Appendix A

Written Comments Received During Comment Period

Publication Number: 09-02-008a

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Environmental Health and Safety
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DEPARTMENT OF ECOLOGY
AIR QUALITY PROGRAM

January 8, 2009

Linda Whitcher
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98505-7600

Re: **Washington State Register 08-23-097, Order 05-19**

Dear Ms. Whitcher,

The University of Washington operates laboratories throughout our campuses and medical facilities to provide instruction and conduct research. The use of these laboratories is essential for the University to achieve its mission of educating students and conducting research in health and life sciences and other technology areas that benefit society.

I am writing to provide support for the exemption of laboratory activities at noncommercial research and educational institutions found in the proposed rule (WAC 173-400-110(4)(f)(iv)). A laboratory exemption is found in the existing rule and extending this exemption to the new rule will continue to allow the necessary flexibility for the University to conduct research and education activities without interruption. Based on the information provided at the Stakeholder Committee meetings, we believe the exemption will not affect the environment in a negative way considering the very small emission quantities from our laboratory facilities. I also wish to thank you for conducting the Stakeholder Committee meetings throughout the rule development process.

If you have questions about our comments, please contact Terry Nyman at (206) 685-9036.

Sincerely,

David Lundstrom
Manager, Environmental Programs Office

cc: Barbara McPhee – Box 354400

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January 12, 2009

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DEPARTMENT OF ECOLOGY
AIR QUALITY PROGRAM

Linda Whitcher
Air Quality Program
Dept of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Ms. Whitcher:

Attached are Olympic Region Clean Air Agency's (ORCAA's) official comments on the proposed revisions to Washington's regulations for new toxic air pollutant sources under Chapter 173-460 and Washington's New Source Review regulations under WAC 173-400-110. ORCAA's review focused on the applicability provisions in both regulations. Also included with ORCAA's comments are proposed changes to the revisions that address ORCAA's main concerns.

Please give me a call if you have any questions. I can be reached at (360) 586-1044.

Sincerely,

Mark Goodin, *ORCAA Professional Engineer*

cc: Richard Stedman, *Executive Director*

Port Angeles Field Office: 116 W. 8th St., Suite 113, Port Angeles, WA 98362: (360) 417-1466
www.orcaa.org
Raymond Field Office: 301 Ocean Ave., Raymond, WA 98577: (360) 942-2137

Olympic Region Clean Air Agency (ORCAA)
Comments on Proposed Revisions to Chapters 173-460 and WAC 173-400-110
January 12, 2009

1. The term "construction" does not always describe the process by which a new source is established and, therefore, is misleading. A typical response from an owner/operator after being informed that their newly established source required a Notice of Construction (NOC) is often, "But nothing was constructed." This is often an accurate statement. Many emissions units are packaged or modular units and require only installation. In other instances, the new source results from an operational change (modification) that does not involve construction or installation. Because there are new sources that do not require construction, the term "construction" in both WAC 173-400-110 and Chapter 173-460 needs to be revised to "construction, installation or establishment" in the following sections and subsections:

WAC 173-400-030(52)
WAC 173-400-110(2)(a)
WAC 173-400-110(2)(b)
WAC 173-400 -110(5)(a)(i)
WAC 173-400-110(5)(c)
WAC 173-400 110(9)
WAC 173-460-020(6)

2. The initial New Source Review (NSR) applicability trigger in WAC 173-400-110 requires a NOC application be filed and an order of approval issued prior to beginning construction of any "new source". However, the section providing exemptions based on emissions under WAC 173-400-110(5) applies to "emissions units." Is there a difference between "emissions units" and "new sources" requiring that WAC 173-400-110(5) apply specifically to "emissions units"? Even though "emissions unit" is defined in Chapter 173-400 as any portion of a stationary source or source, the term implies a physical piece of equipment and could be interpreted as ruling out new sources involving only operational changes or changes in raw materials or raw material formulations. Unless there is a difference between "stationary source" and "emissions unit" and Ecology's intent is to limit the emissions exemption to just the subset of new sources that are emissions units, why not be consistent and use the term "new source" in place of "emissions unit" for this exemption?

3. WAC 173-400-110(5) requires an owner/operator seeking to exempt a project from new source review based on emissions to notify the authority and, upon request, file a brief project summary with the permitting authority prior to beginning actual construction on the project. The permitting authority is then charged with reviewing the notice or brief project description and may require the filing of a NOC. The owner/operator may begin actual construction on the project thirty-one days after the permitting authority receives the summary, unless the permitting

authority notifies the owner/operator (within 31 days) that a NOC is required. There are several problems with this section.

3a. According to WAC 173-400-110(5)(b) the owner/operator is required to submit a notice, but a project summary is only required to be submitted if requested by the permitting authority. This is a problem since subsection (c) of the section bases the date construction may begin relative to when the permitting authority receives the summary, not the notice. Also, a simple notice will not likely provide any information from which a permitting authority can base a decision regarding whether a NOC should be required.

Since compiling a "brief project summary" is not significantly more work than compiling a "notice," it would be better to simply require the brief project summary along with the notice. This would significantly simplify the exemption provision by reducing it from a potential two-step process (notice followed by summary) to a single step process (notice plus summary).

3b. WAC 173-400-110(5)(b) also provides that if the permitting authority determines the project will have more than a de minimis impact on air quality, the permitting authority may require the filing of a NOC application. However, determining impacts on air quality requires at least knowing emission rates and, often, use of an air dispersion model.

Since the primary purpose of the exemption under subsection (5) is to exempt projects with emission rates below thresholds already determined to be de minimis, it would be better, and less confusing, to simply verify that a project qualifies for the emission rate exemption rather than assessing air quality impacts. This end can be accomplished by requiring the summary submitted by the owner/operator to demonstrate that emissions increases are less than the de minimis thresholds, and changing the goal of the permitting authority's review of a summary to verifying emission increases are below the de minimis thresholds. In this way the exemption criteria and the permitting authority's task in reviewing a notice/summary both focus on emissions compared to the de minimis thresholds and are, therefore, consistent with each other.

3c. Lastly, ORCAA's experience implementing minor NSR is that many owner/operators take issue with regulations that require unnecessary waiting on minimum notification periods to expire or permits to be issued before they can begin construction, installation or establishment of a new source. The emissions based exemption under WAC 173-400-110(5) as currently proposed has the potential to result in unnecessary waiting periods since subsection (c) only offers two possible pathways before construction, installation or establishment can begin: 1) Wait 31 days after a permitting authority receives the summary; and, 2) Submit a NOC and complete this process in its entirety. Since these are the only options provided under section (c), the minimum time period before construction can begin reduces to 31 days. This timeframe seems out-of-proportion with the standard NOC process considering that a NOC application can be reviewed, approved and an Order of Approval issued in a much shorter timeframe for many source categories.

Since the absolute minimum amount of time a NOC application can be reviewed and approved is 15 plus one days (the amount of time for application noticing plus one day for processing), it seams reasonable that small sources with de minimis emissions be afforded a similar timeframe in subsection (c). It also seems reasonable that this timeframe be applied as a maximum rather than a minimum.

Also, it seems more important that the permitting authority review and concur with the owner/operator's claim that the exemption applies rather than waiting for the minimum notification time period to expire. If an authority reviews a notice/summary and concurs with the owner/operator's claim that emissions are less than the de minimis thresholds for all pollutants it seems reasonable that construction, installation or establishment be allowed to commence regardless of whether or not the minimum time period has expired.

ORCAA edits in italics:

WAC 173-400-110 **New Source Review (NSR) ...**

(5) **Exemptions based on emissions.**

(a) Except as provided in subsections (2) of this section and in this subsection:

(i) Construction of a new *((~~emissions unit~~))source* that has a potential to emit below each of the levels listed in the table contained in (d) of this subsection is exempt from new source review provided that the conditions of (b) of this subsection are met.

(ii) A modification to an existing *((~~emissions unit~~))stationary source* that increases the unit's actual emissions by less than each of the threshold levels listed in the table contained in (d) of this subsection is exempt from new source review provided that the conditions of (b) of this subsection are met.

(b) The owner or operator seeking to exempt a project from new source review under this section ((~~shall~~)) must notify*((~~, and upon request,~~)) and* file a brief project summary with the permitting authority prior to beginning actual construction on the project. If the permitting authority determines that the project will have more than a de ((~~minimus~~)) minimis emission rate increase ((~~impact on air quality~~)), the permitting authority *shall notify the owner/ operator within fifteen days from receipt of the notice and summary that ((~~may require the filing of~~))* a notice of construction application *and approval by the authority* is required *prior to construction*. The *brief project summary* ((~~permitting authority may require the owner or operator to~~)) *shall* demonstrate that *((the emissions increase))emission increases* from the new or modified *((~~emission((s)) unit is~~))stationary source are* smaller than all of the levels listed below.

(c) The owner/operator may begin actual construction on the project *upon notification from the permitting authority or ((~~thirty-one~~))fifteen* days after the permitting authority receives the summary, unless the permitting authority notifies the owner/operator within *((~~thirty~~))fifteen* days that the proposed new source requires a notice of construction application.

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Department of Ecology
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Assistance Program

January 12, 2009

Ms. Linda Whitcher
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98505-7600

Subject: Support for the Proposed Exemption of Research and Education Laboratory Activities from New Source Review

Reference: Washington State Register 08-23-097, Order 05-19, Filed November 19, 2008

Dear Ms. Whitcher:

Western Washington University is a public institution of higher education located in Bellingham, Washington. Western serves the needs of the citizens of the state of Washington by providing undergraduate and select graduate programs in Bellingham and at selected locations elsewhere in the state.

Western is currently providing 13,352 students with personalized teaching and learning environments of the highest quality, which includes numerous teaching and research laboratories.

Western supports the proposed exemption of laboratory activities at noncommercial research and educational institutions as stated in the referenced rulemaking in WAC 173-400-110(4)(f)(iv).

This exemptions recognizes several key points::

- That research and educational laboratory emissions are small compared to levels of concern; and
- That regulatory review of these continually changing, small, new sources would be detrimental to the processes of education and innovation, creating delays and additional costs for very marginal environmental benefit.

Western hopes that the Department of Ecology is able to incorporate this exemption into the new regulation.

Sincerely,

Gayle Shipley

Gayle Shipley, director

GLS, 1/12/2009, Comment Dept Ecology Air Toxics Rules 01-07-09.DOC

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January 16, 2009

Linda Whitcher
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98505-7600

SUPPORT FOR THE PROPOSED EXEMPTION OF RESEARCH AND EDUCATION LABORATORY ACTIVITIES FROM NEW SOURCE REVIEW

Re: Washington State Register 08-23-097, Order 05-19, Filed November 19, 2008.

Battelle is an international science and technology enterprise that explores emerging areas of science, develops and commercializes technology, and manages laboratories. Key areas are energy, health and life sciences, national security, laboratory management and education. Battelle conducts research and operates Pacific Northwest National Laboratory facilities in Richland, Seattle and Sequim Washington. Many of our research projects are conducted in collaboration with the universities and colleges in the northwest.

Battelle supports the proposed exemption of laboratory activities at noncommercial research and educational institutions as stated in the referenced rulemaking in WAC 173-400-110(4)(f)(iv). This exemption is consistent with the treatment of these sources under the current rule, as well as with federal regulations exempting research activities. These exemptions recognize that research and educational laboratory emissions are small compared to levels of concern, and that regulatory review of these continually changing small new sources would be detrimental to the processes of education and innovation, in the form of delays and additional costs, for very marginal benefit.

We applaud Ecology's effort to update the acceptable source impact air concentrations in the proposed regulation based on inhalation toxicological research data.

Thank you for the opportunity to participate in this regulatory development process. Should you have any questions please contact Rodger Woodruff at 509-371-7770.

Sincerely,

Cameron Andersen, Interim Director
Environment, Health, Safety and Security

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WASHINGTON STATE UNIVERSITY

Vice President for Research and
Dean of the Graduate School

Linda Whitcher
PO Box 47600
Olympia, WA 98504-7600

Subject: Comment to the proposed revisions to WAC 173-400-110 General Regulation for Air Pollution Sources

Ms. Whitcher:

Washington State University (WSU) supports the inclusion of the exemption language included in the proposed revisions to WAC 173-400-110 found at (4)(f)(iv). This language will continue the exemption that exists in the current regulation and be protective of human health and the environment. It will allow for the continuation of research, teaching and innovation in a timely and cost effective manner that supports the people and economy of the State of Washington.

WSU thanks you for the opportunity to comment to the revisions to WAC 173-400-110.

Sincerely,

Howard Grimes,
Vice President for Research
WSU Office of Research

Rich Heath
Senior Associate Vice President
WSU Business and Finance

cc. Dwight Hagihara, WSU Environmental Health and Safety
John Reed, WSU EH&S Environmental Services Manager

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09-EMD-0030

JAN 23 2009

Ms. Linda Whitcher
Air Quality Program
State of Washington
Department of Ecology
P. O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Whitcher:

COMMENTS ON THE PROPOSED REVISION TO CHAPTER 173-460 WASHINGTON ADMINISTRATIVE CODE (WAC) AND WAC 173-400-110

Enclosed for your consideration, in accordance with your Washington State Register item 08-23-097 dated December 3, 2008, are the Department of Energy's (DOE) comments on the subject proposed rule revision. These comments are submitted on behalf of the three DOE offices operating at the Hanford Site (Richland Operations Office, Office of River Protection, and Pacific Northwest Site Office) and our primary contractors (Bechtel National, Inc., CH2M HILL Plateau Remediation Company LLC, Fluor Hanford, Inc., Johnson Controls, Inc., Battelle Memorial Institute, Washington Closure Hanford LLC, and Washington River Protection Solutions, LLC).

We support the Washington State Department of Ecology's (Ecology) efforts to streamline the toxic air pollutant (TAP) new source review permitting processes by integrating them with similar processes established for criteria air pollutants, updating the list of regulated TAPs, and establishing de minimis threshold values for each regulated pollutant.

We appreciate Ecology's efforts to include representatives of DOE and its contractors as part of the advisory committee that assisted in the development of the proposed rule revision. Ecology staff should be commended for putting forth a proposed rule revision that improves the existing rule. Incremental changes suggested by our comments should result in additional permitting efficiencies, improved facility compliance, and consistent agency enforcement, while still providing appropriate protection of human health and the environment.

If you have any questions, please contact me, or your staff may contact Stephen R. Weil, Director, Environmental Management Division, on (509) 372-0879.

Sincerely,

Ray J. Corey, Assistant Manager
for Safety and Environment

EMD:MFJ

Enclosure

cc w/encl:
T. G. Beam, FHI
G. Bohnee, NPT
R. D. Haggard, BNI
S. Harris, CTUIR
D. W. Hendrickson, Ecology
R. Jim, YN
L. L. Penn, WRPS
F. M. Simmons, CHPRC
P. A. Weiher, JCI
R. K. Woodruff, PNNL
J. G. Woolard, WCH
Environmental Portal, LMSI

U. S. Department of Energy (USDOE) Comments—Proposed WAC 173-460 Rule Revision

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
USDOE-01	WAC 173-400-110(2)(b)(i) and (iii); WAC 173-400-110(4)(h)(xxxix)	There are federal regulations (e.g. 40 CFR 60 Subparts IIII and JJJJ, 40 CFR 63 Subpart ZZZZ) addressing the emission limits, installation and operation of new or modified internal combustion engine sources. Operation of internal combustion engines classified as emergency engines, which typically have limited hours of operation, is already sufficiently constrained by those regulations to ensure adequate protection of human health and the environment without imposing additional permitting requirements, costs and delays. The proposed new source review (NSR) exemption should be extended to all emergency generator engines regardless of size or horsepower rating. The source registration requirements of WAC 173-400-100 *et. seq.* will continue to ensure that permitting authorities are aware of these larger internal combustion engine sources.	Revise the proposed rule language in three locations to read as follows: WAC 173-400-110(2)(b)(i) • *...as they apply to emergency stationary internal combustion engines ~~with a maximum engine power less than or equal to 500 brake horsepower~~ (federal rules in effect on April 30, 2008);* WAC 173-400-110(2)(b)(iii) • *...as it applies to emergency or limited use stationary reciprocating internal combustion engines ~~with a maximum engine power less than or equal to 500 brake horsepower~~ (federal rules in effect on April 30, 2008);* WAC 173-400-110(4)(h)(xxxix) • *Emergency generators powered by internal combustion engines ~~with a maximum power of less than or equal to 500 brake horsepower~~.*
USDOE-02	WAC 173-400-110(2)(b)(ii)	The existing rule language allows the possible exemption from new source review (NSR) for demolition and asbestos renovation projects by not automatically requiring submittal of a notice of construction (NOC) application for activities subject to 40 CFR 61.145. The corresponding inclusion of a specific categorical exemption for these activities in WAC 173-400-110(4) is necessary to ensure consistency with past Ecology guidance that demolition projects are not subject to NSR. Inclusion of such an exemption will also ensure that	Revise the rule language in WAC 173-400-110(4)(a) to read as follows: *(a) Maintenance/Construction/Demolition:* *(i)...* *(x) Asbestos renovation activities;* *(xi) Wrecking or demolishing facilities or buildings, including removal of equipment, walls, excess or scrap materials, and /or load bearing structures;*

[12]

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		the listing of asbestos as a toxic air pollutant (TAP) in WAC 173-460-150 does not result in the unnecessary submittal of an NOC application for asbestos renovation activities.	
USDOE-03	WAC 173-400-110(2)(b)(i), (ii) and (iii)	The inclusion of exceptions to the list of new source types that automatically require submittal of a notice of construction (NOC) application is consistent with a desire to avoid unnecessarily permitting sources which are already adequately controlled by federal regulations. However, EPA has issued numerous changes to the federal regulations since WAC 173-400-110 last underwent significant review and revision. The list of subparts in 40 CFR Parts 60, 61 and 63 should be reviewed to ensure that all appropriate exceptions to the automatic requirement to submit an NOC application have been identified in these state regulations.	Review 40 CFR Parts 60, 61 and 63 and identify all applicable new source types that are already adequately controlled by the federal regulations, as well as those that Ecology routinely does not place additional controls on when submittal of an NOC application and issuance of an approval order are required. Based on the results of this review, revise the rule language in applicable sections of WAC 173-400-110(2)(b) to include additional exceptions, as appropriate.
USDOE-04	WAC 173-460-030 and WAC 173-400-110(4)	The proposed rule language will expand the potential applicability of the new source review (NSR) process to all new or modified toxic air pollutant (TAP) sources instead of the select list of source types currently identified in WAC 173-460-030. Under the proposed rule language, exclusion of new or modified sources from the NSR process will rely exclusively on the exemption criteria in WAC 173-400-110(4) and (5). Since the emission threshold criteria provided in -110(5) are conservatively low, it is important that the listed categorical exemptions in -110(4) adequately represent the entire spectrum of emission sources (including TAPs) for which submittal of a notice of construction (NOC) application is not justified.	Provide a public involvement opportunity to comprehensively identify and update the list of categorical NSR exemptions in WAC 173-400-110(4) to reflect all types of emission sources that are appropriate for inclusion. As an initial step, revise the categorical NSR exemption rule language in WAC 173-400-110(4) to read as follows: *(a) Maintenance/Construction/Demolition* *(i)...* *(v) ~~Plant~~ ~~m~~Maintenance and upkeep activities (grounds keeping, ~~general~~ repairs, ~~routine~~ housekeeping, remodeling, ~~routine plant~~ painting, welding, cutting, drilling, machining, grinding, brazing, soldering,*

[13]

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		The current list of exemptions was developed over ten years ago and was not originally intended for use in conducting NSR evaluations of TAP sources. The exemption list has only undergone minor changes since its initial issuance and no significant changes have been proposed as part of this rule revision effort to reflect its proposed expanded use. A comprehensive evaluation must be performed to ensure WAC 173-400-110(4) identifies sufficient exemptions to effectively serve its proposed expanded function.	*plumbing, retarring roofs, etc.);* *(xii) Drilling wells;* *(xiii) Excavation.* *(e) Water Treatment:* *(i)...* *(ix) Drinking water treatment facilities;* *(x) Sewage lagoons.* *(g) Monitoring/quality assurance/testing:* *(i)...* *(iii) Sample gathering, preparation and management, including actions required to obtain access to samples;* *(iv) Vents from ~~continuous~~ emission monitors and other analyzers, and calibration/instrument checks of these instruments.* *(h) Miscellaneous:* *(i)...* *(xii) Vehicle or equipment (e.g. mowers, trimmers, etc.) maintenance or repair activities, not including vehicle surface coating;* *(xli) Office activities and use of office products;* *(xlii) The use of consumer products packaged and typically sold for use by the general public;* *(xliii) Training and education activities;* *(xliv) Process vents subject to 40 CFR 264 Subpart AA or 40 CFR 265 Subpart AA.*

[14]

U. S. Department of Energy (USDOE) Comments—Proposed WAC 173-460 Rule Revision

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
USDOE-05	WAC 173-400-110(4)(a)	The existing rule language in WAC 173-400-110(4)(a) identifies a number of various maintenance and construction activities that are categorically exempt from new source review (NSR) and the requirement to submit a notice of construction (NOC) application. Historically, informal Ecology guidance has indicated that construction activities, in general, are exempt from NSR unless directly related to the establishment or modification of a new air emissions source. This approach is reasonable and relies on the general emission standards of WAC 173-400-040 to adequately control these types of fugitive emission sources. However, Ecology has not provided definitive formal guidance that the NSR exemption is generally applicable to maintenance and construction activities as represented by the listed activities, or whether it is strictly limited to those specific activities listed in WAC 173-400-110(4)(a).	Provide clarification and guidance that construction activities, in general, are exempt from NSR provided they are not related to the establishment of a new or modified air emission source; and that the list of maintenance/construction activities in WAC 173-400-110(4)(a) is intended to be representative, not limiting. OR If the list of maintenance/construction activities in WAC 173-400-110(4)(a) is intended to be limiting, not representative, provide a public involvement opportunity to revise the list to more specifically address all maintenance, construction or demolition activities that should be exempt from the NSR process.
USDOE-06	WAC 173-400-110(4)(c)	A strict reading and sequential evaluation of the existing rule language appears to create a situation where a proposed project meeting the criteria in sub-sections (iv) and (v) would not qualify for the exemption because it does not also meet the more general and restrictive criteria in (i) and the introductory language requires a proposed project to meet all criteria in (i) through (v). For example, a project with natural gas (<0.5% sulfur content) fired combustion units totaling 3 million Btu/hr would qualify under (v), but could not meet the criteria in (i) for fuels other than coal with <0.5% sulfur content. Since not all exemption criteria are met, the	Revise and clarify the existing rule language in WAC 173-400-110(4)(c)(i) to read as follows: • *≤500,000 Btu/hr using coal with ≤0.5% sulfur or other fuels with ≤0.5% sulfur not specifically identified in (c)(ii) through (c)(v);* OR Issue clear implementation guidance that will assist the regulated community in consistently evaluating proposed projects for applicability of these exemption criteria.

[15]

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		proposed project would not qualify for the exemption. This result is not consistent with Ecology's field implementation and interpretation, or the intention to group and evaluate combustion units by specific fuel type.	
USDOE-07	WAC 173-400-110(4)(c)	Evaluation of a proposed project to determine if it qualifies for this exemption should exclude any emergency engines that independently qualify for the new proposed exemption in 173-400-110(4)(h)(xxxix). Otherwise, a source (i.e. the emergency engine) that Ecology has already determined should be exempt from new source review could be the sole reason a proposed project becomes subject to new source review.	Revise the existing rule language in WAC 173-400-110(4)(c) to read as follows: • *A project with combined aggregate heat inputs of combustion units [excluding emergency engines exempted by (4)(h)(xxxix) of this section], ≤ all the following:*
USDOE-08	WAC 173-400-110(4)(c)	The existing rule language would require proposed projects using new clean fuels such as hydrogen or biodiesel to be evaluated for potential new source review (NSR) categorical exemptions using the more restrictive criteria in WAC 173-400-110(c)(i) since these fuel types are not specified elsewhere in this section of the regulations. Biodiesel and hydrogen fuel would more appropriately be considered under the exemptions in 173-400-110(c)(iv) and (v), respectively, with the other similar fuel types.	Revise the rule language in WAC 173-400-110(4)(c)(iv) and (v) to read as follows: • *<1,000,000 Btu/hr using biodiesel, kerosene, #1, or #2 fuel oil and with ≤0.05% sulfur;* • *≤ 4,000,000 Btu/hr using hydrogen, natural gas, propane or LPG.*
USDOE-09	WAC 173-400-110(4)(h)(xxxix)	Emergency generators are frequently installed as part of a package that includes dedicated fuel tanks. Any such tanks with greater than 260 gallons capacity would not qualify for the exemptions found in WAC 173-400-110(4)(b) due to the presence of toxic air pollutant constituents in most fuels (including both gasoline and diesel). Providing a new exemption for emergency generators without adequately	Revise the proposed rule language in WAC 173-400-110(4)(h)(xxxix) to read as follows: • *Emergency generators (including dedicated fuel tanks) powered by internal combustion engines...*

[16]

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		capturing the accompanying fuel tank will constrain practical usefulness of the exemption. The proposed exemption language should be revised to clarify that fuel tanks installed as part of an emergency generator package are also exempt.	
USDOE-10	WAC 173-400-110(4)(h)(xl)	The proposed rule language should be expanded to ensure that diesel fuel operations similar to those regulated in WAC 173-491 for gasoline operations are also exempted from the new source review (NSR) process. Diesel fuel has a lower volatility than gasoline, resulting in a much lower potential for emissions from management processes. Therefore, it does not make sense to grant an exemption for gasoline fuel operations, but not diesel fuel operations, simply because they are not regulated by WAC 173-491.	Revise the rule language in proposed WAC 173-400-110(4)(h)(xl) to read as follows: • *Gasoline marketing operations regulated by chapter 173-491 WAC, and similar diesel fuel marketing operations;*
USDOE-11	WAC 173-400-110(5)	In accordance with Section 70.94.152(1) of the Revised Code of Washington (RCW), a permitting authority may "require notice of the establishment of any new sources except (emphasis added) single family and duplex dwelling or *de minimis new sources as defined in rules adopted under subsection (11) of this section* (emphasis added)." Other language in RCW 70.94.152 differentiates between the referenced notice of establishment and a notice of construction application for a new or modified source. This distinction clearly indicates that the legislature did not intend the statutory language of RC W 70.94.152 to exempt de minimis sources solely from the requirement to submit a notice of construction application (as asserted by Ecology's January 2006 CR-101 published as WSR 06-03-135), but instead, from all notifications to the permitting authority.	Revise the rule language in WAC 173-400-110(5) to reflect the following changes: • Deletion of paragraph (5)(b) and the requirement to submit a notification to the permitting authority prior to establishment of a new/modified source with emissions below the de minimis thresholds; • Deletion of paragraph (5)(c) and the requirement to wait 31 days following submittal of the notification before beginning construction on a new/modified source with emissions below the de minimis thresholds; and • Revision of paragraph (5)(a) to reflect the elimination of paragraphs (5)(b) and (5)(c); and • Addition of a requirement that the owner/operator of a new/modified source with emissions below the de minimis thresholds maintain records supporting the

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Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		The legislature recognized that de minimis emissions posed little or no threat to human health or the environment, and therefore, determined there are no commensurate benefits in requiring notification of establishment of such sources to the permitting authority. This is reinforced by the fact that Ecology is proposing to establish de minimis emission thresholds at a fraction (5%) of the level (i.e. SQER) it has already determined is adequately protective of human health and the environment.	exemption determination.
USDOE-12	WAC 173-400-110(5)	If Ecology can demonstrate that the permitting authority has statutory authority to require submittal of a proposed exemption notification, and if Ecology continues to believe such notification has practical value, then the notification process should be revised to consist of one step (submittal of project summary with required information) instead of two (submittal of notification and then the requested project summary), especially since the subsequent required waiting period is triggered by submittal of the project summary, not the initial notification.	Revise the rule language in WAC 173-400-110(5) to create a streamlined one-step process that includes submittal of the project summary as part of the initial exemption notification, allows the notification to be made verbally or via email, and gives the permitting authority the flexibility to provide an immediate response to either proceed with the project or request additional information.
USDOE-13	WAC 173-400-110(5)(d) and WAC 173-460-150	The proposed rule language in WAC 173-460-150 contains de minimis thresholds for four toxic air pollutants that appear to be inconsistent with existing de minimis thresholds for the same criteria pollutants listed in WAC 173-400-110(5)(d). These inconsistencies will make it more difficult to accurately evaluate and determine when a new or modified source is exempt from new source review and the need to submit a notice of construction application. The table below	Review the proposed de minimis threshold values and revise either the existing or proposed rule language, as appropriate, to eliminate the inconsistencies.

[18]

<table>
<tr><th>Comment Number</th><th>Proposed Rule Section/Citation</th><th>Comment</th><th>Recommended Action(s)/ Requested Change(s)
(Proposed text additions; proposed text <s>deletions</s>)</th></tr>
<tr><td></td><td></td><td>illustrates the issue.

<table>
<tr><th colspan="3">Comparison of de minimis threshold values</th></tr>
<tr><td>Pollutant</td><td>Existing WAC 173-400-110(5)(d)</td><td>Proposed WAC 173-460-150</td></tr>
<tr><td>NO_x/NO_2</td><td>2 tons/year (tpy)</td><td>0.23 tpy (0.0515 lbs/hr)</td></tr>
<tr><td>CO</td><td>5 tpy</td><td>11 tpy (2.52 lbs/hr)</td></tr>
<tr><td>SO_x/SO_2</td><td>2 tpy</td><td>0.001 tpy
(0.0073 lbs/24-hr)</td></tr>
<tr><td>Lead</td><td>0.005 tpy</td><td>0.0004 tpy
(0.799 lbs/yr)</td></tr>
</table>
**Tons/year equivalent threshold values for WAC 173-460-150 calculated from proposed de minimis values shown in parenthesis.</td><td></td></tr>
<tr><td>USDOE-14</td><td>WAC 173-400-110(5)(d) and WAC 173-460-150</td><td>The proposed rule language in WAC 173-460-150 contains de minimis threshold values for a significant number of toxic air pollutants (TAPs) that are considered volatile organic compounds (VOCs). The rule language in WAC 173-400-110(5)(d) contains a de minimis threshold value for total VOCs. No guidance is provided on whether meeting the total VOC threshold is sufficient to satisfy the individual compounds threshold values, or vice versa.</td><td>Provide clarification and guidance on the intended use of de minimis threshold values for VOCs, both as a total value and for each individual TAP. The guidance should include information on when use of a total VOC quantity is appropriate, without the need to evaluate individual TAPs. Revise the rule language to address this issue, as appropriate.</td></tr>
<tr><td>USDOE-15</td><td>WAC 173-400-110(7)(a)</td><td>The text does not clearly convey the intended timeline that final determination on a submitted notice of construction application must be accomplished within 60 days of the permitting authority determining that the application is complete, not within 60 days of initial receipt of an application that is subsequently determined to be complete</td><td>Revise the rule language to read as follows:
• Within sixty days of determining that <s>receipt of</s> a <s>complete</s> notice of construction application is complete, the permitting authority must either...</td></tr>
</table>

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Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		without additional information.	
USDOE-16	WAC 173-460-020	Words and phrases have general dictionary or common usage meanings, but in regulations some have specific meanings that can be substantively different.	Identify words in the body of the regulation (e.g. with bold, italicized, underlined, bracketed, or in some other way) where they are intended to be interpreted as defined in the regulation.
USDOE-17	WAC 173-460-020(4)	The use of the word "trivial" in the proposed definition of "de minimis" is unnecessary to convey the intended meaning and creates ambiguity since it has not been defined. The definition also needs to clarify that it applies to the incremental increase in emissions. Finally, the definition should reflect that threshold values have been determined to not pose a threat (based on a specific evaluation process), not that they do not pose a threat, which makes a much broader claim.	Revise the proposed definition of "de minimis" as follows: • *"De minimis emissions" means ~~trivial~~ levels of emissions or increases of emissions that have been determined to ~~do~~ not pose a threat to human health or the environment. The de minimis threshold values are listed in WAC 173-460-150.*
USDOE-18	WAC 173-460-020(8)	The proposed definition of "Toxic air pollutant (TAP)" is reasonable and represents an improvement over the previous definition. However, it is inconsistent with the WAC 173-400-030(88) definition for the same term.	Revise the definition of "toxic air pollutant" found in WAC 173-400-030(88) to be consistent with the proposed definition in WAC 173-460-020(8).
USDOE-19	WAC 173-460-040(3)(a)	The phrase "likely to increase" is ambiguous since the word "likely" has not been defined and is not used elsewhere in the proposed rule. Proposed rule language should more accurately reflect that the requirement to use tBACT is for those toxic air pollutants with <u>increased</u> emissions that trigger the need to prepare and submit a notice of construction application.	Revise the proposed rule language to read as follows: • *The new or modified emission units use tBACT for emissions control for the toxic air pollutants with emission increases that trigger the need to submit a notice of construction application ~~which are likely to increase~~; and*
USDOE-20	WAC 173-460-050(2)	The proposed rule language in the final sentence of this subsection does not adequately convey that it is the <u>increase</u> in emissions that must be less than the SQER, not the total	Revise the proposed rule language to read as follows: • *The quantification must contain sufficient detail to demonstrate to the satisfaction of the permitting*

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Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		emissions.	*authority that the increase in emissions is ~~are~~ less than the applicable small quantity emission rates listed in WAC 173-460-150.*
USDOE-21	WAC 173-460-050(2), -080(a) & (b), and -090(2)(d)	Use of the word "aggregate" in the proposed rule language with respect to increased emissions is confusing and inconsistent with language proposed in other sections of the revised regulation, especially since it is not clear what is being aggregated. Simply referring to "increased emissions" is sufficient to convey the desired regulatory meaning/criteria.	Revise the proposed rule language in the respective four citations to read as follows: • *A notice of construction application that relies on SQERs rather than dispersion modeling to demonstrate compliance with WAC 173-460-070 must quantify the ~~aggregate~~ increase in emissions of each TAP emitted by the new or modified emission units after application of tBACT.* • *The applicant who relies on dispersion modeling must model the ~~aggregate~~ increase in the emissions of each TAP emitted by the new or modified emission units, after application of tBACT. The notice of construction application must demonstrate that the modeled ambient impact of the ~~aggregate~~ emissions increase of each TAP does not exceed the ASIL for that TAP as listed in WAC 173-460-150.* • *An applicant may show for any TAP that the ~~aggregate~~ increase in emissions of that TAP, after application of tBACT, is less than the small quantity emission rate listed for that TAP in WAC 173-460-150.* • *The ambient impact of the ~~aggregate~~ emissions increase of each TAP that exceeds acceptable source impact levels has been quantified using refined air dispersion modeling techniques as approved in the health impact assessment protocol;*

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U. S. Department of Energy (USDOE) Comments—Proposed WAC 173-460 Rule Revision

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
USDOE-22	WAC 173-460-080	Subsection 173-460-080(2) is missing from the proposed rule language.	Insert subsection (2) designator at the appropriate location, or renumber subsequent subsections (3) and (4), as applicable.
USDOE-23	WAC 173-460-090	The lower threshold values in WAC 173-460-150 for many regulated toxic air pollutants will result in an increasing number of required second tier reviews. Therefore, the existing sequential review process outlined in the proposed (and existing) regulation (i.e. the permitting authority performs the first tier review and then Ecology performs the second tier review) will have increasing potential to adversely impact project schedules to accommodate permitting timelines that can exceed six months. When an applicant submits a notice of construction application to the permitting authority for first tier review, he/she usually knows whether second tier review will be needed and prepares the second tier petition at that time.	Revise the propose rule language in WAC 173-460-090, as appropriate, to allow Ecology to begin review and processing of the second tier petition (to the extent possible) concurrent with first tier review by the permitting authority, if requested by the applicant.
USDOE-24	WAC 173-460-090(3)	The final sentence in this subsection of the proposed rule language is redundant with the proposed rule language in WAC 173-460-090(2)(c). There is no beneficial reason to repeat the fact that the health impact assessment protocol must be reviewed and approved by Ecology.	Revise the proposed rule language to read as follows: • ~~*The HIA protocol must be reviewed and approved by ecology prior to development of the HIA.*~~
USDOE-25	WAC 173-460-100(2)	The final sentence in this subsection of the proposed rule language contains an incorrect reference to WAC 173-460-090(8).	Revise the proposed rule language to reference the correct subsection of WAC 173-460-090.
USDOE-26	WAC 173-460-150	The entry for 2,3,3',4,4'-tetrachlorobiphenyl appears to be in error. The listed CAS #32598-14-4 corresponds with 2,3,3',4,4'-pentachlorobiphenyl.	Verify the correct chemical name and revise the proposed rule language, as appropriate.
USDOE-27	WAC 173-460-150	The entries for "2,3,7,8-Tetrachlorodibenzo-p-dioxin Related Compounds (TCDD)", "Hexachlorodibenzo-p-Dioxins,	Provide clarification and guidance on the intended use of the threshold values for these 'catch-all' TAPs, as well as all the

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Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		Total", "Heptachlorodibenzo-p-dioxins", and "Polychlorinated Biphenyls" appear to be 'catch-all' entries for groups of toxic air pollutants (TAPs) that have individual species listed elsewhere in the table. It is unclear from the proposed rule language whether the threshold values for these 'catch-all' TAPs are to be used only when individual TAPs that make up each group have not been identified and quantified. Contributing to this confusion is the fact that the threshold values for "Polychlorinated Biphenyls" are significantly larger than those for any of the individual TAPs that fall into this group, whereas the threshold values for "2,3,7,8 Tetrachlorodibenzo-p-dioxin Related Compounds (TCDD)" reflect the lowest threshold values listed for any CDD or CDF TAP.	individual TAPs that make up each group, when evaluating emissions from a new/modified source. Verify that the listed threshold values are consistent with the intended use.
USDOE-28	WAC 173-460-150	The entry for 3,3',4,4',5,5'-tetrachlorobiphenyl appears to be in error. The listed CAS #32774-16-6 corresponds with 3,3',4,4',5,5"-hexachlorobiphenyl.	Verify the correct chemical name and revise the proposed rule language, as appropriate.
USDOE-29	WAC 173-460-150	The creation of a new list of toxic air pollutants via the merging of information from three separate toxicological databases has created a number of duplicative, inconsistent and confusing entries. Several examples (not intended to be exhaustive) are listed below to help illustrate the concern. • Separate entries are included for "Chromium Hexavalent: Soluble, except Chromic Trioxide", "Chromic Trioxide", "Chromium (VI)", "Chromic Acid" and "Chromic (VI) Acid" (Note…review of chemical databases suggest the latter two are identical soluble compounds with multiple assigned CAS #s).	Thoroughly review the proposed list of toxic air pollutants and eliminate duplicative and inconsistent entries created by the merging of three different data sets. Where Ecology determines that maintaining separate entries is warranted, additional clarification and guidance should be provided on exactly what contaminant(s), compounds or portions thereof must be evaluated against each identified threshold.

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Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		These could be replaced by only two entries "Chromium Hexavalent: Soluble, compounds except Chromic Trioxide, as Cr (VI)" and "Chromic Trioxide", and still capture the intent to limit exposure to the Cr (VI) ion. • "Chromium Hexavalent: Soluble, except Chromic Trioxide" is inaccurately listed with a hybrid form of the CAS number for chromium metal, while it would appear that listing the CAS number for the Cr (VI) ion (18540-29-9) is more appropriate. • Separate entries are included for "Hexachlorodibenzo-p-Dioxins, Total", as well as three individual Hexachlorodibenzo-p-Dioxin compounds. Each entry identifies the same threshold values and could be captured by a single entry. • Separate entries with identical threshold values are included for both "Chlorinated Paraffins" (CAS #108171-26-2) and "Short-chain (C10-13) chlorinated paraffins" (CAS #85535-84-8). Chemical databases describe "Chlorinated Paraffins" as C10-C12, meaning both entries could be captured by a single entry.	
USDOE-30	WAC 173-460-150	Threshold values for some of the listed toxic air pollutants (e.g. nitrosamines) are lower than laboratory detection levels, which presents field implementation and enforceability concerns.	Provide guidance clarifying how compliance with established toxic air pollutants threshold values can be demonstrated where such values are less than achievable laboratory detection levels.
USDOE-31	WAC 173-460-150	The establishment of threshold values equal to zero for Diethyl mercury (CAS #627-44-1) and Dimethyl mercury (CAS #593-74-8) is unreasonable, presenting field implementation (including tBACT evaluations, permit	Establish threshold values for Diethyl mercury (CAS #627-44-1) and Dimethyl mercury (CAS #593-74-8) using appropriate toxicological data from at least one of the three pre-determined databases specified by Ecology for this rule

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Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		compliance demonstrations, and potential use as CERCLA ARARs) and regulatory agency enforcement challenges. Ecology staff have indicated that "zero thresholds" were established for these two chemicals because Ecology's "extreme hazard policy requires a Second Tier Analysis for any proposed industrial emission regulated by WAC 173-460." This is inconsistent with Ecology's established methodology for establishing toxic air pollutants during this rule revision effort (i.e. only list those contaminants with appropriate toxicological data in one of three pre-determined databases), and it is unclear what exactly this "extreme hazard policy" is, or why these two chemicals (among the hundreds of "proposed industrial emission" chemicals regulated by WAC 173-460) are singled out by this undefined policy. Finally, Ecology's *Toxic Air Pollutants Priority Study* (Publication 08-02-030) published in November 2008 does not identify either diethyl or dimethyl mercury as one of the twenty-one (21) priority toxic air pollutants, at least 16 of which actually have numerical threshold values identified in WAC 173-460-150.	revision effort. If no such toxicological data exists, these chemicals should be removed from the list of regulated toxic air pollutants. If Ecology maintains that "zero thresholds" are justified for these two chemicals, clarify the basis for such a conclusion and provide additional guidance addressing potential regulatory uses of these values, compliance demonstration methodologies and enforcement protocol.
USDOE-32	WAC 173-460-150	The entry for Refractory Ceramic Fibers (CAS-NA-3) identifies associated threshold values using $\mu g/m^3$ (ASIL) and lb/averaging period (SQER and de minimis). Concentrations of Refractory Ceramic Fibers are typically measured in terms of "fibers per volume."	Verify the units of the threshold values presented for Refractory Ceramic Fibers and revise proposed rule language, as appropriate.
USDOE-33	WAC 173-460-150	The entries for "Beryllium and Compounds" and "Lead and Compounds" contain a parenthetical notation "NOS". The meaning of "NOS" has not been defined within the proposed	Provide a footnote or other clarifying text to the table in WAC 173-460-150 defining what "NOS" means.

Comment Number	Proposed Rule Section/Citation	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
		rule.	
USDOE-34	WAC 173-460-150	Numerous table entries reference CAS numbers with either a preceding "C" or an included "NA". The CAS registry does not identify any valid CAS numbers that include such nomenclature. The inclusion of such hybrid or informal designators is inappropriate for a list of regulated toxic air pollutants without additional guidance or clarification on exactly what materials, compounds or portions thereof are intended to be captured by each such entry in the table. Several entries (not intended to be exhaustive) are listed below to help illustrate the concern. • 2,3,7,8-Tetrachlorodibenzo-p-dioxin Related Compounds (TCDD) • Arsenic & Inorganic Arsenic Compounds • Beryllium & Compounds (NOS) • Diesel Engine Exhaust, Particulate • Nickel Refinery Dust • Polybrominated Biphenyls	Review each toxic air pollutant in WAC 173-460-150 with a listed CAS # that includes a preceding "C" designator or "NA" nomenclature and provide additional guidance and clarification identifying exactly what chemicals, compounds, hazardous materials, etc. are intended to be included for purposes of evaluating emissions against the listed threshold values (e.g. for the "Beryllium and Compounds" entry, does the mass of the entire compound need to be considered, or just the actual beryllium in those compounds?)

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*** The following comments on draft Publication 08-02-025 "Guidance Document" were not specifically requested by Ecology as part of WSR 08-23-097. They are being provided to assist Ecology in developing complete, accurate and comprehensive guidance on the revised rule for the regulated community. ***

Comment Number	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
USDOE-35	The proposed changes to WAC 173-460 eliminate a significant	Provide clarification and guidance on how permitting authorities will

Comment Number	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
	number of TAPs that are currently identified in various approval orders, and revise the threshold values for many more. The proposed rule package does not provide any guidance on how permitting authorities will deal with newly non-regulated TAPs that are identified in existing approval orders; nor does it identify any streamlined process by which facilities/sources can have existing approval orders revised to reflect the significant rule changes.	enforce (or not) existing approval order emission limits for toxic air pollutants that become non-regulated. Develop streamlined approval order revision process to specifically accommodate the potential wholesale changes necessitated by this proposed rule change.
USDOE-36	The "Introduction" section of "First and Second Tier Review" chapter contains speculative and editorial text that is inappropriate for inclusion in a regulatory guidance document.	Delete existing text as follows: • ~~*Excess exposures to these chemical can cause serious illnesses and premature deaths. Widespread exposure probably accounts for some of the occurrences of various types of cancers within our population.*~~
USDOE-37	The "What happens if my first tier analysis is not approved?" sub-section of "First and Second Tier Review" chapter incorrectly refers to potential situations where small quantity emission rates (SQERs) exceed the ASIL. SQERs and ASILs are not directly comparable. In the context of this section, it is increases in emissions that are compared to the ASIL values.	Revise text to read as follows: • *If ~~small quantity~~ emission ~~rates~~ increases still exceed the ASIL and other options don't work, you can submit a petition for second tier review.*
USDOE-38	The "What materials should I provide, and when?" sub-section of "First and Second Tier Review" chapter indicates that the applicant must provide Ecology with a copy of the preliminary approval order from the permitting authority. Ecology should be responsible for obtaining this directly from the permitting authority. The text also indicates that Ecology should be provided both the results of the refined air dispersion modeling and a full copy of the second tier petition. This seems redundant, since the proposed regulatory language in WAC 173-460-090 already identifies the air dispersion modeling results as a required component of the second tier petition. Finally, the text refers to "agency" instead of "permitting authority",	Revise the text to read as follows: ***Provide to Ecology and the permitting authority:*** • ~~*a copy of the preliminary order of approval from the permitting authority (the permitting authority is either a local air quality agency or one of Ecology's regional offices);*~~ • ~~*the results of the refined air dispersion modeling for all pollutants that exceed the ASILs; and*~~ • *a full copy of the second tier petition.* ~~***Provide to the agency that reviewed your first tier application:***~~

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Comment Number	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
	which is inconsistent with terminology throughout this document.	~~*a full copy of the second tier petition.*~~
USDOE-39	The "What is the review process for a second tier petition?" sub-section of the "First and Second Tier Review" chapter needs several textual revisions to ensure consistency with the remainder of document and provide improved clarity for the end user.	Revise the text to read as follows: • *provide you a letter stating if the ~~application~~ petition is complete ~~and~~ or listing needed information if it is not complete.* *Within 60 days after ~~you've submitted a complete application~~ determining the petition is complete, Ecology will:* • *write a draft technical document and send it to ~~the applicant~~ you and permitting authority for review and comment;* • *send the recommendation to you and the permitting authority, which will then issue the actual ~~notice of construction~~ approval order.* *Ecology's recommendation on the Second Tier petition must be included in the final decision by the permitting authority.*
USDOE-40	The "What if some of my project's emission units are exempt, but others are not?" sub-section of the "First and Second Tier Review" chapter does not clearly state whether waiting for issuance of the approval order to begin construction applies to the entire project or just those emissions units that are not exempt and triggered the need to submit a notice of construction (NOC) application.	Revise the text to clearly articulate Ecology's position on whether waiting for the approval order to begin construction applies only to the non-exempted emission units or the project as a whole. Revised text should also clearly state whether exempted emission units are required to be included in the project description in the NOC application.
USDOE-41	Ecology's response to Example 1 in the "Guidance" section of the "First and Second Tier Review" chapter is inconsistent with the rule language in WAC 173-400-110(5)(a)(i) and (ii), which indicates that making a new source review (NSR) exemption determination using the emission thresholds in WAC 173-400-110(5)(d) is done on an emission unit, not project, basis. Further, there is nothing in the rule language limiting the exemption to a single emission unit. For	Provide additional examples and guidance to better illustrate the nuances of the NSR process and clarify the relationship between an emission unit (defined in WAC 173-400-030) and a project (not defined). Revise the guidance document, as appropriate, to ensure that Ecology's response to each illustrated air permitting scenario accurately reflects the final rule language.

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Comment Number	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
	consistency with the rule language in WAC 173-400-110(5)(a) [as well as WAC 173-400-110(4)], exempt emission units should be excluded from the description of a project before evaluating further air permitting requirements.	
USDOE-42	Ecology's response to Example 2 in the "Guidance" section of the "First and Second Tier Review" chapter needs to be expanded to clearly articulate that the new source review (NSR) process is pollutant-specific and Ecology's statement that NSR is needed is only applicable to the pollutant(s) that triggered the requirement for NSR.	Revise the provided response to this scenario to make it clear that new source review is only required for the toxic air pollutants that do not meet de minimis thresholds, but is not required for criteria pollutants or other toxic air pollutants.
USDOE-43	The scenario description for Example 4 in the "Guidance" section of the "First and Second Tier Review" chapter lacks sufficient clarity to effectively illustrate the desired new source review (NSR) interpretations. For example… • Is the fume hood used for research/education (or not)? This information is needed to distinguish between the exemption in WAC 173-400-110(4)(f)(iii) and the one proposed in -110(4)(f)(iv), which has no quantity limit. • Do the two combustion units each have a heat input less than 1,000,000 Btu/hr using fuel oil (≤0.05% sulfur?), or is it an aggregate total? • What is the size of the internal combustion engine powering the emergency generator? The actual generator output does not factor into the proposed exemption. In addition, Ecology's initial response to this scenario may change depending on how the above details are clarified. Further, the follow-on "what if" discussion requires clarification. The statement *"If the proposal included…two or more emergency generators (even when of*	Revise the described air permitting scenario and response presented in Example 4 to more clearly convey the intended interpretive guidance consistent with the final rule language. Also, revise the response to more clearly delineate what particular details might change the resulting conclusion.

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Comment Number	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
	total less than 500 BHP)...the project needs new source review" is inconsistent with the proposed exemption language in WAC 173-400-110(4)(h)(xxxix). The proposed exemption does not limit the number of emergency generators that can qualify, simply that each one be powered by an internal combustion engine less than 500 brake horsepower.	
USDOE-44	The scenario description and Ecology's subsequent response for Example 5 in the "Guidance" section of the "First and Second Tier Review" chapter incorrectly cite an exemption threshold of 400,000 Btu/hour. The correct exemption threshold per WAC 173-400-110(4)(c)(v) is 4,000,000 Btu/hour.	Revise the described air permitting scenario and response presented in Example 5 to reference the correct exemption threshold of 4,000,000 Btu/hour.
USDOE-45	Ecology's response to Example 5 in the "Guidance" section of the "First and Second Tier Review" chapter lacks sufficient clarity to provide consistent and useful guidance for field implementation of the new source review (NSR) process. For example… • The response appears to be trying to illustrate the position that in order for a proposed modification of an air emissions source to qualify for a categorical NSR exemption under WAC 173-400-110(4), the modified emission unit taken in whole must still meet the identified criteria. This approach, although seemingly consistent with the introductory rule language in WAC 173-400-110(4), differs in principle from the basic NSR philosophy outlined in -110(3) that limits the evaluation to the actual modification. • The response does not clearly convey that only the emissions <u>increase</u> is evaluated against the de minimis threshold values in WAC 173-400-110(5) for purposes of determining if the proposed activity is exempt from NSR.	Revise the described air permitting scenario and response presented in Example 5 to more clearly convey the intended interpretive guidance consistent with the final rule language.

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Comment Number	Comment	Recommended Action(s)/ Requested Change(s) *(Proposed text additions; proposed text ~~deletions~~)*
	• The response inappropriately references de minimis levels for "HAP" when none exist in WAC 173-400-110(5) and fails to reference the existing de minimis levels for criteria pollutants.	
USDOE-46	The new source review example scenarios provided in the "Guidance" section of the "First and Second Tier Review" chapter need to be expanded to assist the regulated community in better understanding the impacts of the rule revisions on sources types not previously subject to the requirements of WAC 173-460.	Provide additional new source review examples in the guidance document that address various permitting scenarios for source categories such as schools, restaurants, automobile repair shops, coffee grinders, retail department stores, etc.
USDOE-47	The "Who reviews the HIA" sub-section of the "Health Impact Analysis" chapter contains text that is inconsistent with terminology used elsewhere in the document.	Revise the text to read as follows: • *While the toxicologists are reviewing the HIA, the engineer and meteorological/modeling staff review other portions of the second tier ~~application~~ petition.*
USDOE-48	The "Emission Unit and Activity Exemptions for New Source Review" chapter currently only includes guidance and discussion for the proposed research and education laboratory exemption in WAC 173-400-110(4)(f)(iv). The guidance document should contain discussion for all proposed new exemptions, as well as all rule changes, to better educate the regulated community.	Revise the guidance document to include clarification and implementation guidance for all proposed/promulgated new NSR exemptions, as well as discussion/explanation of all changes to the rule language.

[31]

Spokane Regional Clean Air Agency

1101 W. College Ave., Suite 403, Spokane, WA 99201 ◆ (509) 477-4727 ◆ Fax (509) 477-6828 ◆ www.spokanecleanair.org

January 21, 2009

RECEIVED
JAN 23 2009
DEPARTMENT OF ECOLOGY
AIR QUALITY PROGRAM

Linda Whitcher
Washington Department of Ecology – Air Program
PO Box 47600
Olympia, WA 98504-7600

Re: Comments on Chapters 173-400 and 460 WAC Rule Changes

Dear Ms. Whitcher:

The purpose of this letter is to provide formal written comments on the proposed rule making for chapter 173-400 WAC "General Regulations for Air Pollution Sources" and chapter 173-460 WAC "Controls for New Sources of Toxic Air Pollutants" as filed under WSR 08-23-097. A specific list of comments is provided as an attachment to this letter. We appreciate the opportunity to work with Ecology on this very important rulemaking. We understand the magnitude of this effort which is driven in part because of the numerous years that have elapsed since the rule was last updated. We would encourage Ecology to update this rule more frequently to minimize the effort required for any individual update. Due to the long length of time since this rule was last updated, the revisions are so numerous that it makes it difficult to easily understand the impacts of the numerous changes.

The Spokane Regional Clean Air Agency (SRCAA) would like to encourage Ecology to incorporate the proposed changes in the rule as described in the attachment. The existing rule has served to protect the public from adverse impacts from new sources of toxic air pollutants for over 15 years. The listed pollutants and review process are understood by industry, consultants and the regulated community. SRCAA does not consider the existing rule to be "broken", however there are science updates that need to be applied and other minor corrections that should be incorporated. The breadth of the changes proposed by Ecology will result in a significant reduction in the protection of human health of the public as proposed. In addition, the confusion that the proposed changes will cause to existing permitted facilities will be significant and will likely result in a substantial number of sources requesting to revise existing orders of approval or wanting to re-permit their facility under the proposed rule changes due to the rule relaxation. This is a significant burden on both the regulated community and the clean air agencies.

If you have any question in regard to the attached comments, please contact me or Charles E. Studer (SRCAA) at (509) 477-4727 extension 107.

Sincerely,

William O. Dameworth
SRCAA Executive Director

Chapter - 400 WAC

1 Under WAC 173-400-110(2)(a)(ii) Ecology exempts temporary/portable sources from new source review (NSR); however, the US Environmental Protection Agency (EPA) has declared that temporary/portable sources are classified under "stationary sources"; therefore, temporary/portable sources are required to go through NSR the first time that the temporary/portable source operates in a jurisdiction. This does not apply to nonroad engines.

2. Under WAC 173-400-110(2)(b)(i) Ecology is proposing to exempt emergency internal combustion engine generators with a maximum engine power of 500 brake horsepower from new source review. SRCAA suggests that you also include an hours of operation limitation such as 200 hours per year to otherwise limit the use of the engine to "emergency" situations. We have seen project proposals where "emergency" engines are operated by a third party for other than "emergency use" that the facility defines as emergency. Certainly one could then argue that it is no longer an emergency; however, the rule should be clear enough to avoid this argument. Providing an hour limitation would help restrict the use to just emergency situations. The underlying NSPS limits hours of operation to 100 hours per year for readiness testing and maintenance. The horsepower limitation should also be cited as an aggregate limit so a project does not include multiple units that could sum to a sizeable aggregate. This would avoid the possibility of someone proposing a project of say 10 or more 499 horsepower engines to avoid getting a permit which results in a significant project emission impact but would otherwise be exempted on an individual basis.

3. Under WAC 173-400-110(4)(e)(v) Ecology is proposing to exempt sumps and lift stations associated with wastewater treatment plants. There is presently in the works a proposed waste water treatment plant SRCAA's jurisdiction that includes two emergency generators that exceed 500 Bhp (1 – 750 and 1-1300 Bhp) at the plant's lift stations. The applicant is applying for a notice of construction for both of these emergency generators. It is not uncommon for sumps and lift stations to have emergency generator sets for backup power. Why should these emergency generators be singled out for exemption, when any other facility would have to go through NSR. Sumps and lift stations should be eliminated from the exemption list.

4. Under WAC 173-400-110(4)(f)(iv) Ecology is proposing to exempt laboratory research, experimentation, analysis and testing facilities/activities whose primary activity is research or education. This exemption would exclude consideration of emissions from any school or university or research facility, such as those at Hanford, that have the potential to do cancer, controlled substance and nuclear based products research without any oversight of their air emissions. In the arguments made by these facilities during the stakeholder process to exempt these facilities, the argument was made that it was too difficult to identify and track all the substances that they use and emit. This is one of the best arguments to be made that the public will not be protected from potential adverse emissions from facilities that may have some of the highest rick potential for human health impact type emissions, but also the affected public at the universities lives on campus and walks the sidewalks next to where these substances are emitted. This is very different than an industrial facility that has a property boundary that keeps the public at some distance from the emission point. This exemption is bold and un-protective of our younger population which is one of the more sensitive groups. There is no identified basis for this exemption. SRCAA proposes deletion of this exemption.

5. Under WAC 173-400-110(4)(c) Ecology sets de minimis sizes for combustion units under which NSR is not required. This section is inconsistent in the use of logical symbols and is redundant. Combustion units (i) through (iii) and (v) use the symbol "≤"; however, (iv) uses the symbol "<". A de minimis value is one where the person considers anything under that value to be trivial and therefore should not be considered. Therefore, de minimis implies the symbol "<". This is consistent with how de minima are treated in chapter 173-460 WAC. In addition, the term "combined" is a synonym for "aggregate" and is therefore unnecessary. A suggested revision to section (c) follows:

"(c) A project with aggregate heat inputs of combustion units, < all of the following:

(i) 500,000 Btu/hr using coal with ≤ 0.5% sulfur or other fuels with ≤ 0.5% sulfur;
(ii) 500,000 Btu/hr used oil, per the requirements of RCW 70.94.610;
(iii) 400,000 Btu/hr wood waste or paper;
(iv) 1,000,000 Btu/hr using kerosene, #1, #2 fuel oil, or other fuel oil and with ≤0.05% sulfur or any other liquid fuel with no sulfur content;
(v) 4,000,000 Btu/hr using natural gas, propane, LPG, or other gaseous fuel."
(vi) In the case of multi-fuel devices, the more stringent of the fuels heat inputs apply for determining whether the unit is exempt. (e.g. If a combustion unit can burn either used oil or natural gas and the heat inputs are 600,000 and 3,000,000 Btus, respectively, then the used oil heat input is the most stringent and the combustion unit is subject to NSR.)"

If Ecology is determined to use the aggregate of combustion sources, then it would be practical to establish de minimis values under each of the categories that would be too trivial to include in the aggregate.

6. Under WAC 173-400-110(4)(g)(xxxvii) and (xxxviii) abrasive blasting is specifically exempted. These conditions were previously included in WAC 173-460(060) as control technology requirements (T-BACT) implying that there were a minimum set of requirements surrounding these activities. By including these two sections in the exemption unit and activity section of WAC 173-400-110(4), these activities are now exempt from review and consideration. Many of the items to be abrasive blasted are older items that have been coated with materials that contain lead and chrome based products. Exempting abrasive blasting activities from New Source Review will allow uncontrolled blasting of components that contain very toxic components such as lead and chrome to the ambient air. These two sections are misplaced in WAC 173-400-110(4). These two items should more appropriately be placed in WAC 173-400-070.

7. Under WAC 173-400-110(4)(xl) Ecology proposes to exempted gasoline dispensing facilities (GDF) that are regulated under chapter 173-491 WAC. It is important to understand that chapter 173-491 WAC is a Reasonably Available Control Technology (RACT) rule which establishes a technology that was state-of-the-art at the time that the rule was written. The gasoline dispensing equipment is continuously evolving and is doing so at rapid pace compared to other industries.

a. However; WAC 173-491-040(5)(e) requires new or modified GDFs to go through NSR to determine whether or not Stage II equipment is required. As such, permitting authorities must perform new source review for every new installation of a GDF, or modification to an existing GDF. NSR ensures that new or existing source GDFs are equipped with Best Available Control Technology (BACT). The emissions from GDFs are a significant contribution to the formation of ozone; therefore requiring NSR for GDFs is very important to either maintaining ozone compliance or avoiding becoming an ozone non-attainment area.

b. In addition, if GDFs are exempt from NSR, the permitting authority has no means to determine whether a new or modified GDF would trigger the facility having to install Stage II. VOC emissions from a Stage I GDF are 4.2 times the emissions that would come from a Stage II GDF. A GDF could be installed without having to inform the permitting authority. A very large GDF, with a annual throughput of 15,000,000 gallons of gasoline (which is possible), assuming that the facility was installed with only Stage I equipment would emit 97.5 tons of VOCs per year; whereas, the same GDF equipped with Stage II equipment would emit only 23.3 tons of VOCs. It is obvious that a GDF with this amount of throughput should be required to install Stage II equipment; however, chapter 173-491 WAC does not provide that authority; whereas, chapter 173-400 WAC would, assuming that the GDFs were not exempt from NSR.

c. There would be no mechanism to ensure that GDFs remain in compliance with chapter 173-491 WAC, because the GDFs could install without notification and therefore would not have to register with the permitting authority.

d. SRCAA issues NSR permits on GDFs with throughput limits in their orders of approval to ensure that the people living next to them are not exposed to high levels of benzene and other toxic pollutants.

e. Chapter 173-400 WAC and chapter 173-491 WAC are at odds with each other; therefore, the exemption for GDFs should be deleted, as well as, exempting them from NSR does not protect the public health.

8. Under WAC 173-400-110(5) subsection (a) speaks to new emissions units and existing emissions units while subsection (b) refers to a "project". The basis for these exemptions should be consistent. As proposed the language is confusing and not clear how it would be implemented. This section should be revised to speak only to emission units.

Chapter 173-460 WAC

9. Since the determination of emissions from a new or existing source are based on the source's uncontrolled potential-to-emit, where applicable, the term "emissions" should be changed to "potential emissions". This informs the applicant that he must base his request for exemption from chapter 173-460 WAC on potential emissions and not actual emissions.

10. Under WAC 173-460-040(3)(b) the text cites "the project complies with ..." where the rest of the rule language speaks to an emission unit. The language indicates that the project must comply with WAC 173-460-070 which are the ambient impact requirements. WAC 173-460-070 does not use the word project; it refers to emission unit. The reference to project in WAC 173-460-040(3)(b) should be changed to emission unit.

11. Under WAC 173-460-060(2) Ecology is proposing to exempt TAP emission increases from fugitive sources such as coal piles, waste piles and fuel and ash handling operations. These sources can, by nature, be highly concentrated sources of toxics with a high degree of transportability via the wind. T-BACT for many of the fugitive sources can be as minimal as applying water sprays or other similar actions that are very cost effective and have reasonably high control efficiency. There does not appear to be a basis for this exemption that would justify exempting a toxic substance from review and reasonable controls for protection of public health. This entire subsection should be removed.

12. Under WAC 173-460-070 "Ambient impact requirement" an application must demonstrate that the increases in toxic emissions are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects. There is no specific criterion in this section as to what "sufficiently low" means. In addition, there is no consideration for combined health risk from multiple pollutants. For example, a source may emit four different carcinogenic toxic pollutants that individually modeled out to meet the ASIL, however, by combing these pollutants, the increased health risk could exceed an increased cancer risk of greater than one in a million, or greater, which has generally been the target threshold. This is allowed under the rule as written and is not sufficiently protective. This section should be modified to provide additional detail as to what is "sufficiently low" and address the impacts of multiple pollutants.

13. WAC 173-460-080(3) – Voluntary Limits on Emissions. SRCAA supports the concept of some type of offsetting provision for TAPs, however the proposed language in this section only requires that the applicant demonstrate a benefit to the receptors. What is a "benefit" - how is this defined? The only time this clause would be needed is when an applicant proposed a new or modified emission unit that has an increase above the ASIL. Reducing that TAP from a secondary source on that plant site or a different plant site still does not bring the source into compliance with the ASIL for the new or modified emission unit. This activity could only happen under a Second Tier review. This language is out of context in this location and the acceptable criteria that must be met are not clearly delineated. This section needs substantial clarification. For this to be a viable section, there needs to be language similar to the non-attainment provisions under chapter 173-400 WAC and there should be offsetting of greater than 1:1 such as 1.5:1 in order for there to be a health benefit. Why should the public suffer the exposure to a toxic because a company wants to expand with potential cancer risks greater than 1 in a million.

14. WAC 173-460-090(5) - Similar comment to comment 13 above (460-080(3)). This time it is included in the Second Tier review process however the criteria are not clearly delineated as to what

would be acceptable. What is the definition of "health benefit"? If the ASIL is not met, how could there ever be a health benefit?

15. 460-150 Table of ASIL/SQER etc.

a. During the stakeholder meetings for this rule revision, Ecology was questioned several times about the need and desire to have a technical document, if not in the rule, that explains how the ASIL was developed for each toxic pollutant and to identify the basis or source for the ASIL. The basis for listing an item is also missing. During stakeholder meetings Ecology indicated that only those substances listed in one of 3 databases (IRIS, ATSDR and OEHHA) would be on the toxic list. Sometimes there are differing values established in these databases for the same toxic. There is no identification of why a particular value was used. This will likely serve an important basis when performing a second tier health impacts assessment. This needs to be identified for each toxic pollutant.

b. Approximately two thirds (2/3) of the toxic items were removed from the toxics list because there was no established inhalation reference concentration (IRC) in one of the 3 databases. Items that have been listed in these databases only reflect toxic items that have a compendium of information gathered and reported about toxic impacts to humans as a result of inhalation. This is good information, however excluding the numerous items from the list because there have not been specific health studies performed based on human inhalation, ignores a substantial number of toxic items that are known carcinogens and other toxic health impacting pollutants that do not have studies but which have scientific data that identifies significant health impacts due to environmental exposure. This basis ignores about half of the items listed by the American Conference of Governmental Industrial Hygienists (ACGIH) which identifies pollutants that have been determined to have health impacts to workers. The ACGIH establishes exposure levels permissible to workers at a source. Above these levels it is considered unhealthy and for each pollutant for which a TLV-TWA has been established. If it is unhealthy for a worker to be exposed to these levels for an 8 hour shift then it most certainly is unhealthy for the public in general to be exposed to these levels for 24 hours or months or years, not to mention the increased susceptibility of children, people with respiratory ailments and the elderly. The public in general should be afforded the same protection that workers are provided under the ACGIH guidelines. To exclude these items is bad science and bad policy and by delisting these items will result in a substantial relaxation of toxic protection for the public. This relaxation was not explained or documented in the rulemaking analyses and deceives the public on the real impacts of the proposed changes.

c. For this rule to be effective at staying abreast of the ongoing science behind the toxicology for each listed item, the list should not be put in the rule. Rather, the rule should identify the process by which a toxic pollutant is listed or delisted. The list could then be updated real time and posted to the internet as the evaluation and basis for a determination is made for each pollutant. This process is similar to the process used to update the 3 databases that Ecology supposedly used to establish the listing proposed in the rule. There is, however, no process identified in the rule to add or delete items from the list. This is a major oversight in this proposed rulemaking. There has been no substantial update to the rule by Ecology since about 1993. That includes fixing significant typographical errors in the rule. That is 15 years. While budgets have been scarce in the past, the future, at least near term, would suggest that there will be no budget/staff time available to perform periodic updates to the rule as necessary to keep the list of pollutants up to date with the toxic studies. This will likely lead to another lengthy period of time before the rule is updated again. This is unacceptable and is very short sighted for an Agency that portrays itself as protecting the citizens of the state from unnecessary toxic risks.

d. The table should be sorted by CAS number as many (most) of the pollutants have multiple names. On numerous occasions sources in our jurisdictions have looked on the list and not found the chemical by name and assumed therefore that it was not on the list. The CAS number is the definitive identifier – not the pollutant name.

e. The list is missing several EPA identified hazardous air pollutants (HAPs) as has been discussed in several of the meetings. Why have these federally listed items not been included on the state list. Is there science that suggests that EPA and Congress made an error in identifying these

substances as hazardous to humans? What science does Ecology have that would defend not having these items on the toxic list? If Ecology has no science suggesting that they be delisted, then what possible sound basis does Ecology have for removing them? When you couple this with the hundreds of other chemicals that have been removed from the list, the proposed revision is substantially less protective of public health and is in conflict with the purpose of the rule identified under WAC 173-460-010 to protect human health.

f. In July of 1993, Ecology released a focus document (FA-93-32) entitled "Controls for New Sources of Toxic Air Pollution" which summarized the changes that were made to chapter 173-460 WAC at that time. One of the bulleted items stated:

"Add 42 chemical substances. The rule now contains over 600 chemical substances. An additional 42 substances, included in the federal Clean Air Act Amendments of 1990, were incorporated for consistency."

Is it no longer Ecology's desire to be consistent with the federal Clean Air Act Amendments of 1990?

g. New source review is presently the only mechanism available to permit writers to quantify HAP emissions to determine whether a source is subject to a MACT Standard or if it is a Title V source. Chapter 173-401 WAC provides for collection of applicable requirements only. Many of those requirements come from permits generated as a result of NSR either through chapter 173-400 WAC or chapter 173-460 WAC.

Peter W. Hildebrandt
5141 Heights Ln NE
Olympia, WA 98506

1/24/09

Linda Whitcher
Department of Ecology
P O Box 47600
Olympia, WA 98504-7600

Re proposed revisions to chapters 173-400 WAC and 173-460 WAC.

Dear Ms Whitcher,

It appears to be the intent of the rules to continue the exemption for gasoline dispensing facilities (GDFs), as exemption wording was deleted from WAC 173-460, and different exemption wording was inserted into WAC 173-400.

The proposed draft exempts gasoline dispensing facilities **regulated** by chapter 173-491 WAC. The applicability section of WAC 173-491 is broad enough to cover GDFs, but the actual **regulation** of gasoline dispensing facilities in subsection 040(4) is limited to facilities above a certain size and/or in specific areas.

To clarify the intent to exempt all GDFs, it is suggested that WAC 173-400-110(4)(h)(xl) be amended as follows:

Gasoline dispensing facilities (GDFs) ~~regulated by~~ as defined in chapter 173-491 WAC.

The same definition is used in WAC 173-490 and WAC 173-491 and the suggested change would clearly exempt all GDFs.

Thank you for your consideration,

Peter W. Hildebrandt

Phone: 360.357.7425 **email: petewh@comcast,net**

PEOPLE FOR PUGET SOUND

pugetsound.org

January 24, 2009

Linda Whitcher
Sarah Rees
Air Quality Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
Via email: sare461@ecy.wa.gov, liwh461@ECY.WA.GOV

RE: Proposed rules for toxic air pollutants (Chapter 173-460 WAC) and general sources of air pollution (Chapter 173-400 WAC)

To Ms. Whitcher and Ms. Rees,

We are writing to comment on *Proposed rules for toxic air pollutants (Chapter 173-460 WAC) and general sources of air pollution (Chapter 173-400 WAC)*, noticed on January 9, 2009.

People For Puget Sound is a nonprofit, citizens' organization whose mission is to protect and restore Puget Sound and the Northwest Straits.

We agree that an update is needed as we believe that Ecology and local agencies should use up-to-date science. We are concerned, though, that many chemicals have been dropped from the list, that cumulative impacts are not addressed (and that language has been included that reverses a look at cumulative impacts) and that opportunities for public review may be reduced.

1. We specifically request that the provisions ("Emissions Netting") that "allow sources to reduce toxic emissions across multiple sources to meet standards" be removed. This new language gives credit for reductions of chemical source emissions that were not counted in the first place (or would be counted) for a health risk analysis. We don't believe that polluters can have it both ways – reductions should only be granted for pollutants, even at low levels, that would be included in an analysis. We also believe that these multiple (small) sources should be included in health analysis assessments and, further, that cumulative impacts should be considered.

2. A large number of chemicals were dropped from the list of regulated chemicals. Three lists were used to derive regulatory numbers (chemical-RBCs from the U.S. Environmental Protection Agency (USEPA), the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) and the California Office of Environmental Health Hazard Assessment (OEHHA)). Any chemical that was not finalized on one of these three lists was

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dropped from regulatory consideration in Washington. We believe that the hazardous air pollutants (some of which are highly toxic according to the meeting notes) that were dropped should be retained within the rule in a separate list.

   a. No list of regulated chemicals that were dropped is provided for public review. Does the list of chemicals are in the retained in the draft revision include all chemicals that moved from "draft promulgation" status (on the three lists that are being used to draw regulatory numbers from) to "final" status by the date this notice went out for public comment included? If not, what was the cutoff date? Because this list will only be revised on an infrequent basis, all finalized chemicals from the three source list should be included.

3. We are concerned that the rules protect public health and that full information about each facility be available to the public. Under the revised rule, the public is not able to get a as full a list of all of the toxic chemicals that are emitted by a facility. It is concerning to see in the notes that "The list of information that the applicant must submit has been reduced considerably from the much longer original list of items that the toxicologist recommended." Again, the public will not be able to fully understand the toxic load implications from each facility.

4. Cumulative impacts are not considered. The rule is focuses on a chemical-by-chemical approach that does not consider the interactions of chemicals. In addition, the rule is focuses on ASIL for each facility and does not consider other nearby emissions. Further, unless we are misreading: "Health impact assessment (HIA) protocol. The HIA presents data about the new or modified source and its built and natural environment. A HIA includes but is not limited to: Site description, TAP concentrations and toxicity, identification of exposed populations and an exposure assessment. The HIA protocol must be reviewed and approved by ecology prior to development of the HIA." it appears that even HIAs do not include cumulative impacts.

5. Use of "background" is unclear. This appears to be an addition to the rule. Are background concentrations being used to allow higher emissions? If so, we strenuously object. This appears to be another case where cumulative impacts are not addressed and in fact may be looked at in reverse.

6. A huge number of emission types are exempted in the rule and we believe that many of these should be revisited.

7. Public process for this rule revision did not meet the standards of Ecology public process that we have experienced for other regulatory changes:
   a. The announcement about the rule changes that we received did not include a date that comments were due.
   b. When I asked for a date, I was given a date that fell on a weekend (I am assuming that the actual date comments are due is the following business day)
   c. No public meeting was held in Seattle. This is especially surprising given the recent publication of a study of toxic air pollution in the South Seattle area by the Department of Health – that showed increased cancer risks due to toxic pollutants that are regulated by this rule.

d. There was no fact sheet or easy synopsis that explained the changes in a way that would be understandable for the public
e. Only two weeks (Jan 9-24) were offered for public comment.
f. No list of stakeholders in the rule-making process is on the web or in the meeting notes.
g. Powerpoints from the meetings (that are mentioned in the notes) are not posted.
h. A list of chemicals that are dropped in the rule revision is not shown.

Thank you for the opportunity to comment on this draft rule revision. If you have questions, I can be reached at (206) 382-7007X215.

Sincerely,

Heather Trim
Urban Bays and Toxics Program Manager

Clark
Cowlitz
Lewis
Skamania
Wahkiakum

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January 21, 2009

RECEIVED
JAN 26 2009
DEPARTMENT OF ECOLOGY
AIR QUALITY PROGRAM

Linda Whitcher
Washington Department of Ecology – Air Program
PO Box 47600
Olympia, WA 98504-7600

Re: Comments on WAC 173-400 and 460 Rule Changes

Dear Ms. Whitcher:

The purpose of this letter is to provide formal written comments on the proposed rule making for WAC 173-400 "General Regulations for Air Pollution Sources" and WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" as filed under WSR 08-23-097. A specific list of comments is provided as an attachment to this letter. We appreciate the opportunity to work with Ecology on this very important rulemaking. We understand the magnitude of this effort which is driven in part because of the numerous years that have elapsed since the rule was last updated. We would encourage Ecology to update this rule more frequently to minimize the effort required for any individual update. Due to the long length of time since this rule was last updated, the revisions are so numerous that it makes it difficult to easily understand the impacts of the numerous changes.

The Southwest Clean Air Agency (SWCAA) would like to encourage Ecology to incorporate the proposed changes in the rule as described in the attachment. The existing rule has served to protect the public from adverse impacts from new sources of toxic air pollutants for over 15 years and we are now in an era of increasing emphasis on air toxics at the federal level. The listed pollutants and review process are understood by industry, consultants and the regulated community. SWCAA does not consider the existing rule to be "broken", however there are science updates that need to be applied and other minor corrections that should be incorporated. The breadth of the changes proposed by Ecology will result in a significant reduction in the protection of human health of the public as proposed. In addition, the confusion that the proposed changes will cause to existing permitted facilities will be significant and will likely result in a substantial number of sources requesting to revise their permit under the proposed rule changes due to the rule relaxation. This is a significant burden on both the regulated community and the clean air agencies.

If you have any question in regard to the attached comments, please contact me or Paul Mairose at (360) 574-3058 extension 30.

Sincerely,

Robert D. Elliott
Executive Director

Cc: Sarah Rees, WDOE, Manager Prog. Dev, PO Box 47600, Olympia, WA 98504-7600

WAC 173-400

1. Under WAC 173-400-110(a)(ii) Ecology exempts temporary/portable sources from new source review (NSR); however the US Environmental Protection Agency (EPA) has declared that temporary/portable sources are classified as "stationary" sources. Therefore, temporary/portable sources are required to go through NSR the first time that the source operates in a jurisdiction. This does not apply to nonroad engines. This exemption should be removed from this section of the WAC.

2. Under WAC 173-400-110(2)(b)(i) Ecology is proposing to exempt emergency diesel engine generators with a maximum engine power of 500 brake horsepower from new source review. SWCAA suggests that you also include an hours of operation limitation such as 200 hours per year to otherwise limit the use of the engine to "emergency" situations. We have seen project proposals where "emergency" engines are operated by a third party for other than "emergency use" that the facility defines as emergency. Certainly one could then argue that it is no longer emergency, however the rule should be clear enough to avoid this argument. Providing an hours limitation would help restrict the use to just emergency situations. The underlying NSPS limits hours of operation to 100 hours per year for readiness testing and maintenance. The horsepower limitation should also be cited as an aggregate limit so a project does not include multiple units that could sum to a sizeable aggregate. This would avoid the possibility of someone proposing a project of say 10 or more 499 horsepower engines to avoid getting a permit which results in a significant project emission impact but would otherwise be exempted on an individual basis.

3. Under WAC 173-400-110(4)(e)(v) Ecology is proposing to exempt engines on sumps and lift stations associated with wastewater treatment plants. It is common for waste water treatment plants to include emergency generators/pumps at lift stations. We have several facilities that have 15 or more such units. Aggregate horsepower for these facilities can exceed 6000 horsepower. Aggregate emissions from these units can be sizeable based on individual hours of operation. Why are these emergency generators/pumps singled out for exemption when any other facility would have to go through NSR? Sumps and lift stations should be eliminated from the exemption list.

4. Under WAC 173-400-110(4)(f)(iv) Ecology is proposing to exempt laboratory research, experimentation, analysis and testing facilities/activities whose primary activity is research or education. This exemption would exclude consideration of emissions from any school or university or research facility, such as those at Hanford, that have the potential to do cancer, controlled substance and nuclear based products research without any oversight of their air emissions. In the arguments made by these facilities during the stakeholder process to exempt these facilities, the argument was made that it was too difficult to identify and track all the substances that they use and emit. This is one of the best arguments to be made that the public will not be protected from potential adverse emissions from facilities that may have some of the highest rick potential for human health impact type emissions, but also the affected public at the universities lives on campus and walks the sidewalks next to where these substances are emitted. This is very different than an industrial facility that has a property boundary that keeps the public at some distance from the emission point. This exemption is bold and unprotective of our

younger population which is one of the more sensitive groups. There is no identified basis for this exemption. SWCAA proposes deletion of this exemption.

5. Under WAC 173-400-110(4)(g)(xxxvii) and (xxxviii) abrasive blasting is specifically exempted. These conditions were previously included in WAC 173-460(060) as control technology requirements (T-BACT) implying that there were a minimum set of requirements surrounding these activities. By including these two sections in the exemption unit and activity section of WAC 173-400-110(4), these activities are now exempt from review and consideration. Many of the items to be abrasive blasted are older items that have have been coated with materials that contain lead and chrome based products. Exempting abrasive blasting activities from New Source Review will allow uncontrolled blasting of components that contain very toxic components such as lead and chrome to the ambient air. These two sections are misplaced in WAC 173-400-110(4). These two items should more appropriately be placed in WAC 173-400-070.

6. Under WAC 173-400-110(4)(h)(xl) Ecology proposes to exempt gasoline dispensing facilities (GDF) that are regulated under chapter 173-491 WAC. 491 is a Reasonably Available Control Technology (RACT) rule which establishes a technology that was state-of-the-art at the time that the rule was written – over 10 years ago. 491 does not have its own NSR section. The gasoline dispensing equipment is continuously evolving and is doing so at rapid pace compared to other industries and control technologies.

a. WAC 173-491-040(5)(e) requires new or modified GDFs to go through NSR to determine whether or not Stage II equipment is required. As such, permitting authorities must perform new source review for every new installation of a GDF, or modification to an existing GDF. NSR ensures that new or existing GDFs are equipped with Best Available Control Technology (BACT) in accordance with RCW 70.94.152. The emissions from GDFs are a significant contribution to the formation of ozone; therefore requiring NSR for GDFs is very important to either maintaining ozone compliance or avoiding becoming an ozone non-attainment area.

b. In addition, if GDFs are exempt from NSR, the permitting authority has no means to determine whether a new or modified GDF would trigger the facility having to install Stage II. VOC emissions from a Stage I GDF are 4.2 times the emissions that would come from a Stage II GDF. A GDF could be installed without having to inform the permitting authority. A very large GDF, with a annual throughput of 15,000,000 gallons of gasoline (which currently exist in the state), assuming that the facility was installed with only Stage I equipment would emit 97.5 tons of VOCs per year; whereas, the same GDF equipped with Stage II equipment would emit only 23.3 tons of VOCs. Without Stage II, this facility would be a HAP major source subject to Title 5. It is obvious that a GDF with this amount of throughput should be required to install Stage II equipment; however, chapter 173-491 WAC does not provide that authority; whereas, chapter 173-400 WAC would, assuming that the GDFs were not exempt from NSR. This exemption is also at odds with the tonnage exemption table of 400-110(5)(d). This table identifies supposedly a deminimis level of 2 tons per year for VOCs. A Stage I only facility emits 2.0 tons per year of VOC at a throughput of 308,000 gallons per year. This is a very

small facility. In addition, there is no accounting for TAPs or HAPs in addition to the VOCs. This is not a small source that should be exempted.

c. There would be no mechanism to ensure that GDFs remain in compliance with chapter 173-491 WAC, because the GDFs could install without notification and therefore would not have to register with the permitting authority.

d. NSR permits are issued on GDFs with throughput limits in their orders of approval to ensure that the people living next to them are not exposed to high levels of benzene and other toxic pollutants.

e. Chapter 173-400 WAC and chapter 173-491 WAC are at odds with each other; therefore, the exemption for GDFs should be deleted, as well as, exempting them from NSR does not protect the public health.

7. Under WAC 173-400-110(5) subsection (a) speaks to new emissions units and existing emissions units while subsection (b) refers to a "project". The basis for these exemptions should be consistent. As proposed the language is confusing and not clear how it would be implemented. This section should be revised to speak only to emission units.

WAC 173-460

8. Since the determination of emissions from a new or existing source are based on the source's uncontrolled potential-to-emit, where applicable, the term "emissions" should be changed to "potential emissions". This informs the applicant that they must base their request for exemption from chapter 173-460 WAC on potential emissions and not actual emissions.

9. Under WAC 173-460-040(3)(b) the text cites "the project complies with ..." where the rest of the rule language speaks to an emission unit. The language indicates that the project must comply with 173-460-070 which are the ambient impact requirements. 173-460-070 does not use the word project; it refers to emission unit. The reference to project in 173-460-040(3)(b) should be changed to emission unit.

10. Under WAC 173-460-060(2) Ecology is proposing to exempt TAP emission increases from fugitive sources such as coal piles, waste piles and fuel and ash handling operations. These sources can, by nature, be highly concentrated sources of toxics with a high degree of transportability via the wind. T-BACT for many of the fugitive sources can be as minimal as applying water sprays or other similar actions that are very cost effective and have a reasonably high control efficiency. There does not appear to be a basis for this exemption that would justify exempting a toxic substance from review and reasonable controls for protection of public health. This entire subsection should be removed.

11. Under WAC 173-460-070 "Ambient impact requirement" an application must demonstrate that the increase in toxic emissions are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects. There is no specific criteria in this section as to what "sufficiently low" means. In addition, there is no consideration for combined health risk from multiple pollutants. For example, a source may emit four different carcinogenic

toxic pollutants that individually modeled out to meet the ASIL, however, by combining these pollutants, the increased health risk could exceed an increased cancer risk of greater than one in a million, or greater, which has generally been the target threshold. This is allowed under the rule as written and is not sufficiently protective. This section should be modified to provide additional detail as to what is "sufficiently low" and address the impacts of multiple pollutants.

12. WAC 173-460-080(3) – Voluntary Limits on Emissions. SWCAA supports the concept of some type of offsetting provision for TAPs, however the proposed language in this section only requires that the applicant demonstrate a benefit to the receptors. What is a benefit - how is this defined? The only time this clause would be needed is when an applicant proposed a new or modified emission unit that has an increase above the ASIL. Reducing that TAP from a secondary source on that plant site or a different plant site still does not bring the source into compliance with the ASIL for the new or modified emission unit. This activity could only happen under a Second Tier review. This language is out of context in this location and the acceptable criteria that must be met are not clearly delineated. This section needs substantial clarification. For this to be a viable section, there needs to be language similar to the non-attainment provisions under WAC 173-400 and there should be offsetting of greater than 1:1 such as 1.5:1 in order for there to be a health benefit. Why should the public suffer the exposure to a toxic because a company wants to expand production with potential cancer risks greater than 1 in a million.

13. WAC 173-460-090(5) - Similar comment to comment 8 above (460-080(3)). This time it is included in the Second Tier review process however the criteria are not clearly delineated as to what would be acceptable. What is the definition of health benefit? If the ASIL is not met, how could there ever be a health benefit?

14. 460-150 Table of ASIL/SQER etc.:

a. During the stakeholder meetings for this rule revision, Ecology was questioned several times about the need and desire to have a technical support document, preferably in the rule, that explains how the ASIL was developed for each toxic pollutant and to identify the basis or source for the ASIL. The basis for listing an item is also missing. During stakeholder meetings Ecology indicated that only those substances listed in one of 3 databases (IRIS, ATSDR and OEHHA) would be on the toxic list. Sometimes there are differing values established in these databases for the same toxic. There is no identification of why a particular value was used. This will likely serve an important basis when performing a second tier health impacts assessment. This needs to be identified for each toxic pollutant.

b. Approximately two-thirds (2/3) of the toxic items were removed from the toxics list because there was no established inhalation reference concentration (IRC) in one of the 3 databases. Items that have been listed in these databases only reflect toxic items that have a compendium of information gathered and reported about toxic impacts to humans as a result of inhalation. This is good information, however excluding the numerous items from the list because there have not been specific health studies performed based on human inhalation, ignores a substantial number of toxic items that are known carcinogens and other toxic health impacting pollutants that do not have studies but which have scientific data that identifies

significant health impacts due to environmental exposure. This basis ignores about half of the items listed by the American Conference of Governmental Industrial Hygienists (ACGIH) which identifies pollutants that have been determined to have health impacts to workers. The ACGIH establishes exposure levels permissible to workers at a source. Above these levels it is considered unhealthy and for each pollutant for which a TLV-TWA has been established. If it is unhealthy for a worker to be exposed to these levels for an 8 hour shift then it most certainly is unhealthy for the public in general to be exposed to these levels for 24 hours or months or years, not to mention the increased susceptibility of children, people with respiratory ailments and the elderly. The public in general should be afforded the same protection that workers are provided under the ACGIH guidelines. To exclude these items is bad science and bad policy and by delisting these items will result in a substantial relaxation of toxic protection for the public. This relaxation was not explained or documented in the rulemaking analyses and deceives the public on the real impacts of the proposed changes.

c. For this rule to be effective at staying abreast of the ongoing science behind the toxicology for each listed item, the list should not be put in the rule. Rather, the rule should identify the process by which a toxic pollutant is listed or delisted. The list could then be updated real time and posted to the internet as the evaluation and basis for a determination is made for each pollutant. This process is similar to the process used to update the 3 databases that Ecology supposedly used to establish the listing proposed in the rule. There is, however, no process identified in the rule to add or delete items from the list. This is a major oversight in this proposed rulemaking. An example of this is propionaldehyde (CAS 123-38-6). Since this rule was published, a reference concentration (RfC) has been established in IRIS at 8.0 micrograms per cubic meter (9/30/08) and therefore propionaldehyde should be added to the list. This is why the updating procedure outlined above needs to be adopted.

There has been no substantial update to the rule by Ecology since about 1993. That includes fixing significant typographical errors in the rule. That is 15 years. While budgets have been scarce in the past, the future, at least near term, would suggest that there will be no budget/staff time available to perform periodic updates to the rule as necessary to keep the list of pollutants up to date with the toxic studies. This will likely lead to another lengthy period of time before the rule is updated again. This is unacceptable and is very short sighted for an Agency that portrays itself as protecting the citizens of the state from unnecessary toxic risks.

d. The table should be sorted by CAS number as many (most) of the pollutants have multiple names. On numerous occasions sources in our jurisdiction have looked on the list and not found the chemical by name and assumed therefore that it was not on the list. The CAS number is the definitive identifier – not the pollutant name.

e. The list is missing several EPA identified hazardous air pollutants (HAPs) as has been discussed in several of the meetings. Why have these federally listed items not been included on the state list? Is there science that suggests that EPA and Congress made an error in identifying these substances as hazardous to humans? What science does Ecology have that would defend not having these items on the toxic list? If Ecology has no science suggesting that they be delisted, then what possible sound basis does Ecology have for removing them? When you couple this with the hundred or so other chemicals that have been removed from the list, the

proposed revision is substantially less protective of public health and is in conflict with the purpose of the rule identified under 173-460-010 to protect human health.

f. With the current legislative focus on greenhouse gases and climate change, sulfur hexafluoride has been identified as one of the most "powerful" greenhouses gases, over 23,000 times more effective than CO_2. It is on the current list of regulated toxic pollutants. Under the proposed list, it is absent. This pollutant should be added back onto the list.

g. There are many toxic pollutants that have been removed from the list (rule) where arguments can be made on a pollutant specific basis that it should be kept because of health hazards. The reason for listing in most cases is different for each pollutant. The number of removed items are too numerous to list. Ecology should have cited in its rule making, documentation of the reason for removing each toxic pollutant and performed a health risk assessment to demonstrate that it was not necessary to be on the list. We could find no reference to this type of analysis in any of the documents that accompanied the rulemaking package. A basis should be identified in this rulemaking for removing any item from the toxic list and the basis for having an item on the list. In the future if that basis is modified the rule could be modified to include or exclude a pollutant. As it is proposed, there is no basis documented.

h. In July of 1993, Ecology released a focus document (FA-93-32) entitled "Controls for New Sources of Toxic Air Pollution" which summarized the changes that were made to chapter 173-460 WAC at that time. One of the bulleted items stated: "Add 42 chemical substances. The rule now contains over 600 chemical substances. An additional 42 substances, included in the federal Clean Air Act Amendments of 1990, were incorporated for consistency." Is it no longer Ecology's desire to be consistent with the federal Clean Air Act Amendments of 1990?

i. New source review is presently the only mechanism available to permit writers to quantify HAP emissions to determine whether a source is subject to a MACT Standard or if it is a Title V source based on hazardous air pollutants (HAPs). If all the HAPs are not included in the list of pollutants, then our intent and authority to collect this information can be questioned and unclear. WAC 173-401 provides for collection of applicable requirements only. Many of those requirements come from permits generated as a result of NSR either through WAC 173-400 or 173-460. If those requirements do not exist in the underlying permits it is difficult to establish a basis otherwise. As a minimum, all the HAPS should be listed for clarity.

ncasi

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Steve Stratton
Regional Manager
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January 23, 2009

Ms. Linda Whitcher
Washington Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Ms. Whitcher:

The National Council for Air and Stream Improvement, Inc. (NCASI) is an independent, non-profit membership organization that provides technical support to the forest products industry on environmental issues. An important part of our mission is to ensure that regulatory decision making is based on sound science. In this capacity, NCASI reviewed the Department of Ecology's list of proposed standards for toxic air pollutants (TAPs).

NCASI has reviewed the technical basis for proposed ASILs for specific TAPs which are among those of potential concern to the industry. Based on our review, we believe that the proposed ASIL for phenol does not reflect the best science available and should be modified accordingly. We also find that ASILs for 'Hexachlorodibenzo-p-Dioxins' and 'Heptachlorodibenzo-p-Dioxins' regulate compounds that have no significant toxicity relative to 2,3,7,8-Tetrachlordibenzo-p-dioxin. These group ASILs are unnecessary since all of the toxicologically significant compounds within each group are otherwise regulated. Finally, '2,3,7,8-Tetrachlorinated dibenzo-p-dioxin and Related Compounds' is not defined and appears to be a redundant entry.

Our specific comments are detailed on the following pages.

Sincerely,

Steve Stratton

ec: John Pinkerton
Vickie Tatum
Llewellyn Matthews, NWPPA

Comments on Specific Proposed ASILs for Toxic Air Pollutants

Polychlorinated Dioxins and Furans (PCDD/Fs)

NCASI is concerned regarding the inclusion of ASILs for groups of PCDD/Fs such as the one proposed for 'Hexachlorodibenzo-p-dioxins' (CAS no. 34465468), which potentially limits the emissions of 7 hexachlorinated dioxins (those not chlorinated at the 2,3,7 and 8 positions) that are considered to have no toxicity relative to 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEFs = 0). Since there are ASILs for the hexachlorinated congeners for which toxicity has been demonstrated (1,2,3,4,7,8-; 1,2,3,6,7,8- and 1,2,3,7,8,9-Hexachlorinated dibenzo-p-dioxin), this ASIL is unnecessary and should be eliminated. In a similar manner, the ASIL for 'Heptachlorodibenzo-p-dioxins' (CAS no. 37871004) should be removed from the list.

Also, the identity of the specific compounds included in '2,3,7,8-Tetrachlorinated dibenzo-p-dioxin and Related Compounds' (CAS no. C1746016) is unclear. Since the ASIL value (2.63e-08 $\mu g/m^3$) is the same as the ASIL value for '2,3,7,8-Tetrachlorinated dibenzo-p-dioxin' (CAS no. 1746016), this would appear to be a redundant entry that should be deleted.

Phenol

The proposed ASIL for phenol is based on the California OEHHA Chronic Reference Exposure Level (REL). The OEHHA REL for phenol does not have a firm scientific foundation and should not be used as the basis for the ASIL. The OEHHA's decision to develop an REL for inhalation exposures is a significant departure from the recommendations of US EPA. In September, 2002, EPA conducted a detailed toxicological review of phenol to support the development of exposure limits for IRIS. With respect to the development of an inhalation RfC for phenol, EPA had this to say:

> *No adequate inhalation exposure studies exist from which an inhalation RfC may be derived. A route-to-route extrapolation is not appropriate, because phenol can be a direct contact irritant, and so portal-of-entry effects are a potential concern.*
>
> *The minimal database needed for the development of an RfC is a well-conducted subchronic inhalation study that adequately evaluates a comprehensive array of endpoints, including the respiratory tract, and establishes a NOAEL and a LOAEL (U.S. EPA, 1994). This criterion was not met for phenol. Neither of the two available subchronic studies (Deichmann et al., 1944; Sandage, 1961) are adequate for exposure-response assessment because neither included adequate documentation of the histopathology results and neither used modern methods for generating or monitoring exposure levels. These studies can, however, be used for hazard identification, and they identify the respiratory tract, liver, and kidney as targets of inhalation exposure to phenol.*
>
> *The phenol database also includes a well-conducted, 2-week inhalation study with rats that used modern exposure methods, evaluated a wide array of endpoints, and included a thorough histopathology evaluation of the respiratory tract (Hoffman et al., 2001; the full unpublished study report is available as Huntingdon, 1998). The only treatment-related*

> *effect observed was a red nasal discharge in male rats, which was observed with a statistically significant duration-related, and concentration-related incidence in the mid- and high-concentration groups. However, because the red nasal discharge was likely due to a nonspecific response to stress, this response is not considered adverse. The 2-week study is of insufficient duration for the derivation of an RfC.*

The OEHHA REL for phenol is based on studies that were judged inadequate for this purpose by US EPA. I would particularly draw your attention to EPA's comments on the Sandage study, which is the primary basis for the OEHHA REL. EPA, in its review, noted that the Sandage study did not include adequate documentation of the histopathology results and did not use modern methods for generating or monitoring exposure levels. EPA concluded that the Sandage study was useful only for hazard identification. Furthermore, the OEHHA ignored the study of Hoffman et al., which was cited by EPA as an example of well-conducted, detailed study of the inhalation toxicity of phenol. The Hoffman et al. study, while too short to serve as a basis for a chronic exposure limit, showed no treatment-specific effects of exposure to phenol at any of the concentrations tested.