note that nothing in today's notice changes or supersedes the information in the November 19, 1999 Federal Register notice. The information available by today's notice specifically supplements the information in Sections XV–XIX in the preamble to the November 19, 1999 discussion. Please note that today's notice does *not* re-open the comment period on the revisions to the mixture and derived-from rules that were proposed in the same November 19, 1999 Federal Register notice. That

comment period ended February 17, 2000.

We will review the public comments and decide if further revisions to the HWIR risk assessment (3MRA) model or other aspects, *e.g.*, implementation, of the HWIR exemption are necessary. We also are continuing independent testing and external peer review of the HWIR risk assessment model. Before we go final with an HWIR exemption, we will publish a proposal to allow public comment on a unified package. The exact timing of this proposal will depend on the extent of the public and peer review comments.

BILLING CODE 6560-50-P

Table 2. Chemical-specific Waste Concentrations for Solids Category (mg/kg) (Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
		HH#	Eco	Lowest†	HH#	Eco	Lowest†	HH#	Eco	Lowest†	HH#	Eco	Lowest†
Acetonitrile	75-05-8	5	note 1	5	90	note 1	90	90	note 1	90	200	note 1	200
Acrylonitrile	107-13-1	0.003	note 1	0.003	0.006	note 1	0.006	0.07	note 1	0.07	0.09	note 1	0.09
Aniline	62-53-3	0.7	100*	0.7	2	100*	2	40	100*	40	60	100*	60
Arsenic	7440-38-2	10	20	10	20	40	20	100	40	40	100	5000	100
Barium	7440-39-3	2000	600	600	30000	2000	2000	30000	2000	2000	50000	60000	50000
Benzene	71-43-2	30	1000*	30	60	1000*	60	600	1000*	600	800	1000*	800
Benz(e)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	60	60	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	100	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	20	10	10	200	50	50	200	50	50	700	90	90
Chlorobenzene	108-90-7	30	100*	30	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	200	700	200	500	3000	500	7000	3000	3000	10000*	10000*	10000*
Dibenz(a,h)anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	5	note 1	5	50	note 1	50	50	note 1	50	60	note 1	60
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.005	note 1	0.005	0.009	note 1	0.009	0.4	note 1	0.4	0.6	note 1	0.6
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	6	1000*	6	200	1000*	200	200	1000*	200	600	1000*	600
Methyl methacrylate	80-62-6	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	3	6000	3	5	10000*	5	400	10000*	400	400	10000*	400
Nickel (+2)	7440-02-0	700	600	600	6000	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	40	1000*	40	700	1000*	700	700	1000*	700	1000*	1000*	1000*
Pentachlorophenol	87-86-5	3	1	1	5	70	5	300	70	70	400	800	400
Phenol	108-95-2	6000	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	0.3	1000*	0.3	6	1000*	6	6	1000*	6	7	1000*	7
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.002	0.0006	0.0006	0.004	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	300	5000*	300	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium (+1)	7446-18-6	0.03	5	0.03	0.4	8	0.4	0.4	8	0.4	0.6	100*	0.6
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	2000	2000	5000*	4000	4000	5000*	4000	4000	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	800	6000	800	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-5	300	200	200	600	300	300	9000	300	300	10000*	2000	2000
Vinyl chloride	75-01-4	0.2	5	0.2	0.4	9	0.4	4	9	4	7	200	7
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.
 + Represents the lower concentration between carcinogenic risk and ecological impacts.
 * Values in the cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 3. Chemical-specific Waste Concentrations for Liquids Category (mg/l)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

Chemical Name	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	30	note 1	30	800	note 1	800	800	note 1	800	1000	note 1	1000
Acrylonitrile	0.005	note 1	0.005	0.01	note 1	0.01	0.7	note 1	0.7	1	note 1	1
Aniline	0.4	1000*	0.4	0.8	1000*	0.8	8	1000*	8	8	1000*	8
Arsenic	0.003	0.3	0.003	0.006	0.6	0.006	0.3	0.6	0.3	0.4	10	0.4
Barium	4	700	4	80	1000*	80	80	1000*	80	200	1000*	200
Benzene	0.07	20	0.07	0.4	40	0.4	30	40	30	40	100*	40
Benzo(a)pyrene	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	0.03	10*	0.03	0.5	10*	0.5	0.5	10*	0.5	0.7	10*	0.7
Carbon disulfide	5	10	5	100*	30	30	100*	30	30	100*	100*	100*
Chlorobenzene	0.7	100*	0.7	40	100*	40	40	100*	40	40	100*	40
Chloroform	0.3	3	0.3	0.7	8	0.7	8	8	8	9	300	9
Dibenz(a,h)anthracene	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	0.3	note 1	0.3	6	note 1	6	6	note 1	6	8	note 1	8
Divalent Mercury	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	0.0002	note 1	0.0002	0.0005	note 1	0.0005	0.02	note 1	0.02	0.07	note 1	0.07
Lead	note 2	2	2	note 2	3	3	note 2	3	3	note 2	40	40
Methyl ethyl ketone	80	2000	80	7000	6000	6000	7000	6000	6000	10000*	10000*	10000*
Methyl methacrylate	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	0.5	1000*	0.5	1	1000*	1	100	1000*	100	200	1000*	200
Nickel [+2]	0.6	1000*	0.6	40	1000*	40	40	1000*	40	50	1000*	50
Nitrobenzene	0.04	100*	0.04	0.9	100*	0.9	0.9	100*	0.9	1	100*	1
Pentachlorophenol	0.3	1*	0.3	0.6	1*	0.6	1*	1*	1*	1*	1*	1*
Phenol	400	4000	400	8000	10000*	8000	8000	10000*	8000	10000*	10000*	10000*
Pyridine	0.05	10*	0.05	0.9	10*	0.9	0.9	10*	0.9	3	10*	3
Silver	note 4	4000	note 4	6	10000*	6	6	10000*	6	8	10000*	8
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	0.000002	0.00001*	0.000002	0.000005	0.00001*	0.000005	0.000005	0.00001*	0.000005	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	0.06	100*	0.06	0.1	100*	0.1	0.1	100*	0.1	6	100*	6
Thallium [+1]	0.003	1	0.003	0.05	10*	0.05	0.05	10*	0.05	0.05	10*	0.05
Thiram	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	10	6	6	700	20	20	70	20	20	1000*	400	400
Trichloroethane, 1,1,1-	note 4	20	note 4	70	60	60	70	60	60	100	500	100
Trichloroethylene	0.5	0.3	0.3	1	0.6	0.6	60	0.6	0.6	70	20	20
Vinyl chloride	0.004	0.2	0.004	0.008	0.4	0.008	0.5	0.4	0.4	0.6	10	0.6
Zinc	30	2000	30	600	3000	600	600	3000	600	700	10000*	700

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 4. Chemical-specific Waste Concentrations for Semi-solids Category (mg/kg)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1		Protection Group 2		Protection Group 3		Protection Group 4	
		HH#	Lowest+ Eco	HH#	Lowest+ Eco	HH#	Lowest+ Eco	HH#	Lowest+ Eco
Acetonitrile	75-05-8	10	note 1	400	note 1	400	note 1	600	note 1
Acrylonitrile	107-13-1	0.003	note 1	0.005	note 1	0.07	note 1	0.09	note 1
Aniline	62-53-3	0.3	100*	0.5	100*	5	100*	8	100*
Arsenic	7440-38-2	0.003	0.04	0.003	0.08	0.006	0.08	0.4	10
Barium	7440-39-3	4	20	4	60	80	60	200	900
Benzene	71-43-2	0.07	20	0.07	40	30	40	100*	400
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.03	0.3	0.03	0.5	0.5	0.5	0.7	10*
Carbon disulfide	75-15-0	5	0.6	100*	10	100*	10	100*	80
Chlorobenzene	108-90-7	0.7	30	0.7	40	40	100*	40	100*
Chloroform	67-66-3	0.2	3	0.2	8	2	8	4	300
Dibenz(a,h)anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.3	note 1	0.3	6	6	note 1	8	note 1
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	note 4	note 1	note 4	note 1	0.0005	note 1	0.005	note 1
Lead	7439-92-1	note 2	note 4	note 4	0.6	note 2	0.6	note 2	30
Methyl ethyl ketone	78-93-3	80	1000*	80	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	30	note 1	30	600	600	note 1	800	note 1
Methylene chloride	75-09-2	0.5	600	0.5	1	100*	100*	200	1000*
Nickel (+2)	7440-02-0	0.6	5	0.6	9	40	9	50	900
Nitrobenzene	98-95-3	0.04	100*	0.04	0.4	0.4	100*	0.4	100*
Pentachlorophenol	87-86-5	0.03	1*	0.03	0.06	0.9	1*	1*	1*
Phenol	108-95-2	400	4000	400	8000	8000	10000*	10000*	10000*
Pyridine	110-86-1	0.05	10*	0.05	0.5	0.5	10*	0.5	10*
Silver	7440-22-4	note 4	0.7	note 4	3	6	3	8	8
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000005	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.06	100*	0.06	0.1	6	100*	6	100*
Thallium (+1)	7446-18-6	note 4	0.2	note 4	0.05	0.05	0.8	0.05	1*
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	10	6	6	700	700	20	1000*	400
Trichloroethane, 1,1,1-	71-55-6	note 4	20	note 4	60	70	60	100	900
Trichloroethylene	79-01-6	0.5	0.3	0.3	1	60	0.6	70	20
Vinyl chloride	75-01-4	0.004	0.2	0.004	0.4	0.008	0.4	0.5	9
Zinc	7440-66-6	30	5	5	600	600	8	700	800

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.
 + Represents the lower concentration between human health effects and ecological impacts.
 * Values in the highlighted cells are the same as the highest waste concentration evaluated.
 note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.
 note 2: Human impacts were not evaluated due to the lack of human health toxicity values.
 note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.
 N/A: Not Applicable

Table 5. Chemical-specific Waste Concentrations for Landfills Category (mg/kg)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
		HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	75-05-8	60	note 1	60	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.01	note 1	0.01	0.04	note 1	0.04	0.7	note 1	0.7	0.7	note 1	0.7
Aniline	62-53-3	0.7	100*	0.7	2	100*	2	60	100*	60	70	100*	70
Arsenic	7440-38-2	10	20	10	20	40	20	100	40	40	100	5000	100
Barium	7440-39-3	2000	800	800	30000	3000	3000	30000	3000	3000	50000	60000	50000
Benzene	71-43-2	50	1000*	50	100	1000*	100	1000*	1000*	1000*	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	200	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	60	10	10	1000*	50	50	1000*	50	50	1000*	90	90
Chlorobenzene	108-90-7	30	100*	30	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	200	2000	200	500	4000	500	7000	4000	4000	10000*	10000*	10000*
Dibenz(a,h)anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	5	note 1	5	50	note 1	50	50	note 1	50	60	note 1	60
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.005	note 1	0.005	0.01	note 1	0.01	0.4	note 1	0.4	0.8	note 1	0.8
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	50	1000*	50	800	1000*	800	800	1000*	800	1000*	1000*	1000*
Methyl methacrylate	80-62-6	600	note 1	600	1000*	note 1	1000*	1000	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	100	10000*	100	300	10000*	300	2000	10000*	2000	4000	10000*	4000
Nickel [+2]	7440-02-0	1000	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	70	1000*	70	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Pentachlorophenol	87-86-5	3	1	1	5	70	5	300	70	70	400	800	400
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	3	1000*	3	50	1000*	50	50	1000*	50	70	1000*	70
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.005	0.0006	0.0006	0.01*	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	400	5000*	400	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.03	5	0.03	0.4	8	0.4	0.4	8	0.4	0.6	100*	0.6
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	3000	3000	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	1000	10000*	1000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	400	200	200	800	300	300	10000*	300	300	10000*	4000	4000
Vinyl chloride	75-01-4	0.4	8	0.4	0.7	30	0.7	20	30	20	30	300	30
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 8. Chemical-specific Waste Concentrations for Semi-solids Category (mg/kg) (Human Receptors - 1000 meters; Ecological Receptors - 2000 meters)

Chemical Name	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
	BB#	Eco	Lowest+	BB#	Eco	Lowest+	BB#	Eco	Lowest+	BB#	Eco	Lowest+
Acetonitrile	20	note 1	20	500	note 1	500	500	note 1	500	600	note 1	600
Acrylonitrile	0.003	note 1	0.003	0.006	note 1	0.006	0.09	note 1	0.09	0.3	note 1	0.3
Aniline	0.3	100*	0.3	0.6	100*	0.6	7	100*	7	10	100*	10
Arsenic	0.004	0.04	0.004	0.007	0.08	0.007	0.4	0.08	0.08	0.6	10	0.6
Barium	4	20	4	90	60	60	90	60	60	600	900	600
Benzene	0.07	20	0.07	0.4	40	0.4	30	40	30	70	100	70
Benzo(a)pyrene	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	0.04	0.3	0.04	0.6	0.7	0.6	0.6	0.7	0.6	1	10*	1
Carbon disulfide	6	0.6	0.6	100*	10	10	100*	10	10	100*	80	80
Chlorobenzene	0.5	30	0.5	20	100*	20	20	100*	20	70	100*	70
Chloroform	0.2	3	0.2	0.4	8	0.4	4	8	4	4	300	4
Dibenz(a,h)anthracene	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	0.3	note 1	0.3	6	note 1	6	6	note 1	6	30	note 1	30
Divalent Mercury	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	0.0002	note 1	0.0002	0.0004	note 1	0.0004	0.005	note 1	0.005	0.005	note 1	0.005
Lead	note-2	note 3	note 3	note 2	0.6	0.6	note 2	0.6	0.6	note 2	30	30
Methyl ethyl ketone	80	1000*	80	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	40	note 1	40	700	note 1	700	700	note 1	700	1000*	note 1	1000*
Methylene chloride	0.4	600	0.4	0.8	1000*	0.8	100	1000*	100	400	1000*	400
Nickel [+2]	1	5	1	9	9	9	50	9	9	200	900	200
Nitrobenzene	0.03	100*	0.03	0.4	100*	0.4	0.4	100*	0.4	0.6	100*	0.6
Pentachloropheno	0.04	1*	0.04	0.07	1*	0.07	1*	1*	1*	1*	1*	1*
Phenol	500	4000	500	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	0.04	10*	0.04	0.5	10*	0.5	0.5	10*	0.5	0.8	10*	0.8
Silver	note-3	note 3	note 3	7	3	3	7	3	3	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	0.000002	0.00001*	0.000002	0.000006	0.00001*	0.000006	0.000006	0.00001*	0.000006	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	0.06	100*	0.06	0.3	100*	0.3	7	100*	7	50	100*	50
Thallium [+1]	note 3	0.2	note 3	0.05	0.8	0.05	0.05	0.8	0.05	0.09	1*	0.09
Thiram	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	20	6	6	800	20	20	800	20	20	1000*	400	400
Trichloroethane, 1,1,1-	note 3	20	note 3	60	60	60	60	60	60	600	900	600
Trichloroethylene	0.4	0.3	0.3	0.8	0.6	0.6	60	0.6	0.6	100*	20	20
Vinyl chloride	0.003	0.2	0.003	0.007	0.4	0.007	0.4	0.4	0.4	0.5	9	0.5
Zinc	40	5	5	700	8	8	700	8	8	3000	800	800

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 9. Chemical-specific Waste Concentrations for Landfills Category (mg/kg)
(Human Receptors - 1000 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
		HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	75-05-8	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.008	note 1	0.008	0.03	note 1	0.03	0.7	note 1	0.7	3	note 1	3
Aniline	62-53-3	0.9	100*	0.9	3	100*	3	70	100*	70	100*	100*	100*
Arsenic	7440-38-2	10	20	10	20	40	20	1000	40	40	3000	5000	3000
Barium	7440-39-3	2000	800	800	30000	3000	3000	30000	3000	3000	70000	60000	60000
Benzene	71-43-2	80	1000*	80	300	1000*	300	1000*	1000*	1000*	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	200	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	60	10	10	1000*	50	50	1000*	50	50	1000*	90	90
Chlorobenzene	108-90-7	40	100*	40	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	300	2000	300	600	4000	600	10000*	4000	4000	10000*	10000*	10000*
Dibenz(a,h)anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	8	note 1	8	60	note 1	60	60	note 1	60	200	note 1	200
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.008	note 1	0.008	0.1	note 1	0.1	0.6	note 1	0.6	7	note 1	7
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	50	1000*	50	800	1000*	800	800	1000*	800	1000*	1000*	1000*
Methyl methacrylate	80-52-6	500	note 1	500	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	200	10000*	200	300	10000*	300	3000	10000*	3000	6000	10000*	6000
Nickel [*2]	7440-02-0	800	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	80	1000*	80	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Pentachlorophenol	87-86-5	1	1	1	4	70	4	300	70	70	500	800	500
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	3	1000*	3	60	1000*	60	60	1000*	60	200	1000*	200
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.008	0.0006	0.0006	0.01*	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	500	5000*	500	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [*1]	7446-18-6	0.03	5	0.03	0.6	8	0.6	0.6	8	0.6	1	100*	1
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	3000	3000	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	3000	10000*	3000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	500	200	200	1000	300	300	10000*	300	300	10000*	4000	4000
Vinyl chloride	75-01-4	0.4	8	0.4	0.8	30	0.8	20	30	20	50	300	50
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 10. Chemical-specific Waste Concentrations for Solids Category (mg/kg) (Human Receptors - 2000 meters, Ecological Receptors - 2000 meters)

Chemical Name	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	6	note 1	6	200	note 1	200	200	note 1	200	1000*	note 1	1000*
Acrylonitrile	0.005	note 1	0.005	0.01	note 1	0.01	0.1	note 1	0.1	10*	note 1	10*
Aniline	0.7	100*	0.7	4	100*	4	60	100*	60	100*	100*	100*
Arsenic	20	20	20	40	40	40	2000	40	40	8000	5000	5000
Barium	3000	600	600	50000	2000	2000	50000	2000	2000	100000*	60000	60000
Benzene	71-43-2	20	1000*	50	1000*	50	800	1000*	800	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	60	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	400	30	30	1000*	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	50	10	10	900	50	900	50	50	1000*	90	90
Chlorobenzene	108-90-7	60	100*	60	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	400	700	400	700	3000	10000*	3000	3000	10000*	10000*	10000*
Dibenz(a,h)anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1
Dichlorophenoxyacetic acid, 2,4-	94-75-7	10	note 1	10	note 1	90	90	note 1	90	800	note 1	800
Divalent Mercury	7439-97-6	10*	3	3	10*	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.01	note 1	0.01	note 1	0.2	0.7	note 1	0.7	40	note 1	40
Lead	7439-92-1	note 2	5	5	note 2	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	20	1000*	20	600	1000*	600	1000*	600	1000*	1000*	1000*
Methyl methacrylate	80-62-6	100	note 1	100	1000*	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	5	6000	5	10	10000*	10	10000*	400	10000*	10000*	10000*
Nickel (-2)	7440-02-0	3000	600	600	10000*	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	60	1000*	60	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000
Pentachlorophenol	87-86-5	3	1	1	7	70	400	70	70	1000*	800	800
Phenol	108-95-2	10000*	4000	4000	10000*	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	0.5	1000*	0.5	10	1000*	10	1000*	10	1000*	1000*	1000*
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.003	0.0006	0.0006	0.007	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	900	5000*	900	2000	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Thallium (+1)	7446-18-6	0.05	5	0.05	0.9	8	0.9	8	0.9	7	100*	7
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	2000	2000	5000*	4000	5000*	4000	4000	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	2000	6000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	500	200	200	900	300	10000	300	300	10000*	2000	2000
Vinyl chloride	75-01-4	0.3	5	0.3	0.5	9	8	9	8	700	200	200
Zinc	7440-66-6	10000*	300	300	10000*	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between carcinogenic risk and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 11. Chemical-specific Waste Concentrations for Liquids Category (mg/l)
(Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
		HH#	Eco	Lowest*	HH#	Eco	Lowest*	HH#	Eco	Lowest*	HH#	Eco	Lowest*
Acetonitrile	75-05-8	30	note 2	30	2000	note 2	2000	2000	note 2	2000	9000	note 2	9000
Acrylonitrile	107-13-1	0.05	note 2	0.05	0.3	note 2	0.3	1	note 2	1	50	note 2	50
Aniline	62-53-3	0.5	1000*	0.5	6	1000*	6	9	1000*	9	600	1000*	600
Arsenic	7440-38-2	0.007	0.3	0.007	0.2	0.6	0.2	0.7	0.6	0.6	40	10	10
Barium	7440-39-3	7	700	7	600	1000*	600	600	1000*	600	1000*	1000*	1000*
Benzene	71-43-2	0.4	20	0.4	1	40	1	60	40	40	100*	100*	100*
Benzofluorene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.07	10*	0.07	2	10*	2	2	10*	2	10*	10*	10*
Carbon disulfide	75-15-0	20	10	10	100*	30	30	100*	30	30	100*	100*	100*
Chlorobenzene	108-90-7	0.9	100*	0.9	70	100*	70	70	100*	70	100*	100*	100*
Chloroform	67-66-3	0.4	3	0.4	0.8	8	0.8	100	8	8	700	300	300
Dibenz(a,h)anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.8	note 2	0.8	40	note 2	40	40	note 2	40	100*	note 2	100*
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0004	note 2	0.0004	0.0008	note 2	0.0008	0.2	note 2	0.2	0.5	note 2	0.5
Lead	7439-92-1	note 1	2	2	note 1	3	3	note 1	3	3	note 1	40	40
Methyl ethyl ketone	78-93-3	500	2000	500	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Methyl methacrylate	80-62-6	100	note 2	100	1000*	note 2	1000*	1000*	note 2	1000*	1000*	note 2	1000*
Methylene chloride	75-09-2	3	1000*	3	8	1000*	8	300	1000*	300	1000*	1000*	1000*
Nickel [+2]	7440-02-0	3	1000*	3	200	1000*	200	200	1000*	200	1000*	1000*	1000*
Nitrobenzene	98-95-3	0.07	100*	0.07	10	100*	10	10	100*	10	80	100*	80
Penachlorophenol	87-86-5	0.7	1*	0.7	1*	1*	1*	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	2000	4000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	110-86-1	0.2	10*	0.2	6	10*	6	6	10*	6	10*	10*	10*
Silver	7440-22-4	note 4	4000	note 4	30	10000*	30	30	10000*	30	2000	10000*	2000
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000008	0.00001*	0.000008	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.4	100*	0.4	1	100*	1	20	100*	20	100*	100*	100*
Thallium [+1]	7446-18-6	0.005	1*	0.005	0.1	1*	0.1	0.1	1*	0.1	1*	1*	1*
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	60	6	6	1000*	20	20	1000*	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	4	20	4	100	60	60	100	60	60	1000*	900	900
Trichloroethylene	79-01-6	0.8	0.3	0.3	20	0.6	0.6	80	0.6	0.6	100*	20	20
Vinyl chloride	75-01-4	0.006	0.2	0.006	0.08	0.4	0.08	0.7	0.4	0.4	30	10	10
Zinc	7440-66-6	80	2000	80	2000	3000	2000	2000	3000	2000	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 12. Chemical-specific Waste Concentrations for Semi-solids Category (mg/kg) (Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
		HHR#	Eco	Lowest+	HHR#	Eco	Lowest+	HHR#	Eco	Lowest+	HHR#	Eco	Lowest+
Acetonitrile	75-05-8	30	note 1	30	700	note 1	700	700	note 1	700	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.004	note 1	0.004	0.008	note 1	0.008	0.2	note 1	0.2	0.7	note 1	0.7
Aniline	62-53-3	0.4	100*	0.4	0.7	100*	0.7	9	100*	9	50	100*	50
Arsenic	7440-38-2	0.007	0.04	0.007	0.2	0.08	0.08	0.7	0.08	0.08	40	10	10
Barium	7440-39-3	7	20	7	600	60	60	60	60	60	1000*	900	900
Benzene	71-43-2	0.4	20	0.4	1	40	1	60	40	40	100*	100*	100*
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.07	0.3	0.07	2	0.7	0.7	2	0.7	0.7	10*	10*	10*
Carbon disulfide	75-15-0	20	0.6	0.6	100*	10	10	100*	10	10	100*	80	80
Chlorobenzene	108-90-7	0.9	30	0.9	70	100*	70	70	100*	70	100*	100*	100*
Chloroform	67-66-3	0.2	3	0.2	0.5	8	0.5	6	8	6	300	300	300
Dibenz(a,h)anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.4	note 1	0.4	40	note 1	40	40	note 1	40	60	note 1	60
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0004	note 1	0.0004	0.0008	note 1	0.0008	0.007	note 1	0.007	0.5	note 1	0.5
Lead	7439-92-1	note 2	note 3	note 2	note 2	0.6	0.6	note 2	0.6	0.6	note 2	30	30
Methyl ethyl ketone	78-93-3	500	1000*	500	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	3	600	3	8	1000*	8	300	1000*	300	900	1000*	900
Nickel [*2]	7440-02-0	3	5	3	200	9	9	200	9	9	1000	900	900
Nitrobenzene	98-95-3	0.07	100*	0.07	0.7	100*	0.7	0.7	100*	0.7	10	100*	10
Pentachlorophenol	87-86-5	0.07	1*	0.07	0.2	1*	0.2	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	2000	4000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	110-86-1	0.2	10*	0.2	0.7	10*	0.7	0.7	10*	0.7	4	10*	4
Silver	7440-22-4	note 3	0.7	note 3	10*	3	3	10*	3	3	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.00002	0.00001*	0.00002	0.00008	0.00001*	0.00008	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.4	100*	0.4	1	100*	1	20	100*	20	100*	100*	100*
Thallium [+1]	7446-18-6	note 3	0.2	note 3	0.09	0.8	0.09	0.09	0.8	0.09	0.4	1*	0.4
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	60	6	6	1000*	20	20	1000*	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	4	20	4	100	60	60	100	60	60	1000*	900	900
Trichloroethylene	79-01-6	0.8	0.3	0.3	9	0.6	0.6	80	0.6	0.6	100*	20	20
Vinyl chloride	75-01-4	0.006	0.2	0.006	0.08	0.4	0.08	0.6	0.4	0.4	5	9	5
Zinc	7440-66-6	80	5	5	2000	8	8	2000	8	8	10000*	800	800

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between carcinogenic risk and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 13. Chemical-specific Waste Concentrations for Landfills Category mg/kg
(Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

Chemical Name	CASRN	Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
		HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	75-05-8	200	note 1	200	1000*	note 1	1000	1000*	note 1	1000*	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.04	note 1	0.04	0.07	note 1	0.07	2	note 1	2	10	note 1	10
Aniline	62-53-3	3	100*	3	6	100*	6	100*	100*	100*	100*	100*	100*
Arsenic	7440-38-2	20	20	20	40	40	40	2000	40	40	8000	5000	5000
Barium	7440-39-3	3000	800	800	50000	3000	3000	50000	3000	3000	100000*	60000	60000
Benzene	71-43-2	300	1000*	300	600	1000*	600	1000*	1000*	1000*	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	400	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	200	10	10	1000*	50	50	1000*	50	50	1000*	90	90
Chlorobenzene	108-90-7	80	100*	80	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	400	2000	400	800	4000	800	10000	4000	4000	10000*	10000*	10000*
Dibenz(a,h)anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	10	note 1	10	90	note 1	90	90	note 1	90	800	note 1	800
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.04	note 1	0.04	0.2	note 1	0.2	0.9	note 1	0.9	40	note 1	40
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	100	1000*	100	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	800	note 1	800	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	200	10000*	200	400	10000*	400	5000	10000*	5000	10000*	10000*	10000*
Nickel [+2]	7440-02-0	3000	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	200	1000*	200	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Pentachlorophenol	87-86-5	3	1	1	7	70	7	400	70	70	1000*	800	800
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	4	1000*	4	80	1000*	80	80	1000*	80	1000*	1000*	1000*
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.008	0.0006	0.0006	0.01*	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	900	5000*	900	2000	5000*	2000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.06	5	0.06	1	8	1	1	8	1	7	100	7
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	3000	3000	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	2000	10000*	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	500	200	200	900	300	300	10000*	300	300	10000*	4000	4000
Vinyl chloride	75-01-4	0.6	8	0.6	2	30	2	40	30	30	700	300	300
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Dated: July 7, 2000.

Elizabeth A. Cotsworth,
Director, Office of Solid Waste.

[FR Doc. 00-18103 Filed 7-17-00; 8:45 am]

BILLING CODE 6560-50-C

NEWALTA

Better ways to manage waste

September 10, 2004

Washington State Department of Ecology
Hazardous Waste and Toxics Reduction Program
HWTR Program
P.O. Box 47600
Olympia, Washington 98504

Attention: Chipper Hervieux

Re: Newalta Corporation Comments on Proposed Amendments to Washington State Department of Ecology Dangerous Waste Regulations – Chapter 173-303 WAC

Newalta Corporation is western Canada's largest hydrocarbon recovery and recycling company, employing over 600 people and a market capital of over \$500 million Canadian. Newalta operates a used oil recycling re-refinery in North Vancouver B.C. and produces over 40 products by recycling used lube oil products, glycols, solvents and other waste hydrocarbons. Our first priority is to recycle these materials for multiple lifecycle use, rather than one time burning for energy recovery. More information on Newalta including its comprehensive EH&S program is available for viewing on our website www.newalta.com

- Newalta supports the excellent hazardous waste management principles cited in Hazardous Waste Identification Rule (HWIR): Revisions to the Mixture and Derived from Rules 66 FR 27266-27297. Specifically Newalta endorses the concept that dilution of hazardous waste is not a waste management alternative. We urge the state not to relax its standard on this principle
- Newalta strongly supports the State of Washington position to be as stringent as possible with its regulations, in particular the "mixtures" and "de minimis" exclusions rules. The statement "De minimis exclusions have consistently been considered as inappropriate ways to manage dangerous wastes in Washington primarily because many small amounts of such wastes can add up to larger amounts of waste being excluded through dilution. Additionally, such practices are inconsistent with managing dangerous wastes as far up the waste management hierarchy as possible and moving toward Beyond Waste goals." is particularly powerful and should be continued.

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Newalta urges the State of Washington requirements for managing used lubricating oils not be weakened. WAC 173-303-515(13) should be amended to specify both used lube oil quality and blended mixtures of used lube oil and other hydrocarbons. Newalta developed a draft Used Lube Oil Contamination Protocol (copy attached) for the BC Used Oil Management Association (BCUOMA). The BCUOMA program which was enabled by provincial legislation to manage used lube oil products by the British Columbia Ministry of Water Land and Air Protection in July of 2003, is an Extended Producer Responsibility (EPR) collection only program. BCUOMA collects a fee of \$0.05 per litre of lube oil sold in the province. These fees are then used to pay Return Incentives to collectors who purchase the waste oil from the generators. The program only rewards collection. It does not specify that the collected products should be preferentially recycled for multiple life cycle use over burning of unprocessed used oil and blended mixtures. This EPR funds collection of used lube oil products but no similar EPR programs exist for glycols, solvents or other contaminated fuels that are also generated at most sites where used lube oil products are generated. More information is available on the BCUOMA and similar programs in western Canada at www.usedoilrecycling.com

515 (18)

Newalta believes that programs such as BCUOMA, if not supported by appropriate regulation and enforcement, provide a financial incentive for waste generators to inappropriately mix waste streams to decrease waste management expenses. In the period subsequent to the implementation of the BCUOMA program we have noticed a decline in collected volumes for the other hydrocarbon streams that we receive. It is possible that these streams are being blended into the oil stream. One of the outlets for a substantial portion of the waste streams is Industrial Fuel Oil for industrial burners such as asphalt plants in BC and pulp mills in Washington State. Newalta is currently working to encourage the BC Ministry of Water Land and Air Protection to use our draft contamination protocol to enforce the compliance and enforcement provision of their legislative tools as it pertains to Industrial Fuel Oils blended from waste oil. We believe that this will enhance the BC Hazardous Waste Regulation which does not allow mixing of hazardous recyclables to make Industrial Fuel Oils. The Ministry of Water Land and Air Protection has not yet asked BCUOMA to require testing of any of the used lube oils for contamination other than water when the oil is collected. Newalta would also encourage jurisdictions adjoining British Columbia to assess the value of this protocol to compliment their regulations in order to ensure that fuel streams being shipped across borders are managed consistently in all jurisdictions.

Newalta also encourages the State of Washington to maintain a strong Hazardous Waste Facility licensing initiative under the State Hazardous Waste Management Act, Chapter 70.105 RCW to minimize the opportunity for hazardous waste facilities to go bankrupt. The Province of British Columbia has had to pay to clean up one failed facility in Kamloops, BC and currently it appears that another one in the Abbotsford area is heading for a similar fate (reference the September 4, 2004 news items on Canada Petroleum Corporation at www.abbynews.com).

HWF1

It is Newalta's view that collection is only one part of the equation and that recycling for multiple life cycle should be encourage as it achieves two goals:

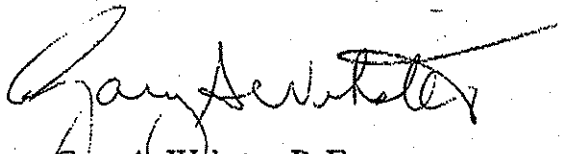
- Higher value products for society
- More sustainable, technology based jobs are created.

Newalta also supports the intent of WAC 173-303-300(2)(a)&(b) and the new definition in WAC 173-303-040 for "Knowledge". It is Newalta's experience that if Generators are not required to test their waste streams regularly, this is a strong incentive to blend other wastes into the used lube oil. Newalta works with its customers to discourage that practice as we want as high quality used lube oil feed stock as possible for our North Vancouver re-refinery. This call for high quality feed stock is another reason that Newalta provided the draft contamination analytical protocol. Newalta strongly recommends that the State of Washington Department of Ecology conduct spot checks on some of the Industrial Fuel Oil being imported into Washington from BC using the simplified testing requirements referenced in WAC 173-303-515(13) or in the Newalta draft contamination protocol.

We hope that these comments have been useful in your review of the Dangerous Waste Regulations. If you would like to discuss any of the points further, please feel free to contact me by email at gwebster@newalta.com, or telephone at (403) 206-2688.

Sincerely,

NEWALTA CORPORATION



Gary A. Webster, P. Eng.,
Director, Government Relations.

To be printed on the various UOMA letterhead

June 2004

Memorandum to: Used Lubricating Oil Generators and Collectors

RE: Used Oil Management Associations - Testing of Used Oil for Contamination

Collectors of used oil products registered with the various Used Oil Management Associations in Western Canada (UOMA's) believe that the current used oil stewardship programs do not address the potential for illegal contamination of used lube oil with hazardous wastes or recyclables.

At present the only routine testing required by the UOMA's is water content. The following are other liquid wastes reportedly included in some used lube oil collections.

- Glycol
- Solvents
- Gasoline
- Diesel fuel
- Cutting fluid
- Parts washer fluid

In response to this potential, the UOMA's will henceforth conduct on a complaint received and as a routine component of the audit process, screening analysis of samples of used lube oils for contaminants. The findings will be reported to the Collector. Those Collectors found to have accepted improperly commingled used lube oil the Return Incentive (RI) will not be paid for that particular load. Should the samples show levels of contamination above used oil specification, the results may also be discussed with the original Generator and/or the appropriate regulator.

Samples will be tested using one or more of the following industry standard test methods:

Screening methods – to determine if contamination is present.

- ASTM D96 - Water and sediment by centrifuge
- ASTM D93 - Flash point by closed cup tester (\$40)
- ASTM D2982 – Determination of glycol-based antifreeze in used lubricating oil
- ASTM D5384 – Chlorine Used Oil by field test kit (\$20)
- Routine engine oil analysis method by tribology laboratory (under \$20)

These tests can be undertaken and results achieved for under \$100

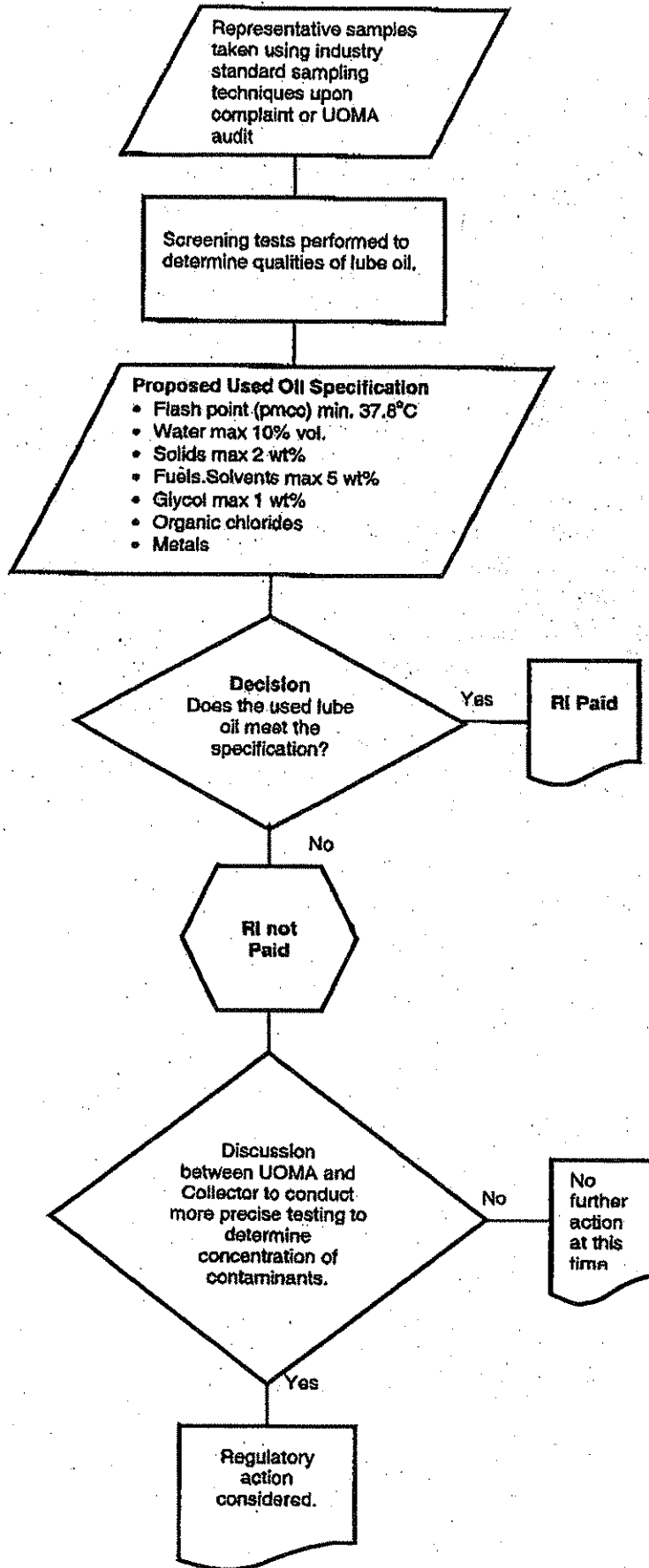
Wide spread contamination of used lube oil is not expected to be identified. Should the problem be identified, the UOMA's should at that time develop through a consultative process more detailed testing based on the following detailed methods.

- ASTM D95 - Water by distillation
- ASTM D3524 - Diesel diluent in used engine oils by Gas Chromatography
- ASTM D3525 - Gasoline diluent in used engine oils by Gas Chromatography
- ASTM D322 - Gasoline diluent in used gasoline engine oils by distillation
- ASTM D4291 – Ethylene-glycol in used oil by Gas Chromatography
- ASTM D4929 – Organic chloride determination

Attached is a proposed decision tree for evaluation of used lube oil samples and return incentive payment.

Signed by the Executive Director of the specific UOMA

USED OIL MANAGEMENT ASSOCIATION USED OIL CONTAMINATION DECISION TREE





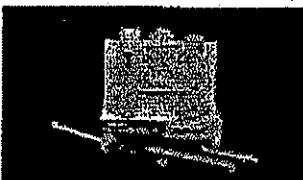
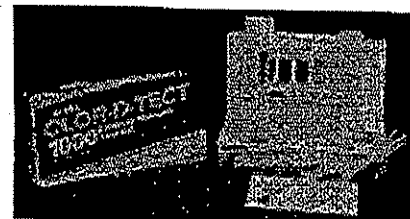
OSPREY SCIENTIFIC INC.

Detailed Product Profile

CLOR-D-TECT

On-Site Testing For Total Chlorine In Used Oil

Clor-D-Tect Q4000 uses US EPA SW-846 Method 9077 to determine quantitative chlorine levels in used oil. The kit determines the chlorine level of used oil over the range of 200 ppm to 4000 ppm. The kit has been proven invaluable when different oil lots are blended or when the user must know how close a quantity of waste oil is to the 1000 ppm or 4000 ppm action level. Clor-D-Tect Q4000 is a proven test to measure chlorine in crankcase, hydraulic, diesel, lubricating oils and virtually any hydrocarbon-based solvent.



The pocket-sized Clor-D-Tect Q4000 kit has all its pre-measured reagents sealed in glass ampoules for safe, consistent, and accurate results. The test is quick and easy to run, with results obtained in the field in less than 5 minutes with no special training.

How Clor-D-Tect Works:

The Clor-D-Tect kits are completely self-contained and hold all the reagents and materials necessary to perform the testing. A small, plastic sampling syringe is filled with the oil to be tested. The oil sample is then dispensed into a flexible plastic test tube, which contains two reagent ampoules. These ampoules are broken in sequence and the reagents are allowed to react with the oil. An aqueous buffer solution is then poured into the test tube and the mixture is well shaken. After being allowed to settle for one minute, the aqueous solution is decanted into a second test tube through a dispensing cap. In the case of Clor-D-Tect 1000, two more reagent ampoules are broken and the color of the solution is observed. If the solution is violet, the sample contains less than 1000-ppm chlorine. In the case of Clor-D-Tect Q4000, a small titrating syringe is screwed into the top of the test tube. The operator dispenses the titrant dropwise until the solution changes color. The chlorine concentration is then read off the side of the syringe. Each kit takes about five minutes from start to finish.

The test kits are the fastest, easiest way to verify total halogen levels as required by the regulations. The kits are designed to be used by anyone and can be run successfully after reading the one page instructions.

Clor-D-Tect kits are available in packages of ten or twenty and can be shipped non-hazardous by ground or air. The kits have a shelf life of one year and do not require refrigeration. A complimentary video showing how the kits work is available.

Specifications:

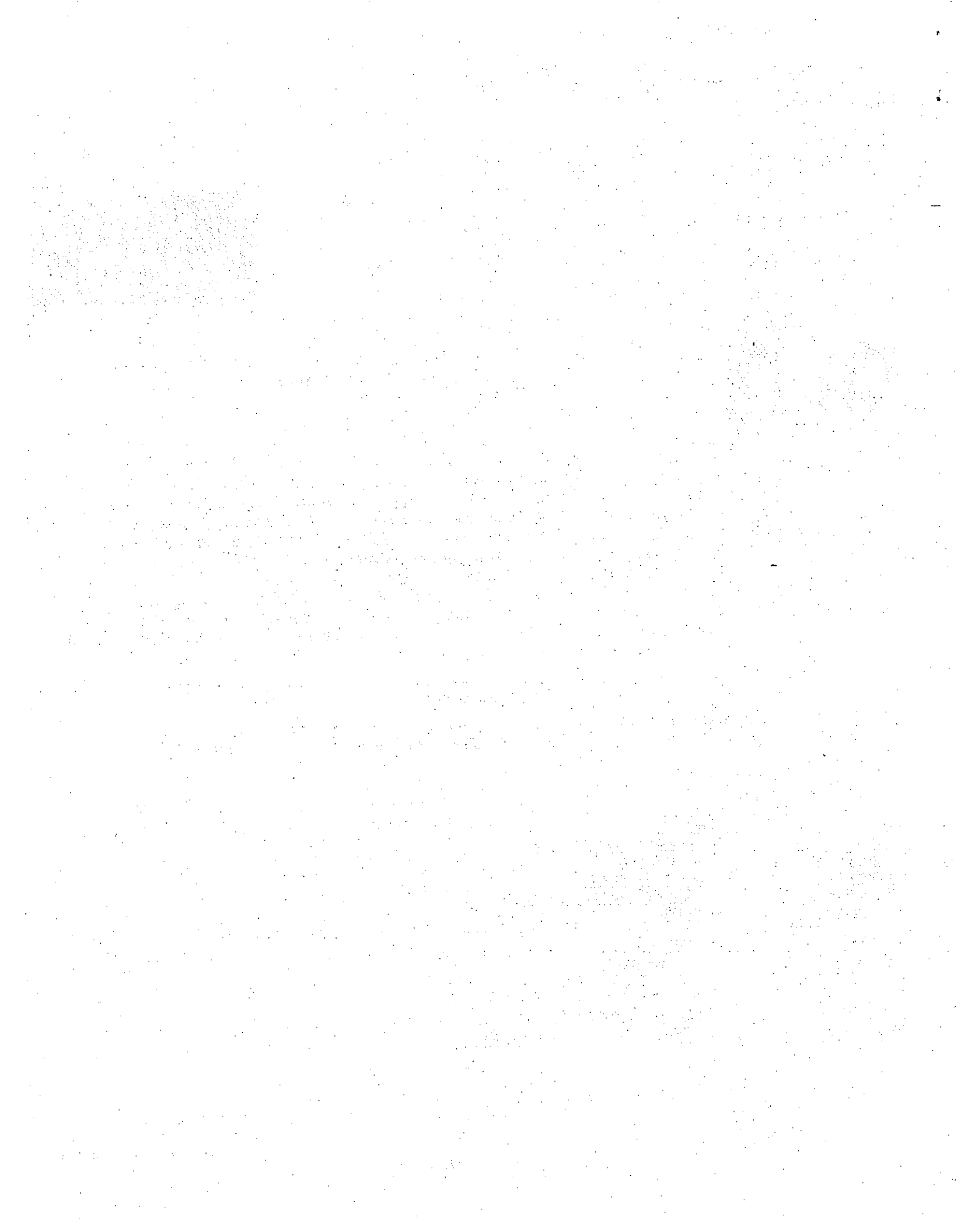
Analytes:	Chlorine
Matrix:	Used Oil
Detection Method:	Quantitative colorimetric titration
Range Levels:	200 - 4000 ppm
Analysis Time:	Less than 5 minutes
Official Method:	US EPA SW-846 Method 9077
Part Number:	DXQ4000
Order Code #	Description
DXCDETPK	Clor-D-Tect 1000, 20 kits
DXCDETC5	Clor-D-Tect 1000, 80 kits or 4 packs
DXQ4000PK	Clor-D-Tect Q4000, 20 kits
DXQ4000CS	Clor-D-Tect Q4000, 80 kits or 4 packs

100 - 18130 - 105 Ave. Edmonton, AB T5S 2T4
 Ph: (780) 487-4334 Fax: (780) 483-9110
 Order Desk: 1-800-560-4402

CANADA

4025 Sladeview Cr. Unit #1 Mississauga, ON L5L 5Y1
 Ph: (905) 820-3122 Fax: (905) 820-9867
 Order Desk: 1-866-436-0616

www.ospreyscientific.com



Dangerous Waste Regulations Chapter 173-303 WAC
Proposed rule comments – September 2004
Washington State Register: 04-14-094
(Part 1 of FH comments)

First and Last Name: Anthony G. (Tony) Miskho
Organization or Affiliation: Fluor Hanford (FH)
Address: P.O. Box 1000, MSIN H8-40, Richland, WA 99352

For brevity, citations to section# of WAC 173-303 will be noted without the full reference to the Chapter. For example, "-010" will imply reference to WAC 173-303-010. FH has submitted this comment on past rulemakings.

Page# refers to page of the Washington State Register, volume 04-14.

Section # -010 Page # 160 Citation # -010(1)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

FH supports the inclusion of the Note clarifying that the terms public health and human health are used interchangeably in the Dangerous Waste Regulations.

Please provide specific language for your recommended change or addition.

No changes are requested.

Section # -040 Page # Citation # Definition of Halogenated Organic Compound

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

As part of this rulemaking package, Ecology is proposing to establish a list of halogenated organic compounds (HOCs) in the amendments to the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407). FH supports this approach to establish such a list. Additional comments on the approach to establishing the list of HOCs and related information is contained in Part 2 of this package. As part of implementing a uniform approach to establishing a list of HOCs, Ecology needs to maintain this list in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) as apposed to a list on Ecology's webpage for the reasons cited in Part 2 of the comment package. Based on an assumption that Ecology will accept the comment to maintain the list of HOCs in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407), a change is proposed to the definition of HOCs in -040. The proposal deletes the word 'any' and adds text to inform the reader the list of HOCs exists.

Please provide specific language for your recommended change or addition.

The definition of HOCs should be revised to read:

“ ‘Halogenated organic compounds’ (HOC) means any-organic compounds which, as part of their composition, include one or more atoms of fluorine, chlorine, bromine, or iodine which is/are bonded directly to a carbon atom. This definition does not apply to the federal land disposal restrictions of 40 CFR Part 268 which are incorporated by reference at WAC 173-303-140(2)(a). Note: Additional information on HOCs, including the list of HOCs regulated under the persistence criteria of this chapter may be found in *Chemical Testing Methods for Designating Dangerous Waste*, Ecology Publication #97-407, revised December 2004.”

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 1)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed a new definition of ‘knowledge’ in this rulemaking effort. The proposed definition reads:

“ ‘Knowledge’ means there is sufficient information about both the waste constituents and the process generating a waste to reliably substitute for direct testing of the waste. Such information must include the chemical, physical, and/or biological characteristics of the waste. (For example, if all chemical constituents used in an industrial process generating a waste are known and the formation of the waste by-products from that industrial process are understood, that information may be sufficient without direct laboratory analysis to describe waste for safe management under this chapter.)

Note: Knowledge as defined here is for the purpose of complying with WAC 173-303-070(3)(c) and 173-303-300(2).”

This proposed definition is inappropriate and also brings into play many other problems commented on here and other comments on the proposed changes to -300(2).

Specifically, the proposed definition of ‘knowledge’ is:

- unnecessarily prescriptive and inflexible and requires encyclopedic knowledge of the waste,
- impacting the waste generators in the state,
- vague and ambiguous because the word ‘sufficient’ has different meanings under different circumstances,
- eliminating mixed waste testing flexibility provided in guidance issued by the Nuclear Regulatory Commission (NRC)/U.S. Environmental Protection Agency (EPA),
- inconsistent with knowledge requirements for designating the toxicity criteria,
- removes necessary flexibility to address the variety of waste management scenarios,
- does not provide a meaningful example, and
- is defining a term contrary to application of the English language.

These individual aspects are broken up into 8 separate comments.

Regarding the first item, the proposed definition of knowledge is unnecessarily prescriptive and inflexible and requires encyclopedic knowledge of the waste. A great

deal of information can be garnered from direct testing of a waste, including information not relevant to the actual designation under -070(3) or proper management under -300(2) of a waste (e.g. viscosity, color). However, the wording of the -040 definition as proposed appears to make encyclopedic knowledge of the waste (physical, chemical, and/or biological) necessary in order to substitute for laboratory analysis (“sufficient information ... to reliably substitute”). Direct testing of a waste seldom reveals information about the process sufficient to designate waste, especially listed waste (see, e.g., RCRA Online, Faxback 12171, 12392, 14291). Hence the proposed definition’s requirement that knowledge about the process must be sufficient to substitute for direct testing is unnecessarily stringent and would pose significant implementation problems and expense for generators. In practice, most waste designations utilize at least some process knowledge that can not be equated with any direct testing.

This proposal by Ecology will add new requirements, contrary to the following statement found in the explanatory text on Ecology’s web page which states: “The rule amendment elaborates on that requirement but doesn’t impose new requirements.” The additional comments on the proposed definition of ‘knowledge’ and the waste analysis changes in -300(2) will identify the new requirements being imposed. In Ecology’s explanation of proposed changes in the Small Business Economic Impact Statement, section 2.1 text indicates that the impact of this rule change is ‘negligible.’ FH comments on the definition of ‘knowledge’ and the proposed waste analysis changes in -300(2) will show Ecology’s conclusion on this matter is faulty. For this reason, and all the other reasons described in these comments, Ecology needs to withdraw the proposed definition of knowledge and rely on the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) for any additional explanations of knowledge regarding sufficiency for generators. Perhaps Ecology should consider using the term ‘acceptable knowledge,’ a term the EPA uses in its guidance. Ecology needs to avoid defining the term ‘knowledge’ based on how EPA uses the term ‘process knowledge’ and ‘acceptable knowledge’ in their guidance. If review of the information in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) does not match Ecology’s expectation, then Ecology should re-propose a new package to the regulated community with changes being made in that document.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA’s terminology for ‘acceptable knowledge.’ Avoid defining the term ‘knowledge.’

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Second, we are also concerned about the impact of the proposed rule amendment on waste generators in the state. The definition of “knowledge” proposed would impact all generators’ waste designation processes and are significantly more prescriptive than the

current Ecology regulatory framework. The level of knowledge being proposed necessary to substitute for laboratory testing of waste will likely have the result of many more questions being raised about waste designation, and a resultant shift to laboratory testing by generators to characterize their waste. Ecology notes in their reason statement that laboratory testing is costly and unnecessary in some cases. The issues of knowledge were heavily commented on during the last revision of the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407). Many sections of this publication and the definition of 'process knowledge' in the glossary of this document received much attention. Since Ecology did not propose any related changes to Publication #97-407, the regulated community is at a loss as to how the proposed changes apply to all the discussions contained in the response to comments section for publication #97-407 that is contained in Appendix D to *Responsiveness Summary Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC*, Publication 97-439, dated January 1988.

The note following the -040 definition indicates that the definition is to be used for compliance with both the generator and TSD facility regulations. Ecology notes in the preamble (page 155 of the WSR) that the purpose for the definition is to "clarify requirements for confirming and documenting information from a generator on a waste profile for a waste stream." This proposed requirement appears to be intended to affect the TSD facility regulations, but Ecology is seeking a change that will broadly impact generators.

Please provide specific language for your recommended change or addition. Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 3)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Third, the proposed definition of knowledge is vague and ambiguous because the word 'sufficient' has different meanings under different circumstances. The concept of sufficient knowledge is not a concept that can be generalized and placed into the regulation. The determination of sufficient information for a waste can mean multiple meanings for a give waste. The following examples demonstrate this variability:

- A generator is allowed to declare a waste to be hazardous and no testing is required. As stated by EPA at 62 FR 62083, "...facilities wishing to minimize testing can assume a questionable waste is hazardous and handle it accordingly." Although EPA stated this provision in the NRC/EPA, *Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*, 11/20/1997, 62 FR 62079, this provision is equally available for non-radioactive waste. In this case, the declaration is sufficient, albeit conservative from a generator's standpoint, but still sufficient. A TSD facility will then decide if additional testing is necessary to further manage the waste based on the scope and extent of their operations. In some cases,

the TSD facility will be able to treat the waste without obtaining additional direct testing knowledge prior to treatment. This provision is critical in cost-effective management of mixed waste, especially on mixed waste hazardous debris where macroencapsulation has no contaminant restrictions on treatment.

- A generator designates listed waste under -070(3)(a)(i) and (ii) solely on process knowledge. Testing does not determine how to apply a listed waste code to a waste during a waste designation. In this case, the process knowledge is sufficient.
- In some cases, a test method is not available for the parameter being evaluated. The reactivity characteristic is an example of a situation where EPA has not relied on a test method. With the exception of cyanides and sulfide parameters, EPA has elected to rely on a descriptive definition for reactivity. Testing is not used for these description definitions. This is also true for the ignitability designation parameter in -090(5)(a)(ii). In this case, the process knowledge is sufficient.
- In designating the toxicity and persistence criteria, sufficient knowledge means the information needed to meet the requirements of either -100(5)(a) or -100(6)(a) which are virtually identical provisions. The text of -100(5)(a) states: "Except as provided in WAC 173-303-070(4), if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection." There is no obligation to test a waste for the criteria in -100(5) unless Ecology asserts their testing authority from -070(4) for the reasons stated in the regulations. In this case, available knowledge is sufficient.

For these reasons, the regulations need to remain the same by withdrawing the proposed definition of knowledge in order to retain the level of flexibility currently allowed and avoid additional confusion about the term 'sufficient'. There are a wide variety of industrial, commercial, and governmental waste management considerations, including the mixed waste considerations for FH's waste within Washington State. If Ecology needs to address specific issues at specific TSD facilities, Ecology needs to use their omnibus authority under -800(8) to address these issues in individual permits. Without an explanation of the issues Ecology is facing at whatever TSD facilities issues are occurring at, it is very difficult for the regulated community to respond. Ecology posted no information about the problems and concerns or the issues they are facing, either on Ecology's web page or part of the preamble in WSR 04-14.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 4)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, the proposed definition of knowledge eliminates mixed waste testing flexibility provided in guidance issued by the EPA/NRC. We are also concerned that mixed waste

generators may be required to perform additional testing on mixed waste if the proposed requirements are adopted. Testing of mixed waste generally results in radiation exposure to personnel. Exposure occurs during all stages of the testing process to determine a waste's characteristics or composition. Joint NRC/EPA mixed waste testing guidance (*Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*, 11/20/1997, 62 FR 62079.), Sections II and III, encourages generators and TSD facilities that manage mixed waste to utilize waste knowledge to characterize their wastes to eliminate unnecessary or redundant waste testing. The NRC/EPA 1997 mixed waste guidance then describes several types of knowledge that can be utilized. The proposed rule does not fully accommodate the types of knowledge described in the NRC/EPA guidance. The NRC/EPA provides guidance on ways to reduce testing. As one example, the 'declaration' example is explained "...facilities wishing to minimize testing often assume a questionable waste is hazardous and handle it accordingly." The Hanford Facility uses this provision for mixed waste in order to reduce the need to testing mixed waste. Mixed waste testing is very expensive and can only be performed by certain laboratories. It is not uncommon to spend \$5,000 per sample for simple low level radioactive waste testing. High level waste testing, on the other end of the spectrum can reach in the hundreds of thousands of dollars.

When the standard in WAC 173-303 is more stringent than EPA's requirements, potential inconsistencies between the state's requirements and the Atomic Energy Act (AEA) might be raised. EPA states at 62 FR 62085: "Where radioactive wastes (or wastes suspected of being radioactive) are involved in testing, it has been suggested that the testing requirements of RCRA may run counter to the aims of the AEA. The AEA requirements that have raised inconsistency concerns with respect to RCRA testing procedures include ALARA, criticality, and security. Neither EPA nor NRC is aware of any specific instances where RCRA compliance has been inconsistent with the AEA. However, both agencies acknowledge the potential for an inconsistency to occur." If Ecology finalizes the proposal, FH will have to look very carefully at these provisions to determine if WAC 173-303, under the Hazardous Waste Management Act, is raising additional inconsistency issues with respect to section 1006 of RCRA.

EPA goes on to say at 62 FR 62085 that: "Owner/ operators of mixed waste facilities are encouraged to address and document this potential situation and its resolution in the RCRA facility waste analysis plan which must be submitted with the Part B permit application, or addressed in a permit modification. Both agencies also believe that the potential for inconsistencies can be reduced significantly by a better understanding of the RCRA requirements, a greater reliance on materials and process knowledge, the use of surrogate materials when possible, and the use of controlled atmosphere apparatuses for mixed waste testing." The proposed definition on knowledge appears to run directly countercurrent with these statements about reliance of knowledge. At the Hanford Facility, the FH and Ecology's Nuclear Waste Program have used waste analysis plans and the permitting process in the Hanford Facility RCRA Permit to balance the appropriate considerations for mixed waste testing.

NRC/EPA also discusses the use of knowledge and flexibility needed for mixed waste at

62 FR 62088 which states: "As clarified in the Land Disposal Restrictions rule published on June 1, 1990 (see EPA's "Third Third rule," 55 FR 22669, June 1, 1990), the frequency of testing, such as corroborative testing for treatment and disposal facilities, should be determined on a case-by-case basis and specified in the RCRA permit. This flexibility is necessary because of the variability of waste types that may be encountered. Mixed waste is unique for its radioactive/hazardous composition and dual management requirements. Each sampling or analytical event involving mixed waste may result in an incremental exposure to radiation, and EPA's responsibility to protect human health and the environment must show due regard for minimizing this unique risk. These are factors which should be considered in implementing the flexible approach to determining testing frequency spelled out in the Third Third Rule language." FH encourages Ecology to maintain the same level of regard as NRC/EPA has.

These areas discussed from the NRC/EPA 1997 mixed waste guidance are some of the main points. The guidance contains many detailed aspects with regard to knowledge and direct testing of the waste. Since Ecology's proposed definition seems to run counter to the NRC/EPA 1997 mixed waste guidance, Ecology should not finalize this definition. See also the mixed waste comments under -300(2).

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, the proposed definition of knowledge is inconsistent with knowledge requirements for designating the toxicity criteria. We note that this proposal appears to be inconsistent with the book designation procedures of -100(5)(b) and the language contained in -100(5)(a). This widely used designation process does not provide the level of 'knowledge,' as defined, necessary to substitute for direct testing of the waste. The weight percent used in completing the equivalence concentration calculation is often obtained from upper bound numbers from a Material Safety Data Sheet (MSDS), which are conservatively selected by the company when they prepare the MSDS.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 6)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Sixth, the proposed definition of knowledge removes necessary flexibility to address the variety of waste management scenarios that must be addressed by the regulations. There are three main scenarios resulting in greatly varied waste management considerations for whether direct testing of the waste is appropriate. (1) commercial TSD facilities receiving waste from off-site, (2) off-site TSD facilities owned by the same company, and (3) on-site management within a TSD facility. A commercial TSD facility waste profile process documents information about the waste in order for the waste to change hands between different companies. Off-site facilities owned by the same company have different standards based on the fact the waste is not changing hands between different entities. On-site management within a TSD facility are not subject to the off-site verification procedures in -300(4)(b), -300(5)(g) and -300(6). These three standards are clearly not identical and Ecology should not try to harmonize them. The greatly varied waste management considerations for commercial TSD facilities receiving waste from off-site, off-site TSD facilities owned by the same company, and especially on-site management within a TSD facility should be reasons enough for Ecology to withdraw this definition. Overlaying this proposed definition on the existing rules is taking away the ability to tailor waste management considerations across the spectrum of waste management considerations.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 7)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Seventh, the proposed definition of knowledge does not provide a meaningful example. Any guidance Ecology provides to illustrate a point should show a definitive answer towards the standard. Ecology's choice of the words "may be sufficient" does the regulated community and Ecology inspectors no good. The example cited by Ecology is an example of knowledge that exceeds any minimum requirements to ensure proper management of the waste.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 8)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Eighth, the proposed definition of knowledge is defining a term contrary to application of the English language. Without the proposed definition of knowledge, the word knowledge would be interpreted to be the broadest universe of information about a waste. EPA then uses and defines the terms 'process knowledge' and 'acceptable knowledge.' Both of these terms would constitute a subset of the universe of knowledge. By the way Ecology is proposing to define knowledge, just the opposite will occur. The universe of 'knowledge' would now be a subset of 'process knowledge', and may be closer to EPA's definition of 'acceptable knowledge.' Ecology needs to avoid defining the term knowledge.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -070 Page # 172 Citation # -070(2)(c) (comment 1)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

FH commends and supports Ecology for adopting at least portions of the 40 CFR 261.3(g) mixture rule exclusion. There are five issues however Ecology should address before finalizing this text. These issues include:

- adding in mixtures of a solid waste and hazardous waste to the exclusion,
- deleting the tie in between the exclusion and the state criteria,
- modifying the text relating to "any characteristic" to the characteristic for which is the waste is listed,
- replacing the word "hazardous" with "dangerous," and
- clarifying text on Ecology's web page.

These five aspects are broken up into separate comments.

First of all, Ecology should add in mixtures of a solid waste and hazardous waste to the exclusion because not all circumstances of dilution are impermissible under EPA's program, and Ecology has adopted EPA's dilution prohibitions at 40 CFR 268.3 found in the land disposal restriction program.

On Ecology's web page, the following statements are made concerning this proposal: "The mixture rule being proposed by Ecology is a less stringent regulation than the existing rule that will allow many generators to treat their dangerous waste that would otherwise remain a listed waste. Ecology is proposing to adopt most of this rule; however, it is not proposing to exempt mixtures of solid waste and hazardous waste. This is consistent with other state dangerous waste regulatory requirements that prohibit mixing a hazardous waste with a solid waste. This would be considered dilution of

dangerous wastes, and dilution has consistently been seen as an inappropriate waste management alternative.”

Since the regulations incorporate by reference EPA’s land disposal restriction requirements at -140(2)(a), the dilution prohibition found at 40 CFR 268.3 is also referenced. EPA has clearly articulated in guidance when dilution is permissible and when it is impermissible (prohibited). Not all dilution is impermissible under EPA’s program. One of the main permissible dilution provisions used at the Hanford Facility is to aggregate prior to centralized treatment concept. Aggregation is allowable to facilitate proper treatment provided that the proper constituents will be treated. EPA has consistently allowed this form of dilution in the proper management of hazardous waste. Since the LDR requirements still apply to wastes after they are mixed (diluted) in EPA’s program as well as Ecology’s proposed exclusion, there is no threat to human health and the environment and all applicable treatment standards are met prior to disposal. More importantly, EPA also allows dilution for the mixture rule exclusion being proposed by Ecology. A comprehensive dilution logic figure is contained in Figure 13-16 of “McCoy’s RCRA Unraveled, 2003 Edition.” The main benefit for this exclusion is to end the application of listed waste codes to debris and laboratory matrices coming into contact with the waste when it makes no sense to apply the listed waste code to a resultant matrix.

This mixture rule exclusion only allows the listed waste code to be dropped for waste properties that do not deal with toxicity which are the true dilution concerns under RCRA. In EPA’s rulemaking for this exclusion (57 FR 21469 on May 20, 1992), EPA clarified the family of waste codes under this exclusion are listed only due to physical property reasons (ignitability, corrosivity and reactivity) and this exclusion is not available to other wastes listed for toxicity reasons. Although the most common example of a hazardous waste at the Hanford Facility that will benefit from this exclusion will be the F003 waste code, the list of waste codes eligible for the Federal mixture rule exclusion include: F003, K044, K045, K047, P009, P081, P112, U001, U002, U008, U031, U055, U056, U057, U092, U096, U110, U112, U113, U117, U124, U125, U154, U161, U186, U189, U213, U239. Since these listed wastes were not listed for toxicity reasons, once the characteristic for why the waste was listed in the first place is removed either through permissible dilution or treatment, there is no reason to keep the listed waste code associated with the waste.

EPA’s permissible dilution principles should not be considered in conflict with the waste management hierarchy or any Beyond Waste goals. If a path to proper treatment and disposal is available to a waste, and it is not financially advantageous to pursue another management path, then the generator is not obligated to choose a different path. The waste management hierarchy goals are stated in -140(1) and the stated purpose is to “...encourage the best management practices for dangerous waste...” A costlier management option is not required to be implemented by -140(1). For these reasons, Ecology needs to adopt the mixture rule exclusion related to a mixture of solid waste and a hazardous waste.

Please provide specific language for your recommended change or addition.

These proposes changes to -070(2)(c) contain suggested for comments #1 through #4:

(c)(i) A dangerous ~~hazardous~~-waste that is listed in WAC 173-303-081 or 173-303-082 solely because it exhibits one or more characteristics of ignitability as defined under WAC 173-303-090(5), corrosivity as defined under WAC 173-303-090(6), or reactivity as defined under WAC 173-303-090(7) is not a dangerous ~~hazardous~~-waste, if the waste no longer exhibits any characteristic of dangerous ~~hazardous~~ waste identified in WAC 173-303-090, ~~or any criteria identified in WAC 173-303-100.~~

(ii) The exclusion described in paragraph (2)(c)(i) of this section also pertains to:

(A) Any mixture of a solid waste and a dangerous waste listed in WAC 173-303-081 or 173-303-082 solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity is not a dangerous waste, if the mixture no longer exhibits any characteristic of dangerous waste identified in WAC 173-303-090 subpart C for which the dangerous waste listed in WAC 173-303-081 or 173-303-082 was listed, and

(B) Any solid waste generated from treating, storing, or disposing of a dangerous ~~hazardous~~-waste listed in WAC 173-303-081 or 173-303-082 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under WAC 173-303-070(2)(a) and (b).

(C) Wastes excluded under this section are subject to 40 CFR part 268, which is incorporated by reference (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.

Section # -070 Page # 172 Citation # -070(2)(c) (comment 2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Second, Ecology should delete the tie in between the exclusion and the state criteria in -100. The proposed exclusion should not be dependent on whether the waste still displays any of the criteria because of how the designation procedures are implemented in -070(3) and (5).

On Ecology's web page, the following statements are made concerning this proposal: "Under state regulations, waste must be evaluated against state criteria once it passes the federal designation scheme. The proposed rule retains consideration of state criteria before a waste would be excluded. This is necessary so as not to mislead generators into thinking that their waste is no longer dangerous waste if it could exhibit state criteria. Under the federal rule, if the waste no longer exhibits the characteristic it could be excluded; the state rule requires that the waste also not exhibit a criteria (for example, toxicity)."

We agree with Ecology's first sentence that a waste must be evaluated against state criteria once it passes the federal designation scheme. Federal waste designations are contained in -070(3)(a)(i), (ii), and (iii). State criteria are contained in -070(3)(a)(iv) and (5), which clearly are performed subsequent to the first three steps. It is this fact, why Ecology's second sentence is not logical and results in a 'catch-22' situation. The

existing mixture rule in -081(3) and -082(3) is applied when listed waste codes are evaluated under -070(3)(a)(i) and (ii). For a state-only criteria waste code to apply to a waste stream, in most cases, no listed waste code can apply. The mixture rule exclusion needs to operate independently under these same first two designation steps, without consideration of the state criteria because otherwise, the exclusion can never be used and is meaningless. It is meaningless because now both the federal (F003) and state-only waste codes (WT02, WT01, WP01, WP02, and WP03 codes) will be part of a proper waste designation, in conflict with -070(3)(a)(iv) and (5). Ecology should align the exclusion consistent with the way the designation process works in -070(3) and (5). Ecology should not be concerned about this aspect because the criteria designation provisions operate independently from the listed provisions. It is not necessary to tie-in the listed constituent to the criteria in order for the exclusion to properly operate and still be protective.

Ecology's third sentence from the web page above discusses how generators should not be misled. For the reasons explained in the preceding two paragraphs, it appears clear that Ecology will be misleading generators on waste designation processes by associating the mixture rule exclusion with the state-only criteria.

Assuming for a minute that Ecology adopts EPA requirements, here is the following waste designation scenario for F003 that no longer displays the characteristic of ignitability (See -9904 listing description where the (I) appears which stands for ignitability). The waste designation step in -070(3)(a)(ii) will not assign the waste code even though the land disposal restriction requirements for F003 still apply. If the waste displays any other characteristics, the characteristic code(s) will be applied in step -070(3)(a)(iii). A common waste code applied after macroencapsulation treatment with grout is WSC2 due to the alkaline nature of the treatment process. Although in this treated waste scenario -070(3)(a)(iv) would allow a designator to skip the criteria, -070(5) would require additional designation since WSC2 is a "state-only DW." If on the other hand the waste did not display any of the characteristics, -070(3)(a)(iv) would now require designation by the criteria. The independent criteria waste designation step would assure that any of the toxicity and persistent properties of the waste would keep the waste within the dangerous waste regulations, even without the listed code. Operation of the mixture rule exclusion without the additional Ecology restrictions will still result in protection of human health and the environment due to the waste designation process. Ecology needs to drop the criteria designation aspect as a condition of this exclusion.

Please provide specific language for your recommended change or addition.
See suggested changes for this comment in -070(2)(c) (comment 1).

Section # -070 Page # 172 Citation # -070(2)(c) (comment 3)

Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?
Third, Ecology should modify the text relating to "any characteristic" to the characteristic

for which is the waste is listed.

The condition being placed on the exclusion related to "any characteristic" at the end of paragraph (i) is inconsistent with the federal mixture rule exclusion, and will unnecessary limit the application of the exclusion. 40 CFR 261.3(g) uses the phrase "any characteristic" but it also uses the phrase "for which the hazardous waste listed." This additional phrase would be used by the designator to look at the reason why the waste was listed in the first place as part of implementing the mixture rule and the related exclusion.

Please provide specific language for your recommended change or addition.

See suggested changes for this comment in -070(2)(c) (comment 1) by adding in the phrase to the new paragraph (A).

Section # -070 Page # 172 Citation # -070(2)(c) (comment 4)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, it appears that the word "hazardous" should be replaced with "dangerous" in a few places to be consistent with the terminology associated with waste designations under WAC 173-303. There does not appear to be any compelling reason for Ecology to limit the text of the exclusion to the universe of waste regulated by EPA under 40 CFR 261 (see definition of hazardous waste in -040).

On Ecology's web page, the following statements are made concerning this proposal: "In this respect, the use of the word "dangerous" is used in the proposed rule since it is comprehensive in that it encompasses characteristic, listed, and criteria wastes." It appears Ecology intended to use the word 'dangerous' by this statement.

Please provide specific language for your recommended change or addition.

See suggested changes for this comment in -070(2)(c) (comment 1).

Section # -070 Page # 172 Citation # -070(2)(c) (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, there is an issue however related to the text on Ecology's web page that needs to be clarified.

The sentence appearing on Ecology's web page states: "Federal waste codes should be assigned to any federally regulated hazardous wastes that are not excluded at the state level." This statement appears to be a result of the comments submitted on the pre-proposal regarding state-only dangerous waste having to use federal waste codes when Ecology exempts only a subset of the universe EPA exempts. Ecology's first part of the statement is true, but the second part about 'excluded at the state level' has nothing to do with a federally regulated hazardous waste.

In EPA's program, if a hazardous waste meets the requirements for the ignitable, corrosive, reactive mixture rule exclusion, then the hazardous waste is no longer recognized as a hazardous waste in EPA's program (but still subject to applicable land disposal restriction requirements). Even in Washington state, an EPA delegated state program, WAC 173-303 provisions do not change the way EPA looks at a hazardous waste. So if WAC 173-303 does not exclude the same universe that EPA excludes, a listed waste code is still required as part of a proper waste designation. This waste is a state-only dangerous waste by definition (See -040). Since Ecology has not identified/promulgated a state-only waste code for the difference in the universe of wastes excluded, a waste designator must use the federal waste code to denote a state-only dangerous waste.

The additional criteria restrictions placed on the exclusion by Ecology will still create a state-only waste and will not accomplish making the regulations consistent with the federal program. A state-only waste will still result because the federal exclusion will still allow the listed waste code to be dropped from a proper waste designation and the state rules will still retain the listed waste code, causing a state-only dangerous waste.

Please provide specific language for your recommended change or addition.
There is not specific language change requested as a result of this comment.

Section # -071 Page # 176 Citation # -071(3)(k)(i)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Although Ecology did not propose a change to this subsection, FH submitted this comment on the pre-proposal round of comments. The comment is being resubmitted because Ecology needs to change the TSCA citation in order to be consistent with the language in -071(3)(k)(ii), consistent with the TSCA amendments from 1998, and consistent with Institutional Memory Compendium guidance on how the TSCA exclusion operates pursuant to RCW 70.105.105. (See Attorney General Letter, dated 8/22/88, Institutional Compendium #3145.880822, *Weyerhaeuser vs. DOE*, Penalty DE 87-296). RCW 70.105.105 only allows Ecology to regulate PCBs whose disposal is not regulated by 40 CFR 761. Since the 1998 mega rule amendments in TSCA, it is no longer appropriate to reference 40 CFR 761.60 for the exclusion. The proper reference, both at -071(3)(k)(i) [and already at -071(3)(k)(ii)] needs to be 40 CFR 761 Subpart D to avoid confusion by the regulated community. This change is merely resolving an inconsistency within the -071(3)(k) exclusion and should be within the scope of changes Ecology can make in the final rule to WAC 173-303.

On Ecology's web page, the following statements are made: "Although Ecology was requested to consider changing the TSCA citation in this exclusion for PCBs for consistency with TSCA, no change is being proposed at this time until PCB issues can be looked at in a broader context. The existing citation currently used in the Dangerous Waste Regulations is somewhat more stringent in that it prohibits PCB waste from being

disposed in a solid waste landfill. The broader citation being suggested (40 CFR 761 Subpart D) would allow PCB waste to be land disposed in a solid waste landfill as an option, thereby avoiding the intent of the Dangerous Wastes Regulations." In order to make this change, Ecology does not need to look at PCB issues on a broader context. Ecology's authority is limited by RCW 70.105.105 which states:

"RCW 70.105.105 Duty of department to regulate PCB waste. The department of ecology shall regulate under chapter 70.105 RCW, wastes generated from the salvaging, rebuilding, or discarding of transformers or capacitors that have been sold or otherwise transferred for salvage or disposal after the completion or termination of their useful lives and which contain polychlorinated biphenyls (PCB's) and whose disposal *is not regulated under 40 CFR part 761*. Nothing in this section shall prohibit such wastes from being incinerated or disposed of at facilities permitted to manage PCB wastes under 40 CFR part 761. *[emphasis added]*"

This proposed change has nothing to do with Ecology's intent of the exclusion. If the authority in RCW 70.105.105 allows disposal in a solid waste landfill because it is allowed under TSCA, then the allowance is supported by RCW 70.105.105. Ecology can not extend their regulatory authority beyond what is provided to them by statute. There is no reason for Ecology to maintain a provision in -071(3)(k) that will fail a challenge to the Pollutions Control Hearings Board.

Please provide specific language for your recommended change or addition.

At -071(3)(k)(i), make the following changes:

PCB wastes whose disposal is regulated by EPA under 40 CFR 761.60 Subpart D (Toxic Substances Control Act) and that are dangerous either because:

Section # -081 Page # 184 Citation # -081(3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed change references an exclusion in -070(2)(d). No such section exists or is proposed. Leaving this text in place will create confusion for the regulated community.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "...unless it has been excluded under WAC 173-303-070 (2)(c) ~~or (d)~~."

Section # -082 Page # 185 Citation # -082(3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed change references an exclusion in -070(2)(d). No such section exists or is proposed. Leaving this text in place will create confusion for the regulated community.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "...unless it has been excluded under WAC 173-303-070 (2)(c) ~~or (d)~~."

Section # -090 Page # 185 Citation # -090(5)(a)(iv)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

FH supports Ecology deletion of reference to 49 CFR 173.128 for the ignitability waste designation. This deletion makes the ignitability waste designation consist with the federal program and eliminates an unintended state-only dangerous waste designation for organic peroxides. This deletion, however, impacts text contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407). Ecology needs to update this document by removing information about organic peroxides. This document was finalized at the same time as the organic peroxide provision was added to -090(5)(a)(iv) and this document is currently open for amendment due to halogenated organic compound amendments.

Please provide specific language for your recommended change or addition.

No changes are proposed for the regulations, however, text changes for the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) are proposed in a separate comment for this document in Part 2 of this comment package.

Section # -090 Page # 186 Citation # -090(7)(a)(viii)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ecology needs to propose a change in this rulemaking pertaining to the designation of Division 1.5 waste. Under -090(7)(a)(viii), Ecology needs to remove the reference to Division 1.5 as reactive waste in order to be consistent with the federal rules. Because the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) document is being amended due to halogenated organic compounds, Ecology needs to put the effort in confirming the accuracy of this comment and make the appropriate change. FH, on behalf of the U.S. Department of Energy, has obtained information from EPA that Division 1.5 is beyond the scope of the federal program. To FH's knowledge, Ecology possesses no documentation to support retention of Division 1.5 in -090(7)(a)(viii).

On June 4, 2002, FH obtained an interpretation from EPA headquarters that only Divisions 1.1, 1.2, and 1.3 were considered by EPA to be reactive waste. This interpretation was passed on to Jerry French in the Spokane Office. Since that time, FH has not concluded discussions with Jerry French on this matter, but are once again commenting to remove Division 1.5 based on the EPA headquarters interpretation. The last communication on this matter was on October 13, 2003 in an email message to Patricia Hervieux. FH still understands that Ecology has inadvertently created a new class of state-only dangerous waste by adding Division 1.5 to the reactive provisions (see definition of state-only dangerous waste in -040).

The 1998 WAC 173-303 rulemaking on this matter resulted in Ecology inadvertently creating a new class of state-only waste by adding Division 1.5 without explaining this distinction to the regulated community. As a result, in order for Ecology to comply with the Administrative Procedures Act (RCW 34.05), Ecology needs to delete the reference.

Additionally, Ecology needs to update the document *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) to delete reference to Division 1.5 since this document is open for change as part of this rulemaking. This document was finalized at the same time as the Division 1.5 provision was added to -090(7)(a)(viii) and this document is currently open for amendment. See separate comment in Part 2 of this comment package.

Please provide specific language for your recommended change or addition.

Revise -090(7)(a)(viii) to read:

It is a forbidden explosive as defined in 49 CFR 173.54, or a Class 1 explosive, Division 1.1, Division 1.2, and Division 1.3, and ~~Division 1.5~~, as defined in 49 CFR 173.50.

Section # -100 Page # 187 Citation # -100(5)(b)(i) (comment 1)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed to add a clarification phrase "... (for the same criteria) ..." to the subject paragraph on book designations for the state-only waste designation step of 'toxicity criteria'. Unfortunately, this clarification creates confusion for the waste designator because the word "criteria" means something different than the word 'category' in the book designation process. In the preceding sentence to the one being modified, the phrase 'toxicity criteria (fish, oral, inhalation, or dermal)' is used, thereby defining this term as the four column elements in the Toxic Category Table. The new phrase is being added to the word 'category' which is defined as either an "X, A, B, C, or D" from the rows of the Toxic Category Table. The parenthetical, as proposed, does not seem to provide the clarity Ecology was attempting to achieve.

Text from Ecology's website on -100(5)(b) contains the following sentences: "In cases where the most severe toxicity is not in RTECS, the proper toxic category assignment was unclear. This also eliminated fish data from consideration if it was more severe than other criteria because it is no longer listed in RTECS. With this proposed change, which requires the conflicts to be within the same criteria (comparing apples to apples), the use of data for criteria that are not in RTECS is allowed." From this text, it appears Ecology wants a two step toxic category evaluation process. In order to arrive at the overall toxic category for a constituent, it appears Ecology wants first a toxic category assigned to each of the four toxic criteria (fish, oral, inhalation, or dermal) and then second, the resulting toxic categories compared for which one is most severe for the overall toxic category for the constituent. The toxicity data from more than one toxicity source is compared (apples to apples) within each of the four toxicity criteria (fish, oral, inhalation, or dermal) in the first step. If so, Ecology should consider the proposal below rather than

inserting the proposed parenthetical.

Please provide specific language for your recommended change or addition.

Revise -100(5)(b)(i) to read:

A person must determine the toxic category for each known constituent. The toxic category for each constituent may be determined from available data, or by obtaining data from the NIOSH RTECS and checking this data against the toxic category table, below. If data is available for more than one of the toxicity criteria (fish, oral, inhalation, or dermal), then the data indicating severest toxicity must be used for a particular toxicity criteria. If the NIOSH RTECS or other data sources do not agree on the same toxic category for a particular toxicity criteria, then the toxic category arrived at using the NIOSH RTECS will be used to determine the toxic category for that particular toxicity criteria. The toxic category arrived at for each toxicity criteria are then compared and the most acutely toxic category must be assigned to the constituent to be used in the equivalent concentration calculation in (ii). ~~If the NIOSH RTECS or other data sources do not agree on the same category (for the same criteria), then the category arrived at using the NIOSH RTECS will be used to determine the toxic category.~~ If toxicity data for a constituent cannot be found in the NIOSH RTECS, or other source reasonably available to a person, then the toxic category need not be determined for that constituent.”

Section # -100 Page # 187 Citation # -100(5)(b)(i) (comment 2)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

A comment also needs to be made regarding the interpretation of required toxicity sources based on the second sentence of the -100(5)(b)(i) paragraph which states: *The toxic category for each constituent may be determined from available data, or by obtaining data from the NIOSH RTECS and checking this data against the toxic category table, below.* Taken literally, this provision allows the waste designator to select his or her data source without restriction or caveat. The only limitation appears to be a duty to ensure that any ‘available data’ used must not be less stringent than NIOSH RTECS. If a generator chooses the last part of this sentence for a book designation, the waste designator only needs to consult NIOSH RTECS to be in compliance based on the permissive use of the word ‘may’ and the construct of the sentence. Only if the waste designator chooses the “available data” option does the additional toxicity sources come into play. If Ecology’s position is that toxicity data sources other than NIOSH RTECS must always be consulted for a book designation, then Ecology’s position is not supported by existing regulation or the changes being proposed in this amendment.

Prior to the 1995 amendments, the regulations listed two toxicity sources, the NIOSH RTECS and EPA’s spill table. The required toxicity data sources were clear and unambiguous prior to the 1995 amendments. Since the major overhaul in 1995, the toxicity data source requirements have been vague. Two pieces of information have since been offered by Ecology. The first is in the *Responsiveness Summary Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC*, Publication #95-423, October 1993, in response to comment 132 where ‘available data’ meant: “...include but

are not limited to: Material Safety Data Sheets (MSDS), laboratory analysis of the generator's waste or a similar waste, and published data. Ecology will provide examples in guidance documents rather than defining them in the regulation to avoid precluding the use of the data source." Since generators usually do not test their waste, and if they test, bioassay results take precedence over a book designation, there appears to be no need to cite the laboratory data as a toxicity source. The second piece of information is contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407), Footnote 27 where Ecology also identifies the Hazardous Substances Data Base as a toxicity source. Therefore, FH is proposing that Ecology eliminate the ambiguous nature of the required toxicity sources to complete a book designation and propose to amend the second sentence of -100(5)(b)(i) as part of the next rule amendment.

Please provide specific language for your recommended change or addition.

Propose to revise -100(5)(b)(i) second sentence to read:

The toxic category for each constituent ~~is may be determined from the following available data sources, or by obtaining data from the~~ NIOSH RTECS, Material Safety Data Sheets, and the Hazardous Substances Data Base, National Library of Medicine, and checking this data against the toxic category table, below.

Also, see comment on the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407), in Part 2 of this comment package.

Section # -120 Page # 191 Citation # -120(3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology should modify this subsection so that it does not denote applicability of requirements, because the applicability statements need to be consolidated in one place. The applicability of whether a closure plan needs to be prepared should be determined from section -610. Other comments in this package on sections -610 and -620 are recommended as the location where applicability statements should be consolidated. Subsection -120(3) should merely point the reader to -610 and -620.

The proposed changes to -120(4) contain the appropriate referencing language without the words related to applicability of whether a closure plan needs to be prepared.

Please provide specific language for your recommended change or addition.

Revise -120(3) to read:

(3) The following recyclable materials are not subject to the requirements of this section but are subject to the requirements of WAC 173-303-070 through 173-303-110, 173-303-160, 173-303-500 through 173-303-525, and all applicable provisions of WAC 173-303-800 through 173-303-840:

In addition to these requirements, owners and operators of facilities that receive recyclable materials from off-site, ~~are subject to must prepare closure plans in accordance with WAC 173-303-610(2) and (12). These facilities are also subject to financial requirements of and to WAC 173-303-620(1)(e).~~

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ecology has included a proposed change to the satellite accumulation area (SAA) requirements as part of this rulemaking effort that did not appear in the pre-proposal package. The change is being advertised as a clarification, but in reality, it constitutes a significant impact to the regulated community. On Ecology's web page, the following text describes this change:

"WAC 173-303-200(2)(a) is being amended to clarify that contingency planning and general facility inspections are required for satellite accumulation. Under the current rule, it is not clear that contingency planning and general facility inspections are required in satellite accumulation areas. WAC 173-303-200(2)(a)(ii) specifies compliance with (d) of subsection 200(1). This has been interpreted to eliminate the area of satellite accumulation (essentially the footprint of the waste storage container) from contingency planning and general facility inspections. This is not consistent with the way this regulation has been interpreted or implemented in the past by Ecology. This clarification provides consistency with Ecology's intent and practice of requiring contingency plans (-350) and general facility inspections (-320) in areas where there is the potential for impact on public health and the environment in the event of an emergency circumstance (-350), and where malfunctions and deterioration, operator errors, and discharges...may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health (-320). Including subsection (1)(f) makes it clear that LDR requirements apply to waste that is shipped directly from a satellite area."

These proposed changes were added since the pre-proposal and should be more carefully analyzed for impact on the regulated community. There are several concerns with this proposal which include that the proposed rule is:

- inconsistent with past Ecology rulemaking activities,
- inconsistent with Ecology's SAA Technical Information Memorandum,
- inconsistent with EPA guidance,
- inconsistent with nationally recognized expert interpretations,
- inconsistent with the case-by-case requirements of -200(2)(c),
- inconsistent with the information posted on Ecology web page and in the preamble,
- a significant cost impact to Hanford Facility activities, and
- a proposal that meets the threshold for triggering a review under the small business impact requirements.

The addition of the land disposal restriction (LDR) requirement is supported by FH. The discussions of these concerns are broken up into 10 separate comments.

Regarding the first item, the proposed rule is inconsistent with past Ecology rulemaking activities. The SAA rules were placed into the regulations during the 1993 amendments.

Prior to this rule, subsection (2) did not exist in section -200. Ecology response to comments document *Responsiveness Summary Amendments to the Dangerous Waste Regulations Chapter 173-303-WAC*, publication 93-92, October 1993 contains the insight to show separation between -200(1) and -200(2). First of all, Ecology's 1993 amendments adding this provision to the Dangerous Waste Regulations did not propose or mention the requirements currently being clarified. On page 46, response to comment 166 it states: "The satellite areas are the only accumulation areas that do you require a date until 55 gallons of a waste is generator/accumulation." Since the accumulation date requirements are located in -200(1), this statement shows intent to keep -200(2) and -200(1) separate. On page 48, comment 175 suggested a terminology change in order to clarify that secure SAAs are not considered designated accumulation areas which must meet the requirements of -200(1). On page 111, rationale for change, Ecology acknowledges this separation by stating: "In the definition of satellite accumulation area, commenters stated that it would be helpful to insert 'less than 90-day' in the in the first sentence after 'designated' and before 'accumulation area' to clarify that secure satellite accumulation areas are not considered designated accumulation areas, which must meet the requirements of WAC 173-303-200(1)." Ecology made a change in the final rule to accommodate the commenters concern.

On the other hand, there were also no statements in the 1993 rule or the *Responsiveness Summary Amendments to the Dangerous Waste Regulations Chapter 173-303-WAC*, publication 93-92, indicating Ecology was being more stringent than EPA's requirements. The regulated community was led to believe Ecology was establishing requirements for SAAs consistent with EPA's program as a result of the 1993 rulemaking.

With this comment and the others contained in this package, the addition of these significant new requirements to satellite accumulation is unwarranted. Ecology's contention that this change is merely a "clarification" and inferences that Ecology has always expected satellite accumulation to comply with inspection and contingency planning requirements are not consistent with current Ecology or EPA policy.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # 200(2)(a)(i) (comment 2)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Second, the proposed rule is inconsistent with Ecology's SAA Technical Information Memorandum (TIM) (Publication 94-120, Satellite Accumulation). After the 1993 rulemaking effort, Ecology has maintained comprehensive, user-friendly guidance for SAA management in the TIM, with the most recent revision of the TIM occurring January 2003. The TIM has never mentioned or referenced the requirements Ecology is proposing to add into -200(2)(a)(ii). The SAA requirements are clearly identified on

pages 1-2 of the TIM. The omissions of the -300 through -360 standards in this list demonstrate that it is not past or current Ecology policy to expect generators to comply with the requirements proposed to be added, unless the case-by-case provision in -200(2)(c) are applied.

Ecology claims in the language contained on the web-page that "This is not consistent with the way this regulation has been interpreted or implemented in the past by Ecology." If this statement is true, why has the TIM not been updated to reflect this? The regulated community has not been informed of this policy statement. In order for Ecology to claim that their interpretation exists, the regulated community must be notified through the appropriate channels.

Please provide specific language for your recommended change or addition.
Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Third, the proposed rule is inconsistent with EPA guidance. EPA has published guidance in this area demonstrating that Ecology's proposal is not consistent with federal requirements. At the public hearing held on August 10, 2004, Ecology made statements indicating that the proposed action is consistent with previous EPA direction regarding SAAs. However, the opposite is actually true. First of all, EPA determined when adopting the satellite accumulation rule in 1984, and has held consistently since, that personnel training, weekly inspections and contingency plan requirements are unnecessary and inapplicable to SAAs (see 49 FR 49568 at 49570 on December 20, 1984). Since that time, EPA has addressed these requirements on more than one occasion (see RCRA Online, Faxback 11373, 11317, 14418, and 14703). EPA has determined that accumulation of up to 55 gallons of non-acutely hazardous waste in a satellite area is "reasonable and safe and does not pose a threat to human health or the environment" (49 FR 49569). Ecology has not explained in the proposal the basis for their position, nor how Ecology has determined more stringent regulation of satellite accumulation is necessary to protect human health or the environment, or why it believes satellite accumulation poses a threat sufficient to justify the addition of these additional requirements. Ecology needs to delete the addition of these requirements to SAAs.

Please provide specific language for your recommended change or addition.
Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 4)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, the proposed rule is inconsistent with nationally recognized expert interpretations. There is a firm who is recognized nationally for their understanding of EPA's RCRA regulations. FH pays to bring this training to the Hanford Facility once every few years. FH is also aware of many Ecology employees attending the training classes offered by this firm. One of their reference materials, "McCoy's RCRA Unraveled, 2003 Edition," compares SAA requirements to 90-day requirements in Table 6-2, *Federal Requirements for Satellite Accumulation Units to 90-day containers*. Of interest are the inspection, training, and contingency plan requirement entries for SAAs. The table shows that these aspects clearly do not apply to SAAs. Ecology needs to delete the addition of these requirements to SAAs.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, the proposed rule is inconsistent with the case-by-case requirements of -200(2)(c), which states: "On a case-by-case basis the department may require the satellite area to be managed in accordance with all or some of the requirements under subsection (1) of this section, if the nature of the wastes being accumulated, a history of spills or releases from accumulated containers, or other factors are determined by the department to be a threat or potential threat to human health or the environment." Any interpretation that -200(1) requirements automatically apply to SAAs is beyond logic because there would be no reason to have -200(2)(c). The -200(2)(c) provision would not be needed in the regulations if the -200(1) requirements apply to SAAs. SAA requirements are determined through the requirements in -200(2), and do not extend into -200(1) unless specifically referenced by -200(2). -200(2)(c) is invoked by Ecology on a case-by-case basis on compliance inspections when Ecology determines that the management practices of certain satellite accumulation situations pose a threat to human health and the environment, thus requiring more stringent requirements of 90-day accumulation areas to be applied. Ecology has always had the authority to impose these more stringent requirements when merited in isolated/unique cases, without requiring them of all generators statewide.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 6)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Sixth, the proposed rule is inconsistent with the information posted on Ecology web page

and in the preamble. This inconsistency only serves to confuse the regulated community on the scope of the proposed changes to -200(2)(c). The sentence appearing on Ecology's web page and on page 155 of the preamble states: "WAC 173-303-200(2)(a) is being amended to clarify that contingency planning and general facility inspections are required for satellite accumulation." The proposed rule change adding "(e)" actually also brings into play the training requirements (-330) and preparedness and prevention requirements (-340), in addition to the contingency planning and general facility inspections. A reading of -200(1)(e) references the requirements of -330 through -360 and most of -320. Ecology has only identified half of the changes actually being proposed in their explanatory text. For this reason alone, Ecology should delete the proposed addition of "(e)" to -200(2)(c) because Ecology failed to accurately reflect the rule to be presented.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 7)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Seventh, the proposed rule is a significant cost impact to Hanford Facility activities. At the Hanford Facility under two of the three field offices (the Richland Operations Office and the Office of Science) plus a laboratory under FHs Office of River Protection field office, there are approximately 1,100 satellite accumulation areas. The added expense of the proposed requirements would be substantial. The added cost of performing weekly inspections would be approximately \$800,000 per year (8-man-years), based on 15 minutes per week to inspect each area and document these inspections in accordance with -320(2)(d) (included as part of the reference from -200(1)(e) proposed for addition). Since the -320 requirement also requires inspection be performed daily when in use and subject to spills, this cost estimate is multiplied by the number of times per week an SAA needs to be inspected.

Applying the training requirements will require the amendment of many training plans or the issuance of new training plans and will require inspection training to those who are not subject to these training requirements now. Contingency planning requirements would also be a large additional cost based on the need to create and maintain the documentation as well as address the equipment that must be procured to meet the -340 preparedness and prevention requirements. We cannot foresee an environmental benefit commensurate to the cost of this proposal.

The addition of preparedness and prevention, contingency planning, and emergency procedure requirements for locations that do not currently require it is of questionable value as well. These requirements were designed for dedicated hazardous waste management areas (TSD facilities) in 1980 and were then subsequently applied to 90-day accumulation areas. These regulations are not a good match to small locations having

one or a few satellite accumulation areas. Note that the required submittal of contingency plans to emergency response agencies [-350(4)(b)] will give these agencies significantly more paperwork to cope with.

Although Ecology states in the preamble (page 155) that the amendment is to “clarify” that contingency planning and general facility inspections apply to satellite accumulation, the reference to -200(1)(e) also mandates personnel training. This step adds yet more complexity for generators, as the scope of personnel to be trained is unclear and potentially very broad. Access to 90-day accumulation areas is usually more restricted than access to SAAs due to multiple operators and shifts at facilities, along with the requirement that an SAA must be located “at or near” the point of generation. The definition of “facility personnel” given in -330 is likely to apply to many more staff, including staff whose role does not include hazardous waste management activities, when the rule is applied to satellite accumulation areas by reference to -200(1)(e).

Another issue regarding inspections is raised by the reference to -200(1)(e) and the fact that the inspection requirement is vague. The sections of -320 referenced in -200(1)(e) generally require an inspection schedule and appropriate responses to problems identified. However, an inspection frequency is not specified other than the daily inspection requirement for areas subject to spills when in use. The weekly inspection frequency is addressed for 90-day accumulation areas in -200(1)(b)(i) by referencing -630(6) for containers. The proposal could result in different generators specifying widely variable inspection frequencies, depending on their individual needs evaluation. In turn this situation would result in inconsistency and potential enforcement concerns based on an individual inspector evaluating the given SAA inspection frequency.

Due to these significant impacts, an unclear proposal about training requirements, and vague expectations on inspection frequencies, this proposal needs to be withdrawn.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: “Complies with subsections (1)(d), ~~(e)~~, and (f) of this section.”

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 8)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Eighth, his proposal meets the threshold for triggering a review under the Regulatory Fairness Act (RCW 19.85) to be part of the small business economic impact analysis. Review of the document posted on Ecology’s web page and the text on WSR 04-14 appearing on pages 156-159 reveals no discussion on this subject. Because these changes “impose more than a minor cost on twenty percent of the businesses in all industries, or ten percent of the businesses in any one industry” (Reference: WSR opening statements on the Regulatory Fairness Act of RWC 19.85), Ecology is required to include the SAA changes as part of the Small Business Economic Impact Statement. The WRS opening remarks also indicate when a Small Business Economic Impact Statement is not required.

The SAA proposal does not meet at any the five criteria identified.

Because Ecology did not include the SAA proposed change in the Small Business Economic Impact Statement, the proposal to add contingency, inspection, and the unadvertised training requirements, and preparedness and prevention requirements to SAAs needs to be withdrawn.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 9)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ninth, in, addition to the proposed addition of "(e)", Ecology has also proposed to add "(f)" to -200(2)(a)(i). This proposal is supported by FH. The new reference provides a clear tie in between SAAs and treatment-by-generator requirements under EPA's land disposal restriction program. The addition of "(f)" is consistent with an email message from Tom Cusack dated May 25, 2000.

Please provide specific language for your recommended change or addition.

Retain "(f)" as proposed. Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -300 Page # 200-201 Citation # -300(2) (comment 1)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed changes to -300(2) in conjunction with the new definition of knowledge (see other comments in this package on the new definition of knowledge under -040). The proposed changes add significant new requirements to the confirmation process for TSD facilities, whether commercial, or owned by the same company, as well as on-site transfers within a facility (such as the Hanford Facility). Even though no changes were proposed to -300(1), both -300(1) and the proposed changes to (2) are reproduced for clarity:

"(1) Purpose. This section requires the facility owner or operator to confirm his knowledge about a dangerous waste before he stores, treats, or disposes of it. The purpose for the analysis is to insure that a dangerous waste is managed properly.

(2) The owner or operator must obtain a detailed chemical, physical, and/or biological analysis of a dangerous waste, or nondangerous wastes if applicable under WAC 173-303-610 (4)(d), before he stores, treats, or disposes of it. This analysis must contain the information necessary to manage the waste in accordance with the requirements of this chapter (~~(173-303-WAC)~~). The analysis ~~((may))~~ must include or consist of either existing published or documented data on the dangerous waste, or on analytical data from waste generated from similar

processes, or data obtained by testing, ((if necessary)) or a combination of these.
(a) When a dangerous waste management facility uses information or knowledge from the generator to complete a waste profile for a waste instead of direct analysis of a sample, that information must meet the definition of "knowledge" as defined in WAC 173-303-040. To confirm the reliability of the information or knowledge, the facility must do one or more of the following, as applicable:
(i) Be familiar with the generator's processes by conducting site visits, and reviewing sampling data and other information provided by the generator to ensure they are adequate for safe management of the waste;
(ii) Ensure waste analysis contained in documented studies on the generator's waste is based on representative and appropriate sampling and test methods;
(iii) Compare the generator's waste generating process to documented studies of similar waste generating processes to ensure the waste profile is accurate and current.
(b) As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection for adequate information on the waste whether the owner or operator conducts direct testing on the waste or relies on knowledge from the generator."

FH has significant concerns with this proposal. The following 11 bullets denote the comments submitted on the changes to -300(2):

- Changes that are proposed to -300(2) are inappropriate,
- The three options in -300(2)(a)(i) through (iii) are too limiting,
- The proposal is not consistent with general requirements in the existing regulations by applying off-site commercial requirements to onsite transfers and offsite shipments between sites owned by the same company,
- The use of the word 'analysis' in the regulations has a complex meaning and does not mean waste testing,
- TSD facilities can not longer adapt their waste profile evaluation processes,
- Conditions are not part of Ecology permits as Ecology has claimed,
- Additional requirements to waste analysis planning is unnecessary and not consistent with Federal guidance,
- Mixed waste testing guidance flexibility appears to be eliminated by this proposal,
- Proposal is inconsistent with the book designation procedures,
- Waste analysis guidance requirements Ecology seeks to adopt are outdated, and
- We support referencing -380(1)(c) for recordkeeping requirements, but the extra explanatory text on what the records needs to consist of is inappropriate

The 11 elements are broken up into separate comments.

The first comment is related to the changes that are proposed to -300(2). Changing the word 'may' to 'must' is inappropriate. This is a significant change because now what was once a permissive word now has been changed to a mandatory word. There is no explanation by Ecology for such a drastic change. The next problematic change is adding the word 'either' thereby creating an interpretation problem with sentence structure when the words 'or' and 'and' also exist following the word 'either.' The next change, adding the phrase 'analytical data from' now precludes other knowledge from similar processes being used by limiting the universe of usable information to testing data. Other

information can no longer be used. The final change is deleting the phrase 'if necessary' and substituting the phrase 'or a combination of these.' This change has now taken a discretionary term aimed at testing requirements and replacing it with a term that denotes more information needs to be retained. These changes to -300(2) are unrealistic; they not supported by this proposed rule, nor the explanatory text that accompanies the proposed rule, and need to be deleted.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Second, the three options proposed by Ecology in -300(2)(a)(i) through (iii) are too limiting. Ecology's proposal to require facilities to confirm all waste profiles using specified methods [-300(2)(a)(i) through (iii)] is beyond existing requirements and inconsistent with EPA, *Waste Analysis At Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes: A Guidance Manual*, April 1994. Faxback 50010 (hereinafter referred to as EPA's 1994 Waste Analysis Guidance), with which the proposal claims to be consistent. Although Ecology requested comments on additional ways to provide options in the regulations, Ecology's approach to define the ways in the regulations is the wrong way to go about regulating sufficient knowledge for a generator and how an off-site TSD facility confirms knowledge to ensure proper management. Ecology should not be trying to list all the options in the regulations. The current regulations contain the appropriate flexibility and are generally consistent with EPA's regulations and should not be changed.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Third, the proposed changes by Ecology for -300(2) and its subsections are not consistent with general requirements in the existing regulations by applying off-site commercial requirements to onsite transfers and offsite shipments between sites owned by the same company. The placement of the requirements in -300(2) results in its application to waste shipments not expected to be subject to EPA's 1994 Waste Analysis Guidance, i.e. shipments to TSD facilities from other sites owned by the same company as well as onsite transfers. Page 1-15 of EPA's 1994 Waste Analysis Guidance states "...if you own/operate an off-site (facility) and rely on information provided by a generator ...". This makes it clear that verification of one's own processes and procedures for waste data generation is redundant and not appropriate for this rulemaking. These practices are very important to the onsite management of mixed waste at the Hanford Facility. The application of comprehensive waste testing requirements for onsite transfers is costly and inconsistent with EPA's 1994 Waste Analysis Guidance. The existing regulations are written so that all of the available flexibility is preserved so that permit writers can tailor the needs of the waste analysis plan. The text on Ecology's web page states: "In addition to being consistent with general requirements in the current regulations, the proposed changes are consistent with federal guidance on waste analysis and current final permits at commercial dangerous waste management facilities on the subject of waste analysis and the use of generator knowledge." If this is true, then there is little or no need for the rulemaking as presented because any deficiencies at existing facilities could be addressed through permit modifications rather than rulemaking. Finally, the preamble states that it is directed at waste profiles for waste streams, implying waste acceptance at commercial TSD facilities. However, most of the impact is on generators and onsite TSD facilities, both through the operation of the proposed definition in -040 and due to the claimed existence of similar requirements in commercial TSD permits.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, the use of the word 'analysis' in the regulations has a complex meaning and does

not mean waste testing. The use of the word 'analysis' in the regulations means both 'sampling and laboratory analysis' as well as 'applying acceptable knowledge.' Use of the word analysis is more akin to a verb like a 'technical or engineering analysis' which is an action evaluating the available knowledge. In EPA's 1994 Waste Analysis Guidance in Section 1.5 *How can you meet the waste analysis requirements for your facility?* it states: "Wherever feasible, the preferred method to meet the waste analysis requirements is to conduct **sampling and laboratory analysis** because it is more accurate and defensible than other options. ... However, generators and TSDs also can meet waste analysis requirements by **applying acceptable knowledge.**" Even in the margin to the side of this text the question is asked "What are your waste analysis options under RCRA?", and the answer is sampling and analysis plus acceptable knowledge. It is clear from this information that the word 'analysis' in the TSD regulations is a complex term. This is further supported by the two sentences in -300(1). The first sentence uses the phrase 'confirm his knowledge' and the second sentence used the phrase 'of this analysis' referring back to the confirmation process. Further in Section 1.5 of EPA's 1994 Waste Analysis Guidance, the term acceptable knowledge is then defined to include process knowledge, waste analysis data, and facility records of analysis performed before the effective date of RCRA. The last portion has little or no meaning any more in the RCRA regulations, so it is the first two components of the definition that are used as guidance today. The term waste analysis data is defined as "... obtained from facilities which send wastes off site for treatment, storage, or disposal (e.g., generators)." Even the term 'waste analysis data' does not specifically denote a waste testing requirement.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, based on evaluating Ecology's proposal it appears that TSD facilities can no longer adapt their waste profile evaluation processes. FH is concerned about Ecology's approach to revising the requirements for waste analysis and waste designation. We readily acknowledge the need for confirming waste information at a TSD facility and obtaining sufficient information as part of a waste designation process for waste accepted into a TSD facility. However, we are concerned that the ability of individual TSD facilities to adapt waste profile evaluation processes to their particular needs is being eliminated through the proposed rule amendments. The amendments are prescriptive as

to the approach and requirements. We also note that the placement of the proposed rule amendments in -300(2) would make them applicable to onsite TSD activities as well as offsite facilities.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380(1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 6)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Sixth, conditions are not part of Ecology permits as Ecology has claimed. Ecology stated in the text on their webpage that “proposed changes are consistent with ... current final permits at commercial dangerous waste management facilities on the subject of waste analysis and the use of generator knowledge.” Current final permits and draft permits that have been posted on Ecology’s website do not indicate that the proposed rule language is being utilized in those permits, particularly the requirements proposed at -300(2)(a)(i) through (iii). We question the value of including these requirements in the regulations when they are not part of current final permits, as indicated in the discussion on Ecology’s webpage. Are these conditions in draft permits? Is Ecology having a difficult time issuing permits because these conditions are not in the regulations? What are the permits Ecology has placed these conditions into? The conditions are also not part of FH’s Hanford Facility RCRA Permit which has been in place since 1994 and is up for renewal. Because waste designation knowledge and TSD waste analysis policy/guidance have a long history and the cost of testing mixed waste is enormous, these principles are very important to waste management at the Hanford Facility.

Further, amending the WAC will not necessarily bring the state’s permitted TSD facilities into alignment with the proposed amendment, as their permit requirements act as a shield against WAC changes until those changes are adopted into their permits [see -810(8)(a)].

In lieu of the approach proposed, we suggest that any perceived statewide deficiency in generator designation of waste be addressed during case-by-case compliance inspections and any perceived deficiency in TSD waste analysis plans be addressed in the context of those individual waste analysis plans and permits. Ecology should not be trying to align the regulations with guidance. If there are problems Ecology wishes to address, Ecology should hold workshops or other outreach programs to inform the regulated community.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 7)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Seventh, Ecology's proposal to add further requirements to waste analysis planning is unnecessary and not always consistent with Federal guidance, as claimed. Existing Federal regulations [40 CFR 264.13(a)(2)] allow for published data on waste from similar processes to be utilized as acceptable knowledge. Use of published data or studies on such similar processes is also defined as acceptable knowledge at pg. 1-11 of EPA's 1994 Waste Analysis Guidance. Ecology proposes to delete use of published data on waste from similar processes without explanation.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 8)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Eighth, the currently available mixed waste testing guidance flexibility appears to be eliminated by this proposal. Another important point for the FH is the additional guidance available on mixed waste (*Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*, 11/20/1997, 62 FR 62079). The NRC/EPA 1997 mixed waste guidance is used at the Hanford Facility to address testing issues associated with mixed waste. Maintaining the flexibility in the regulations provided for mixed waste will be a very important element to preserve based on the agreements reached during permitting Notice of Deficiency workshops at the Hanford Facility for TSD units covering the whole range of treatment, storage, and/or disposal of mixed

waste. Waste Analysis Plans have been painstakingly crafted over the last decade between FH and Ecology. All available flexibility is used during the Notice of Deficiency workshops to arrive at an operating permit for a TSD unit. There are still a fair amount of TSD units in the process of obtaining operating permits. The impacts of this rule amendment could be enormous if the waste analysis plans must be renegotiated all over again.

We are also concerned that our TSD units managing mixed waste may be required to perform additional testing work on mixed waste if the requirements proposed are adopted. Testing of mixed waste generally results in radiation exposure to TSD workers. The NRC/EPA 1997 mixed waste guidance, Section V, indicates that TSD facilities managing mixed waste should utilize the available flexibility in their waste analysis plan to avoid unnecessary waste testing. The proposed rule reduces this flexibility by introducing strictures on the types of knowledge that can be used for designation. The placement of the proposed requirements in -300(2) requires that they be complied with in the waste analysis plan by the wording of -300(5).

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 9)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ninth, we note that this proposal appears to be inconsistent with the book designation procedures of WAC 173-303-100(5)(b). This widely used procedure does not appear to provide the level of ‘knowledge,’ as proposed to be defined, necessary to substitute for direct testing of the waste. The confirmation procedures of proposed -300(2)(a)(i)-(iii) also do not match up to information derived by generators according to the book designation process.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific

information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 10)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Tenth, EPA's 1994 Waste Analysis Guidance requirements that Ecology seeks to adopt are outdated and thus of no value. Ecology's proposed steps in -300(2)(a) appear similar to the information contained in EPA's 1994 Waste Analysis Guidance under *Special Concerns When Using Acceptable Knowledge* on page 1-15 which states:

“There are several special concerns that you should be aware of if you rely on acceptable knowledge to manage your wastes. First, if you own/operate an off-site TSD and rely, on information supplied by the generator, you should, if possible, become thoroughly familiar with the generator's processes to verify the integrity of the data. This can be accomplished by (1) conducting facility visits of generators and/or (2) obtaining split samples for confirmatory analysis. Second, if you use process descriptions and existing published or documented data as acceptable knowledge, you should scrutinize carefully whether:

- There are any differences between the process in the documented data and your process
- The published or documented data that were used are current

These issues are of concern, for example, because EPA recently revised the criteria that qualify a waste as a hazardous waste due to being characteristically toxic. Not only were the number of constituents deemed hazardous increased, but also the prescribed test method was modified [i.e., the TCLP replaced the Extraction Procedure Toxicity Test (EP TOX Test)].”

The TCLP rule, a sweeping change to the dangerous waste characteristics, was published March 29, 1990 (55 FR 11862) and required a new test method (the Toxicity Characteristic Leaching Procedure) as well as identifying 25 new characteristically toxic wastes. The guidance was intended to upgrade information due to sweeping changes in the regulations and avoid the use of outdated or inapplicable knowledge from the EP TOX procedure. One year prior to the publication of the 1994 Waste Analysis Guidance, underlying hazardous constituents were first instituted in May 1993 (58 FR 29860) and expanded to other waste codes in 1996. It has now been eight years since major changes like this have happened in EPA's program. Hence it is much less likely at this point that generators are inappropriately relying on outdated information to try and designate their waste, or that TSD facilities are overlooking significant constituents that would adversely affect their ability to manage the waste safely, properly and compliantly. Ecology should not include this type of guidance into regulations at this point in the regulatory history of RCRA and the Hazardous Waste Management Act.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i)

through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:
“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 11)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Eleventh, it is a good idea to reference -380(1)(c) for recordkeeping requirements, but the extra explanatory text needs to be deleted on what the records need to consist of. Ecology is proposing to add the following text as the new -300(2)(b):

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection for adequate information on the waste whether the owner or operator conducts direct testing on the waste or relies on knowledge from the generator.”

FH agrees that referencing the recordkeeping requirements helps ensure the reader is informed of the -380(1)(c) requirements. We do not agree that the language after the word subsection should be retained. The extra language now introduces yet another new term ‘adequate information’ to the regulations. This new text needs to be avoided so that yet another term is thrown into the already complex waste analysis mix of terms.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -370 Page # 202 Citation # -370(4) and (5)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Ecology has proposed text in -370(4) that duplicates existing text in -280(1). Duplicate text in the regulations should be avoided. Ecology needs to decide in which location the text will be located. Also, the renumbering of regulatory sections affects the referencing of other sections. For example, -350(3)(b) references -370(5) and with the new additions of -370(4) and (5), the renumbering has created a problem with -350(3)(b). Ecology needs to update all applicable WAC 173-303 references when subsection numbering changes.

Please provide specific language for your recommended change or addition.

Decide to keep the proposed -370(4) text in its proposed location, or in -280(1), but not in

both places. If -370 subsections will get renumbered, search entire WAC 173-303 sections for references to -370 subsections.

Section # -390 Page # 206 Citation # -390(2)(g) and (h)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The proposed changes to these sub-sections relating to annual dangerous waste reporting appear to have good intentions but unintended consequences. In the text contained on Ecology's webpage, Ecology states: "Including this rule language in the state regulation will result in more efficient work on permits in the future. Rather than dual permits being issued by both EPA and Ecology, Ecology will be able to issue the entire permit. Adoption of these federal requirements is not intended to conflict with existing pollution prevention planning requirements." The proposal appears to aim at improved RCRA permitting. FH supports permitting improvement efforts such as this since the Hanford Facility has a HSWA portion of the Hanford Facility RCRA Permit issued by EPA that will expire on September 27, 2004. Once the Hanford Facility RCRA Permit is renewed by the Nuclear Waste Program, the HSWA portion will no longer be required. But on the other hand, Ecology appears to have blindly copied the text from 40 CFR 264.75, EPA's biennial reporting requirements, into these sections without evaluating the way TSD facilities gather information and prepare the annual dangerous waste report. Generator requirements are not discussed in this comment because they appear to be exempted from these requirements by the proposed changes to -220(1)(b).

Specifically, -390(2)(g) requires information on the description of efforts taken during the year to reduce the volume and toxicity of the waste to be reported. This is a direct conflict with current practices because annual dangerous waste reporting under TurboWaste, Ecology's software, uses mass [kilograms] and waste codes. In addition, review of the TurboWaste reporting fields do not yield a field for which the required description could be entered. Without changes to the proposed text of the rule, it appears Ecology has begun the effort to completely overhaul the way TSD facilities have to collect information for the annual dangerous waste report and that Ecology will be initiating a significant overhaul to TurboWaste. If so, as one option, Ecology needs to include a delayed implementation of this requirement until Ecology's software is updated and training is provided to the regulated community what specific information is required and how that information should be collected and reported.

The Hanford Facility Annual Dangerous Waste Reports are prepared with compliance with annual reporting instructions issued by Ecology. Per those instructions, dangerous waste "descriptions" are provided as brief "Waste Stream" narratives including applicable federal and state dangerous waste codes; dangerous waste "quantities" are reported as mass units in kilograms. There are no other "volume and toxicity" parameters required by the reporting instructions.

In -390(2)(h), a description is required of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years, to the extent such

information is available for the years prior to 1984. This requirement appears to carry no logic as there is no data still available prior to 1984, and Ecology's existing software does not allow this kind of description to be added. It appears the first year this provision will be in place will constitute the baseline year for subsequent years and that in the second year, the first comparison can be made, since the volume and toxicity of a waste is currently not been reported in TurboWaste. In addition, review of the TurboWaste reporting fields do not yield a field for which the required description could be entered.

As stated earlier, Ecology does not intend to adopt these federal requirements so that they conflict with existing pollution prevention planning requirements. With the way the proposed rule is worded, Ecology has not accomplished this goal. There is nothing proposed in the regulations that would support Ecology's impact conclusion. Ecology has not provided an evaluation of TurboWaste processes and the way TSD facilities collect information in order to make this claim in this rulemaking. Other suggestions related to the resolution of this problem appear below.

The Hanford Facility collects waste minimization and pollution prevention (P2) data to meet the requirements of Department of Energy (DOE) Order 450.1 and associated Executive Orders. The reporting elements are defined by DOE Headquarters in Washington DC and are presently being revised for P2 goals beyond 2005. Presently, waste generation information is binned into routine and non-routine (this would include both RCRA and CERCLA waste) and by waste type (not by waste codes). The information is reported in cubic meters except that sanitary waste, TSCA waste, RCRA waste, and State-only dangerous waste in reporting in metric tons. The way this information is collected and reported would not be compatible with Ecology's proposal to report volume and toxicity of dangerous waste generated.

The Hanford Facility's mission is related to closure of the site with no baseline "production" level of operations. Waste generation quantities can vary greatly from year to year, depending on the Decontamination & Decommissioning project schedules. The value added of year to year comparisons of waste generation "volume and toxicity" for a site undergoing closure is questionable, and may be meaningless.

For the Hanford Facility, the proposed rule with requirements for dangerous waste "volume and toxicity" reporting could necessitate a greatly expanded waste sampling and analytical program to determine toxicity, with accompanying site-wide infrastructure improvements and additional data management capabilities. Such an expansion may be cost prohibitive with respect to funding priorities. [Even if Ecology changes the terms "volume and toxicity" to "quantity and description," a significant data gathering program will be required to come up with the descriptions required by both of the new requirements.] Again, based on an above comment, the value added of this additional reporting requirement is questionable. Ecology needs to provide a method to balance the impacts of the rule with the time it will take to implement new requirements.

Please provide specific language for your recommended change or addition.
Ecology needs to resolve this concern in one or more of the following ways:

- Delay implementation for these two requirements until TurboWaste can be revised and training implemented across the state,
- Revise the language of the proposed rule from “volume and toxicity” to “quantity and description” for consistency with current annual dangerous waste reporting parameters,
- Relocate the requirements so that they are not tied to the annual dangerous report,
- Add language to allow systems in place at the time of the effective date of this rule to be equivalent to the proposed requirements and provide guidance how the information needs to be submitted to Ecology, or
- If these items can not be implemented, delete the proposed changes to -390(2)(g) and (h).

Section # -395 Page # 206 Citation # -395(1)(d)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed a change without stating what the impacts of the change are. Since the Hanford Facility is subject to DOE Orders which use the Uniform Fire Code, the Hanford Facility will be subject to two different standards now. One standard will be imposed through WAC 173-303 and the other standard imposed through DOE Orders. If Ecology considers the requirements equivalent, the Hanford Facility can continue to comply with the DOE orders and the International Fire Code at the same time. Ecology needs to include an evaluation of the requirements in the response to comments document and inform the regulated community of the impacts. If the requirements are equivalent and there are no impacts, then Ecology should also make this clear.

Please provide specific language for your recommended change or addition.

If the Uniform Fire Code and the International Fire Code are equivalent, then a statement should be made indicating they are equivalent. If the requirements are different, Ecology should provide an option to comply with either standard at the discretion of the fire marshal having jurisdiction.

Section # -400 Page # 210 Citation # -400(3)(c)(ix)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

This proposed amendment appears to have the unintended effect of repealing the existing requirements cited, and does not properly cite 40 CFR 265 sections intended to be included. By saying the section “is modified to read” when the intent is to add additional language to the existing regulation, Ecology appears to be repealing the existing requirements in that section. We doubt that is Ecology’s intent.

Ecology’s interim status regulations do not require changing, and the partial closure provisions proposed by Ecology are inconsistent with EPA regulations at 40 CFR 265.112(d)(1).

The interim status requirements in -400(3)(a), (b) and (c) adequately cover partial closures and do not require amendment. The proposed changes are not consistent with closure requirements as Ecology has stated in the last sentence of the "reason for amendment" commentary. There is no need for additional modifications to 40 CFR 265 Subpart G in -400(3)(c)(ix). There is no compelling reason for Ecology to propose more stringent requirements from EPA regulations.

EPA's interim status requirements for partial closure apply in two scenarios from 40 CFR 265.112(d)(1): (1) a 180 day notification is required when the owner/operator expects to close the first surface impoundment, waste pile, land treatment, or landfill, ... or (2) a 45-day notification is required when the owner/operator expects to begin partial or final closure of a boiler or industrial furnace. Other partial closure notifications are not required.

It is unclear as to what interim status facilities exist in Washington State and where Ecology's proposed requirements will be applied. The Hanford Facility, through the Tri-Party Agreement, Action Plan, must close all TSD units according to -610 requirements, so the Hanford Facility will not use this provision. It seems likely that the number of facilities subject to this requirement is small. If so, it seems awkward and inappropriate for Ecology to propose rulemaking that will apply in limited circumstances. When the Hanford Facility submitted a petition for rulemaking in late 2002, Ecology stated in the response denying the petition that because Hanford would be the only facility in Washington State to benefit from the petitioned request, that Ecology chose to not amend WAC 173-303 for one facility. Ecology should apply consistent rationale for when they amend WAC 173-303 based on which facilities it will impact.

Finally, Ecology's desire to clarify the sentence from 40 CFR 265.115 is inconsistent with many of the other subsection contained in -400(3)(c). Reading through these citations, the format of changes is consistent. There is no need to make a change to -400(3)(c)(ix) pertaining to 40 CFR 265 Subpart G without performing all the clarifications to the rest of the subsections in -400(3)(c).

Please provide specific language for your recommended change or addition.
Delete the proposed modification to expand notification requirements and revise -400(3)(c)(ix) to read as follows:

"(ix) 'Subpart G – closure and post-closure' section 265.112(4)(d)(1) is modified to read include the following: 'The owner or operator must submit the closure plan to the department at least 45 days prior to the date on which they expect to begin closure of a tank, container storage, or incinerator unit, or final closure of a facility with such a unit.' In addition, section 265.112(4)(d) is modified to read: 'Owners or operators with approved closure plans must notify the department in writing at least 45 days prior to the date on which they expect to begin closure of a tank, container storage, or incinerator unit, or final closure of a facility with such a unit.' The first sentence of sSection 265.115 is modified to read 'Within 60 days of closure of each dangerous waste management unit (including tank systems and container storage areas) and within 60 days of completion of

final closure, the owner or operator must submit to the department, by registered mail, a certification that the dangerous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan.' In addition, the clean-up levels for removal or decontamination set forth at WAC 173-303-610(2)(b) apply."

Section # -515 Page # 216 Citation # -515(13)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology is requiring a test for listed wastes when listed wastes can only be designated based on process knowledge. The mere presence of a listed constituent does not mean that a material is designated as a listed dangerous waste. Test results indicating the presence of acetone in used oil would not determine if the acetone was an F listed solvent since testing cannot determine if the solvent was 10% or more before use and whether the use was used for it's solvent properties. Testing also could not determine if the acetone was unused and therefore a potential U listed dangerous waste. Testing can only determine whether a characteristic and/or criteria of dangerous waste is exhibited or whether environmental media or debris no longer contains a listed constituent. In the March 8, 1990, Federal Register on page 8758, EPA explained that it is often necessary to know the origin of the waste to determine whether it is a listed waste and that, if such documentation is lacking, the agency (EPA) may assume it is not a listed waste. Ecology specifically omitted listed waste discussions from the *Chemical Testing Methods for Designating Dangerous Waste* (Publication #97-407) because of this fact.

Testing would not be required for determining the presence of listed hazardous waste since testing cannot make a listing determination; only generator knowledge can determine the applicability of listings. By avoiding to finalize the listed waste language as proposed, unnecessary and expensive testing will be eliminated since testing cannot determine the applicability of listings. Deleting the testing requirement for listings would also maintain consistency with waste designation policies and the Federal program.

In the preamble discussions Ecology makes a statement: "Testing for specific chlorinated compounds is part of the allowed procedure under EPA guidance to rebut the presumption that listed waste was added to a used oil, and is therefore established policy for implementing the used oil rules." Ecology should not tie in the listed waste and chlorinated compound terminologies. Chlorinated compounds are not necessarily listed wastes. In stead, Ecology should use the term "total halogens" in place of "a listed hazardous waste" in order to be consistent with Table 1 in -515.

Please provide specific language for your recommended change or addition.

Delete the phrase "...determine whether the used oil contains a listed hazardous waste, or..." from the proposed text to -515(13). Alternatively, rewrite the phase to say "...determine whether the used oil contains total halogens, or..."

Section # -610 Page # 227 Citation # -610(1)(a)(ii)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

There are two comments on the structure of -610(1)(a)(ii). First, applicability related terms should be moved from -610(12) and -120(3) to keep these terms together. Second, Ecology needs to extend the financial assurance exemption for federal and state governments to the closure plan requirements.

Regarding the applicability terms, all such terms should appear in one location, preferably in -610(1)(a)(ii). Keeping applicability terms in one location prevents unnecessary confusion within the regulated community on the scope of the requirements. Applicability terms in -610(12) that should be moved include: "subject to regulation under WAC 173-303-120(3), (4), or used oil processor or rerefiner subject to WAC 173-303-515(9)." Applicability terms in -120(3) that should only appear here include: "must prepare closure plans."

Second, in the last paragraph of the discussion on the Hazardous Waste Facilities Initiative on Ecology's web page Ecology states: "Facilities owned and operated by state or federal agencies will not be affected by proposed changes to rule for financial responsibility because state and federal facilities are self-insured and have sufficient assets to assure proper closure and are therefore exempt from such requirements in both state and federal rules." Since financial assurance and closure requirements under this initiative are tied together, Ecology should also extend the financial assurance exemption to the recycling unit closure plan requirements for federal and state agencies. Ecology should do this because costs for closing recycling units at state and federal facilities in Washington will be paid for by the respective state or federal agency, and not Ecology's budget.

These closure plan provisions will impact the Hanford Facility because the Hanford Facility accepts off-site waste for recycling. FH has separate EPA/State ID#s numbers within Richland, Washington for multiple locations and these multiple locations send their recycle dangerous materials to the Hanford Facility at the Centralized Consolidation/Recycling Center in the 400 Area. Ecology's Nuclear Waste Program is in full knowledge and agreement of the recycling management practices at the Hanford Facility. There have been no management concerns with these practices. The Hanford Facility should not be punished with the burden of preparing an additional plan after demonstrating top-rate recycling activities over the years when the Hanford Facility will clearly pay for any closure costs associated with this recycling unit.

In the discussion on Ecology's web page, Ecology has identified that the Washington Department of Agriculture will not be subject to the financial assurance requirements. It is hard to believe that this Washington Department will be the only department affected by this rule. Even if this department is the only department affected by this rule change, it is difficult to believe Ecology is imposing additional requirements on state agencies as part of this rulemaking. In the public hearing on August 10, 2004, the Ecology presentation identified the facilities causing the initiative for these new requirements. All

five of the examples cited at the hearing are commercial facilities. There are no state or federal governmental facilities identified as the reason for these new requirements. Therefore, Ecology should exempt state and federal agencies from these closure plan requirements. Proper closure of recycling units will be accomplished by the owner or operator when they belong to state or federal governments.

Please provide specific language for your recommended change or addition.

Revise -610(1)(a)(ii) to read:

“Subsections (2) and (12) of this section apply to the owners or operators of commercial recycling units who receive recyclable dangerous waste subject to regulation under WAC 173-303-120(3), (4), or used oil as a used oil processor or rerefiner subject to WAC 173-303-515(9) from off-site and place them in recycling units. State and federal governments are exempt from these requirements.”

Section # -610 Page # 228-229 Citation # -610(3)(c)(i)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology's final status regulations do not require changing, and the partial closure provisions proposed by Ecology are inconsistent with EPA regulations at 40 CFR 264.112(d)(1).

In the explanation to this change found on Ecology's website, Ecology made an incorrect consistency assertion by stating: "This change requires owners or operators of final status facilities to notify Ecology of a partial closure of a tank, container storage, or incinerator unit at least 45 days prior to the date of which they expect to begin closure of such a unit. *This is consistent* which the current requirements that require owners or operators to submit a plan for final closure of a facility with such units" *[emphasis added]*. The requirement to notify is a distinct and separate requirement from the requirement to submit a plan. According to -610(3)(a), the closure plan is submitted with the permit application for operating TSD units and approved as part of the permit issuance procedures. Ecology's proposed changes are not consistent with EPA's closure requirements at 40 CFR 264.112(d)(1).

Ecology should have no concerns about partial closure notifications at a TSD unit that needs to have a permit to operate. Section -610 applies to operating facilities seeking a permit, and -610(3)(a) clearly outlines the procedures to get an approved closure plan. If there are partial closure concerns at a facility and there is appropriate justification to impose partial closure notifications, Ecology can impose these through the omnibus provisions of -800(8) as part of the permit issuance process.

In the March 2004 pre-proposal, Ecology made statements about their lack of records as a reason for this amendment. These statements no longer appear in the explanation for the proposed rule amendment on Ecology's web page. There is no need for additional requirements to be imposed on the regulated community because Ecology's files or a facility's files lack the appropriate records. A facility's operating record is required by

-380 to demonstrate closure of dangerous waste management units at a facility. Certification of closure requirements in -610(6) provides the means to demonstrate closure to Ecology. There is no compelling reason for Ecology to punish the regulated community in this manner by proposing more stringent requirements from EPA regulations.

EPA's requirements for partial closure at 40 CFR 264.112(d)(1) contain an additional sentence not found in -610(3)(c)(i). Ecology should only propose text to make -610(3)(c)(i) consistent with 40 CFR 264.112(d)(1). Other partial closure notifications are not required.

Please provide specific language for your recommended change or addition.

Delete the proposed changes and add the following sentence to the end of -610(3)(c)(i): "The owner or operator must notify the department in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier."

Section # -610 Page # 233 Citation # -610(12)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

There are three comments on the structure of the opening paragraph to -610(12). First, the applicability related terms should be moved to -610(1)(a)(ii) to keep these terms together. Second, the term "recycling unit" should be used since this is the term Ecology is defining in -040. Third, Ecology needs to clearly extend the financial assurance exemption for federal and state governments to the closure plan requirements.

Regarding the applicability terms, all such terms should appear in one location, preferably in -610(1)(a)(ii). Keeping applicability terms in one location prevents unnecessary confusion within the regulated community. Applicability terms in -610(12) that should be moved include: "subject to regulation under WAC 173-303-120(3), (4), or used oil processor or rerefiner subject to WAC 173-303-515(9)."

Regarding the term "recycling unit," this is the term Ecology is adding to -040. Ecology is not proposing "recycling facility" as a term. Ecology should update the paragraph to use the term in -040. The definition of recycling unit is broad and Ecology has indicated only a subset of recycling units that are subject to regulation for the new closure and financial assurance requirements.

Third, in the last paragraph of the discussion on the Hazardous Waste Facilities Initiative on Ecology's web page Ecology states: "Facilities owned and operated by state or federal agencies will not be affected by proposed changes to rule for financial responsibility because state and federal facilities are self-insured and have sufficient assets to assure proper closure and are therefore exempt from such requirements in both state and federal rules." Since financial assurance and closure requirements under this initiative are tied together, Ecology should also extend the financial assurance exemption

to the recycling unit closure plan requirements for federal and state agencies. Text for this suggestion is contained in the comment on -610(1)(a)(ii).

Please provide specific language for your recommended change or addition.

Revise -610(12) to read:

“The owner or operator of an off-site recycling unit as described in (1)(a)(ii) of this section facility subject to regulation under WAC 173-303-120(3), (4), or used oil processor or rerefiner subject to WAC 173-303-515(9) must have a written closure plan.”

Section # -610 Page # 233 Citation # -610(12)(b)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The introductory language proposed in -610(12) states that a recycler or used oil processor must have a written closure plan. -610(12)(b) states that Ecology can deny a closure plan submitted pursuant to paragraph (a). However, -610(12) is silent on the status of a recycler that has prepared a closure plan after Ecology has denied it. Since there is no permit at stake, Ecology has no apparent ability to resolve disagreement between Ecology and an owner/operator over closure plans unless there is a threat to human health and the environment. Generators may not know whether to continue utilizing the recycling unit if there is no path forward for resolution of the issues causing Ecology’ denial. We suggest Ecology add a requirement to resubmit an amended closure 90-days after receipt of Ecology’s denial or give the owner or operator the ability to challenge Ecology’s decision pursuant to the appeal provisions of -845. 90-days appears to be a reasonable time frame to resolve concerns that do not warrant a challenge.

Please provide specific language for your recommended change or addition.

Two changes should be made to clarify the denial of a recycling unit closure plan.

First, a sentence should be added to the end of -610(12)(a) that reads: “For closure plans denied under (12)(b) of this section that will be resubmitted, the amended plan shall be resubmitted within 90 days after the owner or operator receives the denial.”

Second, a sentence should be added to the end of -610(12)(e) that reads: “Refer to (12)(a) of this section when a closure plan is denied if the closure plan needs to be resubmitted. Alternatively, the owner or operator can challenge the denial pursuant to WAC 173-303-845.”

Section # -620 Page # -234 Citation # -620(1)(e)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology needs to amend the proposed language at -620(1)(e) to be consistent with the text prepared on Ecology’s web page, the existing financial assurance exclusion found in -620(1)(c) for state and federal governments, and the term “recycling unit” proposed in -040.

In the last paragraph of the discussion on the Hazardous Waste Facilities Initiative on Ecology's web page Ecology states: "Facilities owned and operated by state or federal agencies will not be affected by proposed changes to rule for financial responsibility because state and federal facilities are self-insured and have sufficient assets to assure proper closure and are therefore exempt from such requirements in both state and federal rules." At the Hanford Facility, the Hanford Facility RCRA Permit (WA7890008967) contains condition II.H.3 that states "The Permittees are exempt from the requirements of WAC 173-303-620." Ecology needs to finalize this rule in a way to ensure this exemption continues to apply at the Hanford Facility. A reference to -620(1)(c) in -620(1)(e) will ensure there are no misinterpretations to the new recycling unit requirements. This clarification is important since Hanford Facility recycling activities are not contained in the Hanford Facility RCRA Permit.

Regarding the term "recycling unit", this is the term Ecology is adding to -040. Ecology is not proposing "recycling facility" as a term. Ecology should update the paragraph to use the term in -040.

Please provide specific language for your recommended change or addition.

Revise -620(1)(e) to read:

"(e) Except as provided in (1)(c) of this section, the requirements of subsections (3), (4), (8), (9), and (10) of this section, apply to owners and operators of off-site recycling units facilities and processors/refiners of used oil, except the term 'recycling unit' will replace the terms 'dangerous waste management unit' or 'regulated unit.'"

Section # -620 Page # _____ Citation # -620(6)(a)(iv)(B)(III)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed addition of the words "or financial test and corporate guarantee for post-closure care" to this section is not appropriate. The subject of subparagraph (B) is criteria for financial strength for insurance purposes. This may be a typographical error since the language is already contained in -620(6)(a)(v).

Please provide specific language for your recommended change or addition.

Revise proposed subparagraph (III) to read "A++, A+, A, A-, as rated by A.M. Best; ~~or Financial test and corporate guarantee for post-closure care; or~~"

Section # -630 Page # 238 Citation # -630(8)(a)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed a change without stating what the impacts of the change are. Since the Hanford Facility is subject to DOE Orders which use the Uniform Fire Code, the Hanford Facility will be now subject to two standards. One standard will be imposed through WAC 173-303 and the other standard imposed through DOE Orders. If Ecology considers the requirements equivalent, the Hanford Facility can continue to comply with

the DOE orders and the International Fire Code at the same time. Ecology needs to include an evaluation of the requirements in the response to comments document and inform the regulated community of the impacts. If the requirements are equivalent and there are no impacts, then Ecology should also make this clear. Ecology should also seek the endorsement of a fire marshal on such a position.

Please provide specific language for your recommended change or addition.

If the Uniform Fire Code and the International Fire Code are equivalent, then a statement should be made indicating they are equivalent. If the requirements are different, Ecology should provide an option to comply with either standard at the discretion of the fire marshal having jurisdiction.

Section # -640 Page # 243 Citation # -640(4)(i)(D) and (E)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

In reviewing the proposed changes to the "notes" in -640, an improper reference to (h)(iv)(A) through (C) was found in two locations. In -640(4)(i)(D) and (E), the reference should be (i)(A) through (C). The sub-subsections (A) through (C) are not found anywhere in (h).

Please provide specific language for your recommended change or addition.

Revise -640(4)(i)(D) and (E) to read:

(D) The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with ~~(i)(h)(iv)~~(A) through (C) of this subsection.

(E) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in ~~(i)(h)(iv)~~ (A) through (C) of this subsection, the owner or operator must comply with the requirements of subsection (7) of this section.

Section # -640 Page # 244 Citation # -640(7)(d)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ecology's proposed amendments to this section are based on a fundamental premise that there is a conflict that needs to be resolved. In the text on Ecology's web page Ecology states: "The existing rule language in section -640 stating that spills/releases from tanks that go to the environment need to be reported within 24 hours conflicts with the requirements of section -145. If a spill is classified as an emergency with contingency plan implementation, then it would also conflict with -360(2) requirements. In addition to the "immediate" vs. 24-hour notification, -640(7) specifies a report of the release within 30 days. Again, if the release was classified as an emergency with implementation of the contingency plan, a report is required within 15 days (see -360(2)(k)). Also, the current version of -640(7)(d)(ii) states that if a release is below the reportable quantity

(RQ), then no reporting is required. This is yet another conflict with -145, which specifies that any amount is reportable if it impacts human health or the environment.”

These perceived conflicts Ecology is articulating are not real and do not need to be reconciled. Many requirements exist that act independently from each other. First of all, -640(7)(d) requirements are based on EPA's counterpart to tank system requirements found in 40 CFR 264.196(d) and -145 is a state-only section not found in EPA's RCRA program. Second, the -360(2) provisions match EPA's provisions for contingency planning in 40 CFR 264.56 and EPA does not perceive a conflict between contingency planning and the tank systems requirements. Ecology should not be creating perceived conflicts when EPA does not perceive one.

In addition, since Ecology retained the word “any” in its proposal, the proposed modification is inconsistent with -145 by requiring reporting of any release from a tank system in accordance with -145. -145 only requires reporting when a release of dangerous waste or hazardous substance threatens human health or the environment. Based on this fact, Ecology's proposal is creating a new conflict with the -145 reporting requirements. The stated purpose of the modification was to relieve conflicts with the reporting requirements of -145, not create them. The proposed language of -640(7)(d)(i) fails to bring the requirement into alignment with -145.

Ecology's approach is looking at requirements the wrong way. -145 is a state-only requirement with no Federal counterpart. Ecology should not be modifying -640(7)(d)(i) and (ii) to be consistent with -145 and at the same time try to maintain a delegated RCRA program from EPA. Changing requirements in the regulations away from the text EPA uses only creates questions about whether Ecology is properly maintaining their delegated RCRA program. Ecology should merely identify the other requirements from -145 and -360(2) in -640(7)(d)(i) so that it is easier to identify all applicable reporting requirements.

The proposal also deletes the reporting exception provided in Federal regulations [40 CFR 264.196(d)(2)] by proposing to delete the current -640(7)(d)(ii) for very small releases that are immediately cleaned up. We suggest that this exception be retained in the proposal. Small, inconsequential releases can occur with tank systems (e.g. transfers from containers into the system) and should not be included in this rule if they are immediately cleaned up. We recognize that immediate reporting of any release to the environment is required under the corresponding Federal requirement unless it meets the small release exemption. Ecology's spill cleanup guidance (Focus on The Spills Notification Rule, February 2003 and Shoptalk Autumn 1998) clearly established that cleaned up spills are not a threat to human health and the environment. This exception needs to be retained in the proposal so that Ecology's maintains consistency in the regulations with these other cited published references.

Furthermore, the emergency provisions in -360(2)(k) for submitting a 15-day report should not be equated with the 30-day reporting requirements under the tank system regulations. The content of the 15-day report and the content of the 30-day report are not

appropriate to equate. The content of the 15-day report required under -360(2)(k) relates to information that can be quickly documented after an emergency circumstance occurs. The content of the 30-day report required under -640(7)(d)(iii) can take more time than 15-days to compile. The regulations at -640(7)(d)(iii)(C) already identify that results of sampling and monitoring might even take longer than the 30-days allotted. Ecology should not be making an attempt to reconcile the two different reporting timelines based on the different types of information required for the two different reports. Instead of trying to equate follow-up reporting requirements, Ecology should only be referring to the -360(2)(k) requirements for completeness. If an owner or operator has the information available for both the 15-day report and the 30-day report when the 15-day report is due, the owner or operator should be given the flexibility to combine the reports into one. Conversely, if the 30-day report information requires more time to obtain, the owner or operator should be able to submit two different reports.

Regarding any concerns about Ecology being able to receive proper notifications, Ecology will receive the appropriate notifications pursuant to -145, so there is no need to worry about proper notifications under the tank system regulations. -145 operates independently from -640(7)(d) and needs to remain this way.

Please provide specific language for your recommended change or addition.

Revise language at -640(7)(d)(i) to read:

“Any release to the environment, except as provided in (d)(ii) of this subsection, must be reported to the department within twenty-four hours of its detection. Any release above the “reportable quantity” must also be reported to the National Response Center pursuant to 40 CFR Part 302. An owner or operator is also required to comply with applicable notification requirements in WAC 173-303-145 and emergency notification and reporting requirements in WAC 173-303-360(2).”

Delete proposed changes to -640(7)(d)(ii). Retain the exception text as it currently exists.

Delete proposed changes to -640(7)(d)(iii) regarding the 15-day contingency plan report. Retain the text as it currently exists.

Section # -960 Page # 305 Citation # -960(2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed substitution of the term ‘a significant threat’ for the term ‘an imminent and substantial endangerment’ would create a great deal of confusion about Ecology’s authority and Ecology’s intent by this proposed change. The regulated community and the regulators themselves are keenly aware of the meaning of the term ‘imminent and substantial endangerment’ as a result of nearly three decades of application of the term, judicial rulings, and regulatory guidance. The term ‘a significant threat,’ appears to be a new term of art and offers no such certainty in its’ meaning, has no judicial rulings to interpret the meaning, and will inevitably lead to confusion, misapplication, and prolonged litigation. Individual Ecology inspectors could interpret ‘significant threat’

from many viewpoints resulting in an inconsistent application of authority, and result in a disparate treatment of members of the regulated community. -960 is also used to help determine whether a material is a solid waste or dangerous waste [see -016(1)(b)(ii)], so this change could also result in the expansion of the universe of regulated wastes. The phrase 'imminent and substantial' is the proper standard for use in this section.

On Ecology's web page, the following three paragraphs are used to explain the rationale for this proposed change:

"Rationale – This proposed rule will allow Ecology to seek a court order (for example, a temporary restraining order to stop a facility from receiving additional wastes from off-site) prior to conditions deteriorating to "imminent and substantial threat" thresholds of the current WAC 173-303-960, and in some situations, prior to issuance of civil orders or penalties. This proposed rule will make the Dangerous Waste Rules consistent with the powers granted the department and the attorney general in the State Hazardous Waste Management Act, RCW 70.105.120.

There have been two recent situations where a used oil processor and a recycling facility continued to receive wastes from off-site in the face of enforcement actions by the department. The companies continued to receive revenues from the wastes received, but did not incur the costs of waste recycling and disposal. Threats to health and the environment were exacerbated, but did not reach the "imminent and substantial" threshold for quite some time.

Decisions on when to apply this authority will be based on consideration of factors involved with specific cases. The revision addressed in this proposal was previously presented to stakeholders as a new subsection in rules for recycled, reclaimed and recovered wastes, WAC 173-303-120. This proposal deletes that previous recommendation and applies it through a simpler approach by amending WAC 173-303-960."

The text of RCW 70.105.120 states:

"RCW 70.105.120 Authority of attorney general. At the request of the department, the attorney general is authorized to bring such injunctive, declaratory, or other actions to enforce any requirement of this chapter."

FH does not understand why existing authority for injunctive relief is not sufficient. Could Ecology please explain this? We also can not tell what Ecology and the Attorney General are trying to accomplish with this change. At the August 10, 2004 public hearing, an Ecology official stated that the Attorney General recommended that -960 should be modified. What was the legal rationale for that recommendation? We are also confused about why Ecology would change the term in -960(2), but would not change the term in -960(1). This apparent inconsistent application of terms will also lead to greater confusion and probable prolonged litigation.

We would also like to see an explanation as to how industries other than oil processors

and recycling facilities will be affected by this rule change. Are there any operations and activities that Ecology will be targeting during facility compliance inspections or particular compliance aspects Ecology inspectors will be looking for?

Please provide specific language for your recommended change or addition.
Delete the proposed modification, and provide the requested explanations.

**Chemical Testing Methods for Designating Dangerous Waste
Publication #97-407**

Proposed rule comments – September 2004

Washington State Register: 04-14-094

(PART 2 of FH comments)

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The Page# of the “.pdf” file placed on Ecology’s web page was not numbered.

Section #	None	Page #	Citation #	General comment
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**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Ecology’s proposed changes to the Appendices of the subject document constitute rulemaking changes affecting WAC 173-303 information as well as affecting text contained in the body of the subject document. Ecology needs to seriously reconsider the manner in which these proposed changes are being implemented because a holistic approach completely describing the universe of changes and the corresponding impacts to the regulated community need to be proposed. If not, the regulated community can not determine Ecology’s intent of their proposal. The additional comments below identify in more detail how these proposed changes related to the regulations and the body of the subject document.

In addition, the proposed changes can not be found on Ecology’s webpage. The following statements are made under the discussions for WAC 173-303-110: “This and other cross citations to Chemical Testing Methods are being updated to reflect revisions to State-only persistence criteria for halogenated organic compounds in Chapter 3, Section C of Ecology publication #97-407 ‘*Chemical Testing Methods for Designating Dangerous Waste*’. ... Based on this input, Ecology is proposing to revise the regulations and the guidance. These revisions will be limited solely to the sections dealing with state-only designation of waste containing HOCs (Chapter 3, Section C).” A search of the other documents on Ecology’s web page revealed no changes to the regulations on HOCs, and there were no changes proposed to Chapter 3, Section C. Only the posted file containing just the appendices of the subject document showed proposed changes to the regulated community. The proposal is misleading and incomplete.

Information outside of the appendices of the subject document appearing to be affected by changes to the appendices are: WAC 173-303-040 definitions of Halogenated Organic Compounds (HOC), persistence, and Polycyclic Aromatic Hydrocarbons (PAH), the universe of waste covered under the persistent criteria, and the main body/chapters of the

subject document describing background and approach to the persistence criteria.

Please provide specific language for your recommended change or addition.
Provide a thorough proposal that accounts for all impacted information from the
Prepare a holistic comment package for the changes to the subject document, including
impacts/flexibility of the proposal on the regulated community.

Section # None Page # _____ Citation # _____ General Comment _____

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

There are changes proposed to WAC 173-303, other than HOCs and persistence issues, appearing to affect the language of the subject document. Ecology needs to provide a complete revision of the subject document, not just revisions related to HOCs and persistence. Ecology should not blindly look at one issue when it revises a document, and then have to amend the document again, for other reasons known at the time the document is revised.

Please provide specific language for your recommended change or addition.

Make all appropriate changes to the subject document during the document update cycle. Do not just update the appendices related to HOC and persistence information.

Section # Appendix I - Glossary Page # _____ Citation # _____ Definition of "Chemicals of Concern" _____

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

This definition is expanding the universe of waste covered by the persistence criteria and Ecology has not properly informed the regulated community about its intent to expand the reach of WAC 173-303 waste designation processes. The definition expands the universe because the third and fourth elements of this definition appear on the surface to constitute a broader scope in constituents regulated under the persistence criteria. The first element of the definition appears reasonable since it references the definition of HOCs. The second element of the definition referring to the definition of persistence is not necessary because, by definition, the persistent criteria already include the universe of HOCs and PAHs. Said another way, HOCs are a subset of constituents that meet the persistent criteria. The third element, a constituent *appearing on EPA's Appendix VIII or IX of compounds of environmental concerns*, is vague and ambiguous. What lists are these? By what methodology has Ecology considered this list? Why is Ecology for the first time in its rulemaking history introducing these lists to the persistent criteria? What impact to the universe of waste captured under the persistent criteria do these two lists have? Likewise for the fourth component, *constituents identified by Ecology as compounds of concern*, what is this universe? How does Ecology arrive at what is a compound of concern? What constituents are new to the list based on this element? The fourth element leaves Ecology excessively too much discretion in adding compounds without proper justification. There is no information in the proposed rule package on

Ecology's web page for this rulemaking that explains any of these considerations. Since Ecology has not properly informed the regulated community of these important matters, Ecology needs to withdraw this proposed definition to avoid questions about compliance with the Administrative Procedures Act (RCW 34.05).

Furthermore, this proposed definition appears to impact the discussion contained in Chapter 3, Section A.2, *Background for Persistent Criteria Waste*, of the subject document. This proposal is incomplete and can not be evaluated.

Please provide specific language for your recommended change or addition.
Delete definition of Chemicals of Concern in Appendix 1.

Section # Appendix 1 -Glossary Page # _____ Citation # _____ Definition of "Persistence"

Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?

Ecology has proposed a change to this definition without including information to justify the proposal, and Ecology has not proposed this change consistently throughout the proposed rule comment package. Ecology has proposed to change (365 days) to (60 days) regarding the time by which a HOC or PAHs retains more than 1/2 of its initial activity. Without knowing the baseline amount of chemicals meeting the 365 day criteria and then knowing how many chemicals are being proposed under the 60-day criteria, the regulated community has no way of determining what this impact will be on waste management activities. Ecology needs to answer many questions with such a proposal. Where does the 365 day criteria come from? There is no clear answer to this question in Chapter 3, Section C.1 a, *Definition of Persistence* in the subject document. Why has Ecology now decided to change this to a 60 day criteria? What impact does this have on the regulated chemicals under the persistence criteria? Why did this change only affect HOCs and not PAHs. Regarding a complete portrayal of this proposal throughout the proposed rule package, when such a change is proposed, the definitions in WAC 173-303-040 needs to be updated, and the text in the subject document Chapter 3, Section C.1 *Introduction*, and C.1 a *Definition of Persistence* also needs to be updated to address the new approach. This proposal is incomplete and can not be evaluated.

Please provide specific language for your recommended change or addition.
Delete and changes to the definition of persistence in Appendix 1.

Section # Appendix 1 -Glossary Page # _____ Citation # _____ Definition of "Polymer"

Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?

With the new proposed definition, it appears that the Chapter 3, Section C.1.b of the subject document needs to be updated. Prior to Ecology adding this definition, the only information about polymers was with regard to PVC pipe, in that polymers are not subject to regulation under WAC 173-303-100. Ecology need to review and update Section C.1.b. Ecology also needs to provide an explanation of what this new definition

means to the universe of waste regulated by WAC 173-303-100. What is the significance of the definition?

Please provide specific language for your recommended change or addition.

Review and amend Chapter 3, Section C.1.b of the subject document and explain what this definition does to the universe of waste regulated under WAC 173-303-100.

Section # Appendix 1 -Glossary Page # _____ Citation # _____ Definition of "Polycyclic Aromatic Hydrocarbons"

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has changed the name of the last chemical appearing on the list. It is not clear whether this is an intended change or whether it is a typographical error. Also, a sentence is added referring the reader to the body of the document for PAH CAS numbers, without providing the update to the body of the subject document. The chemical name Ecology is proposing to change is "dibenzo(a,j)acridine" to "dibenz(a,j)acridine." This name also appears in WAC 173-303-040 under the definition of PAH and in Chapter 3, Section C.1.c of the subject document.

Please provide specific language for your recommended change or addition.

Check the chemical name, and add the CAS numbers to Chapter 3, Section C.1.c of the table in the subject document.

Section # Appendix 2 Page # _____ Citation # 2.C.2, text of 49 CFR 173.128 relating to organic peroxides

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The text relating to 49 CFR 173.128 (organic peroxides) needs to be deleted from the subject document. In the proposed rule change to WAC 173-303-090(5)(a)(iv), Ecology is correcting the oxidizer definition of ignitability by deleting reference to 49 CFR 173.128. The corresponding change needs to be made in the subject document by deleting information in Appendix 2, 2.C.2 and Chapter 2, Section A.2.d, *Oxidizers*.

Please provide specific language for your recommended change or addition.

Purge the entire subject document of information related to 49 CFR 173.128, organic peroxides, based on the change proposed to WAC 171-303-090(5)(a)(iv).

Section # Appendix 3 Page # _____ Citation # General comment

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has created confusion with the proposed changes to Appendix 3. The changes do not make sense for the following reasons: First, the list of methods serving as a summary of the methods discussed in the body of the subject document are being deleted

without updating the body of the subject document. Second, Ecology is proposing to delete the reproduction of method text in Appendix 3 but at the same time proposing to reproduce the text of two new methods in Appendix 3. Third, Ecology is proposing a new undefined term "general evaluation analysis" without explanation or without a discussion of how this impacts the current information in Chapter 3 Section C.2 *Test Methods for Determining HOC* (and all its subsections) in the body of the subject document. Fourth, there is no discussion how the two new methods proposed for this appendix (SW-846 5050 and 9056) are related to the methods listed in Table 3-1 and 3-2. Finally, Ecology is deleting the sample containers and preservation table of information without an explanation.

There appears to be merit in retaining the list of methods for all the characteristics and criteria as well as the sample containers and preservation table. By maintaining the list of methods in Appendix 3, Ecology does not have to update many footnotes contained in the body of the subject document. The regulated community will also have a handy reference of methods Ecology recommends for the characteristics and criteria. The sample containers and preservation table should be retained since it is only two pages long and will not take up much paper and this too also provides a handy reference instead of having to look up the information in the SW-846 tables. If Ecology does not retain these small tables, then Appendix 3 should summarize the locations of SW-846 where the sample containers and sample preservation information is located within SW-846. We also recommend that the term "general evaluation analysis" be avoided unless it does not impact the discussion in the body of the document. If this term is important in the testing of a waste matrix to meet waste designation requirements, why has Ecology not mentioned this in the past? There appears to be little value in reproducing the text of any method in Appendix C and we agree with Ecology that a reader can go and look the method up. Since Ecology's stated desire is to conserve paper, the two new methods, 5050 and 9056 should also not be reproduced.

Please provide specific language for your recommended change or addition.

In Appendix 3, retain the list of methods discussed/footnoted in the body of the subject document, retain the sample containers and preservation table, avoid using the term "general evaluation analysis", and delete the method text for all methods listed.

Section # Appendix 4 Page # Citation # New Appendix Chlorinated Paraffins

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

This new Appendix titled Chlorinated Paraffins is not introduced by corresponding changes to the body of the subject document. The reader can not tell what relevance this information has to the waste designation process and the universe of waste covered under the WAC 173-303. The term "chlorinated paraffins" is not found in any of the definitions contained in WAC 173-303 or Appendix 1 of the subject document. The reader can not tell what this information means, other than it is general information about chlorinated paraffins. What is Ecology trying to accomplish with this information? How does it relate to the definitions of persistence, HOCs and PAHs. How are these

compounds currently addressed under the regulations? When did Ecology inform the regulated community that such compounds were within the scope of HOCs? This new appendix needs to be carefully evaluated, because it appears Ecology is trying to expand the universe of state-only dangerous waste under the persistence criteria.

There appears no reason to have this information in the subject document. With the list of HOC information proposed in the new Appendix 5, this Appendix should be deleted.

Please provide specific language for your recommended change or addition.

Delete Appendix 4.

Section # Appendix 5 Page # Citation # New Appendix *HOC Chemicals of Concern*

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Creating a list of HOC regulated under WAC 173-303 is a great idea and FH fully supports this move, provided that Ecology constructs an appropriate list. A list of HOCs regulated under WAC 173-303 will remove differences of interpretation between Ecology and the regulated community on the scope of HOCs.

There are concerns however with the proposed new appendix. First the title should be changed to "HOCs Regulated under WAC 173-303." See previous comment about the term chemicals of concern and how this new term should be avoided. Second, Ecology can not maintain a list on these chemicals on their web page. To comply with the Administrative Procedures Act (RCW 34.05) regarding what wastes are regulated under WAC 173-303, Ecology must maintain the list either in WAC 173-303 or in a document subject to the Washington State Register process in order to allow the regulated community the opportunity to comment on Ecology's proposed changes. Since the subject document revisions are managed through the Washington State Register process, maintaining the list in the new appendix would be an appropriate way manage this list. Third, the last table sorted alphabetically appears to be sorted inconsistent with standard reference material. Standard reference materials do not sort based on numbers preceding a chemical name. Ecology's sort appears to use the preceding numbers as a basis. Fourth, since the table is a list of HOCs, they are all regulated in the same weight percents under WAC 173-303-100(6) so that the last two columns in the table are not necessary. Every entry for each constituent has the same information in the last two columns.

Please provide specific language for your recommended change or addition.

Retain the information in Appendix 5 with the following changes: Change the title to "HOCs Regulated under WAC 173-303," avoid using the term *chemicals of concern*, maintain the list of HOCs in the appendix and not on Ecology's webpage, modify the list by proposing changes in the Washington State Register, revise the list of chemicals consistent with the appropriate scope after evaluation of the other comments above, resort the alphabetical chemicals list similar to the way standard references sort chemicals and delete the last two columns in the table. Also, change the definition of HOCs in Appendix 1 consistent with the comment on -040 in Part 1 of this comment package.

Section # Chapter 2 Page # Citation # Chapter 2, Sections C.1 and C.2 that reference Division 1.5

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Because EPA does not recognize Division 1.5 as part of EPA's hazardous waste program, a comment on WAC 173-303-090(7)(a)(viii) has been submitted as part of this rulemaking in Part 1 of the comment package. When Ecology decides to delete Division 1.5, it also needs to be deleted from Chapter 2, Sections C.1 and C.2. This is a perfect opportunity for Ecology to make the decision on this change and get it implemented. Ecology should update the subject document for all known reasons at the time the document is planned for revision. Ecology has no basis to limit changes to this document to the HOC information when other changes are also needed.

Please provide specific language for your recommended change or addition.

Delete "Division 1.5" from Chapter 2 Sections C.1 and C.2.

Section # Chapter 3 Page # Citation # Chapter 1, Footnote 3, Chapter 3 Section B.2, and Chapter 3, Footnote 27

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

These reference need to be reviewed and updated so that they are clear on the toxicity sources required to complete a book designation. Ecology should not leave book designation sources vague and open ended as to which ones are required. An open ended requirement only provides for a difference of opinion between Ecology and the regulated community. There are three places in the subject document where information about book designations need to be reviewed and updated. Footnote 3 leaves the required book designation references open ended but mentions MSDSs and NIOSH RTECS. Chapter 3 Section B.2 provided discussion in paragraph 3 about book designations and also references footnote 27. Footnote 27 identifies the Hazardous Substances Data Base along with RTECS yet the footnote appears open ended. Because the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) document is being opened for HOC amendments, Ecology should take this opportunity to clear up the vague and ambiguous matter on the toxicity source requirements for the book designation. We have also made this suggestion in Part 1 of the comment package addressing section WAC 173-303-100(5)(b)(i).

Please provide specific language for your recommended change or addition.

Consistent with the comment on this subject provided in Part 1 of this comment package, Change the text in the three locations cited to reflect required toxicity data sources:

- NIOSH RTECS
- Material Safety Data Sheets, and
- The Hazardous Substances Data Base, National Library of Medicine.

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The reference in footnote 6 should be "60 FR 3092" not "60 CFR 3092" and the date of the FR should be inserted.

Please provide specific language for your recommended change or addition.

Change footnote 6 to read "60 FR 3092, January 13, 1995."

Hervieux, Patricia R.

From: McKarns, Anthony C (Tony) [Anthony_C_Tony_McKarns@RL.gov]

Sent: Friday, September 10, 2004 2:11 PM

To: Hervieux, Patricia R.; Stone, Alex (ECY)

Subject: Comments on WAC 173-303 proposed rule and the amendments to publication #97-407

Chipper/Alex:

I have attached the USDOE's comments on the proposed changes that appeared in the Washington State Register 04-14, for the Dangerous Waste Regulations, WAC 173-303, and the Chemical Testing Methods for Designating Dangerous Waste (Publication #97-407). The USDOE's comments are divided in two parts. Part 1 contains comments on WAC 173-303, and Part 2, beginning on page 51, contains the comments on publication #97-407. Our comments on the two parts are related in many circumstances.

We look forward to the final rule and your response to our comments. We will be following up this email message with a formal letter in the near future.

Thank you for the opportunity to provide comments.

Sincerely,

Tony McKarns

509 376-8981

<<303_2004.proposed rule.doc>>

21

Dangerous Waste Regulations Chapter 173-303 WAC
Proposed rule comments – September 2004
Washington State Register: 04-14-094
(Part 1 of USDOE comments)

First and Last Name: Anthony McKarns
Organization or Affiliation: U.S. Department of Energy (USDOE)
Address: P.O. Box 500, MSIN A5-15, Richland, WA 99352

For brevity, citations to section# of WAC 173-303 will be noted without the full reference to the Chapter. For example, "-010" will imply reference to WAC 173-303-010. USDOE has submitted this comment on past rulemakings.

Page# refers to page of the Washington State Register, volume 04-14.

Section # -010 Page # 160 Citation # -010(1)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

USDOE supports the inclusion of the Note clarifying that the terms public health and human health are used interchangeably in the Dangerous Waste Regulations.

Please provide specific language for your recommended change or addition.

No changes are requested.

Section # -040 Page # Citation # Definition of Halogenated Organic Compound

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

As part of this rulemaking package, Ecology is proposing to establish a list of halogenated organic compounds (HOCs) in the amendments to the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407). USDOE supports this approach as a comment to establish such a list has been submitted in past rulemakings by USDOE. Additional comments on the approach to establishing the list of HOCs and related information is contained in Part 2 of this package. As part of implementing a uniform approach to establishing a list of HOCs, Ecology needs to maintain this list in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) as apposed to a list on Ecology's webpage for the reasons cited in Part 2 of the comment package. Based on an assumption that Ecology will accept the comment to maintain the list of HOCs in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407), a change is proposed to the definition of HOCs in -040. The proposal deletes the word 'any' and adds text to inform the reader the list of HOCs exists.

Please provide specific language for your recommended change or addition.

The definition of HOCs should be revised to read:

“ ‘Halogenated organic compounds’ (HOC) means any organic compounds which, as part of their composition, include one or more atoms of fluorine, chlorine, bromine, or iodine which is/are bonded directly to a carbon atom. This definition does not apply to the federal land disposal restrictions of 40 CFR Part 268 which are incorporated by reference at WAC 173-303-140(2)(a). Note: Additional information on HOCs, including the list of HOCs regulated under the persistence criteria of this chapter may be found in *Chemical Testing Methods for Designating Dangerous Waste*, Ecology Publication #97-407, revised December 2004.”

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 1)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ecology has proposed a new definition of ‘knowledge’ in this rulemaking effort. The proposed definition reads:

“ ‘Knowledge’ means there is sufficient information about both the waste constituents and the process generating a waste to reliably substitute for direct testing of the waste. Such information must include the chemical, physical, and/or biological characteristics of the waste. (For example, if all chemical constituents used in an industrial process generating a waste are known and the formation of the waste by-products from that industrial process are understood, that information may be sufficient without direct laboratory analysis to describe waste for safe management under this chapter.)

Note: Knowledge as defined here is for the purpose of complying with WAC 173-303-070(3)(c) and 173-303-300(2).”

This proposed definition is inappropriate and also brings into play many other problems commented on here and other comments on the proposed changes to -300(2).

Specifically, the proposed definition of ‘knowledge’ is:

- unnecessarily prescriptive and inflexible and requires encyclopedic knowledge of the waste,
- impacting the waste generators in the state,
- vague and ambiguous because the word ‘sufficient’ has different meanings under different circumstances,
- eliminating mixed waste testing flexibility provided in guidance issued by the Nuclear Regulatory Commission (NRC)/U.S. Environmental Protection Agency (EPA),
- inconsistent with knowledge requirements for designating the toxicity criteria,
- removes necessary flexibility to address the variety of waste management scenarios,
- does not provide a meaningful example, and
- is defining a term contrary to application of the English language.

These individual aspects are broken up into 8 separate comments.

Regarding the first item, the proposed definition of knowledge is unnecessarily prescriptive and inflexible and requires encyclopedic knowledge of the waste. A great USDOE Part 1 proposed-rule WAC 173-303 comments

deal of information can be garnered from direct testing of a waste, including information not relevant to the actual designation under -070(3) or proper management under -300(2) of a waste (e.g. viscosity, color). However, the wording of the -040 definition as proposed appears to make encyclopedic knowledge of the waste (physical, chemical, and/or biological) necessary in order to substitute for laboratory analysis (“sufficient information ... to reliably substitute”). Direct testing of a waste seldom reveals information about the process sufficient to designate waste, especially listed waste (see, e.g., RCRA Online, Faxback 12171, 12392, 14291). Hence the proposed definition’s requirement that knowledge about the process must be sufficient to substitute for direct testing is unnecessarily stringent and would pose significant implementation problems and expense for generators. In practice, most waste designations utilize at least some process knowledge that can not be equated with any direct testing.

This proposal by Ecology will add new requirements, contrary to the following statement found in the explanatory text on Ecology’s web page which states: “The rule amendment elaborates on that requirement but doesn’t impose new requirements.” The additional comments on the proposed definition of ‘knowledge’ and the waste analysis changes in -300(2) will identify the new requirements being imposed. In Ecology’s explanation of proposed changes in the Small Business Economic Impact Statement, section 2.1 text indicates that the impact of this rule change is ‘negligible.’ USDOE comments on the definition of ‘knowledge’ and the proposed waste analysis changes in -300(2) will show Ecology’s conclusion on this matter is faulty. For this reason, and all the other reasons described in these comments, Ecology needs to withdraw the proposed definition of knowledge and rely on the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) for any additional explanations of knowledge regarding sufficiency for generators. Perhaps Ecology should consider using the term ‘acceptable knowledge,’ a term the EPA uses in its guidance. Ecology needs to avoid defining the term ‘knowledge’ based on how EPA uses the term ‘process knowledge’ and ‘acceptable knowledge’ in their guidance. If review of the information in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) does not match Ecology’s expectation, then Ecology should re-propose a new package to the regulated community with changes being made in that document.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA’s terminology for ‘acceptable knowledge.’ Avoid defining the term ‘knowledge.’

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Second, we are also concerned about the impact of the proposed rule amendment on waste generators in the state. The definition of “knowledge” proposed would impact all generators’ waste designation processes and are significantly more prescriptive than the

current Ecology regulatory framework. The level of knowledge being proposed necessary to substitute for laboratory testing of waste will likely have the result of many more questions being raised about waste designation, and a resultant shift to laboratory testing by generators to characterize their waste. Ecology notes in their reason statement that laboratory testing is costly and unnecessary in some cases. The issues of knowledge were heavily commented on during the last revision of the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407). Many sections of this publication and the definition of 'process knowledge' in the glossary of this document received much attention. Since Ecology did not propose any related changes to Publication #97-407, the regulated community is at a loss as to how the proposed changes apply to all the discussions contained in the response to comments section for publication #97-407 that is contained in Appendix D to *Responsiveness Summary Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC*, Publication 97-439, dated January 1988.

The note following the -040 definition indicates that the definition is to be used for compliance with both the generator and TSD facility regulations. Ecology notes in the preamble (page 155 of the WSR) that the purpose for the definition is to "clarify requirements for confirming and documenting information from a generator on a waste profile for a waste stream." This proposed requirement appears to be intended to affect the TSD facility regulations, but Ecology is seeking a change that will broadly impact generators.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Third, the proposed definition of knowledge is vague and ambiguous because the word 'sufficient' has different meanings under different circumstances. The concept of sufficient knowledge is not a concept that can be generalized and placed into the regulation. The determination of sufficient information for a waste can mean multiple meanings for a give waste. The following examples demonstrate this variability:

- A generator is allowed to declare a waste to be hazardous and no testing is required. As stated by EPA at 62 FR 62083, "... facilities wishing to minimize testing can assume a questionable waste is hazardous and handle it accordingly." Although EPA stated this provision in the NRC/EPA, *Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*, 11/20/1997, 62 FR 62079, this provision is equally available for non-radioactive waste. In this case, the declaration is sufficient, albeit conservative from a generator's standpoint, but still sufficient. A TSD facility will then decide if additional testing is necessary to further manage the waste based on the scope and extent of their operations. In some cases,

the TSD facility will be able to treat the waste without obtaining additional direct testing knowledge prior to treatment. This provision is critical in cost-effective management of mixed waste, especially on mixed waste hazardous debris where macroencapsulation has no contaminant restrictions on treatment.

- A generator designates listed waste under -070(3)(a)(i) and (ii) solely on process knowledge. Testing does not determine how to apply a listed waste code to a waste during a waste designation. In this case, the process knowledge is sufficient.
- In some cases, a test method is not available for the parameter being evaluated. The reactivity characteristic is an example of a situation where EPA has not relied on a test method. With the exception of cyanides and sulfide parameters, EPA has elected to rely on a descriptive definition for reactivity. Testing is not used for these description definitions. This is also true for the ignitability designation parameter in -090(5)(a)(ii). In this case, the process knowledge is sufficient.
- In designating the toxicity and persistence criteria, sufficient knowledge means the information needed to meet the requirements of either -100(5)(a) or -100(6)(a) which are virtually identical provisions. The text of -100(5)(a) states: "Except as provided in WAC 173-303-070(4), if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection." There is no obligation to test a waste for the criteria in -100(5) unless Ecology asserts their testing authority from -070(4) for the reasons stated in the regulations. In this case, available knowledge is sufficient.

For these reasons, the regulations need to remain the same by withdrawing the proposed definition of knowledge in order to retain the level of flexibility currently allowed and avoid additional confusion about the term 'sufficient'. There are a wide variety of industrial, commercial, and governmental waste management considerations, including the mixed waste considerations for USDOE's waste within Washington State. If Ecology needs to address specific issues at specific TSD facilities, Ecology needs to use their omnibus authority under -800(8) to address these issues in individual permits. Without an explanation of the issues Ecology is facing at whatever TSD facilities issues are occurring at, it is very difficult for the regulated community to respond. Ecology posted no information about the problems and concerns or the issues they are facing, either on Ecology's web page or part of the preamble in WSR 04-14.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 4)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Fourth, the proposed definition of knowledge eliminates mixed waste testing flexibility provided in guidance issued by the EPA/NRC. We are also concerned that mixed waste

generators may be required to perform additional testing on mixed waste if the proposed requirements are adopted. Testing of mixed waste generally results in radiation exposure to personnel. Exposure occurs during all stages of the testing process to determine a waste's characteristics or composition. Joint NRC/EPA mixed waste testing guidance (*Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*, 11/20/1997, 62 FR 62079.), Sections II and III, encourages generators and TSD facilities that manage mixed waste to utilize waste knowledge to characterize their wastes to eliminate unnecessary or redundant waste testing. The NRC/EPA 1997 mixed waste guidance then describes several types of knowledge that can be utilized. The proposed rule does not fully accommodate the types of knowledge described in the NRC/EPA guidance. The NRC/EPA provides guidance on ways to reduce testing. As one example, the 'declaration' example is explained "...facilities wishing to minimize testing often assume a questionable waste is hazardous and handle it accordingly." The Hanford Facility uses this provision for mixed waste in order to reduce the need to testing mixed waste. Mixed waste testing is very expensive and can only be performed by certain laboratories. It is not uncommon to spend \$5,000 per sample for simple low level radioactive waste testing. High level waste testing, on the other end of the spectrum can reach in the hundreds of thousands of dollars.

When the standard in WAC 173-303 is more stringent than EPA's requirements, potential inconsistencies between the state's requirements and the Atomic Energy Act (AEA) might be raised. EPA states at 62 FR 62085: "Where radioactive wastes (or wastes suspected of being radioactive) are involved in testing, it has been suggested that the testing requirements of RCRA may run counter to the aims of the AEA. The AEA requirements that have raised inconsistency concerns with respect to RCRA testing procedures include ALARA, criticality, and security. Neither EPA nor NRC is aware of any specific instances where RCRA compliance has been inconsistent with the AEA. However, both agencies acknowledge the potential for an inconsistency to occur." If Ecology finalizes the proposal, USDOE will have to look very carefully at these provisions to determine if WAC 173-303, under the Hazardous Waste Management Act, is raising additional inconsistency issues with respect to section 1006 of RCRA.

EPA goes on to say at 62 FR 62085 that: "Owner/ operators of mixed waste facilities are encouraged to address and document this potential situation and its resolution in the RCRA facility waste analysis plan which must be submitted with the Part B permit application, or addressed in a permit modification. Both agencies also believe that the potential for inconsistencies can be reduced significantly by a better understanding of the RCRA requirements, a greater reliance on materials and process knowledge, the use of surrogate materials when possible, and the use of controlled atmosphere apparatuses for mixed waste testing." The proposed definition on knowledge appears to run directly countercurrent with these statements about reliance of knowledge. At the Hanford Facility, the USDOE and Ecology's Nuclear Waste Program have used waste analysis plans and the permitting process in the Hanford Facility RCRA Permit to balance the appropriate considerations for mixed waste testing.

NRC/EPA also discusses the use of knowledge and flexibility needed for mixed waste at

62 FR 62088 which states: "As clarified in the Land Disposal Restrictions rule published on June 1, 1990 (see EPA's "Third Third rule," 55 FR 22669, June 1, 1990), the frequency of testing, such as corroborative testing for treatment and disposal facilities, should be determined on a case-by-case basis and specified in the RCRA permit. This flexibility is necessary because of the variability of waste types that may be encountered. Mixed waste is unique for its radioactive/hazardous composition and dual management requirements. Each sampling or analytical event involving mixed waste may result in an incremental exposure to radiation, and EPA's responsibility to protect human health and the environment must show due regard for minimizing this unique risk. These are factors which should be considered in implementing the flexible approach to determining testing frequency spelled out in the Third Third Rule language." USDOE encourages Ecology to maintain the same level of regard as NRC/EPA has.

These areas discussed from the NRC/EPA 1997 mixed waste guidance are some of the main points. The guidance contains many detailed aspects with regard to knowledge and direct testing of the waste. Since Ecology's proposed definition seems to run counter to the NRC/EPA 1997 mixed waste guidance, Ecology should not finalize this definition. See also the mixed waste comments under -300(2).

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, the proposed definition of knowledge is inconsistent with knowledge requirements for designating the toxicity criteria. We note that this proposal appears to be inconsistent with the book designation procedures of -100(5)(b) and the language contained in -100(5)(a). This widely used designation process does not provide the level of 'knowledge,' as defined, necessary to substitute for direct testing of the waste. The weight percent used in completing the equivalence concentration calculation is often obtained from upper bound numbers from a Material Safety Data Sheet (MSDS), which are conservatively selected by the company when they prepare the MSDS.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 6)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Sixth, the proposed definition of knowledge removes necessary flexibility to address the variety of waste management scenarios that must be addressed by the regulations. There are three main scenarios resulting in greatly varied waste management considerations for whether direct testing of the waste is appropriate. (1) commercial TSD facilities receiving waste from off-site, (2) off-site TSD facilities owned by the same company, and (3) on-site management within a TSD facility. A commercial TSD facility waste profile process documents information about the waste in order for the waste to change hands between different companies. Off-site facilities owned by the same company have different standards based on the fact the waste is not changing hands between different entities. On-site management within a TSD facility are not subject to the off-site verification procedures in -300(4)(b), -300(5)(g) and -300(6). These three standards are clearly not identical and Ecology should not try to harmonize them. The greatly varied waste management considerations for commercial TSD facilities receiving waste from off-site, off-site TSD facilities owned by the same company, and especially on-site management within a TSD facility should be reasons enough for Ecology to withdraw this definition. Overlaying this proposed definition on the existing rules is taking away the ability to tailor waste management considerations across the spectrum of waste management considerations.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 7)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Seventh, the proposed definition of knowledge does not provide a meaningful example. Any guidance Ecology provides to illustrate a point should show a definitive answer towards the standard. Ecology's choice of the words "may be sufficient" does the regulated community and Ecology inspectors no good. The example cited by Ecology is an example of knowledge that exceeds any minimum requirements to ensure proper management of the waste.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -040 Page # 165 Citation # Definition of Knowledge (comment 8)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Eighth, the proposed definition of knowledge is defining a term contrary to application of the English language. Without the proposed definition of knowledge, the word knowledge would be interpreted to be the broadest universe of information about a waste. EPA then uses and defines the terms 'process knowledge' and 'acceptable knowledge.' Both of these terms would constitute a subset of the universe of knowledge. By the way Ecology is proposing to define knowledge, just the opposite will occur. The universe of 'knowledge' would now be a subset of 'process knowledge', and may be closer to EPA's definition of 'acceptable knowledge.' Ecology needs to avoid defining the term knowledge.

Please provide specific language for your recommended change or addition.

Delete this definition. Continue to rely upon the discussion of knowledge contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) or improve on these discussions by adding EPA's terminology for 'acceptable knowledge.' Avoid defining the term 'knowledge.'

Section # -070 Page # 172 Citation # -070(2)(c) (comment 1)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

USDOE commends and supports Ecology for adopting at least portions of the 40 CFR 261.3(g) mixture rule exclusion. There are five issues however Ecology should address before finalizing this text. These issues include:

- adding in mixtures of a solid waste and hazardous waste to the exclusion,
- deleting the tie in between the exclusion and the state criteria,
- modifying the text relating to "any characteristic" to the characteristic for which is the waste is listed,
- replacing the word "hazardous" with "dangerous," and
- clarifying text on Ecology's web page.

These five aspects are broken up into separate comments.

First of all, Ecology should add in mixtures of a solid waste and hazardous waste to the exclusion because not all circumstances of dilution are impermissible under EPA's program, and Ecology has adopted EPA's dilution prohibitions at 40 CFR 268.3 found in the land disposal restriction program.

On Ecology's web page, the following statements are made concerning this proposal: "The mixture rule being proposed by Ecology is a less stringent regulation than the existing rule that will allow many generators to treat their dangerous waste that would otherwise remain a listed waste. Ecology is proposing to adopt most of this rule; however, it is not proposing to exempt mixtures of solid waste and hazardous waste. This is consistent with other state dangerous waste regulatory requirements that prohibit mixing a hazardous waste with a solid waste. This would be considered dilution of

dangerous wastes, and dilution has consistently been seen as an inappropriate waste management alternative.”

Since the regulations incorporate by reference EPA’s land disposal restriction requirements at -140(2)(a), the dilution prohibition found at 40 CFR 268.3 is also referenced. EPA has clearly articulated in guidance when dilution is permissible and when it is impermissible (prohibited). Not all dilution is impermissible under EPA’s program. One of the main permissible dilution provisions used at the Hanford Facility is to aggregate prior to centralized treatment concept. Aggregation is allowable to facilitate proper treatment provided that the proper constituents will be treated. EPA has consistently allowed this form of dilution in the proper management of hazardous waste. Since the LDR requirements still apply to wastes after they are mixed (diluted) in EPA’s program as well as Ecology’s proposed exclusion, there is no threat to human health and the environment and all applicable treatment standards are met prior to disposal. More importantly, EPA also allows dilution for the mixture rule exclusion being proposed by Ecology. A comprehensive dilution logic figure is contained in Figure 13-16 of “McCoy’s RCRA Unraveled, 2003 Edition.” The main benefit for this exclusion is to end the application of listed waste codes to debris and laboratory matrices coming into contact with the waste when it makes no sense to apply the listed waste code to a resultant matrix.

This mixture rule exclusion only allows the listed waste code to be dropped for waste properties that do not deal with toxicity which are the true dilution concerns under RCRA. In EPA’s rulemaking for this exclusion (57 FR 21469 on May 20, 1992), EPA clarified the family of waste codes under this exclusion are listed only due to physical property reasons (ignitability, corrosivity and reactivity) and this exclusion is not available to other wastes listed for toxicity reasons. Although the most common example of a hazardous waste at the Hanford Facility that will benefit from this exclusion will be the F003 waste code, the list of waste codes eligible for the Federal mixture rule exclusion include: F003, K044, K045, K047, P009, P081, P112, U001, U002, U008, U031, U055, U056, U057, U092, U096, U110, U112, U113, U117, U124, U125, U154, U161, U186, U189, U213, U239. Since these listed wastes were not listed for toxicity reasons, once the characteristic for why the waste was listed in the first place is removed either through permissible dilution or treatment, there is no reason to keep the listed waste code associated with the waste.

EPA’s permissible dilution principles should not be considered in conflict with the waste management hierarchy or any Beyond Waste goals. If a path to proper treatment and disposal is available to a waste, and it is not financially advantageous to pursue another management path, then the generator is not obligated to choose a different path. The waste management hierarchy goals are stated in -140(1) and the stated purpose is to “...encourage the best management practices for dangerous waste...” A costlier management option is not required to be implemented by -140(1). For these reasons, Ecology needs to adopt the mixture rule exclusion related to a mixture of solid waste and a hazardous waste.

Please provide specific language for your recommended change or addition.

These proposes changes to -070(2)(c) contain suggested for comments #1 through #4:

(c)(i) A dangerous hazardous-waste that is listed in WAC 173-303-081 or 173-303-082 solely because it exhibits one or more characteristics of ignitability as defined under WAC 173-303-090(5), corrosivity as defined under WAC 173-303-090(6), or reactivity as defined under WAC 173-303-090(7) is not a dangerous hazardous-waste, if the waste no longer exhibits any characteristic of dangerous hazardous waste identified in WAC 173-303-090, ~~or any criteria identified in WAC 173-303-100.~~

(ii) The exclusion described in paragraph (2)(c)(i) of this section also pertains to:

(A) Any mixture of a solid waste and a dangerous waste listed in WAC 173-303-081 or 173-303-082 solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity is not a dangerous waste, if the mixture no longer exhibits any characteristic of dangerous waste identified in WAC 173-303-090 subpart C for which the dangerous waste listed in WAC 173-303-081 or 173-303-082 was listed, and

(B) Any solid waste generated from treating, storing, or disposing of a dangerous hazardous-waste listed in WAC 173-303-081 or 173-303-082 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under WAC 173-303-070(2)(a) and (b).

(C) Wastes excluded under this section are subject to 40 CFR part 268, which is incorporated by reference (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.

Section # -070 Page # 172 Citation # -070(2)(c) (comment 2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Second, Ecology should delete the tie in between the exclusion and the state criteria in -100. The proposed exclusion should not be dependent on whether the waste still displays any of the criteria because of how the designation procedures are implemented in -070(3) and (5).

On Ecology's web page, the following statements are made concerning this proposal: "Under state regulations, waste must be evaluated against state criteria once it passes the federal designation scheme. The proposed rule retains consideration of state criteria before a waste would be excluded. This is necessary so as not to mislead generators into thinking that their waste is no longer dangerous waste if it could exhibit state criteria. Under the federal rule, if the waste no longer exhibits the characteristic it could be excluded; the state rule requires that the waste also not exhibit a criteria (for example, toxicity)."

We agree with Ecology's first sentence that a waste must be evaluated against state criteria once it passes the federal designation scheme. Federal waste designations are contained in -070(3)(a)(i), (ii), and (iii). State criteria are contained in -070(3)(a)(iv) and (5), which clearly are performed subsequent to the first three steps. It is this fact, why Ecology's second sentence is not logical and results in a 'catch-22' situation. The

existing mixture rule in -081(3) and -082(3) is applied when listed waste codes are evaluated under -070(3)(a)(i) and (ii). For a state-only criteria waste code to apply to a waste stream, in most cases, no listed waste code can apply. The mixture rule exclusion needs to operate independently under these same first two designation steps, without consideration of the state criteria because otherwise, the exclusion can never be used and is meaningless. It is meaningless because now both the federal (F003) and state-only waste codes (WT02, WT01, WP01, WP02, and WP03 codes) will be part of a proper waste designation, in conflict with -070(3)(a)(iv) and (5). Ecology should align the exclusion consistent with the way the designation process works in -070(3) and (5). Ecology should not be concerned about this aspect because the criteria designation provisions operate independently from the listed provisions. It is not necessary to tie-in the listed constituent to the criteria in order for the exclusion to properly operate and still be protective.

Ecology's third sentence from the web page above discusses how generators should not be misled. For the reasons explained in the preceding two paragraphs, it appears clear that Ecology will be misleading generators on waste designation processes by associating the mixture rule exclusion with the state-only criteria.

Assuming for a minute that Ecology adopts EPA requirements, here is the following waste designation scenario for F003 that no longer displays the characteristic of ignitability (See -9904 listing description where the (I) appears which stands for ignitability). The waste designation step in -070(3)(a)(ii) will not assign the waste code even though the land disposal restriction requirements for F003 still apply. If the waste displays any other characteristics, the characteristic code(s) will be applied in step -070(3)(a)(iii). A common waste code applied after macroencapsulation treatment with grout is WSC2 due to the alkaline nature of the treatment process. Although in this treated waste scenario -070(3)(a)(iv) would allow a designator to skip the criteria, -070(5) would require additional designation since WSC2 is a "state-only DW." If on the other hand the waste did not display any of the characteristics, -070(3)(a)(iv) would now require designation by the criteria. The independent criteria waste designation step would assure that any of the toxicity and persistent properties of the waste would keep the waste within the dangerous waste regulations, even without the listed code. Operation of the mixture rule exclusion without the additional Ecology restrictions will still result in protection of human health and the environment due to the waste designation process. Ecology needs to drop the criteria designation aspect as a condition of this exclusion.

Please provide specific language for your recommended change or addition.

See suggested changes for this comment in -070(2)(c) (comment 1).

Section # -070 Page # 172 Citation # -070(2)(c) (comment 3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Third, Ecology should modify the text relating to "any characteristic" to the characteristic

for which is the waste is listed.

The condition being placed on the exclusion related to “any characteristic” at the end of paragraph (i) is inconsistent with the federal mixture rule exclusion, and will unnecessary limit the application of the exclusion. 40 CFR 261.3(g) uses the phrase “any characteristic” but it also uses the phrase “for which the hazardous waste listed.” This additional phrase would be used by the designator to look at the reason why the waste was listed in the first place as part of implementing the mixture rule and the related exclusion.

Please provide specific language for your recommended change or addition.

See suggested changes for this comment in -070(2)(c) (comment 1) by adding in the phrase to the new paragraph (A).

Section # -070 Page # 172 Citation # -070(2)(c) (comment 4)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, it appears that the word “hazardous” should be replaced with “dangerous” in a few places to be consistent with the terminology associated with waste designations under WAC 173-303. There does not appear to be any compelling reason for Ecology to limit the text of the exclusion to the universe of waste regulated by EPA under 40 CFR 261 (see definition of hazardous waste in -040).

On Ecology’s web page, the following statements are made concerning this proposal: “In this respect, the use of the word “dangerous” is used in the proposed rule since it is comprehensive in that it encompasses characteristic, listed, and criteria wastes.” It appears Ecology intended to use the word ‘dangerous’ by this statement.

Please provide specific language for your recommended change or addition.

See suggested changes for this comment in -070(2)(c) (comment 1).

Section # -070 Page # 172 Citation # -070(2)(c) (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, there is an issue however related to the text on Ecology’s web page that needs to be clarified.

The sentence appearing on Ecology’s web page states: “Federal waste codes should be assigned to any federally regulated hazardous wastes that are not excluded at the state level.” This statement appears to be a result of the comments submitted on the pre-proposal regarding state-only dangerous waste having to use federal waste codes when Ecology exempts only a subset of the universe EPA exempts. Ecology’s first part of the statement is true, but the second part about ‘excluded at the state level’ has nothing to do with a federally regulated hazardous waste.

In EPA's program, if a hazardous waste meets the requirements for the ignitable, corrosive, reactive mixture rule exclusion, then the hazardous waste is no longer recognized as a hazardous waste in EPA's program (but still subject to applicable land disposal restriction requirements). Even in Washington state, an EPA delegated state program, WAC 173-303 provisions do not change the way EPA looks at a hazardous waste. So if WAC 173-303 does not exclude the same universe that EPA excludes, a listed waste code is still required as part of a proper waste designation. This waste is a state-only dangerous waste by definition (See -040). Since Ecology has not identified/promulgated a state-only waste code for the difference in the universe of wastes excluded, a waste designator must use the federal waste code to denote a state-only dangerous waste.

The additional criteria restrictions placed on the exclusion by Ecology will still create a state-only waste and will not accomplish making the regulations consistent with the federal program. A state-only waste will still result because the federal exclusion will still allow the listed waste code to be dropped from a proper waste designation and the state rules will still retain the listed waste code, causing a state-only dangerous waste.

Please provide specific language for your recommended change or addition.

There is not specific language change requested as a result of this comment.

Section # -071 Page # 176 Citation # -071(3)(k)(i)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Although Ecology did not propose a change to this subsection, USDOE submitted this comment on the pre-proposal round of comments. The comment is being resubmitted because Ecology needs to change the TSCA citation in order to be consistent with the language in -071(3)(k)(ii), consistent with the TSCA amendments from 1998, and consistent with Institutional Memory Compendium guidance on how the TSCA exclusion operates pursuant to RCW 70.105.105. (See Attorney General Letter, dated 8/22/88, Institutional Compendium #3145.880822, *Weyerhaeuser vs. DOE*, Penalty DE 87-296). RCW 70.105.105 only allows Ecology to regulate PCBs whose disposal is not regulated by 40 CFR 761. Since the 1998 mega rule amendments in TSCA, it is no longer appropriate to reference 40 CFR 761.60 for the exclusion. The proper reference, both at -071(3)(k)(i) [and already at -071(3)(k)(ii)] needs to be 40 CFR 761 Subpart D to avoid confusion by the regulated community. This change is merely resolving an inconsistency within the -071(3)(k) exclusion and should be within the scope of changes Ecology can make in the final rule to WAC 173-303.

On Ecology's web page, the following statements are made: "Although Ecology was requested to consider changing the TSCA citation in this exclusion for PCBs for consistency with TSCA, no change is being proposed at this time until PCB issues can be looked at in a broader context. The existing citation currently used in the Dangerous Waste Regulations is somewhat more stringent in that it prohibits PCB waste from being

disposed in a solid waste landfill. The broader citation being suggested (40 CFR 761 Subpart D) would allow PCB waste to be land disposed in a solid waste landfill as an option, thereby avoiding the intent of the Dangerous Wastes Regulations.” In order to make this change, Ecology does not need to look at PCB issues on a broader context. Ecology’s authority is limited by RCW 70.105.105 which states:

“RCW 70.105.105 Duty of department to regulate PCB waste. The department of ecology shall regulate under chapter 70.105 RCW, wastes generated from the salvaging, rebuilding, or discarding of transformers or capacitors that have been sold or otherwise transferred for salvage or disposal after the completion or termination of their useful lives and which contain polychlorinated biphenyls (PCB's) and whose disposal *is not regulated under 40 CFR part 761*. Nothing in this section shall prohibit such wastes from being incinerated or disposed of at facilities permitted to manage PCB wastes under 40 CFR part 761. *[emphasis added]*”

This proposed change has nothing to do with Ecology’s intent of the exclusion. If the authority in RCW 70.105.105 allows disposal in a solid waste landfill because it is allowed under TSCA, then the allowance is supported by RCW 70.105.105. Ecology can not extend their regulatory authority beyond what is provided to them by statute. There is no reason for Ecology to maintain a provision in -071(3)(k) that will fail a challenge to the Pollutions Control Hearings Board.

Please provide specific language for your recommended change or addition.

At -071(3)(k)(i), make the following changes:

PCB wastes whose disposal is regulated by EPA under 40 CFR 761.60 Subpart D (Toxic Substances Control Act) and that are dangerous either because:

Section # -081 Page # 184 Citation # -081(3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed change references an exclusion in -070(2)(d). No such section exists or is proposed. Leaving this text in place will create confusion for the regulated community.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: “...unless it has been excluded under WAC 173-303-070 (2)(c) ~~or (d)~~.”

Section # -082 Page # 185 Citation # -082(3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed change references an exclusion in -070(2)(d). No such section exists or is proposed. Leaving this text in place will create confusion for the regulated community.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "...unless it has been excluded under WAC 173-303-070 (2)(c) ~~or (d)~~."

Section # -090 Page # 185 Citation # -090(5)(a)(iv)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

USDOE supports Ecology deletion of reference to 49 CFR 173.128 for the ignitability waste designation. This deletion makes the ignitability waste designation consist with the federal program and eliminates an unintended state-only dangerous waste designation for organic peroxides. This deletion, however, impacts text contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407). Ecology needs to update this document by removing information about organic peroxides. This document was finalized at the same time as the organic peroxide provision was added to -090(5)(a)(iv) and this document is currently open for amendment due to halogenated organic compound amendments.

Please provide specific language for your recommended change or addition.

No changes are proposed for the regulations, however, text changes for the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) are proposed in a separate comment for this document in Part 2 of this comment package.

Section # -090 Page # 186 Citation # -090(7)(a)(viii)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology needs to propose a change in this rulemaking pertaining to the designation of Division 1.5 waste. Under -090(7)(a)(viii), Ecology needs to remove the reference to Division 1.5 as reactive waste in order to be consistent with the federal rules. USDOE has submitted this comment on several occasions. Because the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) document is being amended due to halogenated organic compounds, Ecology needs to put the effort in confirming the accuracy of this comment and make the appropriate change. USDOE has obtained information from EPA that Division 1.5 is beyond the scope of the federal program. To USDOE's knowledge, Ecology possesses no documentation to support retention of Division 1.5 in -090(7)(a)(viii).

On June 4, 2002, USDOE obtained an interpretation from EPA headquarters that only Divisions 1.1, 1.2, and 1.3 were considered by EPA to be reactive waste. This interpretation was passed on to Jerry French in the Spokane Office. Since that time, USDOE has not concluded discussions with Jerry French on this matter, but are once again commenting to remove Division 1.5 based on the EPA headquarters interpretation. The last communication on this matter was on October 13, 2003 in an email message to Patricia Hervieux. USDOE still understands that Ecology has inadvertently created a new class of state-only dangerous waste by adding Division 1.5 to the reactive provisions (see definition of state-only dangerous waste in -040).

The 1998 WAC 173-303 rulemaking on this matter resulted in Ecology inadvertently creating a new class of state-only waste by adding Division 1.5 without explaining this distinction to the regulated community. As a result, in order for Ecology to comply with the Administrative Procedures Act (RCW 34.05), Ecology needs to delete the reference.

Additionally, Ecology needs to update the document *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) to delete reference to Division 1.5 since this document is open for change as part of this rulemaking. This document was finalized at the same time as the Division 1.5 provision was added to -090(7)(a)(viii) and this document is currently open for amendment. See separate comment in Part 2 of this comment package.

Please provide specific language for your recommended change or addition.

Revise -090(7)(a)(viii) to read:

It is a forbidden explosive as defined in 49 CFR 173.54, or a Class 1 explosive, Division 1.1, Division 1.2, and Division 1.3, and ~~Division 1.5~~, as defined in 49 CFR 173.50.

Section # -100 Page # 187 Citation # -100(5)(b)(i) (comment 1)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed to add a clarification phrase "... (for the same criteria) ..." to the subject paragraph on book designations for the state-only waste designation step of 'toxicity criteria'. Unfortunately, this clarification creates confusion for the waste designator because the word "criteria" means something different than the word 'category' in the book designation process. In the preceding sentence to the one being modified, the phrase 'toxicity criteria (fish, oral, inhalation, or dermal)' is used, thereby defining this term as the four column elements in the Toxic Category Table. The new phrase is being added to the word 'category' which is defined as either an "X, A, B, C, or D" from the rows of the Toxic Category Table. The parenthetical, as proposed, does not seem to provide the clarity Ecology was attempting to achieve.

Text from Ecology's website on -100(5)(b) contains the following sentences: "In cases where the most severe toxicity is not in RTECS, the proper toxic category assignment was unclear. This also eliminated fish data from consideration if it was more severe than other criteria because it is no longer listed in RTECS. With this proposed change, which requires the conflicts to be within the same criteria (comparing apples to apples), the use of data for criteria that are not in RTECS is allowed." From this text, it appears Ecology wants a two step toxic category evaluation process. In order to arrive at the overall toxic category for a constituent, it appears Ecology wants first a toxic category assigned to each of the four toxic criteria (fish, oral, inhalation, or dermal) and then second, the resulting toxic categories compared for which one is most severe for the overall toxic category for the constituent. The toxicity data from more than one toxicity source is compared (apples to apples) within each of the four toxicity criteria (fish, oral, inhalation, or dermal) in the first step. If so, Ecology should consider the proposal below rather than

inserting the proposed parenthetical.

Please provide specific language for your recommended change or addition.

Revise -100(5)(b)(i) to read:

A person must determine the toxic category for each known constituent. The toxic category for each constituent may be determined from available data, or by obtaining data from the NIOSH RTECS and checking this data against the toxic category table, below. If data is available for more than one of the toxicity criteria (fish, oral, inhalation, or dermal), then the data indicating severest toxicity must be used for a particular toxicity criteria. If the NIOSH RTECS or other data sources do not agree on the same toxic category for a particular toxicity criteria, then the toxic category arrived at using the NIOSH RTECS will be used to determine the toxic category for that particular toxicity criteria. The toxic category arrived at for each toxicity criteria are then compared and the most acutely toxic category must be assigned to the constituent to be used in the equivalent concentration calculation in (ii). ~~If the NIOSH RTECS or other data sources do not agree on the same category (for the same criteria), then the category arrived at using the NIOSH RTECS will be used to determine the toxic category.~~ If toxicity data for a constituent cannot be found in the NIOSH RTECS, or other source reasonably available to a person, then the toxic category need not be determined for that constituent.”

Section # -100 Page # 187 Citation # -100(5)(b)(i) (comment 2)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

A comment also needs to be made regarding the interpretation of required toxicity sources based on the second sentence of the -100(5)(b)(i) paragraph which states: *The toxic category for each constituent may be determined from available data, or by obtaining data from the NIOSH RTECS and checking this data against the toxic category table, below.* Taken literally, this provision allows the waste designator to select his or her data source without restriction or caveat. The only limitation appears to be a duty to ensure that any ‘available data’ used must not be less stringent than NIOSH RTECS. If a generator chooses the last part of this sentence for a book designation, the waste designator only needs to consult NIOSH RTECS to be in compliance based on the permissive use of the word ‘may’ and the construct of the sentence. Only if the waste designator chooses the “available data” option does the additional toxicity sources come into play. If Ecology’s position is that toxicity data sources other than NIOSH RTECS must always be consulted for a book designation, then Ecology’s position is not supported by existing regulation or the changes being proposed in this amendment.

Prior to the 1995 amendments, the regulations listed two toxicity sources, the NIOSH RTECS and EPA’s spill table. The required toxicity data sources were clear and unambiguous prior to the 1995 amendments. Since the major overhaul in 1995, the toxicity data source requirements have been vague. Two pieces of information have since been offered by Ecology. The first is in the *Responsiveness Summary Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC*, Publication #95-423, October 1993, in response to comment 132 where ‘available data’ meant: “...include but

are not limited to: Material Safety Data Sheets (MSDS), laboratory analysis of the generator's waste or a similar waste, and published data. Ecology will provide examples in guidance documents rather than defining them in the regulation to avoid precluding the use of the data source." Since generators usually do not test their waste, and if they test, bioassay results take precedence over a book designation, there appears to be no need to cite the laboratory data as a toxicity source. The second piece of information is contained in the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407), Footnote 27 where Ecology also identifies the Hazardous Substances Data Base as a toxicity source. Therefore, USDOE is proposing that Ecology eliminate the ambiguous nature of the required toxicity sources to complete a book designation and propose to amend the second sentence of -100(5)(b)(i) as part of the next rule amendment.

Please provide specific language for your recommended change or addition.

Propose to revise -100(5)(b)(i) second sentence to read:

The toxic category for each constituent ~~is may be determined from the following available data sources, or by obtaining data from the NIOSH RTECS, Material Safety Data Sheets, and the Hazardous Substances Data Base, National Library of Medicine, and checking this data against the toxic category table, below.~~

Also, see comment on the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407), in Part 2 of this comment package.

Section # -120 Page # 191 Citation # -120(3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology should modify this subsection so that it does not denote applicability of requirements, because the applicability statements need to be consolidated in one place. The applicability of whether a closure plan needs to be prepared should be determined from section -610. Other comments in this package on sections -610 and -620 are recommended as the location where applicability statements should be consolidated. Subsection -120(3) should merely point the reader to -610 and -620.

The proposed changes to -120(4) contain the appropriate referencing language without the words related to applicability of whether a closure plan needs to be prepared.

Please provide specific language for your recommended change or addition.

Revise -120(3) to read:

(3) The following recyclable materials are not subject to the requirements of this section but are subject to the requirements of WAC 173-303-070 through 173-303-110, 173-303-160, 173-303-500 through 173-303-525, and all applicable provisions of WAC 173-303-800 through 173-303-840:

In addition to these requirements, owners and operators of facilities that receive recyclable materials from off-site, ~~are subject to must prepare closure plans in accordance with WAC 173-303-610(2) and (12). These facilities are also subject to financial requirements of and to WAC 173-303-620(1)(e).~~

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

Ecology has included a proposed change to the satellite accumulation area (SAA) requirements as part of this rulemaking effort that did not appear in the pre-proposal package. The change is being advertised as a clarification, but in reality, it constitutes a significant impact to the regulated community. On Ecology's web page, the following text describes this change:

“WAC 173-303-200(2)(a) is being amended to clarify that contingency planning and general facility inspections are required for satellite accumulation. Under the current rule, it is not clear that contingency planning and general facility inspections are required in satellite accumulation areas. WAC 173-303-200(2)(a)(ii) specifies compliance with (d) of subsection 200(1). This has been interpreted to eliminate the area of satellite accumulation (essentially the footprint of the waste storage container) from contingency planning and general facility inspections. This is not consistent with the way this regulation has been interpreted or implemented in the past by Ecology. This clarification provides consistency with Ecology's intent and practice of requiring contingency plans (-350) and general facility inspections (-320) in areas where there is the potential for impact on public health and the environment in the event of an emergency circumstance (-350), and where malfunctions and deterioration, operator errors, and discharges... may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health (-320). Including subsection (1)(f) makes it clear that LDR requirements apply to waste that is shipped directly from a satellite area.”

These proposed changes were added since the pre-proposal and should be more carefully analyzed for impact on the regulated community. There are several concerns with this proposal which include that the proposed rule is:

- inconsistent with past Ecology rulemaking activities,
- inconsistent with Ecology's SAA Technical Information Memorandum,
- inconsistent with EPA guidance,
- inconsistent with nationally recognized expert interpretations,
- inconsistent with the case-by-case requirements of -200(2)(c),
- inconsistent with the information posted on Ecology web page and in the preamble,
- a significant cost impact to Hanford Facility activities, and
- a proposal that meets the threshold for triggering a review under the small business impact requirements.

The addition of the land disposal restriction (LDR) requirement is supported by USDOE. The discussions of these concerns are broken up into 10 separate comments.

Regarding the first item, the proposed rule is inconsistent with past Ecology rulemaking activities. The SAA rules were placed into the regulations during the 1993 amendments.

Prior to this rule, subsection (2) did not exist in section -200. Ecology response to comments document *Responsiveness Summary Amendments to the Dangerous Waste Regulations Chapter 173-303-WAC*, publication 93-92, October 1993 contains the insight to show separation between -200(1) and -200(2). First of all, Ecology's 1993 amendments adding this provision to the Dangerous Waste Regulations did not propose or mention the requirements currently being clarified. On page 46, response to comment 166 it states: "The satellite areas are the only accumulation areas that do you require a date until 55 gallons of a waste is generator/accumulation." Since the accumulation date requirements are located in -200(1), this statement shows intent to keep -200(2) and -200(1) separate. On page 48, comment 175 suggested a terminology change in order to clarify that secure SAAs are not considered designated accumulation areas which must meet the requirements of -200(1). On page 111, rationale for change, Ecology acknowledges this separation by stating: "In the definition of satellite accumulation area, commenters stated that it would be helpful to insert 'less than 90-day' in the in the first sentence after 'designated' and before 'accumulation area' to clarify that secure satellite accumulation areas are not considered designated accumulation areas, which must meet the requirements of WAC 173-303-200(1)." Ecology made a change in the final rule to accommodate the commenters concern.

On the other hand, there were also no statements in the 1993 rule or the *Responsiveness Summary Amendments to the Dangerous Waste Regulations Chapter 173-303-WAC*, publication 93-92, indicating Ecology was being more stringent than EPA's requirements. The regulated community was led to believe Ecology was establishing requirements for SAAs consistent with EPA's program as a result of the 1993 rulemaking.

With this comment and the others contained in this package, the addition of these significant new requirements to satellite accumulation is unwarranted. Ecology's contention that this change is merely a "clarification" and inferences that Ecology has always expected satellite accumulation to comply with inspection and contingency planning requirements are not consistent with current Ecology or EPA policy.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d),-(e), and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 2)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Second, the proposed rule is inconsistent with Ecology's SAA Technical Information Memorandum (TIM) (Publication 94-120, Satellite Accumulation). After the 1993 rulemaking effort, Ecology has maintained comprehensive, user-friendly guidance for SAA management in the TIM, with the most recent revision of the TIM occurring January 2003. The TIM has never mentioned or referenced the requirements Ecology is proposing to add into -200(2)(a)(ii). The SAA requirements are clearly identified on

pages 1-2 of the TIM. The omissions of the -300 through -360 standards in this list demonstrate that it is not past or current Ecology policy to expect generators to comply with the requirements proposed to be added, unless the case-by-case provision in -200(2)(c) are applied.

Ecology claims in the language contained on the web-page that "This is not consistent with the way this regulation has been interpreted or implemented in the past by Ecology." If this statement is true, why has the TIM not been updated to reflect this? The regulated community has not been informed of this policy statement. In order for Ecology to claim that their interpretation exists, the regulated community must be notified through the appropriate channels.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Third, the proposed rule is inconsistent with EPA guidance. EPA has published guidance in this area demonstrating that Ecology's proposal is not consistent with federal requirements. At the public hearing held on August 10, 2004, Ecology made statements indicating that the proposed action is consistent with previous EPA direction regarding SAAs. However, the opposite is actually true. First of all, EPA determined when adopting the satellite accumulation rule in 1984, and has held consistently since, that personnel training, weekly inspections and contingency plan requirements are unnecessary and inapplicable to SAAs (see 49 FR 49568 at 49570 on December 20, 1984). Since that time, EPA has addressed these requirements on more than one occasion (see RCRA Online, Faxback 11373, 11317, 14418, and 14703). EPA has determined that accumulation of up to 55 gallons of non-acutely hazardous waste in a satellite area is "reasonable and safe and does not pose a threat to human health or the environment" (49 FR 49569). Ecology has not explained in the proposal the basis for their position, nor how Ecology has determined more stringent regulation of satellite accumulation is necessary to protect human health or the environment, or why it believes satellite accumulation poses a threat sufficient to justify the addition of these additional requirements. Ecology needs to delete the addition of these requirements to SAAs.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 4)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, the proposed rule is inconsistent with nationally recognized expert interpretations. There is a firm who is recognized nationally for their understanding of EPA's RCRA regulations. USDOE pays to bring this training to the Hanford Facility once every few years. USDOE is also aware of many Ecology employees attending the training classes offered by this firm. One of their reference materials, "McCoy's RCRA Unraveled, 2003 Edition," compares SAA requirements to 90-day requirements in Table 6-2, *Federal Requirements for Satellite Accumulation Units to 90-day containers*. Of interest are the inspection, training, and contingency plan requirement entries for SAAs. The table shows that these aspects clearly do not apply to SAAs. Ecology needs to delete the addition of these requirements to SAAs.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, the proposed rule is inconsistent with the case-by-case requirements of -200(2)(c), which states: "On a case-by-case basis the department may require the satellite area to be managed in accordance with all or some of the requirements under subsection (1) of this section, if the nature of the wastes being accumulated, a history of spills or releases from accumulated containers, or other factors are determined by the department to be a threat or potential threat to human health or the environment." Any interpretation that -200(1) requirements automatically apply to SAAs is beyond logic because there would be no reason to have -200(2)(c). The -200(2)(c) provision would not be needed in the regulations if the -200(1) requirements apply to SAAs. SAA requirements are determined through the requirements in -200(2), and do not extend into -200(1) unless specifically referenced by -200(2). -200(2)(c) is invoked by Ecology on a case-by-case basis on compliance inspections when Ecology determines that the management practices of certain satellite accumulation situations pose a threat to human health and the environment, thus requiring more stringent requirements of 90-day accumulation areas to be applied. Ecology has always had the authority to impose these more stringent requirements when merited in isolated/unique cases, without requiring them of all generators statewide.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 6)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Sixth, the proposed rule is inconsistent with the information posted on Ecology web page

and in the preamble. This inconsistency only serves to confuse the regulated community on the scope of the proposed changes to -200(2)(c). The sentence appearing on Ecology's web page and on page 155 of the preamble states: "WAC 173-303-200(2)(a) is being amended to clarify that contingency planning and general facility inspections are required for satellite accumulation." The proposed rule change adding "(e)" actually also brings into play the training requirements (-330) and preparedness and prevention requirements (-340), in addition to the contingency planning and general facility inspections. A reading of -200(1)(e) references the requirements of -330 through -360 and most of -320. Ecology has only identified half of the changes actually being proposed in their explanatory text. For this reason alone, Ecology should delete the proposed addition of "(e)" to -200(2)(c) because Ecology failed to accurately reflect the rule to be presented.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 7)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Seventh, the proposed rule is a significant cost impact to Hanford Facility activities. At the Hanford Facility under two of the three field offices (the Richland Operations Office and the Office of Science) plus a laboratory under USDOEs Office of River Protection field office, there are approximately 1,100 satellite accumulation areas. The added expense of the proposed requirements would be substantial. The added cost of performing weekly inspections would be approximately \$800,000 per year (8-man-years), based on 15 minutes per week to inspect each area and document these inspections in accordance with -320(2)(d) (included as part of the reference from -200(1)(e) proposed for addition). Since the -320 requirement also requires inspection be performed daily when in use and subject to spills, this cost estimate is multiplied by the number of times per week an SAA needs to be inspected.

Applying the training requirements will require the amendment of many training plans or the issuance of new training plans and will require inspection training to those who are not subject to these training requirements now. Contingency planning requirements would also be a large additional cost based on the need to create and maintain the documentation as well as address the equipment that must be procured to meet the -340 preparedness and prevention requirements. We cannot foresee an environmental benefit commensurate to the cost of this proposal.

The addition of preparedness and prevention, contingency planning, and emergency procedure requirements for locations that do not currently require it is of questionable value as well. These requirements were designed for dedicated hazardous waste management areas (TSD facilities) in 1980 and were then subsequently applied to 90-day accumulation areas. These regulations are not a good match to small locations having

one or a few satellite accumulation areas. Note that the required submittal of contingency plans to emergency response agencies [-350(4)(b)] will give these agencies significantly more paperwork to cope with.

Although Ecology states in the preamble (page 155) that the amendment is to “clarify” that contingency planning and general facility inspections apply to satellite accumulation, the reference to -200(1)(e) also mandates personnel training. This step adds yet more complexity for generators, as the scope of personnel to be trained is unclear and potentially very broad. Access to 90-day accumulation areas is usually more restricted than access to SAAs due to multiple operators and shifts at facilities, along with the requirement that an SAA must be located “at or near” the point of generation. The definition of “facility personnel” given in -330 is likely to apply to many more staff, including staff whose role does not include hazardous waste management activities, when the rule is applied to satellite accumulation areas by reference to -200(1)(e).

Another issue regarding inspections is raised by the reference to -200(1)(e) and the fact that the inspection requirement is vague. The sections of -320 referenced in -200(1)(e) generally require an inspection schedule and appropriate responses to problems identified. However, an inspection frequency is not specified other than the daily inspection requirement for areas subject to spills when in use. The weekly inspection frequency is addressed for 90-day accumulation areas in -200(1)(b)(i) by referencing -630(6) for containers. The proposal could result in different generators specifying widely variable inspection frequencies, depending on their individual needs evaluation. In turn this situation would result in inconsistency and potential enforcement concerns based on an individual inspector evaluating the given SAA inspection frequency.

Due to these significant impacts, an unclear proposal about training requirements, and vague expectations on inspection frequencies, this proposal needs to be withdrawn.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: “Complies with subsections (1)(d), (e), and (f) of this section.”

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 8)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Eighth, his proposal meets the threshold for triggering a review under the Regulatory Fairness Act (RCW 19.85) to be part of the small business economic impact analysis. Review of the document posted on Ecology’s web page and the text on WSR 04-14 appearing on pages 156-159 reveals no discussion on this subject. Because these changes “impose more than a minor cost on twenty percent of the businesses in all industries, or ten percent of the businesses in any one industry” (Reference: WSR opening statements on the Regulatory Fairness Act of RWC 19.85), Ecology is required to include the SAA changes as part of the Small Business Economic Impact Statement. The WRS opening remarks also indicate when a Small Business Economic Impact Statement is not required.

The SAA proposal does not meet at any the five criteria identified.

Because Ecology did not include the SAA proposed change in the Small Business Economic Impact Statement, the proposal to add contingency, inspection, and the unadvertised training requirements, and preparedness and prevention requirements to SAAs needs to be withdrawn.

Please provide specific language for your recommended change or addition.

Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(2)(a)(i) (comment 9)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ninth, in, addition to the proposed addition of "(e)", Ecology has also proposed to add "(f)" to -200(2)(a)(i). This proposal is supported by USDOE. The new reference provides a clear tie in between SAAs and treatment-by-generator requirements under EPA's land disposal restriction program. The addition of "(f)" is consistent with an email message from Tom Cusack dated May 25, 2000.

Please provide specific language for your recommended change or addition.

Retain "(f)" as proposed. Revise proposed change to read: "Complies with subsections (1)(d), ~~(e)~~, and (f) of this section."

Section # -200 Page # 195 Citation # -200(5)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

We support the adoption of this provision for EPA's National Environmental Performance Track members in the State of Washington. We appreciate Ecology's expeditious adoption of this provision. As a Performance Track member, USDOE's contractor, the Pacific Northwest National Laboratory expects to utilize this rule to reduce its dependence on permitted storage facilities while accruing environmental benefits and cost savings resulting from reduced transportation volumes and enhanced waste consolidation.

Please provide specific language for your recommended change or addition.

No change proposed.

Section # 300 Page # 200-201 Citation # 300(2) (comment 1)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ecology has proposed changes to -300(2) in conjunction with the new definition of knowledge (see other comments in this package on the new definition of knowledge

under -040). The proposed changes add significant new requirements to the confirmation process for TSD facilities, whether commercial, or owned by the same company, as well as on-site transfers within a facility (such as the Hanford Facility). Even though no changes were proposed to -300(1), both -300(1) and the proposed changes to (2) are reproduced for clarity:

“(1) Purpose. This section requires the facility owner or operator to confirm his knowledge about a dangerous waste before he stores, treats, or disposes of it. The purpose for the analysis is to insure that a dangerous waste is managed properly.

(2) The owner or operator must obtain a detailed chemical, physical, and/or biological analysis of a dangerous waste, or nondangerous wastes if applicable under WAC 173-303-610 (4)(d), before he stores, treats, or disposes of it. This analysis must contain the information necessary to manage the waste in accordance with the requirements of this chapter (~~(173-303-WAC)~~). The analysis (~~(may)~~) must include or consist of either existing published or documented data on the dangerous waste, or on analytical data from waste generated from similar processes, or data obtained by testing, ((if necessary)) or a combination of these.

(a) When a dangerous waste management facility uses information or knowledge from the generator to complete a waste profile for a waste instead of direct analysis of a sample, that information must meet the definition of "knowledge" as defined in WAC 173-303-040. To confirm the reliability of the information or knowledge, the facility must do one or more of the following, as applicable:

(i) Be familiar with the generator's processes by conducting site visits, and reviewing sampling data and other information provided by the generator to ensure they are adequate for safe management of the waste;

(ii) Ensure waste analysis contained in documented studies on the generator's waste is based on representative and appropriate sampling and test methods;

(iii) Compare the generator's waste generating process to documented studies of similar waste generating processes to ensure the waste profile is accurate and current.

(b) As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection for adequate information on the waste whether the owner or operator conducts direct testing on the waste or relies on knowledge from the generator.”

USDOE has significant concerns with this proposal. The following 11 bullets denote the comments submitted on the changes to -300(2):

- Changes that are proposed to -300(2) are inappropriate,
- The three options in -300(2)(a)(i) through (iii) are too limiting,
- The proposal is not consistent with general requirements in the existing regulations by applying off-site commercial requirements to onsite transfers and offsite shipments between sites owned by the same company,
- The use of the word ‘analysis’ in the regulations has a complex meaning and does not mean waste testing,
- TSD facilities can not longer adapt their waste profile evaluation processes,
- Conditions are not part of Ecology permits as Ecology has claimed,
- Additional requirements to waste analysis planning is unnecessary and not consistent with Federal guidance,

- Mixed waste testing guidance flexibility appears to be eliminated by this proposal,
- Proposal is inconsistent with the book designation procedures,
- Waste analysis guidance requirements Ecology seeks to adopt are outdated, and
- We support referencing -380(1)(c) for recordkeeping requirements, but the extra explanatory text on what the records needs to consist of is inappropriate

The 11 elements are broken up into separate comments.

The first comment is related to the changes that are proposed to -300(2). Changing the word 'may' to 'must' is inappropriate. This is a significant change because now what was once a permissive word now has been changed to a mandatory word. There is no explanation by Ecology for such a drastic change. The next problematic change is adding the word 'either' thereby creating an interpretation problem with sentence structure when the words 'or' and 'and' also exist following the word 'either.' The next change, adding the phrase 'analytical data from' now precludes other knowledge from similar processes being used by limiting the universe of usable information to testing data. Other information can no longer be used. The final change is deleting the phrase 'if necessary' and substituting the phrase 'or a combination of these.' This change has now taken a discretionary term aimed at testing requirements and replacing it with a term that denotes more information needs to be retained. These changes to -300(2) are unrealistic; they not supported by this proposed rule, nor the explanatory text that accompanies the proposed rule, and need to be deleted.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 2)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Second, the three options proposed by Ecology in -300(2)(a)(i) through (iii) are too limiting. Ecology's proposal to require facilities to confirm all waste profiles using specified methods [-300(2)(a)(i) through (iii)] is beyond existing requirements and inconsistent with EPA, *Waste Analysis At Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes: A Guidance Manual*, April 1994. Faxback 50010 (hereinafter referred to as EPA's 1994 Waste Analysis Guidance), with which the proposal claims to be consistent. Although Ecology requested comments on additional ways to provide options in the regulations, Ecology's approach to define the ways in the regulations is the wrong way to go about regulating sufficient knowledge for a generator and how an off-site TSD facility confirms knowledge to ensure proper management.

Ecology should not be trying to list all the options in the regulations. The current regulations contain the appropriate flexibility and are generally consistent with EPA's regulations and should not be changed.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 3)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Third, the proposed changes by Ecology for -300(2) and its subsections are not consistent with general requirements in the existing regulations by applying off-site commercial requirements to onsite transfers and offsite shipments between sites owned by the same company. The placement of the requirements in -300(2) results in its application to waste shipments not expected to be subject to EPA's 1994 Waste Analysis Guidance, i.e. shipments to TSD facilities from other sites owned by the same company as well as onsite transfers. Page 1-15 of EPA's 1994 Waste Analysis Guidance states "...if you own/operate an off-site (facility) and rely on information provided by a generator ..."

This makes it clear that verification of one's own processes and procedures for waste data generation is redundant and not appropriate for this rulemaking. These practices are very important to the onsite management of mixed waste at the Hanford Facility. The application of comprehensive waste testing requirements for onsite transfers is costly and inconsistent with EPA's 1994 Waste Analysis Guidance. The existing regulations are written so that all of the available flexibility is preserved so that permit writers can tailor the needs of the waste analysis plan. The text on Ecology's web page states: "In addition to being consistent with general requirements in the current regulations, the proposed changes are consistent with federal guidance on waste analysis and current final permits at commercial dangerous waste management facilities on the subject of waste analysis and the use of generator knowledge." If this is true, then there is little or no need for the rulemaking as presented because any deficiencies at existing facilities could be addressed through permit modifications rather than rulemaking. Finally, the preamble states that it is directed at waste profiles for waste streams, implying waste acceptance at commercial TSD facilities. However, most of the impact is on generators and onsite TSD facilities, both through the operation of the proposed definition in -040 and due to the claimed existence of similar requirements in commercial TSD permits.

For the reasons cited in this comment, and the other comments submitted on this

proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 4)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fourth, the use of the word ‘analysis’ in the regulations has a complex meaning and does not mean waste testing. The use of the word ‘analysis’ in the regulations means both ‘sampling and laboratory analysis’ as well as ‘applying acceptable knowledge.’ Use of the word analysis is more akin to a verb like a ‘technical or engineering analysis’ which is an action evaluating the available knowledge. In EPA’s 1994 Waste Analysis Guidance in Section 1.5 *How can you meet the waste analysis requirements for your facility?* it states: “Wherever feasible, the preferred method to meet the waste analysis requirements is to conduct **sampling and laboratory analysis** because it is more accurate and defensible than other options. ... However, generators and TSDFs also can meet waste analysis requirements by applying **acceptable knowledge**.” Even in the margin to the side of this text the question is asked “What are your waste analysis options under RCRA?”, and the answer is sampling and analysis plus acceptable knowledge. It is clear from this information that the word ‘analysis’ in the TSD regulations is a complex term. This is further supported by the two sentences in -300(1). The first sentence uses the phrase ‘confirm his knowledge’ and the second sentence used the phrase ‘of this analysis’ referring back to the confirmation process. Further in Section 1.5 of EPA’s 1994 Waste Analysis Guidance, the term acceptable knowledge is then defined to include process knowledge, waste analysis data, and facility records of analysis performed before the effective date of RCRA. The last portion has little or no meaning any more in the RCRA regulations, so it is the first two components of the definition that are used as guidance today. The term waste analysis data is defined as “... obtained from facilities which send wastes off site for treatment, storage, or disposal (e.g., generators).” Even the term ‘waste analysis data’ does not specifically denote a waste testing requirement.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific

information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 5)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Fifth, based on evaluating Ecology's proposal it appears that TSD facilities can no longer adapt their waste profile evaluation processes. USDOE is concerned about Ecology's approach to revising the requirements for waste analysis and waste designation. We readily acknowledge the need for confirming waste information at a TSD facility and obtaining sufficient information as part of a waste designation process for waste accepted into a TSD facility. However, we are concerned that the ability of individual TSD facilities to adapt waste profile evaluation processes to their particular needs is being eliminated through the proposed rule amendments. The amendments are prescriptive as to the approach and requirements. We also note that the placement of the proposed rule amendments in -300(2) would make them applicable to onsite TSD activities as well as offsite facilities.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380(1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 6)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Sixth, conditions are not part of Ecology permits as Ecology has claimed. Ecology stated in the text on their webpage that “proposed changes are consistent with ... current final permits at commercial dangerous waste management facilities on the subject of waste analysis and the use of generator knowledge.” Current final permits and draft permits that have been posted on Ecology's website do not indicate that the proposed rule language is being utilized in those permits, particularly the requirements proposed at -300(2)(a)(i) through (iii). We question the value of including these requirements in the regulations when they are not part of current final permits, as indicated in the discussion on Ecology's webpage. Are these conditions in draft permits? Is Ecology having a difficult time issuing permits because these conditions are not in the regulations? What are the permits Ecology has placed these conditions into? The conditions are also not part of USDOE's Hanford Facility RCRA Permit which has been in place since 1994 and

is up for renewal. Because waste designation knowledge and TSD waste analysis policy/guidance have a long history and the cost of testing mixed waste is enormous, these principles are very important to waste management at the Hanford Facility.

Further, amending the WAC will not necessarily bring the state's permitted TSD facilities into alignment with the proposed amendment, as their permit requirements act as a shield against WAC changes until those changes are adopted into their permits [see -810(8)(a)].

In lieu of the approach proposed, we suggest that any perceived statewide deficiency in generator designation of waste be addressed during case-by-case compliance inspections and any perceived deficiency in TSD waste analysis plans be addressed in the context of those individual waste analysis plans and permits. Ecology should not be trying to align the regulations with guidance. If there are problems Ecology wishes to address, Ecology should hold workshops or other outreach programs to inform the regulated community.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 7)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Seventh, Ecology's proposal to add further requirements to waste analysis planning is unnecessary and not always consistent with Federal guidance, as claimed. Existing Federal regulations [40 CFR 264.13(a)(2)] allow for published data on waste from similar processes to be utilized as acceptable knowledge. Use of published data or studies on such similar processes is also defined as acceptable knowledge at pg. 1-11 of EPA's 1994 Waste Analysis Guidance. Ecology proposes to delete use of published data on waste from similar processes without explanation.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific

information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 8)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Eighth, the currently available mixed waste testing guidance flexibility appears to be eliminated by this proposal. Another important point for the USDOE is the additional guidance available on mixed waste (*Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*, 11/20/1997, 62 FR 62079). The NRC/EPA 1997 mixed waste guidance is used at the Hanford Facility to address testing issues associated with mixed waste. Maintaining the flexibility in the regulations provided for mixed waste will be a very important element to preserve based on the agreements reached during permitting Notice of Deficiency workshops at the Hanford Facility for TSD units covering the whole range of treatment, storage, and/or disposal of mixed waste. Waste Analysis Plans have been painstakingly crafted over the last decade between USDOE and Ecology. All available flexibility is used during the Notice of Deficiency workshops to arrive at an operating permit for a TSD unit. There are still a fair amount of TSD units in the process of obtaining operating permits. The impacts of this rule amendment could be enormous if the waste analysis plans must be renegotiated all over again.

We are also concerned that our TSD units managing mixed waste may be required to perform additional testing work on mixed waste if the requirements proposed are adopted. Testing of mixed waste generally results in radiation exposure to TSD workers. The NRC/EPA 1997 mixed waste guidance, Section V, indicates that TSD facilities managing mixed waste should utilize the available flexibility in their waste analysis plan to avoid unnecessary waste testing. The proposed rule reduces this flexibility by introducing strictures on the types of knowledge that can be used for designation. The placement of the proposed requirements in -300(2) requires that they be complied with in the waste analysis plan by the wording of -300(5).

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

“As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection.”

Section # -300 Page # 200-201 Citation # -300(2) (comment 9)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ninth, we note that this proposal appears to be inconsistent with the book designation procedures of WAC 173-303-100(5)(b). This widely used procedure does not appear to provide the level of 'knowledge,' as proposed to be defined, necessary to substitute for direct testing of the waste. The confirmation procedures of proposed -300(2)(a)(i)-(iii) also do not match up to information derived by generators according to the book designation process.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 10)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Tenth, EPA's 1994 Waste Analysis Guidance requirements that Ecology seeks to adopt are outdated and thus of no value. Ecology's proposed steps in -300(2)(a) appear similar to the information contained in EPA's 1994 Waste Analysis Guidance under *Special Concerns When Using Acceptable Knowledge* on page 1-15 which states:

"There are several special concerns that you should be aware of if you rely on acceptable knowledge to manage your wastes. First, if you own/operate an off-site TSD and rely, on information supplied by the generator, you should, if possible, become thoroughly familiar with the generator's processes to verify the integrity of the data. This can be accomplished by (1) conducting facility visits of generators and/or (2) obtaining split samples for confirmatory analysis. Second, if you use process descriptions and existing published or documented data as acceptable knowledge, you should scrutinize carefully whether:

- There are any differences between the process in the documented data and your process
- The published or documented data that were used are current

These issues are of concern, for example, because EPA recently revised the criteria that qualify a waste as a hazardous waste due to being characteristically toxic. Not only were the number of constituents deemed hazardous increased, but also the prescribed test method was modified [i.e., the TCLP replaced the Extraction Procedure Toxicity Test (EP TOX Test)]."

The TCLP rule, a sweeping change to the dangerous waste characteristics, was published March 29, 1990 (55 FR 11862) and required a new test method (the Toxicity Characteristic Leaching Procedure) as well as identifying 25 new characteristically toxic wastes. The guidance was intended to upgrade information due to sweeping changes in the regulations and avoid the use of outdated or inapplicable knowledge from the EP

TOX procedure. One year prior to the publication of the 1994 Waste Analysis Guidance, underlying hazardous constituents were first instituted in May 1993 (58 FR 29860) and expanded to other waste codes in 1996. It has now been eight years since major changes like this have happened in EPA's program. Hence it is much less likely at this point that generators are inappropriately relying on outdated information to try and designate their waste, or that TSD facilities are overlooking significant constituents that would adversely affect their ability to manage the waste safely, properly and compliantly. Ecology should not include this type of guidance into regulations at this point in the regulatory history of RCRA and the Hazardous Waste Management Act.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Section # -300 Page # 200-201 Citation # -300(2) (comment 11)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Eleventh, it is a good idea to reference -380(1)(c) for recordkeeping requirements, but the extra explanatory text needs to be deleted on what the records need to consist of.

Ecology is proposing to add the following text as the new -300(2)(b):

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection for adequate information on the waste whether the owner or operator conducts direct testing on the waste or relies on knowledge from the generator."

USDOE agrees that referencing the recordkeeping requirements helps ensure the reader is informed of the -380(1)(c) requirements. We do not agree that the language after the word subsection should be retained. The extra language now introduces yet another new term 'adequate information' to the regulations. This new text needs to be avoided so that yet another term is thrown into the already complex waste analysis mix of terms.

For the reasons cited in this comment, and the other comments submitted on this proposed change to -300(2), Ecology needs to retract most of the proposed changes.

Please provide specific language for your recommended change or addition.

Delete all proposed changes to -300(2). Delete all proposed changes to -300(2)(a) and (i) through (iii) that follow. Retain only the reference to the recordkeeping requirement, but without the explanatory language as a new last sentence to -300(2) that reads:

"As required in WAC 173-303-380 (1)(c), records must be retained containing specific information that show compliance with this subsection."

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed text in -370(4) that duplicates existing text in -280(1). Duplicate text in the regulations should be avoided. Ecology needs to decide in which location the text will be located. Also, the renumbering of regulatory sections affects the referencing of other sections. For example, -350(3)(b) references -370(5) and with the new additions of -370(4) and (5), the renumbering has created a problem with -350(3)(b). Ecology needs to update all applicable WAC 173-303 references when subsection numbering changes.

Please provide specific language for your recommended change or addition.

Decide to keep the proposed -370(4) text in its proposed location, or in -280(1), but not in both places. If -370 subsections will get renumbered, search entire WAC 173-303 sections for references to -370 subsections.

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The proposed changes to these sub-sections relating to annual dangerous waste reporting appear to have good intentions but unintended consequences. In the text contained on Ecology's webpage, Ecology states: "Including this rule language in the state regulation will result in more efficient work on permits in the future. Rather than dual permits being issued by both EPA and Ecology, Ecology will be able to issue the entire permit. Adoption of these federal requirements is not intended to conflict with existing pollution prevention planning requirements." The proposal appears to aim at improved RCRA permitting. USDOE supports permitting improvement efforts such as this since the Hanford Facility has a HSWA portion of the Hanford Facility RCRA Permit issued by EPA that will expire on September 27, 2004. Once the Hanford Facility RCRA Permit is renewed by the Nuclear Waste Program, the HSWA portion will no longer be required. But on the other hand, Ecology appears to have blindly copied the text from 40 CFR 264.75, EPA's biennial reporting requirements, into these sections without evaluating the way TSD facilities gather information and prepare the annual dangerous waste report. Generator requirements are not discussed in this comment because they appear to be exempted from these requirements by the proposed changes to -220(1)(b).

Specifically, -390(2)(g) requires information on the description of efforts taken during the year to reduce the volume and toxicity of the waste to be reported. This is a direct conflict with current practices because annual dangerous waste reporting under TurboWaste, Ecology's software, uses mass [kilograms] and waste codes. In addition, review of the TurboWaste reporting fields do not yield a field for which the required description could be entered. Without changes to the proposed text of the rule, it appears Ecology has begun the effort to completely overhaul the way TSD facilities have to

collect information for the annual dangerous waste report and that Ecology will be initiating a significant overhaul to TurboWaste. If so, as one option, Ecology needs to include a delayed implementation of this requirement until Ecology's software is updated and training is provided to the regulated community what specific information is required and how that information should be collected and reported.

The Hanford Facility Annual Dangerous Waste Reports are prepared with compliance with annual reporting instructions issued by Ecology. Per those instructions, dangerous waste "descriptions" are provided as brief "Waste Stream" narratives including applicable federal and state dangerous waste codes; dangerous waste "quantities" are reported as mass units in kilograms. There are no other "volume and toxicity" parameters required by the reporting instructions.

In -390(2)(h), a description is required of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years, to the extent such information is available for the years prior to 1984. This requirement appears to carry no logic as there is no data still available prior to 1984, and Ecology's existing software does not allow this kind of description to be added. It appears the first year this provision will be in place will constitute the baseline year for subsequent years and that in the second year, the first comparison can be made, since the volume and toxicity of a waste is currently not been reported in TurboWaste. In addition, review of the TurboWaste reporting fields do not yield a field for which the required description could be entered.

As stated earlier, Ecology does not intend to adopt these federal requirements so that they conflict with existing pollution prevention planning requirements. With the way the proposed rule is worded, Ecology has not accomplished this goal. There is nothing proposed in the regulations that would support Ecology's impact conclusion. Ecology has not provided an evaluation of TurboWaste processes and the way TSD facilities collect information in order to make this claim this in this rulemaking. Other suggestions related to the resolution of this problem appear below.

The Hanford Facility collects waste minimization and pollution prevention (P2) data to meet the requirements of Department of Energy (DOE) Order 450.1 and associated Executive Orders. The reporting elements are defined by DOE Headquarters in Washington DC and are presently being revised for P2 goals beyond 2005. Presently, waste generation information is binned into routine and non-routine (this would include both RCRA and CERCLA waste) and by waste type (not by waste codes). The information is reported in cubic meters except that sanitary waste, TSCA waste, RCRA waste, and State-only dangerous waste in reporting in metric tons. The way this information is collected and reported would not be compatible with Ecology's proposal to report volume and toxicity of dangerous waste generated.

The Hanford Facility's mission is related to closure of the site with no baseline "production" level of operations. Waste generation quantities can vary greatly from year to year, depending on the Decontamination & Decommissioning project schedules. The value added of year to year comparisons of waste generation "volume and toxicity" for a

site undergoing closure is questionable, and may be meaningless.

For the Hanford Facility, the proposed rule with requirements for dangerous waste “volume and toxicity” reporting could necessitate a greatly expanded waste sampling and analytical program to determine toxicity, with accompanying site-wide infrastructure improvements and additional data management capabilities. Such an expansion may be cost prohibitive with respect to funding priorities. Even if Ecology changes the terms “volume and toxicity” to “quantity and description,” a significant data gathering program will be required to come up with the descriptions required by both of the new requirements. Again, based on an above comment, the value added of this additional reporting requirement is questionable. Ecology needs to provide a method to balance the impacts of the rule with the time it will take to implement new requirements.

Please provide specific language for your recommended change or addition.

Ecology needs to resolve this concern in one or more of the following ways:

- Delay implementation for these two requirements until TurboWaste can be revised and training implemented across the state,
- Revise the language of the proposed rule from “volume and toxicity” to “quantity and description” for consistency with current annual dangerous waste reporting parameters,
- Relocate the requirements so that they are not tied to the annual dangerous report,
- Add language to allow systems in place at the time of the effective date of this rule to be equivalent to the proposed requirements and provide guidance how the information needs to be submitted to Ecology, or
- If these items can not be implemented, delete the proposed changes to -390(2)(g) and (h).

Section # 395 Page # 206 Citation # -395(1)(d)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed a change without stating what the impacts of the change are. Since the Hanford Facility is subject to DOE Orders which use the Uniform Fire Code, the Hanford Facility will be subject to two different standards now. One standard will be imposed through WAC 173-303 and the other standard imposed through DOE Orders. If Ecology considers the requirements equivalent, the Hanford Facility can continue to comply with the DOE orders and the International Fire Code at the same time. Ecology needs to include an evaluation of the requirements in the response to comments document and inform the regulated community of the impacts. If the requirements are equivalent and there are no impacts, then Ecology should also make this clear.

Please provide specific language for your recommended change or addition.

If the Uniform Fire Code and the International Fire Code are equivalent, then a statement should be made indicating they are equivalent. If the requirements are different, Ecology should provide an option to comply with either standard at the discretion of the fire marshal having jurisdiction.

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

This proposed amendment appears to have the unintended effect of repealing the existing requirements cited, and does not properly cite 40 CFR 265 sections intended to be included. By saying the section “is modified to read” when the intent is to add additional language to the existing regulation, Ecology appears to be repealing the existing requirements in that section. We doubt that is Ecology’s intent.

Ecology’s interim status regulations do not require changing, and the partial closure provisions proposed by Ecology are inconsistent with EPA regulations at 40 CFR 265.112(d)(1).

The interim status requirements in -400(3)(a), (b) and (c) adequately cover partial closures and do not require amendment. The proposed changes are not consistent with closure requirements as Ecology has stated in the last sentence of the “reason for amendment” commentary. There is no need for additional modifications to 40 CFR 265 Subpart G in -400(3)(c)(ix). There is no compelling reason for Ecology to propose more stringent requirements from EPA regulations.

EPA’s interim status requirements for partial closure apply in two scenarios from 40 CFR 265.112(d)(1): (1) a 180 day notification is required when the owner/operator expects to close the first surface impoundment, waste pile, land treatment, or landfill, ... or (2) a 45-day notification is required when the owner/operator expects to begin partial or final closure of a boiler or industrial furnace. Other partial closure notifications are not required.

It is unclear as to what interim status facilities exist in Washington State and where Ecology’s proposed requirements will be applied. The Hanford Facility, through the Tri-Party Agreement, Action Plan, must close all TSD units according to -610 requirements, so the Hanford Facility will not use this provision. It seems likely that the number of facilities subject to this requirement is small. If so, it seems awkward and inappropriate for Ecology to propose rulemaking that will apply in limited circumstances. When the Hanford Facility submitted a petition for rulemaking in late 2002, Ecology stated in the response denying the petition that because Hanford would be the only facility in Washington State to benefit from the petitioned request, that Ecology chose to not amend WAC 173-303 for one facility. Ecology should apply consistent rationale for when they amend WAC 173-303 based on which facilities it will impact.

Finally, Ecology’s desire to clarify the sentence from 40 CFR 265.115 is inconsistent with many of the other subsection contained in -400(3)(c). Reading through these citations, the format of changes is consistent. There is no need to make a change to -400(3)(c)(ix) pertaining to 40 CFR 265 Subpart G without performing all the clarifications to the rest of the subsections in -400(3)(c).

Please provide specific language for your recommended change or addition.

Delete the proposed modification to expand notification requirements and revise -400(3)(c)(ix) to read as follows:

“(ix) ‘Subpart G – closure and post-closure’ section 265.112(4)(d)(1) is modified to read include the following: ‘The owner or operator must submit the closure plan to the department at least 45 days prior to the date on which they expect to begin closure of a tank, container storage, or incinerator unit, or final closure of a facility with such a unit.’ ~~In addition, section 265.112(4)(d) is modified to read: ‘Owners or operators with approved closure plans must notify the department in writing at least 45 days prior to the date on which they expect to begin closure of a tank, container storage, or incinerator unit, or final closure of a facility with such a unit.’~~ The first sentence of sSection 265.115 is modified to read ‘Within 60 days of closure of each dangerous waste management unit (including tank systems and container storage areas) and within 60 days of completion of final closure, the owner or operator must submit to the department, by registered mail, a certification that the dangerous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan.’ In addition, the clean-up levels for removal or decontamination set forth at WAC 173-303-610(2)(b) apply.”

Section # 515 Page # 216 Citation # -515(13)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology is requiring a test for listed wastes when listed wastes can only be designated based on process knowledge. The mere presence of a listed constituent does not mean that a material is designated as a listed dangerous waste. Test results indicating the presence of acetone in used oil would not determine if the acetone was an F listed solvent since testing cannot determine if the solvent was 10% or more before use and whether the use was used for it's solvent properties. Testing also could not determine if the acetone was unused and therefore a potential U listed dangerous waste. Testing can only determine whether a characteristic and/or criteria of dangerous waste is exhibited or whether environmental media or debris no longer contains a listed constituent. In the March 8, 1990, Federal Register on page 8758, EPA explained that it is often necessary to know the origin of the waste to determine whether it is a listed waste and that, if such documentation is lacking, the agency (*EPA*) may assume it is not a listed waste. Ecology specifically omitted listed waste discussions from the *Chemical Testing Methods for Designating Dangerous Waste* (Publication #97-407) because of this fact.

Testing would not be required for determining the presence of listed hazardous waste since testing cannot make a listing determination; only generator knowledge can determine the applicability of listings. By avoiding to finalize the listed waste language as proposed, unnecessary and expensive testing will be eliminated since testing cannot determine the applicability of listings. Deleting the testing requirement for listings would also maintain consistency with waste designation policies and the Federal program.

In the preamble discussions Ecology makes a statement: "Testing for specific chlorinated compounds is part of the allowed procedure under EPA guidance to rebut the presumption that listed waste was added to a used oil, and is therefore established policy for implementing the used oil rules." Ecology should not tie in the listed waste and chlorinated compound terminologies. Chlorinated compounds are not necessarily listed wastes. In stead, Ecology should use the term "total halogens" in place of "a listed hazardous waste" in order to be consistent with Table 1 in -515.

Please provide specific language for your recommended change or addition.

Delete the phrase "...determine whether the used oil contains a listed hazardous waste, or..." from the proposed text to -515(13). Alternatively, rewrite the phrase to say "...determine whether the used oil contains total halogens, or..."

Section # -610 Page # 227 Citation # -610(1)(a)(ii)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

There are two comments on the structure of -610(1)(a)(ii). First, applicability related terms should be moved from -610(12) and -120(3) to keep these terms together. Second, Ecology needs to extend the financial assurance exemption for federal and state governments to the closure plan requirements.

Regarding the applicability terms, all such terms should appear in one location, preferably in -610(1)(a)(ii). Keeping applicability terms in one location prevents unnecessary confusion within the regulated community on the scope of the requirements. Applicability terms in -610(12) that should be moved include: "subject to regulation under WAC 173-303-120(3), (4), or used oil processor or rerefiner subject to WAC 173-303-515(9)." Applicability terms in -120(3) that should only appear here include: "must prepare closure plans."

Second, in the last paragraph of the discussion on the Hazardous Waste Facilities Initiative on Ecology's web page Ecology states: "Facilities owned and operated by state or federal agencies will not be affected by proposed changes to rule for financial responsibility because state and federal facilities are self-insured and have sufficient assets to assure proper closure and are therefore exempt from such requirements in both state and federal rules." Since financial assurance and closure requirements under this initiative are tied together, Ecology should also extend the financial assurance exemption to the recycling unit closure plan requirements for federal and state agencies. Ecology should do this because costs for closing recycling units at state and federal facilities in Washington will be paid for by the respective state or federal agency, and not Ecology's budget.

These closure plan provisions will impact the Hanford Facility because the Hanford Facility accepts off-site waste for recycling. USDOE has separate EPA/State ID#s numbers within Richland, Washington for multiple locations and these multiple locations

send their recycle dangerous materials to the Hanford Facility at the Centralized Consolidation/Recycling Center in the 400 Area. Ecology's Nuclear Waste Program is in full knowledge and agreement of the recycling management practices at the Hanford Facility. There have been no management concerns with these practices. The Hanford Facility should not be punished with the burden of preparing an additional plan after demonstrating top-rate recycling activities over the years when the USDOE will clearly pay for any closure costs associated with this recycling unit.

In the discussion on Ecology's web page, Ecology has identified that the Washington Department of Agriculture will not be subject to the financial assurance requirements. It is hard to believe that this Washington Department will be the only department affected by this rule. Even if this department is the only department affected by this rule change, it is difficult to believe Ecology is imposing additional requirements on state agencies as part of this rulemaking. In the public hearing on August 10, 2004, the Ecology presentation identified the facilities causing the initiative for these new requirements. All five of the examples cited at the hearing are commercial facilities. There are no state or federal governmental facilities identified as the reason for these new requirements. Therefore, Ecology should exempt state and federal agencies from these closure plan requirements. Proper closure of recycling units will be accomplished by the owner or operator when they belong to state or federal governments.

Please provide specific language for your recommended change or addition.

Revise -610(1)(a)(ii) to read:

"Subsections (2) and (12) of this section apply to the owners or operators of commercial recycling units who receive recyclable dangerous waste subject to regulation under WAC 173-303-120(3), (4), or used oil as a used oil processor or rerefiner subject to WAC 173-303-515(9) from off-site and place them in recycling units. State and federal governments are exempt from these requirements."

Section # -610 Page # 228-229 Citation # -610(3)(c)(i)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology's final status regulations do not require changing, and the partial closure provisions proposed by Ecology are inconsistent with EPA regulations at 40 CFR 264.112(d)(1).

In the explanation to this change found on Ecology's website, Ecology made an incorrect consistency assertion by stating: "This change requires owners or operators of final status facilities to notify Ecology of a partial closure of a tank, container storage, or incinerator unit at least 45 dates prior to the date of which they expect to begin closure of such a unit. *This is consistent* which the current requirements that require owners or operators to submit a plan for final closure of a facility with such units" [emphasis added]. The requirement to notify is a distinct and separate requirement from the requirement to submit a plan. According to -610(3)(a), the closure plan is submitted with the permit application for operating TSD units and approved as part of the permit issuance

procedures. Ecology's proposed changes are not consistent with EPA's closure requirements at 40 CFR 264.112(d)(1).

Ecology should have no concerns about partial closure notifications at a TSD unit that needs to have a permit to operate. Section -610 applies to operating facilities seeking a permit, and -610(3)(a) clearly outlines the procedures to get an approved closure plan. If there are partial closure concerns at a facility and there is appropriate justification to impose partial closure notifications, Ecology can impose these through the omnibus provisions of -800(8) as part of the permit issuance process.

In the March 2004 pre-proposal, Ecology made statements about their lack of records as a reason for this amendment. These statements no longer appear in the explanation for the proposed rule amendment on Ecology's web page. There is no need for additional requirements to be imposed on the regulated community because Ecology's files or a facility's files lack the appropriate records. A facility's operating record is required by -380 to demonstrate closure of dangerous waste management units at a facility. Certification of closure requirements in -610(6) provides the means to demonstrate closure to Ecology. There is no compelling reason for Ecology to punish the regulated community in this manner by proposing more stringent requirements from EPA regulations.

EPA's requirements for partial closure at 40 CFR 264.112(d)(1) contain an additional sentence not found in -610(3)(c)(i). Ecology should only propose text to make -610(3)(c)(i) consistent with 40 CFR 264.112(d)(1). Other partial closure notifications are not required.

Please provide specific language for your recommended change or addition.

Delete the proposed changes and add the following sentence to the end of -610(3)(c)(i):
"The owner or operator must notify the department in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier."

Section # -610 Page # 233 Citation # -610(12)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

There are three comments on the structure of the opening paragraph to -610(12). First, the applicability related terms should be moved to -610(1)(a)(ii) to keep these terms together. Second, the term "recycling unit" should be used since this is the term Ecology is defining in -040. Third, Ecology needs to clearly extend the financial assurance exemption for federal and state governments to the closure plan requirements.

Regarding the applicability terms, all such terms should appear in one location, preferably in -610(1)(a)(ii). Keeping applicability terms in one location prevents unnecessary confusion within the regulated community. Applicability terms in -610(12) that should be moved include: "subject to regulation under WAC 173-303-120(3), (4), or

used oil processor or rerefiner subject to WAC 173-303-515(9).”

Regarding the term “recycling unit,” this is the term Ecology is adding to -040. Ecology is not proposing “recycling facility” as a term. Ecology should update the paragraph to use the term in -040. The definition of recycling unit is broad and Ecology has indicated only a subset of recycling units that are subject to regulation for the new closure and financial assurance requirements.

Third, in the last paragraph of the discussion on the Hazardous Waste Facilities Initiative on Ecology’s web page Ecology states: “Facilities owned and operated by state or federal agencies will not be affected by proposed changes to rule for financial responsibility because state and federal facilities are self-insured and have sufficient assets to assure proper closure and are therefore exempt from such requirements in both state and federal rules.” Since financial assurance and closure requirements under this initiative are tied together, Ecology should also extend the financial assurance exemption to the recycling unit closure plan requirements for federal and state agencies. Text for this suggestion is contained in the comment on -610(1)(a)(ii).

Please provide specific language for your recommended change or addition.

Revise -610(12) to read:

“The owner or operator of an off-site recycling unit as described in (1)(a)(ii) of this section ~~facility subject to regulation under WAC 173-303-120(3), (4), or used oil processor or rerefiner subject to WAC 173-303-515(9)~~ must have a written closure plan.

Section # -610 Page # 233 Citation # -610(12)(b)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The introductory language proposed in -610(12) states that a recycler or used oil processor must have a written closure plan. -610(12)(b) states that Ecology can deny a closure plan submitted pursuant to paragraph (a). However, -610(12) is silent on the status of a recycler that has prepared a closure plan after Ecology has denied it. Since there is no permit at stake, Ecology has no apparent ability to resolve disagreement between Ecology and an owner/operator over closure plans unless there is a threat to human health and the environment. Generators may not know whether to continue utilizing the recycling unit if there is no path forward for resolution of the issues causing Ecology’ denial. We suggest Ecology add a requirement to resubmit an amended closure 90-days after receipt of Ecology’s denial or give the owner or operator the ability to challenge Ecology’s decision pursuant to the appeal provisions of -845. 90-days appears to be a reasonable time frame to resolve concerns that do not warrant a challenge.

Please provide specific language for your recommended change or addition.

Two changes should be made to clarify the denial of a recycling unit closure plan.

First, a sentence should be added to the end of -610(12)(a) that reads: “For closure plans denied under (12)(b) of this section that will be resubmitted, the amended plan shall be resubmitted within 90 days after the owner or operator receives the denial.”

Second, a sentence should be added to the end of -610(12)(e) that reads: “Refer to (12)(a) of this section when a closure plan is denied if the closure plan needs to be resubmitted. Alternatively, the owner or operator can challenge the denial pursuant to WAC 173-303-845.”

Section # -620 Page # -234 Citation # -620(1)(e)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

Ecology needs to amend the proposed language at -620(1)(e) to be consistent with the text prepared on Ecology’s web page, the existing financial assurance exclusion found in -620(1)(c) for state and federal governments, and the term “recycling unit” proposed in -040.

In the last paragraph of the discussion on the Hazardous Waste Facilities Initiative on Ecology’s web page Ecology states: “Facilities owned and operated by state or federal agencies will not be affected by proposed changes to rule for financial responsibility because state and federal facilities are self-insured and have sufficient assets to assure proper closure and are therefore exempt from such requirements in both state and federal rules.” At the Hanford Facility, the Hanford Facility RCRA Permit (WA7890008967) contains condition II.H.3 that states “The Permittees are exempt from the requirements of WAC 173-303-620.” Ecology needs to finalize this rule in a way to ensure this exemption continues to apply at the Hanford Facility. A reference to -620(1)(c) in -620(1)(e) will ensure there are no misinterpretations to the new recycling unit requirements. This clarification is important since Hanford Facility recycling activities are not contained in the Hanford Facility RCRA Permit.

Regarding the term “recycling unit”, this is the term Ecology is adding to -040. Ecology is not proposing “recycling facility” as a term. Ecology should update the paragraph to use the term in -040.

Please provide specific language for your recommended change or addition.

Revise -620(1)(e) to read:

“(e) Except as provided in (1)(c) of this section, the requirements of subsections (3), (4), (8), (9), and (10) of this section, apply to owners and operators of off-site recycling units facilities and processors/rerefiners of used oil, except the term ‘recycling unit’ will replace the terms ‘dangerous waste management unit’ or ‘regulated unit.’”

Section # -620 Page # _____ Citation # -620(6)(a)(iv)(B)(III)

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The proposed addition of the words “or financial test and corporate guarantee for post-closure care” to this section is not appropriate. The subject of subparagraph (B) is criteria for financial strength for insurance purposes. This may be a typographical error since the

language is already contained in -620(6)(a)(v).

Please provide specific language for your recommended change or addition.

Revise proposed subparagraph (III) to read "A++, A+, A, A-, as rated by A.M. Best; or ~~Financial test and corporate guarantee for post-closure care; or~~"

Section # -630 Page # 238 Citation # -630(8)(a)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has proposed a change without stating what the impacts of the change are. Since the Hanford Facility is subject to DOE Orders which use the Uniform Fire Code, the Hanford Facility will be now subject to two standards. One standard will be imposed through WAC 173-303 and the other standard imposed through DOE Orders. If Ecology considers the requirements equivalent, the Hanford Facility can continue to comply with the DOE orders and the International Fire Code at the same time. Ecology needs to include an evaluation of the requirements in the response to comments document and inform the regulated community of the impacts. If the requirements are equivalent and there are no impacts, then Ecology should also make this clear. Ecology should also seek the endorsement of a fire marshal on such a position.

Please provide specific language for your recommended change or addition.

If the Uniform Fire Code and the International Fire Code are equivalent, then a statement should be made indicating they are equivalent. If the requirements are different, Ecology should provide an option to comply with either standard at the discretion of the fire marshal having jurisdiction.

Section # -640 Page # 243 Citation # -640(4)(i)(D) and (E)

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

In reviewing the proposed changes to the "notes" in -640, an improper reference to (h)(iv)(A) through (C) was found in two locations. In -640(4)(i)(D) and (E), the reference should be (i)(A) through (C). The sub-subsections (A) through (C) are not found anywhere in (h).

Please provide specific language for your recommended change or addition.

Revise -640(4)(i)(D) and (E) to read:

(D) The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with ~~(i)(h)(iv)~~(A) through (C) of this subsection.

(E) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in ~~(i)(h)(iv)~~ (A) through (C) of this subsection, the owner or operator must comply with the requirements of subsection (7) of this section.

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology's proposed amendments to this section are based on a fundamental premise that there is a conflict that needs to be resolved. In the text on Ecology's web page Ecology states: "The existing rule language in section -640 stating that spills/releases from tanks that go to the environment need to be reported within 24 hours conflicts with the requirements of section -145. If a spill is classified as an emergency with contingency plan implementation, then it would also conflict with -360(2) requirements. In addition to the "immediate" vs. 24-hour notification, -640(7) specifies a report of the release within 30 days. Again, if the release was classified as an emergency with implementation of the contingency plan, a report is required within 15 days (see -360(2)(k)). Also, the current version of -640(7)(d)(ii) states that if a release is below the reportable quantity (RQ), then no reporting is required. This is yet another conflict with -145, which specifies that any amount is reportable if it impacts human health or the environment."

These perceived conflicts Ecology is articulating are not real and do not need to be reconciled. Many requirements exist that act independently from each other. First of all, -640(7)(d) requirements are based on EPA's counterpart to tank system requirements found in 40 CFR 264.196(d) and -145 is a state-only section not found in EPA's RCRA program. Second, the -360(2) provisions match EPA's provisions for contingency planning in 40 CFR 264.56 and EPA does not perceive a conflict between contingency planning and the tank systems requirements. Ecology should not be creating perceived conflicts when EPA does not perceive one.

In addition, since Ecology retained the word "any" in its proposal, the proposed modification is inconsistent with -145 by requiring reporting of any release from a tank system in accordance with -145. -145 only requires reporting when a release of dangerous waste or hazardous substance threatens human health or the environment. Based on this fact, Ecology's proposal is creating a new conflict with the -145 reporting requirements. The stated purpose of the modification was to relieve conflicts with the reporting requirements of -145, not create them. The proposed language of -640(7)(d)(i) fails to bring the requirement into alignment with -145.

Ecology's approach is looking at requirements the wrong way. -145 is a state-only requirement with no Federal counterpart. Ecology should not be modifying -640(7)(d)(i) and (ii) to be consistent with -145 and at the same time try to maintain a delegated RCRA program from EPA. Changing requirements in the regulations away from the text EPA uses only creates questions about whether Ecology is properly maintaining their delegated RCRA program. Ecology should merely identify the other requirements from -145 and -360(2) in -640(7)(d)(i) so that it is easier to identify all applicable reporting requirements.

The proposal also deletes the reporting exception provided in Federal regulations [40

CFR 264.196(d)(2)] by proposing to delete the current -640(7)(d)(ii) for very small releases that are immediately cleaned up. We suggest that this exception be retained in the proposal. Small, inconsequential releases can occur with tank systems (e.g. transfers from containers into the system) and should not be included in this rule if they are immediately cleaned up. We recognize that immediate reporting of any release to the environment is required under the corresponding Federal requirement unless it meets the small release exemption. Ecology's spill cleanup guidance (Focus on The Spills Notification Rule, February 2003 and Shoptalk Autumn 1998) clearly established that cleaned up spills are not a threat to human health and the environment. This exception needs to be retained in the proposal so that Ecology's maintains consistency in the regulations with these other cited published references.

Furthermore, the emergency provisions in -360(2)(k) for submitting a 15-day report should not be equated with the 30-day reporting requirements under the tank system regulations. The content of the 15-day report and the content of the 30-day report are not appropriate to equate. The content of the 15-day report required under -360(2)(k) relates to information that can be quickly documented after an emergency circumstance occurs. The content of the 30-day report required under -640(7)(d)(iii) can take more time than 15-days to compile. The regulations at -640(7)(d)(iii)(C) already identify that results of sampling and monitoring might even take longer than the 30-days allotted. Ecology should not be making an attempt to reconcile the two different reporting timelines based on the different types of information required for the two different reports. Instead of trying to equate follow-up reporting requirements, Ecology should only be referring to the -360(2)(k) requirements for completeness. If an owner or operator has the information available for both the 15-day report and the 30-day report when the 15-day report is due, the owner or operator should be given the flexibility to combine the reports into one. Conversely, if the 30-day report information requires more time to obtain, the owner or operator should be able to submit two different reports.

Regarding any concerns about Ecology being able to receive proper notifications, Ecology will receive the appropriate notifications pursuant to -145, so there is no need to worry about proper notifications under the tank system regulations. -145 operates independently from -640(7)(d) and needs to remain this way.

Please provide specific language for your recommended change or addition.

Revise language at -640(7)(d)(i) to read:

"Any release to the environment, except as provided in (d)(ii) of this subsection, must be reported to the department within twenty-four hours of its detection. Any release above the "reportable quantity" must also be reported to the National Response Center pursuant to 40 CFR Part 302. An owner or operator is also required to comply with applicable notification requirements in WAC 173-303-145 and emergency notification and reporting requirements in WAC 173-303-360(2).

Delete proposed changes to -640(7)(d)(ii). Retain the exception text as it currently exists.

Delete proposed changes to -640(7)(d)(iii) regarding the 15-day contingency plan report.

Retain the text as it currently exists.

Section # -960 Page # 305 Citation # -960(2)

**Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?**

The proposed substitution of the term 'a significant threat' for the term 'an imminent and substantial endangerment' would create a great deal of confusion about Ecology's authority and Ecology's intent by this proposed change. The regulated community and the regulators themselves are keenly aware of the meaning of the term 'imminent and substantial endangerment' as a result of nearly three decades of application of the term, judicial rulings, and regulatory guidance. The term 'a significant threat,' appears to be a new term of art and offers no such certainty in its' meaning, has no judicial rulings to interpret the meaning, and will inevitably lead to confusion, misapplication, and prolonged litigation. Individual Ecology inspectors could interpret 'significant threat' from many viewpoints resulting in an inconsistent application of authority, and result in a disparate treatment of members of the regulated community. -960 is also used to help determine whether a material is a solid waste or dangerous waste [see -016(1)(b)(ii)], so this change could also result in the expansion of the universe of regulated wastes. The phrase 'imminent and substantial' is the proper standard for use in this section.

On Ecology's web page, the following three paragraphs are used to explain the rationale for this proposed change:

"Rationale – This proposed rule will allow Ecology to seek a court order (for example, a temporary restraining order to stop a facility from receiving additional wastes from off-site) prior to conditions deteriorating to "imminent and substantial threat" thresholds of the current WAC 173-303-960, and in some situations, prior to issuance of civil orders or penalties. This proposed rule will make the Dangerous Waste Rules consistent with the powers granted the department and the attorney general in the State Hazardous Waste Management Act, RCW 70.105.120.

There have been two recent situations where a used oil processor and a recycling facility continued to receive wastes from off-site in the face of enforcement actions by the department. The companies continued to receive revenues from the wastes received, but did not incur the costs of waste recycling and disposal. Threats to health and the environment were exacerbated, but did not reach the "imminent and substantial" threshold for quite some time.

Decisions on when to apply this authority will be based on consideration of factors involved with specific cases. The revision addressed in this proposal was previously presented to stakeholders as a new subsection in rules for recycled, reclaimed and recovered wastes, WAC 173-303-120. This proposal deletes that previous recommendation and applies it through a simpler approach by amending WAC 173-303-960."

The text of RCW 70.105.120 states:

“RCW 70.105.120 Authority of attorney general. At the request of the department, the attorney general is authorized to bring such injunctive, declaratory, or other actions to enforce any requirement of this chapter.”

USDOE does not understand why existing authority for injunctive relief is not sufficient. Could Ecology please explain this? We also can not tell what Ecology and the Attorney General are trying to accomplish with this change. At the August 10, 2004 public hearing, an Ecology official stated that the Attorney General recommended that -960 should be modified. What was the legal rationale for that recommendation? We are also confused about why Ecology would change the term in -960(2), but would not change the term in -960(1). This apparent inconsistent application of terms will also lead to greater confusion and probable prolonged litigation.

We would also like to see an explanation as to how industries other than oil processors and recycling facilities will be affected by this rule change. Are there any operations and activities that Ecology will be targeting during facility compliance inspections or particular compliance aspects Ecology inspectors will be looking for?

Please provide specific language for your recommended change or addition.
Delete the proposed modification, and provide the requested explanations.

**Chemical Testing Methods for Designating Dangerous Waste
Publication #97-407
Proposed rule comments – September 2004
Washington State Register: 04-14-094
(PART 2 of USDOE comments)**

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The Page# of the “.pdf” file placed on Ecology’s web page was not numbered.

Section #	None	Page #	Citation #	General comment
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Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology’s proposed changes to the Appendices of the subject document constitute rulemaking changes affecting WAC 173-303 information as well as affecting text contained in the body of the subject document. Ecology needs to seriously reconsider the manner in which these proposed changes are being implemented because a holistic approach completely describing the universe of changes and the corresponding impacts to the regulated community need to be proposed. If not, the regulated community can not determine Ecology’s intent of their proposal. The additional comments below identify in more detail how these proposed changes related to the regulations and the body of the subject document.

In addition, the proposed changes can not be found on Ecology’s webpage. The following statements are made under the discussions for WAC 173-303-110: “This and other cross citations to Chemical Testing Methods are being updated to reflect revisions to State-only persistence criteria for halogenated organic compounds in Chapter 3, Section C of Ecology publication #97-407 ‘*Chemical Testing Methods for Designating Dangerous Waste*’. ... Based on this input, Ecology is proposing to revise the regulations and the guidance. These revisions will be limited solely to the sections dealing with state-only designation of waste containing HOCs (Chapter 3, Section C).” A search of the other documents on Ecology’s web page revealed no changes to the regulations on HOCs, and there were no changes proposed to Chapter 3, Section C. Only the posted file containing just the appendices of the subject document showed proposed changes to the regulated community. The proposal is misleading and incomplete.

Information outside of the appendices of the subject document appearing to be affected by changes to the appendices are: WAC 173-303-040 definitions of Halogenated Organic Compounds (HOC), persistence, and Polycyclic Aromatic Hydrocarbons (PAH), the universe of waste covered under the persistent criteria, and the main body/chapters of the

subject document describing background and approach to the persistence criteria.

Please provide specific language for your recommended change or addition.

Provide a thorough proposal that accounts for all impacted information from the
Prepare a holistic comment package for the changes to the subject document, including impacts/flexibility of the proposal on the regulated community.

Section # None Page # Citation # General Comment

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

There are changes proposed to WAC 173-303, other than HOCs and persistence issues, appearing to affect the language of the subject document. Ecology needs to provide a complete revision of the subject document, not just revisions related to HOCs and persistence. Ecology should not blindly look at one issue when it revises a document, and then have to amend the document again, for other reasons known at the time the document is revised.

Please provide specific language for your recommended change or addition.

Make all appropriate changes to the subject document during the document update cycle. Do not just update the appendices related to HOC and persistence information.

Section # Appendix 1 - Glossary Page # Citation # Definition of "Chemicals of Concern"

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

This definition is expanding the universe of waste covered by the persistence criteria and Ecology has not properly informed the regulated community about its intent to expand the reach of WAC 173-303 waste designation processes. The definition expands the universe because the third and fourth elements of this definition appear on the surface to constitute a broader scope in constituents regulated under the persistence criteria. The first element of the definition appears reasonable since it references the definition of HOCs. The second element of the definition referring to the definition of persistence is not necessary because, by definition, the persistent criteria already include the universe of HOCs and PAHs. Said another way, HOCs are a subset of constituents that meet the persistent criteria. The third element, a constituent *appearing on EPA's Appendix VIII or IX of compounds of environmental concerns*, is vague and ambiguous. What lists are these? By what methodology has Ecology considered this list? Why is Ecology for the first time in its rulemaking history introducing these lists to the persistent criteria? What impact to the universe of waste captured under the persistent criteria do these two lists have? Likewise for the fourth component, *constituents identified by Ecology as compounds of concern*, what is this universe? How does Ecology arrive at what is a compound of concern? What constituents are new to the list based on this element? The fourth element leaves Ecology excessively too much discretion in adding compounds without proper justification. There is no information in the proposed rule package on

Ecology's web page for this rulemaking that explains any of these considerations. Since Ecology has not properly informed the regulated community of these important matters, Ecology needs to withdraw this proposed definition to avoid questions about compliance with the Administrative Procedures Act (RCW 34.05).

Furthermore, this proposed definition appears to impact the discussion contained in Chapter 3, Section A.2, *Background for Persistent Criteria Waste*, of the subject document. This proposal is incomplete and can not be evaluated.

Please provide specific language for your recommended change or addition.
Delete definition of Chemicals of Concern in Appendix 1.

Section # Appendix 1 -Glossary Page # Citation # Definition of "Persistence"

Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?

Ecology has proposed a change to this definition without including information to justify the proposal, and Ecology has not proposed this change consistently throughout the proposed rule comment package. Ecology has proposed to change (365 days) to (60 days) regarding the time by which a HOC or PAHs retains more than ½ of its initial activity. Without knowing the baseline amount of chemicals meeting the 365 day criteria and then knowing how many chemicals are being proposed under the 60-day criteria, the regulated community has no way of determining what this impact will be on waste management activities. Ecology needs to answer many questions with such a proposal. Where does the 365 day criteria come from? There is no clear answer to this question in Chapter 3, Section C.1 a, *Definition of Persistence* in the subject document. Why has Ecology now decided to change this to a 60 day criteria? What impact does this have on the regulated chemicals under the persistence criteria? Why did this change only affect HOCs and not PAHs. Regarding a complete portrayal of this proposal throughout the proposed rule package, when such a change is proposed, the definitions in WAC 173-303-040 needs to be updated, and the text in the subject document Chapter 3, Section C.1 *Introduction*, and C.1 a *Definition of Persistence* also needs to be updated to address the new approach. This proposal is incomplete and can not be evaluated.

Please provide specific language for your recommended change or addition.
Delete and changes to the definition of persistence in Appendix 1.

Section # Appendix 1 -Glossary Page # Citation # Definition of "Polymer"

Please state your comment, question, or recommendation. Explain your concern.
How will your recommendation improve the proposed rule amendments?

With the new proposed definition, it appears that the Chapter 3, Section C.1.b of the subject document needs to be updated. Prior to Ecology adding this definition, the only information about polymers was with regard to PVC pipe, in that polymers are not subject to regulation under WAC 173-303-100. Ecology need to review and update Section C.1.b. Ecology also needs to provide an explanation of what this new definition

means to the universe of waste regulated by WAC 173-303-100. What is the significance of the definition?

Please provide specific language for your recommended change or addition.

Review and amend Chapter 3, Section C.1.b of the subject document and explain what this definition does to the universe of waste regulated under WAC 173-303-100.

Section # Appendix 1 -Glossary Page # _____ Citation # Definition of "Polycyclic Aromatic Hydrocarbons"

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has changed the name of the last chemical appearing on the list. It is not clear whether this is an intended change or whether it is a typographical error. Also, a sentence is added referring the reader to the body of the document for PAH CAS numbers, without providing the update to the body of the subject document. The chemical name Ecology is proposing to change is "dibenzo(a,j)acridine" to "dibenz(a,j)acridine." This name also appears in WAC 173-303-040 under the definition of PAH and in Chapter 3, Section C.1.c of the subject document.

Please provide specific language for your recommended change or addition.

Check the chemical name, and add the CAS numbers to Chapter 3, Section C.1.c of the table in the subject document.

Section # Appendix 2 Page # _____ Citation # 2.C.2, text of 49 CFR 173.128 relating to organic peroxides

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The text relating to 49 CFR 173.128 (organic peroxides) needs to be deleted from the subject document. In the proposed rule change to WAC 173-303-090(5)(a)(iv), Ecology is correcting the oxidizer definition of ignitability by deleting reference to 49 CFR 173.128. The corresponding change needs to be made in the subject document by deleting information in Appendix 2, 2.C.2 and Chapter 2, Section A.2.d, *Oxidizers*.

Please provide specific language for your recommended change or addition.

Purge the entire subject document of information related to 49 CFR 173.128, organic peroxides, based on the change proposed to WAC 173-303-090(5)(a)(iv).

Section # Appendix 3 Page # _____ Citation # General comment

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Ecology has created confusion with the proposed changes to Appendix 3. The changes do not make sense for the following reasons: First, the list of methods serving as a summary of the methods discussed in the body of the subject document are being deleted

without updating the body of the subject document. Second, Ecology is proposing to delete the reproduction of method text in Appendix 3 but at the same time proposing to reproduce the text of two new methods in Appendix 3. Third, Ecology is proposing a new undefined term “general evaluation analysis” without explanation or without a discussion of how this impacts the current information in Chapter 3 Section C.2 *Test Methods for Determining HOC* (and all its subsections) in the body of the subject document. Fourth, there is no discussion how the two new methods proposed for this appendix (SW-846 5050 and 9056) are related to the methods listed in Table 3-1 and 3-2. Finally, Ecology is deleting the sample containers and preservation table of information without an explanation.

There appears to be merit in retaining the list of methods for all the characteristics and criteria as well as the sample containers and preservation table. By maintaining the list of methods in Appendix 3, Ecology does not have to update many footnotes contained in the body of the subject document. The regulated community will also have a handy reference of methods Ecology recommends for the characteristics and criteria. The sample containers and preservation table should be retained since it is only two pages long and will not take up much paper and this too also provides a handy reference instead of having to look up the information in the SW-846 tables. If Ecology does not retain these small tables, then Appendix 3 should summarize the locations of SW-846 where the sample containers and sample preservation information is located within SW-846. We also recommend that the term “general evaluation analysis” be avoided unless it does not impact the discussion in the body of the document. If this term is important in the testing of a waste matrix to meet waste designation requirements, why has Ecology not mentioned this in the past? There appears to be little value in reproducing the text of any method in Appendix C and we agree with Ecology that a reader can go and look the method up. Since Ecology’s stated desire is to conserve paper, the two new methods, 5050 and 9056 should also not be reproduced.

Please provide specific language for your recommended change or addition.

In Appendix 3, retain the list of methods discussed/footnoted in the body of the subject document, retain the sample containers and preservation table, avoid using the term “general evaluation analysis”, and delete the method text for all methods listed.

Section # Appendix 4 Page # Citation # New Appendix *Chlorinated Paraffins*

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

This new Appendix titled Chlorinated Paraffins is not introduced by corresponding changes to the body of the subject document. The reader can not tell what relevance this information has to the waste designation process and the universe of waste covered under the WAC 173-303. The term “chlorinated paraffins” is not found in any of the definitions contained in WAC 173-303 or Appendix 1 of the subject document. The reader can not tell what this information means, other than it is general information about chlorinated paraffins. What is Ecology trying to accomplish with this information? How does it relate to the definitions of persistence, HOCs and PAHs. How are these

compounds currently addressed under the regulations? When did Ecology inform the regulated community that such compounds were within the scope of HOCs? This new appendix needs to be carefully evaluated, because it appears Ecology is trying to expand the universe of state-only dangerous waste under the persistence criteria.

There appears no reason to have this information in the subject document. With the list of HOC information proposed in the new Appendix 5, this Appendix should be deleted.

Please provide specific language for your recommended change or addition.

Delete Appendix 4.

Section # Appendix 5 Page # Citation # New Appendix *HOC Chemicals of Concern*

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

Creating a list of HOC regulated under WAC 173-303 is a great idea and USDOE fully supports this move, provided that Ecology constructs an appropriate list. Having a list of chemicals regulated as HOC has been a comment USDOE has submitted in the past. A list of HOCs regulated under WAC 173-303 will remove differences of interpretation between Ecology and the regulated community on the scope of HOCs.

There are concerns however with the proposed new appendix. First the title should be changed to "HOCs Regulated under WAC 173-303." See previous comment about the term chemicals of concern and how this new term should be avoided. Second, Ecology can not maintain a list on these chemicals on their web page. To comply with the Administrative Procedures Act (RCW 34.05) regarding what wastes are regulated under WAC 173-303, Ecology must maintain the list either in WAC 173-303 or in a document subject to the Washington State Register process in order to allow the regulated community the opportunity to comment on Ecology's proposed changes. Since the subject document revisions are managed through the Washington State Register process, maintaining the list in the new appendix would be an appropriate way manage this list. Third, the last table sorted alphabetically appears to be sorted inconsistent with standard reference material. Standard reference materials do not sort based on numbers preceding a chemical name. Ecology's sort appears to use the preceding numbers as a basis. Fourth, since the table is a list of HOCs, they are all regulated in the same weight percents under WAC 173-303-100(6) so that the last two columns in the table are not necessary. Every entry for each constituent has the same information in the last two columns.

Please provide specific language for your recommended change or addition.

Retain the information in Appendix 5 with the following changes: Change the title to "HOCs Regulated under WAC 173-303," avoid using the term *chemicals of concern*, maintain the list of HOCs in the appendix and not on Ecology's webpage, modify the list by proposing changes in the Washington State Register, revise the list of chemicals consistent with the appropriate scope after evaluation of the other comments above, resort the alphabetical chemicals list similar to the way standard references sort chemicals and delete the last two columns in the table. Also, change the definition of HOCs in

Appendix 1 consistent with the comment on -040 in Part 1 of this comment package.

Section # Chapter 2 Page # _____ Citation # Chapter 2, Sections C.1 and C.2 that reference Division 1.5

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

USDOE has submitted a comment on WAC 173-303-090(7)(a)(viii) repeatedly in order to delete Division 1.5 from the reactivity characteristic because EPA does not recognize Division 1.5 as part of EPA's hazardous waste program. This comment is being submitted again in the proposed rule comment package. When Ecology decides to delete Division 1.5, it also needs to be deleted from Chapter 2, Sections C.1 and C.2. This is a perfect opportunity for Ecology to make the decision on this change and get it implemented. Ecology should update the subject document for all known reasons at the time the document is planned for revision. Ecology has no basis to limit changes to this document to the HOC information when other changes are also needed.

Please provide specific language for your recommended change or addition.

Delete "Division 1.5" from Chapter 2 Sections C.1 and C.2.

Section # Chapter 3 Page # _____ Citation # Chapter 1, Footnote 3, Chapter 3 Section B.2, and Chapter 3, Footnote 27

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

These reference need to be reviewed and updated so that they are clear on the toxicity sources required to complete a book designation. Ecology should not leave book designation sources vague and open ended as to which ones are required. An open ended requirement only provides for a difference of opinion between Ecology and the regulated community. There are three places in the subject document where information about book designations need to be reviewed and updated. Footnote 3 leaves the required book designation references open ended but mentions MSDSs and NIOSH RTECS. Chapter 3 Section B.2 provided discussion in paragraph 3 about book designations and also references footnote 27. Footnote 27 identifies the Hazardous Substances Data Base along with RTECS yet the footnote appears open ended. Because the *Chemical Testing Methods for Designating Dangerous Waste* (publication #97-407) document is being opened for HOC amendments, Ecology should take this opportunity to clear up the vague and ambiguous matter on the toxicity source requirements for the book designation. We have also made this suggestion in Part 1 of the comment package addressing section WAC 173-303-100(5)(b)(i).

Please provide specific language for your recommended change or addition.

Consistent with the comment on this subject provided in Part 1 of this comment package, Change the text in the three locations cited to reflect required toxicity data sources:

- NIOSH RTECS
- Material Safety Data Sheets, and

- The Hazardous Substances Data Base, National Library of Medicine.

Section # Chapter 2 Page # _____ Citation # Chapter 2, Footnote 6

Please state your comment, question, or recommendation. Explain your concern.

How will your recommendation improve the proposed rule amendments?

The reference in footnote 6 should be "60 FR 3092" not "60 CFR 3092" and the date of the FR should be inserted.

Please provide specific language for your recommended change or addition.

Change footnote 6 to read "60 FR 3092, January 13, 1995."

Hervieux, Patricia R.

From: Scott K Campbell [campbellsk@bowater.com]
Sent: Thursday, July 22, 2004 2:31 PM
To: Hervieux, Patricia R.
Subject: Re: Rule change to prevent toxic messes from being dumped on taxpayers

Dear Chipper Hervieux,

I would like to comment on the proposed dangerous waste rule changes that will require used oil recycling facilities and hazardous waste facilities to write a plan for closing operations, estimate the cost of closure and prove that cleanup and closure funding is available.

Will the "is available" statement allow the purchase of environmental insurance as opposed to "setting aside" large amounts of money?

It seems to me that if facilities are managed in compliance with existing law, potential clean up costs will be minimal. Perhaps a more rigorous inspection process that encourages compliance with the law and thus prevent environmental damage is preferable to dealing with damage that is left behind.

Thank you for considering my thoughts.
Sincerely,

Scott K. Campbell
422767 SR 20
Usk, WA 99180

Hervieux, Patricia R.

From: Mike Jeffers [mike@rebecsolutions.com]
Sent: Friday, September 03, 2004 11:20 AM
To: Hervieux, Patricia R.
Subject: Comments on proposed dangerous waste rules WAC 173-303

Chipper,

In the proposed rules you are making mercury containing equipment a universal waste. A generator may treat this waste as universal waste as an option or they may manage the waste as hazardous waste. Since many of the devices that will fall under this revision are themselves containers (i.e. Thermometers, sphygmomanometers, etc) as defined by interpretation by EPA, when these devices are empty they will be excluded as empty containers under WAC 173-303-160(2). Under your proposed rules they would still be regulated when empty? If I had a drum of thermometers and manage them under universal waste I must send the entire device out for recycle. If I manage them as waste and drain the mercury I may reduce my cost by thousands by discarding the empty containers. I believe there will be some confusion over the management of empty containers on this proposed rule.

If these units are not considered containers by DOE as EPA has defined them then the intact units may be sent to landfill as a debris and managed under the alternative LDR standards for debris in conflict with the EPA. I do not believe DOE can define them as anything other than containers therefore.

Please let me know if my interpretation is incorrect.

Sincerely,

Michael Jeffers, CHMM
Compliance
Rebec LLC
800-569-1088
800-964-1412 fax

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Foreign Cars - Vans - Trucks

LAKES

Auto Wrecking

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Tacoma, WA 98499

9/8/2004

DEAR PAT

I RUN A WRECKING YARD.
THE REVISIONS IN THE
STATES DANGEROUS WASTE
RULES ARE GOING TO
PUT ME OUT OF BUSINESS.
THERE WILL BE (20)
MORE PEOPLE UNEMPLOYED.
PLEASE HELP ME.

I AGREE W/ THE COMMENTS
OF GARY SMITH (WIBA)

(LESS REGULATIONS PLEASE)

THANK YOU

LAKES AUTO WRECKING
4034-100TH ST. S.W.
TACOMA, WA 98499
582-6850

Ed Levesque
ED LEVESQUE

LAKES AUTO WRECKING
4034-100TH ST. S.W.
TACOMA, WA 98499
582-6850

24

9/8/2004

DEAR PAM

I RUN A WRECKING YARD.

WE ARE ALREADY BURIED IN
STATE REGS.

THE REVISION OF THE STATES
DANGEROUS WASTE RULES

WILL PUT ME OUT OF
BUSINESS.

I CAN DO SOMETHING
ELSE BUT WHAT ABOUT
THE 20 EMPLOYEES.

I AGREE W/THE COMMENTS
OF GARY SMITH (W/ IBA)

THANK YOU

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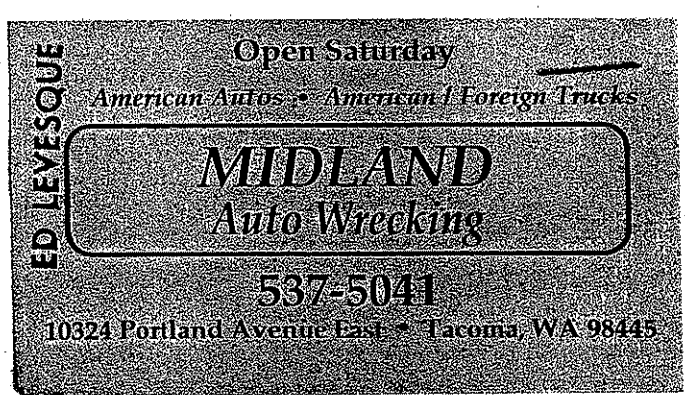
11528 Pacific High S.W.

Tacoma, WA 98499

LAKEVIEW AUTO WRECKING
11528 PACIFIC HIGHWAY S.W.
TACOMA, WA 98499
582-6000

25

9/8/2004



Dear Pat

I AM A SMALL BUSINESS,
I RUN A WRECKING YARD.
THE REVISIONS OF THE
STATE DANGEROUS WASTE
RULES IS GOING TO
PUT ME OUT OF BUSINESS.
PLEASE HELP ME.

I AGREE WITH THE
COMMENTS OF GARY SMITH
WITH THE (IBA)
THANK YOU

ED LEVESQUE
30 YRS IN THE BUSINESS

Midland Auto Wrecking
10324 Portland Ave. E.
Tacoma, WA 98445
1-253 537-5041

26

9/10/04

Patricia Hervieux:

My name is Richard Pratt, and I am writing because I am very concerned about the proposed new dangerous waste rules. I have a small repair shop that generates waste oil. We use it in our waste oil heater, but still need to dispose of 500 gallons a year. These new rules will greatly increase our costs, are disproportionately costly to smaller businesses in general, and seem totally unnecessary. Please review these and follow the recommendations of the Independent Business Assn.

Sincerely,

Richard Pratt

27

Hervieux, Patricia R.

From: Howard Mackert [macauto55@earthlink.net]
Sent: Thursday, September 09, 2004 7:26 AM
To: Hervieux, Patricia R.
Subject: Proposed revisions to dangerous waste rules

Hello, my name is Howard Mackert
I opened Mackert Automotive 3 years ago, actually the weekend after 9/11!
I am concerned about regulations that put small businesses like mine at a disadvantage when competing with larger auto repair shops, like dealerships or franchises. I employ 4 people besides myself, all who pay taxes and vote.

We here at Mackert Automotive agree with the comments of the Independent Business Association regarding the Department's proposed revisions to the state's dangerous waste rules. Please act as required by the IBA.
Thank you for your time & service to our state and communities,
respectfully, Howard Mackert

Mackert Automotive
3523A 57th ST CT NW
Gig Harbor, WA 98335
253-851-3307
fax: 253-853-2156

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (<http://www.grisoft.com>).
Version: 6.0.752 / Virus Database: 503 - Release Date: 9/3/2004

25

Hervieux, Patricia R.

From: Mike West [mikew@isomedia.com]
Sent: Wednesday, September 08, 2004 3:09 PM
To: Hervieux, Patricia R.
Subject: Dangerous Waste Rule Revisions/commemts

I, Michael J. West, Southtowne Auto Rebuild, agree with the comments of the Independent Business Association regarding the Department's proposed revisions to the state's Dangerous Waste Rules. Please act as required by the IBA.

Michael J. West
Southtowne Auto Rebuild
14864 Tukwila International Blvd
Tukwila, WA 98168
206-242-5556

27

Hervieux, Patricia R.

From: Ferrillsp@aol.com

Sent: Wednesday, September 08, 2004 1:31 PM

To: Hervieux, Patricia R.

Subject: dangerous waste rules

My company agrees with the position taken by the IBA on the proposed changes to the dangerous waste rules. Additionally I urge DOE to look at research published in the journal Hydrology and Earth System Science titled "Comparison of mercury in Atmospheric Deposition and in Illinois and USA Soil"

Steve Ferrill
Ferrill's Auto Parts, Inc.



Hervieux, Patricia R.

From: Renton@southendauto.com
Sent: Wednesday, September 08, 2004 10:51 AM
To: Hervieux, Patricia R.
Subject: Dangerous Waste Rule revisions

Dear Ms. Hervieux,
My company is a strong supporter of recycling. We agree with the IBA's position regarding the proposed changes to the Dangerous Waste Rules. We would appreciate if you would act upon the revisions as the IBA requests. Please contact me if you should have any questions.

Thank you,
C. A. Magnuson
GM
South End Auto Wrecking, Inc.
3400 East Valley Rd.
Renton WA 98055
425-251-8555

9/8/2004

31

Hervieux, Patricia R.

From: James Wilson [kctruckparts@myhome.net]
Sent: Wednesday, September 08, 2004 8:40 AM
To: Hervieux, Patricia R.
Subject: proposed dangerous waste revisions

Dear Patricia,

My company agrees with the comments of the Independent Business Association regarding the Department's proposed revisions to the state's dangerous waste rules. Please act as requested by the IBA.

Sincerely, James Wilson

manager
KC Truck Parts Inc.
183 state hwy 508
Chehalis, Wa. 98532

360-736-3344

32

Hervieux, Patricia R.

From: Kathleen Kole [kamdragon@mac.com]
Sent: Friday, September 10, 2004 8:45 AM
To: Hervieux, Patricia R.
Subject: proposed dangerous waste rule revisions

Dear Patricia Hervieux:

I have been told, by public officials, time and time again, that these increased environmental fees shouldn't affect business, because all we have to do is pass the costs on to the customer.

Well, in the real world (outside of public employment) this theory doesn't really work very well. I can pretty much guarantee that this proposal to revise dangerous waste rules will very definitely hurt most small businesses. Our customers will go to larger corporations or franchised business, whom are large enough to absorb increased costs long enough to drive smaller business under. Then larger businesses can really raise costs to customers to recover any loss, especially since the customer no longer has as much choice as he used to.

In the real world, constant environmental harassment only causes honest citizens to commit illegal actions in order to survive (like dumping waste wherever they can).

Please consider the Independent Business Association comments regarding the your proposed revisions to the state's dangerous waste rules.

Please act as requested by the IBA.

Thank you,

Kathleen A. Kole
2025 Northshore Drive
Bellingham, WA. 98226
360.734.5623

33

Hervieux, Patricia R.

From: john kole [john.kole@comcast.net]
Sent: Thursday, September 09, 2004 5:17 PM
To: Hervieux, Patricia R.
Subject: waste rule revisions

please do not change the rules as is intended. if these recyclers are forced out of business, so will i be. i run a repair shop and we keep 4 people off the street. if we can't recycle our wastes for lack of sourcing then we will soon run out of storage and effectively be put out of business. sincerely, john kole vehicle repair 2114 humboldt st. bellingham, wa. 98225, 360-676-7512.

(34)

Hervieux, Patricia R.

From: Jana Filli [jana@circleandsquare.com]
Sent: Friday, September 10, 2004 4:15 PM
To: Hervieux, Patricia R.
Subject: Fw: Important

> Patriciaa Hervieux
> PO Box 47600
> Olympia, Wa. 98504-7600
> e-mail pher461@ecy.wa.gov
> Fax (360) 407-6715

Dear Patricia,

I and my company, Circle & Square Inc. (DBA: Circle & Square Auto Care) agrees with the comments of the Independent Business Association regarding the Department's proposed revisions to the state's dangerous waste rules. Please act as required by the IBA.

Jana Filli
2023 McNeill Street
Port Townsend, WA 98368
(360)385-2070

>

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Will Perry
Organization or Affiliation: Seattle/King County Public Health
Address: 999 Third Ave., Suite 700 Seattle, WA 98104

Indicate if your comment is on the federal requirements _____ or state requirements X

Chemical Testing Methods for Designating Dangerous Waste

Chapter # 3 Page # 27

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The online PDF of the revised document contains an "Example 3-1" text block that goes through a proportional calculation based on EPA Method 9076. This text block is an obsolete and vestigial fragment from the older version of the document. This example and its reference to the 9076 test could confuse generators in their waste designation process.

Please provide specific language for your recommended change or addition.

"Example 3-1" should be removed from the revised document.

Signature:

William L Perry

Will Perry
Health and Environmental Investigator II
Public Health/Seattle & King County
999 Third Ave, Suite 700
Seattle, WA 98104-4099
206-296-3966 Fax-206-296-3997
william.perry@metrokc.gov



NATIONAL SOLID WASTES
MANAGEMENT ASSOCIATION

September 8, 2004

Chipper Hervieux
Department of Ecology
Hazardous Waste and Toxics Reduction Program
P.O. Box 47600
Olympia, WA 98504-7600

Subject: Proposed Amendments to Dangerous Waste Regulations

Dear Ms. Hervieux:

The National Solid Wastes Management Association (NSWMA) thanks the Department of Ecology (Department) for the opportunity to provide it with comments regarding the proposed changes to the Dangerous Waste Regulations (Washington Administrative Code, chapter 173-303). NSWMA represents privately owned or operated solid and hazardous waste management companies throughout the United States including companies operating in the State of Washington.

Consistency with Federal Rules

NSWMA strongly supports those provisions that maintain consistency with the federal hazardous waste rules including the inclusion of federal rule language related to the offsite management of CAMU eligible wastes in new Sections WAC 173-303-646910 and 646920. The Association believes that this provision affords the state maximum flexibility for the safe and effective management of CAMU eligible wastes in accordance with the federal rules.

Financial Assurance Standards

There are provisions of the proposed financial assurance regulations that are not in agreement with the federal hazardous waste law. Unlike the proposed CAMU standards that provide maximum flexibility, the proposed financial assurance requirements restrict the types of financial assurance mechanisms that are available for use at dangerous waste facilities. NSWMA is concerned these proposed changes will negatively impact members' solid or hazardous waste management operations in other states where they are required to provide financial assurance.

In short, the proposed changes substantially limit the financial assurance options available to facility owners and operators by eliminating the use of surety bonds, prohibiting the use of captive insurance companies, and requiring financial institutions to maintain only an "excellent" national rating. We believe that the proposed changes to the State's financial assurance framework for dangerous wastes should be postponed until the U.S.

Environmental Protection Agency (EPA) has completed its ongoing review of the federal financial assurance requirements.

From the supporting information, some of the proposed regulatory changes appear to be based on the EPA's Office of Inspector General (OIG) audit report on RCRA financial assurance (RCRA Financial Assurance for Closure and Post-Closure; 2001-P-007; March 30, 2001). However, the EPA regulatory process that responded to the OIG report has yet to be finalized. In addition, the Department may not have the benefit of much of the information provided to EPA after the release of the OIG report, including comments submitted to EPA in response to the proposed regulations.

Submitted comments raised significant concerns about the conclusions reached by the OIG report that provided a single, skewed viewpoint. NSWMA strongly requests that changes to the financial assurance regulations be postponed until EPA's rulemaking process is finished and a complete and thorough record is available on these issues.

Surety Bonds

One allowable financial mechanism in state and federal rules is a surety bond guaranteeing that closure activities will be performed and paid for by the financial institution holding the bond. As the Department's preamble to the proposed rule states "the (Surety Bond) concept appears to be valid (end result is clean closure of facilities according to regulatory and permits requirements)." However, NSWMA believes that the Department reached a mistaken conclusion that this mechanism "is complex and difficult for facilities to maintain and for the department to administer." As a result, the Department proposed deletion of this mechanism from WAC 173-303-620.

NSWMA strongly requests that surety bonds be retained for the above reason as well as the following reasons:

- NSWMA members use a broad range of financial assurance mechanisms across the country. The Association is not aware of any "complexities" or "difficulties" that make this type of financial assurance instrument harder to use than any other form of financial assurance. In fact, the state agencies where members have facilities believe that surety bonds are one of the most effective instruments available for solid and hazardous waste facility financial assurance.
- The surety bond and insurance markets were tight a few years ago but have rebounded considerably in the past few years. This points to the need for maintaining maximum flexibility so that when one financial assurance instrument is unavailable owners and operators can shift from one financial instrument to another. However, if a state limits accessibility to only a few mechanisms, it is much more difficult for a companies to shift its financial assurance resources to alternative mechanisms. By limiting mechanisms to only those that are currently in use, the state could inadvertently exacerbate bad situation if limited availability with one of the other "approved" mechanisms occurred. The private solid and hazardous waste industry requires maximum flexibility to ensure that the financial assurance requirements of facilities are met.

Because of these concerns, NSWMA strongly suggests that the language related to surety bonds for closure and post-closure care that is proposed for deletion be re-instated.

Captive Insurance

The definition of captive insurance is when a corporation creates a subsidiary insurance company that provides insurance solely to other owned companies, or held in majority ownership, by the same parent corporation in accordance with the laws of the state in which it is domiciled and licensed. Captive insurance is sometimes mistakenly believed to be a high-risk activity. However, captive insurance actually provides the parent corporation with much greater control over the risks they manage. Instead of having to combine a company's own risks (over which it has considerable control) with those of others (over which it does not have control), captive insurance allows a company to focus its risk resources on those activities it must have control over: its own. Although the Office of Inspector General audit report raised concerns about the use of "captive insurance", NSWMA believes that the OIG report contains many inaccuracies and misperceptions.

For example, some of the Association's members currently use captive insurance companies regulated pursuant to the captive insurance laws of the State of Vermont that are the tightest in the country. Captive insurance as licensed by the State of Vermont is historically the most secure form of financial assurance. Over 120 of the Fortune 500 companies have captive insurance companies domiciled in the State of Vermont. In the 30 years that Vermont has been licensing captive insurers, there has never been a failure of a Vermont regulated pure captive to meet its financial obligation.

These facts are contrary to the Department's statement in the preamble to the proposed rule that it believes "that insurance policies issued by a "captive" insurance company do not provide an adequate level of assurance because (the Department) found no independence between facility failure and failure of the mechanism." In reality, the historical performance of Vermont domiciled captive insurers shows that it is the most secure type of financial assurance and there is no evidence of any failure of the mechanism because only the most stable and secure companies are allowed to establish captive insurance companies under the laws of the State of Vermont.

NSWMA requests that captive insurance remain a viable option for providing financial assurance for closure, post-closure, and liability.

Insurance Company Minimum Ratings

The Department is proposing to require insurance companies to meet minimum ratings as established by Moody's, Standard & Poor's, or A.M. Best. This approach is similar to that initially suggested by the EPA in its proposed rule for standardized permits and financial responsibility (Federal Register; October 12, 2001). However, EPA has not finalized decisions in this matter. The Association believes EPA's preliminary proposed approach is overly simplistic and should be substantially amended to be much more flexible.

A problem with the Department's proposal is that an insurance provider would have to immediately terminate insurance services if their A.M. Best rating ever fell from A- (excellent) to B++ or B+ (very good) for a single month. An A.M. Best rating of B++ or B+ is a very secure rating especially if it is caused by a short-term fluctuation in market conditions. While it might be appropriate for the Department to place a closer "watch" on

insurance companies that fall below an A- rating (or some other level), there should not be a prohibition from using an insurance provider that falls below an A- rating for either a short period of time or due to a clear and justifiable reason.

In addition, arbitrary insurance ratings should not be imposed on providers of solid and hazardous waste financial assurance. Valid arguments were submitted almost three years ago to EPA on this issue and EPA has still not taken any final action in this area. To avoid inconsistent regulations in this area, the Department should not make changes in the proposed regulations until EPA finalizes its rulemaking on financial assurance. Once EPA makes a final decision, the Department should take action to amend its regulations in this area based on the full record before the agency with a goal of maximizing consistency with the federal standards.

Because of these concerns, NSWMA requests the language regarding insurance ratings be deleted from WAC 173-303-620 on page 183 (closure), 185 (post-closure care) and 186 (liability) of the proposed regulatory changes until EPA publishes a final recommendation in this area:

Insurance Payout

The Department has proposed language that requires closure insurance payments to be made to the Department. This requirement does not make sense when the facility's insurance policy is relied upon to provide the funds necessary for its own closure activities. The facility would not be able to use these funds if the Department were to be the only beneficiary of the policy. The supporting rationale to impose this requirement is not clear and should be to support the change. Other states have addressed similar concerns by becoming a secondary beneficiary on the policy if the regulatory agency is forced to take regulatory action.

Because of these concerns, NSWMA suggests that if the Department, as a result of failure by the operator orders, either partial or complete closure, the policy shall guarantee that the insurer will be responsible for paying out funds to the Department for closure activities at the facility.

Financial Test and Corporate Guarantee

The Department's proposal seeks to increase the level of tangible net worth in the financial test and corporate guarantee from \$10 million to \$20 million. The rationale for proposing this change appears to rest on the degree of inflation since 1981 when the \$10 million requirement was first established in federal law. As before, the Department is proposing to make a regulatory change that will make the State of Washington's regulations inconsistent with the federal standards.

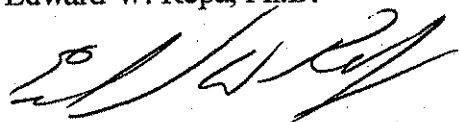
There is not supporting evidence of any historical problems that can be attributed to the \$10 million tangible net worth requirement. On the surface, it may seem reasonable to increase the existing \$10 million requirement because of inflation, but that does not mean that \$20 million is the right level today. Given that there are not any documented problems with this mechanism, the argument could be made that the tangible net worth limit of \$10 million was set too high in 1981. In the absence of any documented need to make such a change today, the best course of action is to not make substantive changes in this area until EPA takes final action on the parallel set of regulations they are currently considering.

Because of these concerns, NSWMA requests that the changes not be made at this time and should only be changed once EPA makes amends its rules.

Thank you again for the opportunity to provide these comments. Please contact me if you have any questions or require further information regarding comments and concerns.

Sincerely,

Edward W. Repa, Ph.D.

A handwritten signature in black ink, appearing to read 'Edward W. Repa', written in a cursive style.

Director Environmental Programs

Hervieux, Patricia R.

From: Marian LaBounty [marianatsqg@earthlink.net]
Sent: Friday, September 17, 2004 4:26 PM
To: Hervieux, Patricia R.
Subject: Comment-Rule Changes

Dear Chipper,

Sorry to be so late with this. Just noticed it while re-reading entire text.

173-303-610 and 173-303-620 would now apply to those regulated under 173-303-120 & 173-303-525.....! know Ecology intended to include those regulated under 173-303-500, but did not list them in these sections. Better include it or someone recycling handling strictly State-Only DW may use the ommission as a giant loop-hole.

Marian LaBounty
SQG Specialists
(Regulated under 173-303-120 AND 173-303-500)

Hervieux, Patricia R.

-----Original Message-----

From: Brake, Perry

Sent: Thursday, September 23, 2004 9:17 AM

To: 'Guthrie Jimi L KPWA'

Cc: Dahlhoff, Leatta; Stone, Alex (ECY)

Subject: RE: Department of Ecology - Extended Comment Period for the Dange rous Waste Regulation

Good morning, Jimi. Looks to me like the Ecology staff who prepared the draft are either not aware of the possibility that EPA will discontinue the requirement for reactivity testing, or are aware, but still want the tests to be done. In either case, it would be appropriate for you to contact them, pointing out the same things you have mentioned to me in this e-mail exchange. The authors are Alex Stone (360) 407-6344 and Leatta Dahlhoff (425) 649-7281. Note that I have cc:d each on this reply.

I hope this helps, Jimi, but if not, get back to me.

Perry

Perry F. Brake, Chemist
Lab Accreditation Section Manager
(360) 895-6149
Fax: (360) 895-6180

-----Original Message-----

From: Guthrie Jimi L KPWA [mailto:JGuthrie@kpt.nuwc.navy.mil]

Sent: Wednesday, September 22, 2004 12:58 PM

To: Brake, Perry

Subject: FW: Department of Ecology - Extended Comment Period for the Dange rous Waste Regulation

Hi Perry,

I was asked to review attached attached draft and noted footnote on page 11 that still refers to SW-846 Chapter Seven methodology for cyanide, sulfide reactivity. The last I heard is included in following link, where they were going to retract reactivity method. Do you know current status? I don't know if I should contact EPA or DOE....?

<http://www.epa.gov/SW-846/freact.htm>

Thanks in advance,
Jimi

-----Original Message-----

From: Dumar, Laurie [mailto:ldum461@ECY.WA.GOV]

Sent: Friday, September 17, 2004 9:36 AM

To: ECOWACTRACK@listserv.wa.gov

Subject: Department of Ecology - Extended Comment Period for the Dangerous Waste Regulation

Department of Ecology - Laws and Rules Web Site - September 17, 2004.

11/9/2004

39



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

September 24, 2004

Reply To
Attn Of: AWT-107

VIA FAX: (360) 407-6715, and e-mail: pher461@ecy.wa.gov

Chipper Hervieux
HWTR Program
P.O. Box 47600
Olympia, Washington 98504-7600

Re: Comment on the Proposed Amendments to Dangerous Waste Regulations Chapter
173-303 WAC, July 2004

Dear Ms. Hervieux:

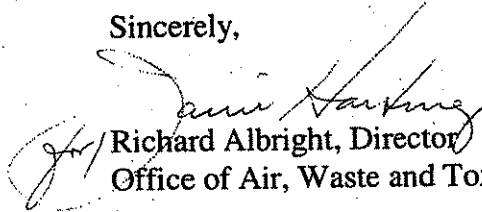
I am providing comment on two issues raised during the U.S. Environmental Protection Agency, Region 10's review of the proposed revisions to the dangerous waste rules.

Our first comment concerns the mixture rule set forth in WAC 173-303-081(3) and WAC 173-303-082(3). The language in the second sentence of these paragraphs of the rule is different than the language in the federal mixture rule at 40 C.F.R. §261.3(a)(2)(iii) and (iv). The language should be revised to ensure that it is consistent with and equivalent to the federal rule.

Secondly, although generally EPA supports Washington State's new Hazardous Waste Facilities Initiative, we are commenting about the proposal to revise the current rule that defines recycling without storage in WAC 173-303-120(4). Specifically, EPA is concerned about the consistency of the 72 hour provision with the federal requirements. If it is determined that the state's rule is less stringent than the federal program, then the regulated community could become subject to two (2) conflicting rules.

EPA reserves its right to review these and other dangerous waste rules as part of the state authorization process under the Resource Conservation and Recovery Act, as amended.

Sincerely,


Richard Albright, Director
Office of Air, Waste and Toxics



Environmental Health and Safety

UNIVERSITY OF WASHINGTON

Fax

To: Chipper Hervieux

From: Sheila Lockwood

Fax: 360-407-6715

Telephone 206-616-5836

Date 9/24/04

Pages (including cover) 3

Dear Mrs. Hervieux,

Please find enclosed Proposed Amendments comments regarding the Washington State Dangerous Waste Regulations, Chapter 173-303. The University of Washington and the staff of Environmental Health and Safety appreciate the opportunity to comment on the proposed changes. If we can be of further assistance, please do not hesitate to contact us. We can be reached by phone at 206-616-5835 or by e-mail at chmwaste@u.washington.edu.

Sincerely,

A handwritten signature in cursive script that reads 'Sheila Lockwood'.

Sheila Lockwood
Program Operations Coordinator

Environmental Programs Office
Box 354400
Phone: (206) 685-2848 • Fax: (206) 685-2915

41

Proposed Amendments
Dangerous Waste Regulations Chapter 173-303 WAC
July 2004

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments -- March 2004
Comment Form**

First and Last Name: Sheila Lockwood
Organization or Affiliation: University of Washington
Address: Environmental Health and Safety Department, Box 354400
Seattle, WA 98195

Indicate if your comment is on the federal requirements _____ or state requirements X

Section # 040 Page # 14 Citation # na

Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The University of Washington respectfully requests that the Washington State Department of Ecology continue to maintain a performance-based stance on the subject of "knowledge".

Waste is generated during a specific process/function. The process owner is aware of the chemical content that goes into the process and then what comes out of the unit as waste generated. This same process owner is the most accurate source of information for specifying the components and their concentration in a given waste unit. This approach is very reliable and can be formally documented through engineering and process flow diagrams. The process owner can determine the chemical content of a unit of waste based on what was introduced into the system. The process owner understands the process and the chemistry of the reaction and is the determiner whether the chemicals used in the process might result in a regulated hazardous waste. The process owner is able to report this information to a waste disposal/destruction facility operator through the waste profiling mechanism. Referencing written procedures, activity logs, and instrument-monitoring data recorders/logs are non-analytical ways to make a validation.

Please provide specific language for your recommended change or addition.

Do not adopt the proposed changes in this section

Signature: *Sheila Lockwood*

Proposed Amendments
Dangerous Waste Regulations Chapter 173-303 WAC
July 2004

**Dangerous Waste Regulations Chapter 173-303 WAC
Draft Amendments – March 2004
Comment Form**

First and Last Name: Sheila Lockwood
Organization or Affiliation: University of Washington
Address: Environmental Health and Safety Department, Box 354400
Seattle, WA 98195

Indicate if your comment is on the federal requirements _____ or state requirements x

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Please state your comment, question, or recommendation. Explain your concern. How will your recommendation improve the proposed rule amendments?

The University of Washington respectfully requests that the Washington State Department of Ecology postpone any action relating to Satellite Accumulation Areas until after the completion of the USEPA Colleges and Universities Sector project,
<http://www.epa.gov/sectors/colleges/#priority>.

One of three work groups, The Regulatory Innovation Work Group is working to address the most significant regulatory barriers to sector-wide environmental performance. They are currently working on developing a strategy to address RCRA/Lab waste issues specific to the Sector:

Please provide specific language for your recommended change or addition.

1. Do not adopt the proposed changes in this section
2. If changes are adopted, exempt colleges, universities and other large complex operations.

Signature:

Sheila Lockwood

