



# **Response to Comments**

Perma-Fix Northwest In-Container Mixer Unit permit modification January 24 to March 24, 2020

Summary of a public comment period and responses to comments

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# **Publication and Contact Information**

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# **Response to Comments**

Perma-Fix Northwest In-Container Mixer Unit permit modification January 24 through March 24, 2020

> Nuclear Waste Program Washington State Department of Ecology Richland, Washington

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Response to Comments PFNW In-Container Mixer modification

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# Introduction

The Washington State Department of Ecology's Nuclear Waste Program (Ecology) manages dangerous waste within the state by writing permits to regulate its treatment, storage, and disposal.

When a new permit or a significant modification to an existing permit is proposed, Ecology holds a public comment period to allow the public to review the change and provide formal feedback. (See <u>Washington Administrative Code [WAC] 173-303-830</u> for types of permit changes.)

The Response to Comments is the last step before issuing the final permit, and its purpose is to:

- Specify which provisions, if any, of a permit will become effective upon issuance of the final permit, providing reasons for those changes.
- Describe and document public involvement actions.
- List and respond to all significant comments received during the public comment period and any related public hearings.

#### This Response to Comments is prepared for:

Comment period:	Perma-Fix Northwest In-Container Mixer Unit permit modification
Permit:	Dangerous Waste Permit and TSCA Approval No. WAR 0000 10355
Permittee:	Perma-Fix Northwest
Original issuance date:	July 7, 1999
Draft effective date:	May 24, 2020

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our website: <u>https://www.ecology.wa.gov/Hanford</u>.

# Reasons for issuing the permit

The permittee, Perma-Fix Northwest Richland (Perma-Fix), proposed an In-Container Mixer (ICM) to replace the old ICM that was located in the Mixed Waste Facility.

The proposed ICM will perform treatment and solidification of specific waste streams. This ICM is capable of successfully performing neutralization and stabilization of solid, slurry, and liquid waste streams. The ICM has the following features that will help Perma-Fix effectively treat waste streams received at their facility:

- Increased motor power (from <sup>1</sup>/<sub>2</sub> horsepower to 25 horsepower).
- Directional control of the mixing shaft (instead of simple up and down movement).
- Drum-ventilation lid that replaces the prior ventilation confinement enclosure.
- Newly developed operator criteria to determine when mixing is complete to allow for more consistently effective treatment.
- Newly designed reagent containers and storage and transfer apparatus.

# **Public involvement actions**

Perma-Fix held a 60-day public comment period on the proposed In-Container Mixer Unit permit modification January 24 through March 24, 2020.

The following actions were taken to notify the public:

- Mailed a public notice announcing the comment period to 252 members of the public.
- Emailed a notice announcing the start of the comment period to the <u>Hanford-Info email</u> <u>list</u>, which has 225 recipients.
- Distributed copies of the public notice to members of the public at Hanford Advisory Board meetings.
- Placed a public announcement legal classified notice in the *Tri-City Herald* on January 26, 2020.
- Posted the comment period as an event on the Washington Department of Ecology's Hanford Facebook and Twitter pages.

Perma-Fix held a public meeting on February 3, 2020, at 4:30 p.m. at the Richland Public Library. There was a miscommunication on the time of the public meeting, and one member of the public arrived at 5:30 pm. No comments were collected at this first meeting.

Perma-Fix held a second public meeting on February 20, 2020, at 5:30 p.m. at the Richland Public Library. Three members of the public attended, and no comments were collected at this meeting.

The following public notices for this comment period are in <u>Appendix A</u> of this document:

- Public notice
- Classified advertisement in the *Tri-City Herald*
- Notice sent to the Commercial Mixed Rad Waste email list
- Event posting on the Washington Department of Ecology's Hanford Facebook and Twitter pages

# List of Commenters

The table below lists the names of organizations or individuals who submitted a comment on the Perma-Fix In-Container Mixer Permit modification. The comments and responses are in <u>Attachment 1</u>.

Commenter	Organization
Anonymous #1	Citizen
Anonymous #2	Citizen
Gary Petersen	Citizen
Robert Ferguson	Citizen
Tri-City Development Council	Organization
Anonymous #3	Citizen
Hanford Challenge	Organization

# **Attachment 1: Comments and responses**

#### **Description of comments:**

Ecology accepted comments from January 24 to March 24, 2020. This section provides a summary of comments that we received during the public comment period and our responses, as required by RCW 34.05.325(6)(a)(iii). Comments are grouped by individual and each comment is addressed separately.

#### I-1: ANONYMOUS CITIZEN

#### Comment I-1-1

I appreciate having the redline documents to review. It would be even more helpful if Ecology will place the entire permit on-line so that reviewers can see if there are any changes that should have been made to other sections of the Permit.

#### Response to I-1-1

Thank you for the recommendations. Since this Class 2 Permit Modification was permittee initiated, Perma-Fix Northwest (PFNW) is responsible for the information that was provided to support the public comment period. Ecology hosted on its website the documentation that was provided by PFNW to support the public comment period. Washington Administrative Code (WAC) 173-303-830(4)(b)(i)(A) requires the permittee to describe the exact changes it requests to be made to the permit conditions and supporting documents referenced by the permit. Ecology and EPA reviewed the draft files that PFNW submitted in support of the Class 2 Permit Modification request and determined that their documents met the requirements of WAC 173-303-830(4)(b)(i)(A). However, if there are any errors or issues found during the public comment period that need to be corrected, Ecology and EPA will work with the Permittee to get these issues resolved prior to Ecology making its final permitting decision as detailed in WAC 173-303-830(4)(b)(vi). If there are changes made to the draft document prior to issuance, Ecology will document them in our formal communications with the Permittee, and this documentation will be kept in the PFNW administrative record for this permit modification.

#### Comment I-1-2

The changes to the permit state that the 5 millimeter limit for solids is to be evaluated visually or is to be ignored based on a subjective judgement that the size will not impair the impeller or the container. Why are visual and subjective evaluations appropriate? What data are available to show the requirements of the equipment to resist solids/erosion? What data are available to show that operators can "eyeball" 5 mm particles in a slurry objectively? Large, dense particles can sink to the bottom and resist mixing. A more robust method may be needed. What measurements or certifications are provided by the waste generator to verify particle sizes and solids density meet the limits?

### Response to I-1-2

During the waste acceptance process at PFNW, the particle size of the wastes will be one of the parameters to be evaluated. After the wastes are received at the facility, the wastes will be evaluated to determine if its physical characteristics meet the size limitation. Since 5 millimeters is the process limit established in the requested permit modification to support the operations of the In-Container Mixer (ICM), this size limitation will be evaluated during the waste acceptance, waste treatment and waste sampling at PFNW. The 5 mm particle size is a conservative upper limit on particle size that can be accommodated by the mixer without the risk of "jamming" the impeller and causing damage to it or the mixing container. While we recognize that there is some variability in an operator's ability to precisely identify particles 5 mm or greater, the conservative nature of the standard adequately accounts for this variability. In addition, if large, dense particles exist that were not identified during previous steps of the waste acceptance process, the final treated waste form coming out of the ICM will not meet the process performance requirements such as homogeneity (i.e., absence of clumps) and may limit PFNW's

ability to demonstrate compliance with applicable Land Disposal Restriction (LDR) treatment standards. The generator is responsible to certify and characterize their waste, but PFNW is responsible to verify that the waste meets the PFNW limits as described in Table 2b of Attachment CC (Waste Analysis Plan). PFNW does that through the waste profile process.

### Comment I-1-3

No objective criteria are provided to prove success in qualitative training for meeting the mixing criteria. What sample data and test runs provide a basis to show that the qualitative criteria are valid for homogeneous mixing? That operators can implement them correctly? How do the operators see the waste if it is under a hood? What impact do these observations have on personnel doses, since the waste is radioactive?

### Response to I-1-3

PFNW performed two separate demonstration tests to prove that the ICM can successfully create a homogeneous mixture. All personnel operating ICM will be provided necessary in-class and on the job training. The mixing of the wastes will be performed by moving the mixing paddle in all (up/down, left/right, back/forth) directions inside the container. The qualitative criteria for the homogeneous mixing are observing signs of streaks, clumps, free liquids or color variations inside the container. For the wastes at the lower portion of the container, the wastes will be probed with the equipment to ensure thorough mixing occurs. Ecology and EPA believe that these criteria for the desired objectives are achievable, as demonstrated through the two tests performed at the facility. Since the hood covering the container is made of clear plastic and is transparent, the operators can easily see the wastes and verify the parameters of the mixing criteria for the homogeneous product. Because the operator is able to see the mixing process through the hood, exposure is minimized and the operator is allowed to maintain an appropriate distance from the wastes while performing the mixing. Ecology and EPA also believe that any fugitive emissions during mixing will be contained by the process ventilation.

### Comment I-1-4

Treatability tests are deleted in favor of "careful consideration." How does subjective "consideration" substitute for controlled tests and measurements? Hanford waste, for example, requires a treatability analysis in order to process waste at LERF/ETF. No justification is provided for the deletion in this permit. Isn't a test necessary to meet acceptance criteria for the disposal facility?

### Response to I-1-4

Treatability tests are generally performed when the equipment is not established or commercially available or the waste streams are new to the particular equipment or technology. Treatability tests can also be performed when the treatment process is sufficiently complex that the only reliable predictor of treatment system performance is direct testing. The ICM is a fairly basic treatment technology, and, except for the treatment recipe, the two demonstration tests provide Ecology and EPA adequate assurance that the unit will perform acceptably across a wide range of wastes without waste-stream-specific treatability tests. The "careful consideration" referred to in the comment does not pertain to the removal of treatability tests. Page 81 of the Process Information (Attachment PP), states the following regarding treatability tests: "If necessary, a treatability test is conducted to evaluate the compatibility of the wastes for mixing with reagents and absorbents or verifying the safety and effectiveness of a given chemical treatment or stabilization process." Careful consideration is meant to be all inclusive. If this careful consideration does not clearly define a set of treatment requirements, treatability test will be conducted. PFNW must consider all of the parameters for a given waste stream prior to processing any wastes in the ICM. Ecology and EPA also believe that some of the parameters can only be determined by performing the treatability tests, such as ratio of the reagent to the wastes and types of reagents to be used, unless the reagents are well practiced commercially for the types of wastes to be used in ICM. Ecology and EPA note that Permit Condition V.E.9 requires PFNW to develop a treatment plan which may be based either on careful consideration or results of the treatability study.

### Comment I-1-5

How generators are to document that solids "meet the criteria" is not defined in Section PP. The criteria are not referenced at the point where the generator requirement is established. If would help if the criteria were referenced when they are cited.

#### Response to I-1-5

Before PFNW can accept a waste stream from a generator, the following criteria, as described in the Waste Analysis Plan (Attachment CC), Section 3.3, must be followed

- Management methods available.
- Conditions or limitations of existing permits and regulations (Table 2B in Attachment CC Waste Analysis Plan)
- Capability to manage the waste in a safe and environmentally sound manner.
- *Waste profile sheet description of the process generating the waste.*
- Waste profile sheet description of the chemical and physical properties of the wastes.
- Any additional documentation including information that the waste is subject to LDR of 40 CFR 268.
- Results of the parameter analysis

Section 3.1 in Attachment CC describes the procedural requirements that PFNW must ensure generators follow to process the wastes in the ICM as well as other units at the Mixed Waste Facility. The generators document all the characteristics of the waste stream in the waste profiles and it is PFNW's responsibility to check those parameters with the criteria mentioned above before approving the waste profile submitted by the generators.

### Comment I-1-6

The 200 degree F temperature limit for the waste in the process engineering description exceeds the 120 degree and 158 degree temperature limits described in the Technical Specifications.

### Response to I-1-6

Temperature limit of 60-120 degrees F in the equipment specification data sheet of the attachment VV 15140 is for the container pump and not the mixer itself. The 200 degree F temperature limit is specific to neutralization of liquid wastes in the ICM.

### Comment I-1-7

The previous limit on solidified liquid waste was one 55-gallon drum of waste per hour. This was 7 cubic feet per hour at a density of 110 lb/cubic foot, equal to 770 lb/hour. The new limit is 75 gallons of liquid waste per hour (resulting in 1,071 lb of solid waste/hour). The old mass limit

was 770 lb/hr of solidified liquid waste. The new mass limit is 1,071 lb of solidified liquid waste per hour. This is an increase of 39%.

Does the rest of the equipment and the SEPA analysis support the increased throughput?

The liquid feed rate previously would have been far less than 55 gallons per hour. The volume of liquid waste feed establishes the source term. As a result the feed liquid flow rate should be included in the permit so that it can be monitored directly for comparison with the Part A possession quantities.

#### Response to I-1-7

In the current permit as revised in April 2015, the total throughput capacity of the ICM for both liquid and solid waste combined is 18 tons/day. In the requested Class 2 Permit Modification, the throughput capacity of the ICM is specified for solid wastes (1,071 lb/hr or 0.54 tons/hr or 12.85 tons/day) and liquid wastes (1,800 gallons/day or 7.52 tons/day). Because the ICM can only operate for 24 hours in a given day, the maximum capacity of the ICM is 12.85 tons/day, which is less than the current capacity of the ICM (18 tons/day). Based in part on its conclusion that the Class 2 Permit Modification does not seek to increase the capacity of the ICM, Ecology made a Determination of Non-Significance under the State Environmental Policy Act (SEPA) for this permit modification are as follows based on the ICM demonstration tests performed by PFNW before submitting this permit modification.

Stabilization of a Solid:

Waste per container: 250 pounds Water addition for slurry: 2 min Mix time 5 min Reagent addition 2 min Mix time 5 min Total wastes/time 250 pounds/14 min Treatment capacity 1071 pounds/hour

Stabilization of liquid: Waste per container: 25 gallons Reagent addition : 15-20 min Mix time 5 min Total wastes/time 25 pounds/20 min Treatment capacity 75 gallons/hour

### Comment I-1-8

The In-Container Mixing Room secondary containment requirements are not specifically identified in Section PP. What are they? Is there a reference?

#### Response to I-1-8

There is no secondary containment specifically for the ICM Room. But, there is secondary containment for the entire stabilizing slab. This secondary containment is described on page 86 of Attachment PP (Process Information). There is secondary containment, in the form of a catch pan, within the ICM system with a containment volume of approximately 55 gallons. The catch pan, found directly below the ICM, was tested during an integrity assessment with a volume of 55 (+1) gallons and was shown to be leak tight.

#### Comment I-1-9

Information is deleted on the equipment data sheet (Section VY); the new equipment selection does not cite any erosion or corrosion evaluation. Material compatibility and key operating parameters should be provided.

#### Response to I-1-9

Since the container pump has been changed and the specifications from the manufacturer are provided in the attachment VV, ARO Container Pump Manufacturers Spec Sheet, providing the information in the equipment data sheet (Section VV) is redundant. Ecology requested and received the integrity assessment for the ICM. The integrity assessment performed by the Independent Qualified Professional Engineer concluded that additional corrosion mitigation is not necessary because there is no permanently installed equipment that is normally in direct contact with dangerous wastes. The mixer blade and waste feed pump are considered disposable and will be replaced upon signs of failure (e.g., insufficient head pressure, eroded mixer, etc.) during normal operations. The stainless-steel spill pan is not normally in contact with dangerous waste and the metal for the spill pan was selected based on its ability to be cleaned/decontaminated and its resistance to generic acid/base corrosion. Moreover, the compatibility of the wastes will be checked during in-process analyses as described in section 5.2.1 of Attachment CC (Waste Analysis Plan).

#### Comment I-1-10

Does the cyclone dust separator (Section PP) have a basis that makes it equivalent or better than the baghouse filter? Where is the separator waste disposed?

#### Response to I-1-10

There is an error in the cited section. Instead of removing the baghouse from the process ventilation, this modification adds a cyclone dust separator in the process ventilation line before the baghouse. The cyclone dust separator will be installed near the ICM to avoid any fugitive dust emission during the ICM operation. Thus, adding the cyclone dust separator in the process ventilation system will enhance the efficiency and effectiveness of the baghouse. The error in the text will be corrected before this Class 2 Permit Modification becomes effective. The separator waste will be handled as newly generated waste and will be managed in accordance with all applicable requirements of WAC 173-303-170, "Requirements for Generators of Dangerous Waste," through 173-303-230, "Special Conditions." The separator waste will be containerized, labeled, and characterized for waste disposal. In addition, the dust separator waste will be evaluated for the applicability of TSCA storage and disposal requirements.

#### Comment I-1-11

The Perma-Fix Dangerous Waste permit expired in 2009 and has not been renewed, in favor of making smaller modifications. According to the March 10, 2019 Tri-City Herald article (1) "Since the city of Richland did a similar environmental study in 1998, much ltas c.hanged. said John Pri ce, the Washington state Department of Ecology's Tri-Party Agreement section manager. "The article also states that "the findings from the 1998 study used to issue this permit are now out of date. North Richland is more developed now, with new buildings at Pacific Northwest National Laboratory, new businesses and new apartments and townhouses in the area. The work done at Perma-Fix Northwest also has changed in 21 years."

Applications to renew this permit have been found deficient for four years by the Department of Ecology. For example, see letters 18-NWP-165, "Perma-Fix Northwest Letter of Incompleteness for Remaining Sections of Permit Renewal Application Revision 3, Site Identification Number WAR 00001 0355", October 11, 2018, and 16-NWP- 001, "Perma-Fix Northwest Letter of Incompleteness for Process Section of Permit Renewal Application Revision 3, Site Identification 3, Site Identification Number Uncompleteness for Process Section of Permit Renewal Application Revision 3, Site Identification 3, Site Identification Number WAR 00001 0355," January 5, 2016.

As a result, any increase in production rate as is proposed, is not appropriate.

(1) https://www.tri-cityheraId.com/news/locaI/hanford/article227254174.htmI

### Response to I-1-11

Thank you for the comment. Please see the response to comment I-1-7.

### Comment I-1-12

Perma-Fix Northwest has been identified as one of the facilities excluded from the Hanford Air Operating Permit, No. 00-05-006, Renewal 3. According to the Statement of Basis, Ecology has concluded these activities are not under the common control of DOE Hanford Site operations offices, and, consequently these facilities are not part of the Hanford Site. However, one of the criteria for this decision (See item 1 on Page 9 of the Statement of Basis for Standard Terms and General Conditions (2)) asks if the percentage of the entity's output to DOE Hanford Site Operations Offices is greater than 50%. Another criterion is whether DOE exercises direct influence over the entities' economic or other pollutant-emitting activities.

In the first case, the Department of Ecology has already pointed out that the majority of Perma-Fix business arises from Hanford Site Waste (per the March 10, 2019 Tri-City Herald). This is confirmed by EPA online records (3). And DOE bears RCRA "cradle to grave responsibility" for mixed waste arising from Hanford or other DOE sites, such as Idaho.

In the second case, DOE has arranged for the RL contractor (via budget guidance) to send sufficient waste volumes to Perma-fix to keep Perma-fix operating, exercising direct influence over Perma-fix's economic and polluting-emitting activities, particularly with respect to transuranic contaminated waste. In addition, DOE has a primary interest in the Perma-Fix permit, such that the Department of Ecology identified a "strategic alignment" with DOE to reissue the Perma-Fix permit as a 2019- 2021 lnitiative (4).

In addition, future work is identified in Ecology's DOE Budget Priorities Letter for FY2021 (18-BUD-0083, Planning Data Sheet 3 of 5), which calls for certification of large /small containers and TRU waste disposition at "PFNW," which is "Perma-Fix Northwest."

As a result, I would appreciate if EPA and Ecology will consider whether Perma-fix should be treated as a Hanford stack for Air Permit purposes, dose evaluation purposes, and purposes of public availability of documentation.

(2) See https://fortress.wa.gov/ecy/nwp/permitt ing/AOP/renewal/Three/AOP 00-05-06Renewal3SoBSTGC.pdf

(3) https://ofmpub.epa.gov/enviro/rcrainfoguery3.facilityinformation?pgm sys id=WAR000010355 Links to Biennial Report Summaries are provided at this web site.

(4) See 20-NWP-022, "Re: Federal Fiscal Year (FFY) 2020 Budget and Integrated Priority List," January 28, 2020, Ecology/EPA/DOE Strategic Alignment Map. Located at https://pdw.hanford.gov/document/AR-03470.

#### Response to I-1-12

This comment is outside of the scope of this Class 2 Modification to support the operation of the ICM at PFNW. Any change to the Hanford Site Air Operating Permit would need to be evaluated through the Hanford Site Air Operating Permit permitting process.

Ecology appreciates the commenter's concerns. However, there is no basis to say that two facilities physically and organizationally separate should be under a common air permit. The Hanford/PFNW relationship, Hanford planning documents notwithstanding, are no different than any other facility that sends their waste to a commercial TSDF.

### Comment I-1-13

EPA wrote specifically about the Perma-Fix RCRA/Dangerous Waste Permit in the context of maintaining permits, in a January 2016 report (5). In this report, EPA described a Perma-Fix Class 3 permit modification in which Perma-Fix sought to install new evaporators, increase storage capacity, allow storage of mixed waste in tanker trucks, and replace its vitrification system. Ecology noted that the modification was missing a thermal risk assessment work plan, demonstration test, and information on the proposed wastewater streams proposed to be treated in the evaporation systems. Perma-Fix did not supply the requested information and responded by rescinding the permit modification request. The long delay in maintaining this permit current allows an unknown amount of changed work to go on without adequate review.

For example, Perma-Fix advertised in a January 25, 2020 News Feed (6) that Veolia Nuclear Services has installed a new vitrification system (GeoMelt) to treat radioactively contaminated reactive metal waste. This equipment is "cooperatively installed and operated" by Perrna-Fix Northwest at the Perma-Fix Richland, WA location. Perma-Fix advertised that the GeoMelt demonstration " illustrates the unique nature of our facilities, permits, and capabilities." Perma-Fix appears to have installed and operated new mixed waste equipment under this dangerous waste permit, without providing the information that Ecology had requested. The work is actually contrary to the permit, given that thermal treatment of reactive metals (sodium metal is pyrophoric) is not part of the Part A permissions. The adaptation of the Permaa-Fix ventilation system to handle Veolia's Geomelt) equipment, has not been reviewed. The operation of the Geomelt equipment is shown in a "youtube" video (7) does not discuss off-gas treatment at all, and does not show shielding for personnel moving vitrified waste. Text provided with this video states that:

The GeoMelt technology converts radioactive, hazardous, and mixed wastes into a volumereduced robust, obsidian-like inert glass form for safe disposal. The GeoMelt Richland System is the third GeoMelt facility in operation and is located at the Perma-Fix facility, close to the Hanford site {U.S.A}. Veolia Nuclear Solutions will use its GeoMelt Richland System to treat radioactive contaminated sodium wastes shipped in Fermi Drums that were received at the Idaho National Laboratory in the 1980s.

I have not seen any public review that has been conducted for including the GeoMelt system in the Perma-Fix Permit. Yet it is installed and is being operated. Perma-Fix further advertised a demonstration of Laser Ablation system for decontamination on July 17, 2019, without an

evaluation that no hazardous waste was present (chromium being a common contaminant arising from metals). Laser technology is also not evaluated in the permit.

(5) EPA-530-R-15-001, Permit Modifications Report, Safeguarding the Environment in the Face of Changing Business Needs, January 2016. Located at:

https://www.epa.gov/sites/production/files/201601/documents/ permit\_mod\_report\_final\_508.pdf.

(6) See http://www.perma-fix.com/news.aspx. as of January 22, 2019. Pages 4-5 are enclosed.

(7) See https://www.youtube.com/watch?v"72kOy0wdD jM.

#### Response to I-1-13

The use of the GeoMelt technology at Perma-Fix has all occurred as a treatability study as defined by WAC 173-303-040. As detailed in the definition of treatability study, the facility also needs to comply with the requirements in WAC 173-303-071(r) and (s). Any future use of the GeoMelt technology would again have to meet the definition of a treatability study, or the permittees would have to submit a permit modification request to add this treatment unit as a new Dangerous Waste Management Unit to the Perma-Fix Northwest Dangerous Waste Permit. If PFNW submits a permit modification request to add the GeoMelt technology as a new DWMU to their Dangerous Waste permit, they would need to follow the permit modification request for completeness and ensure all of the necessary technical details are included prior to making a final permitting decision as detailed in WAC 173-303-830(4) and -840(1).

#### Comment I-1-14

EPA, in a recent review of enforcement actions (8) identified that Perma-Fix paid a penalty of \$23,375 and entered into a consent agreement in 2019 due to alleged failure to maintain appropriate third party liability financial assurance requirements. In 2012-20 I 4, the facility's liability insurance policy did not provide adequate coverage for third party [e.g. to the public?] bodily injury and property damage claims. The Consent Agreement from this enforcement action (9) identifies Perma-Fix as the owner and operator, yet Perma-Fix is now providing a home to the GeoMeltequipment that is owned by VEOLIA, and is advertising that the Perma-Fix permits provide regulatory coverage. Has Perma-Fix adequately provided insurance for the equipment that is owned and operated by others? This is important, based on releases elsewhere at DOE Facilities , such as at Portsmouth, where public schools and private residences may have been contaminated.

 $(8) See \ https://www.epa.gov/newsreleases/recent-epa-enforcement-cases-throughout-pacific-northwest$ 

(9) https://yosemite.epa.gov/OA/RHC/EPAAdmin.nsf/Filings/ C40A4F93BB3775548525845600 634CCF/\$File/RCRA-10-2019-0130%20-%20Perma-Fix%20Northwest%20Richland,%20Inc.%20-%20CAFO.pdf

#### Response to I-1-14

Financial assurance requirements, if any, for the GeoMelt system are separate from the ICM and the permit modification at hand. Therefore, this comment is outside of the scope of this Class 2 Modification to support the operation of the ICM at PFNW.

Ecology received the following response to this comment from Perma-Fix Northwest: "More accurately, the enforcement action was for 2013-2014, not 2012- 2014. Of note: a separate "anonymous" commenter made the same mistake in his/her letter. The EPA alleges that between September 1, 2013 and September 1, 2014, PFNW failed to establish adequate financial responsibility "exclusive of legal defense costs" in Policy Number PLS-1959292 for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the Richland facility as required by Permit Condition 1-4a and WAC-173-303-620(8)(a).

The contention was discussed with EPA was mainly to the language about the legal defense cost. The language was changed the following year. At no time did PFNW have a financial responsibility less than the Ecology Permit and/or State requirements. Actually, it was the opposite. PFNW had coverage that exceeds any of the requirements.

PFNW has additional counter arguments in response to the EPA's and still concludes that the language of the policies would be interpreted by a court as providing sufficient coverage for third-party property damage and bodily injury. A third-party review and adjudication of the different interpretations of both law and policy language presents risks for both sides. To avoid the risks and costs associated with protracted litigation, PFNW reached a mutually-agreeable settlement of that matter.

PFNW never had any injury and/or property damage to third parties caused by sudden accidental from their Richland operations. PFNW has current insurance for bodily injury and property damage to third parties caused by sudden accidental occurrences a policy coverage that exceeds both the EPA and WA state requirements."

#### Comment I-1-15

Changing a date for the entire permit section from September 3, 1999 for example, to January of 2020, based on limited changes can give the impression that the entire section has been updated. Yet this permit has expired. Ecology should publish the expiration date on every page of the permit.

#### Response to I-1-15

In the permit conditions for the current permit, there is both an issuance date (May 28, 1999) and an expiration date (July 7, 2009). According to WAC 173-303-806(7)(a), the permittee is allowed to continue their operation under an expired permit until the effective date of the new permit when the permittee submits a timely application for the permit renewal. Ecology, EPA and PFNW are working collaboratively on the permit/approval renewal to resolve technical issues and ensure the renewal conforms with applicable state dangerous waste and federal TSCA regulations.

#### Comment I-1-16

Ecology advertised a renewal SEPA-EIS to support permit renewal in Publication No. 19-05-003, with a draft to be available by the end of 2019, but no draft has been released for public review. Ecology requested input from Perma-Fix in For example, see letter I 8- NWP-17 9, "State Environmental Policy Act (SEPA) scoping.for Perma-Fix Northwest Dangerous Waste Regulations Permit, " November 2, 2018.

#### Response to I-1-16

Ecology is working on a draft supplemental EIS pursuant to SEPA to evaluate PFNW's draft permit renewal, as mentioned in Publication No. 19-05-003. The draft supplemental EIS will be subject to a public comment period when it is complete. Ecology made a Determination of Non-Significance under SEPA for the ICM Class 2 permit modification.

#### Comment I-1-17

As noted above, Perma-Fix has installed equipment, owned by others (Veolia) that is not covered by the Dangerous Waste Permit, but has advertised that the work is permitted. Figure 1 shows that the Perma-Fix Facility is treating reactive metals by vitrification , which is not covered by permit WAR 00001 0355. On September 12, 2018, the Washington Department of Health issued a Final Approval for Notice of Construction for this equipment, (AIR-18-906) but failed to evaluate the off-gas system or hazards associated with treating reactive metals. The Department of Health noted that Perma-Fix had identified the GeoMelt equipment as a "temporary" operation, but gave no expiration date for the air permit. GeoMelt Vitrification and its off-gas system are not described in the Department of Health process information. The Figure 1 news release does not identify this as a temporary arrangement. Ecology should evaluate this process, and the hazards to the growing community and businesses adjacent to the Perma-Fix plant. Ecology should evaluate whether Veolia should permit its own equipment, as the liability for its operation appears to be unclear. This equipment is also not covered in the existing Perma-Fix SEPA/EIS.

### Response to I-1-17

Thank you for the comment. This comment is outside of the scope of this Class 2 Modification to support the operations of the ICM at the PFNW. It will be more applicable when Ecology renews the PFNW Dangerous Waste Permit, if PFNW includes the GeoMelt Unit in their permit renewal.

### Comment I-1-18

Further, Veolia has previously installed equipment that was contrary to its lease requirements. On April 17, 2019, the Port of Benton found that Veolia made tenant improvements not approved by the Port of Benton (10). Subsequently, meeting minutes from June 12, 2019 show that the Port of Benton reviewed a lease extension request for Veolia, based on Veolia obtaining the necessary local , state, and environmental permits for the technology base, (11) with plans required to be submitted prior to approval of construction (12). No such review was performed for the GeoMelt installation at Perma-Fix. Veolia's Port of Benton lease is described as being located at 2345 Stevens Drive, in Richland, close to homes and businesses, according to August 8, 2018 meeting minutes (13). Ecology's Nuclear Waste Program web page does not list any Veolia permit.

(10) See https://portofbenton.com/tricities/wp-content/uploads/2019/05/Minutes4-17-19.pdf

(11) See https://www.nuclearsolutions.veolia.com/en/our-expertise/technologies/our-modular-vitrification-system-mvs-stabilize-liquid-waste

(12) See https://portofbenton.com/tricities/wp-content/uploads/2019/07/Minutes6-12-19.pdf

(13) See https://portofbenton.com/tricities/wp-content/uploads/2018/09/8-8-18Minutes.pdf

#### Response to I-1-18

Thank you for the comment. This comment is outside of the scope of this Class 2 Modification to support the operations of the ICM at the PFNW. It will be more applicable when Ecology renews the PFNW Dangerous Waste Permit, if PFNW includes the GeoMelt Unit in their permit renewal.

#### Comment I-1-19

EPA performance and compliance history for Perma-Fix is available on a web page, ECHO.EPA.GOV (14). In 2008, EPA settled with Perma-Fix for \$304,000 for PCB waste handling violations. More recently, Perma-Fix is listed as a "significant" noncomplier from October 1, 2018 to December 31, 2019. Fines from the last 5 years total \$59,775 for Enforcement Actions and \$23,375 for EPA cases. Violations were identified in every quarter from June 30, 2017 to March 331, 2018. According to EPA's web page, 10,324 people live within 3 miles of the Perma-Fix Facility. These numbers may be low, due to extensive housing construction in the north Richland and Horn Rapids areas.

(14) See https://echo.epa.gov/detailed-facility-report?fid=110008062452.

#### Response to I-1-19

EPA and Ecology have determined that the cited violations have been resolved, and do not provide a basis for an adverse decision on PFNW's permit modification request.

#### I-2: ANONYMOUS ANONYMOUS

#### Comment I-2-1

In working with other commercial vendors for mixed and radioactive waste management, DOE, by agreement with the State of Texas, was required to indemnify a vendor in the event of bankruptcy. DOE agreed to take over possession and operation of the Waste Control Specialists "federal" commercial site. Texas would not agree to approving the Waste Control Specialists permit without DOE's participation and partnership with a sole-source vendor. Please see DOE Public Meeting Minutes (1) from the Environmental Management Site Specific Advisory Board, page 16. No such agreement exists for DOE to acquire or manage future liability risks from the Perma-Fix Site, which has an active, radioactive stack, close to homes, businesses, and a day care facility.

1. If this is legal, I would appreciate if the Department of Ecology would require DOE to similarly indemnify and take responsibility for the Perma-Fix Northwest Facility and its past and potential future environmental releases, due to the DOE-sourced risks. I believe the "equal protection" clause applies here. Actually I would prefer DOE to remove DOE's waste treatment operations from Perma-Fix in Richland to the 200 Areas, where there is less risk of releases affecting the public and the groundwater. If that can't occur, DOE should be made financially responsible for Perma-Fix's performance.

(1) See ENVIRONMENTAL MANAGEMENT SITE-SPECIFIC ADVISORY BOARD to the U.S. DEPARTMENT OF ENERGY PUBLIC MEETING MINUTES, located at: https://www.energy.gov/sites/prod/files/2014/02/f7/SSAB%20Meeting%20Summary%20for%20 November%202013.pdf.

#### Response to I-2-1

This comment is outside of the scope of this Class 2 Modification to support the operations of the In-Container Mixer at the Perma-Fix Northwest Facility. Ecology does not have the regulatory authority to require DOE to take financial responsibility of the PFNW Facility. In section I-4a of the Attachment HH of the current PFNW permit there is a requirement for PFNW to prove they have financial assurance for the operations that occur at their facility. The language in the current permit reads, "Coverage for sudden accidental occurrences is established through a liability insurance policy providing coverage in the amount of at least one million dollar per occurrence with an annual aggregate of at least two million dollar, as specified in 40 CFR 264.147(a) and WAC 173-303-620(8)."

## Comment I-2-2

It is much more difficult to find information related to the performance and risks of the PermaFix facility versus the records publicly available for the DOE Hanford Site and other DOE sites, yet the DOE sites (e.g. Hanford, Idaho, Oak Ridge) provide the majority of waste treated. The Perma-Fix location is far closer to the homes of the public than are the Hanford areas, so the information is of compelling interest.

To start, I looked at the Hanford Site Environmental Report for Calendar Year 2016 (DOE-RL-2017-24 (2)). This report states that the single greatest contributor to off-site doses from Hanford facilities is ingestion of food containing tritium (elemental or tritiated water) from the 300 area.

DOE-RL-2017-24 further states that "The Perma-Fix Northwest Richland (PFNW) facility is a commercial TSD located on 35 ac (14 ha) "adjacent" to the DOE Hanford Site." In addition, DOE reports that Hanford Site Environmental Reports prior to 2011 routinely evaluated dose contributions from Perma-Fix, but DOE does so no longer (3). As a result, residents have to make a considerable hunt for data that affects them, and DOE wastes shipped to Perma-Fix are not accounted for.

2. I would appreciate if you will include Perma-Fix results once again in the Hanford Environmental Reports, and make the detailed sections of the Perma-Fix Permits and Emissions Units licenses accessible on line so that we have equivalent transparency. Perma-Fix assists DOE in meeting TPA milestones, so there should be a basis for doing so.

(2)https://www.emcbc.doe.gov/SEB/CPCC/Documents/Document%20Library/Other/Hanford%2 0Site%20Environmenta1%20Report%20for%20Calendar%20Year%202016%20-%20(DOE-RL-2017-24,%20Rev.%200).pdf

(3) DOE/RL-2017-24, Hanford Site Environmental Report for Calendar Year 2016, Rev 0, Section 4.2.3, (page 4-23).

### Response to I-2-2

This comment is outside of the scope of this Class 2 Modification to support the operations of the In-Container Mixer (ICM) at the Perma-Fix NW Facility. Perma-Fix Northwest publishes an Annual Environmental Report each year for the previous year. The report is submitted to the required regulatory agencies and is available to the public upon request. The annual reports are intended to identify the releases and the activities for the licensee or the facility.

#### Comment I-2-3

Take a look just at tritium (as an example; I did not review-all isotopes). For 2016, all of Hanford released 24 curies of elemental tritium. Per DOE/RL-2017-24 (4), 240 curies oftritiated water vapor were released from the 300 areas, and none from the 200E area. [In the 200E area, one might expect the 242-A evaporator to discharge tritium, except that 242-A evaporator is equipped with a condenser that captures tritiated water and sends it to the SALDS.] Perma-Fix has an evaporator, thermal incinerators (bulk processing units), and vitrification via a "Geomelt" mixed waste melter, but as far as I can tell, no condenser.

The non-published Perma-Fix Environmental Monitoring Report for 2018 shows 12.3 curies of tritium released that year. Despite this, the report states that sampling at the Mixed Waste Thermal Stack (Mixed Waste Thermal Processing via Geomelt vitrification) was to be discontinued for tritium in 2019, with no apparent change in the waste acceptance criteria. Perma-Fix received 43.5 curies of tritium, so the release fraction was considerable (28%). Data are in the air emissions tables and Appendix A tables of the PFNW Environmental Monitoring Reports.

In 2017, Perma-Fix released 432 curies of tritium (based on stack monitoring), with processing reported only 463 curies (93% released). This was a greater release than from all of the 300 Area in 2016.

In 2016, Perma-Fix released 0.316 Ci of tritium based on processing 30.8 Ci.

In 2015, Perma-Fix released 172 curies of tritium based on processing 103 Ci. This was greater than 100% release.

In 2014, Perma-Fix released 126 curies of tritium based on processing 18 Ci. Also greater than 100% release.

In 2013, Perma-Fix released 58.1 curies of tritium based on processing 106 Ci.

Sometimes, as in 2014 and 2015, and more tritium was released than received/processed. And this is despite statements that the manifest-based processing amounts received were called out as being conservatively large (by a factor of 2 to 10), while the release data were from sample measurements.

3. I would appreciate if the tritium monitoring discontinued in 2019 could be revisited in light of the quality assurance questions for the data, and because the amounts released by Perma-Fix can exceed what is released elsewhere at Hanford.

(4) DOE/RL-2017-24, Hanford Site Environmental Report for Calendar Year 2016, Rev 0, Table D-16 (page D-9).

#### Response to I-2-3

This comment is outside of the scope of this Class 2 Modification to support the operations of the In-Container Mixer (ICM) at the Perma-Fix NW Facility. The Washington Department of Health (WDOH) regulates air emissions of radionuclides like tritium. Tritium monitoring would be a component in the radioactive air emissions license issued to PFNW by the WDOH. It is not a component of RCRA/TSCA permit.

Ecology received the following response from the WDOH: "Inventory reductions in the 2018 license modification allowed monitoring to be discontinued as reduced Potential to Emit (PTE) of tritium no longer triggered monitoring requirements. There is no basis for WDOH to require monitoring for tritium when it no longer meets the basis for the regulatory requirement. Monitoring is required for 'each radionuclide that could contribute greater than ten percent of the potential-to-emit TEDE to the MEI, or greater than 0.1 mrem/yr potential-to-emit TEDE to the MEI, or greater than twenty-five percent of the TEDE to the MEI, after controls' (WAC 246-247-110(9))."

#### Comment I-2-4

In order to understand the context of Perma-Fix operations, the public has to sort through three permits: RCRA/TSCA Dangerous Waste, LLW Radioactive Air Permit, and Mixed Waste Air Permit. And in addition, the Department of Health has issued 7 specific emissions unit licenses that are referenced by the Air Permits.

4. I would appreciate ifthere could be an integrated flow sheet and reporting for the entire process and facilities (All LLW and MW and TRU). The air permit environmental reports do not report the total tons of waste processed (limited by the RCRA permit), and it is hard to determine if the possession limits for radionuclides in each of the emissions unit licenses is met. The tritium limit certainly seems to have been exceeded.

### Response to I-2-4

The RCRA/TSCA permit/approval only regulates mixed waste and TSCA waste treatment, storage, and disposal activities. The generator regulations under Chapter 173-303 WAC regulate any dangerous or mixed waste generated by these other processes, such as collected ash from the Low Level Waste portion of PFNW. The RCRA/TSCA permit/approval does not set limitations on the quantity of low level waste processed at the facility.

The environmental report required by the Washington Department of Health (WDOH) provides an annual assessment to meet requirements from both the radioactive materials license and the radioactive air emissions license issued to PFNW. These licenses encompass more processes and operations than those regulated by the RCRA/TSCA permit/approval. The total tons of waste processed at the facility is not a direct correlation to the limits in the licenses issued by the WDOH, which is only a portion of the total waste processed at PFNW and evaluated in the environmental report.

There is no regulatory requirement for an integrated report for all processes and facilities to include requirements from radioactive materials licensing, radioactive air emissions licensing, and associated with the RCRA/TSCA permit/approval. The Department of Health, Ecology, and EPA evaluate all required reporting pursuant to their respective regulations to determine compliance with limitations in their respective licenses and permits. The RCRA/TSCA permit/approval does provide process flow diagrams for mixed waste processes regulated under the permit.

Ecology received the following response from the Washington Department of Health: "WDOH audits this annually. The PFNW Annual Environmental Report does report the emissions for each emission unit in mrem/yr, & demonstrates that none of the PFNW emission units have exceeded their licensed limits. The Materials/Waste license & Air emissions license limits serve different purposes & therefore differ as Waste license limits are for any one time vs. an annual limit for Air licenses. For Air licensing purposes, Annual Procession Quantities (APQ) limits are modeled prospectively with appropriate physical form release fractions in CAP88 to calculate emissions over a year. For annual compliance WDOH reviews isotopic data & modeling to verify that license limits in mrem/yr. are not exceeded. For perspective, the license limit for NOC 1335 (is 1.17 E-02 mrem/year (i.e. 0.0117 mrem/yr.) to the Maximally Exposed Individual. Note, actual emissions for NOC 1335 to the Maximally Exposed Individual were 3.83 E-05mrem/yr. (.0000383 mrem/yr.) in 2017, & 4.2 E-5mrem/yr. (.000042 mrem/yr) in 2018."

# Comment I-2-5

The DOH air permits allow Perma-Fix to possess only 380 curies at a time of any isotope, with specific conditions establishing annual possession quantities (See RAEL-012, NOC 1335) limiting tritium to 27 curies per year. Or 50 Ci/year for LLW (per RAEL-012). Or 50 Ci/yr for MW per AIR-01-902, NOC ID 459. Other isotopes have similar individual limits.

5. I would appreciate if the environmental monitoring report could compare the amount processed/possessed during the year against the individual emission unit possession limits, since these seem to have been exceeded for tritium, carbon-14, and TRU isotopes.

### Response to I-2-5

Ecology received the following response from the Washington Department of Health (WDOH): "There is no regulatory basis for this in WAC 246-247. For licensing purposes, Annual Procession Quantities (APQ) limits are modeled with appropriate physical form release fractions in CAP88 to prospectively calculate emissions over a year. For annual compliance WDOH reviews isotopic data & verifies with modeling that license limits in mrem/yr. are not exceeded. Actual emissions are greatly reduced by abatement technology. The regulatory requirement is that the annual emissions in mrem/yr. do not exceed the license limits for the emission unit, but there is not a regulatory basis for the suggested method."

### Comment I-2-6

6. Further, the emissions results in the annual monitoring reports include negative numbers for emissions of Cesium-13 7 and Cobalt-60. This is numerically impossible (negative mass), and very improbable, given that DOH investigates hot spots for Cs-137 outside the building. Increasing soil concentrations of alpha contamination outside the building have also been observed. Perm-Fix changed labs in 2017 due to low results - what were the QA requirements for the lab?

### Response to I-2-6

Ecology received the following response from the Washington Department of Health: "Hot spots outside the building likely unrelated to air emissions. These spots have trended downward over time and appear to be associated with prior ownership. The numbers are not negative mass. The negative numbers are a result of laboratory analysis of stack samples. Negative results represent a non-detect (given statistics based on certainties for detection) which is feasible after abatement as the curies listed as processed are greatly reduced via abatement (HEPA filters are required to have 99.97% efficiency) of particulate."

### Comment I-2-7

7. The performance record for Perma-Fix Northwest includes a fire associated with the Geomelt Vitrification System in 2019, and a release to the outdoors from a leaking PFP glove box. The

public should be made aware when these events occur so they have the option to avoid driving in the area. Drainage from the exterior to the Richland storm water system does not seem to be discussed anywhere, yet fire hoses were used outside on the formerly ignited mixed waste glass.

#### Response to I-2-7

In the Contingency Plan, Attachment GG of the current permit/approval, section G.4 describes steps that PFNW must follow during any types of emergencies. Permit contingency plans with Ecology, EPA and the Department of Health along with the facility's emergency management plan linked to city, county, and state agencies manage any risk to the public or a release to the environment. All these contingency requirements and agencies would direct the decision making process that determine if notifications to the public are required.

For the fire incident mentioned in the comment, PFNW had informed the Richland Fire department and the fire department had addressed the incident. In addition to informing the fire department for any emergencies, PFNW is also required to assess any incidents and inform all impacted or potentially impacted population depending on the nature and extent of the incidents.

During the GeoMelt fire in 2019, approximately 20 gallons of water was used to extinguish the smoldering material. The water was contained within the facility's secondary containment and disposed of per its permit requirements. None of this water went to an outside storm drain or ground and water was not used outside the permitted areas of the building. The PFP glove box was placed on a permitted concrete pad with secondary containment containing a sump in one corner of the concrete pad. There was no release of mixed waste to the environment or a radiation release to air.

Section D-11b VII, Preventing Surface and Groundwater Contamination, in Attachment NN of current permit describes runoff/run-on controls existing at the PFNW site. As per this section, the PFNW site has been designed to accommodate the 25-year, 24-hour precipitation.

### Comment I-2-8

The Department of Health issued a Mixed Waste Demonstration Permit for Geomelt that was stated to address contaminated sodium. See License AIR 18-906. This GeoMelt emission unit's license was to support the installation and temporary operation of the Geo Melt system to develop techniques for processing sodium bearing waste. Perma-Fix and GeoMelt advertised that this demonstration was for Fermi Sodium drums from Idaho. The Tank Closure and Waste Management EIS (5) shows that the Fermi drums are contaminated with Na-22, Tritium, and Cs-137. Yet the DOH license for the demonstration allows annual possession of 30.8 Ci of Am-241, 278 Ci of Pu-241, and 38.8 Ci of Pu-239.

8. What is the justification for a "demonstration" with such high annual limits of TRU isotopes that should not be present? What were the Dangerous Waste limitations on the amounts of reactive sodium to be treated?

(5) Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Page E-207.

#### Response to I-2-8

Ecology received the following response from the Washington Department of Health: There are two different APQs for different processes. GeoMelt APQ only allows a small group of isotopes in very small quantities to be processed through GeoMelt Condition 23 of the license captures this requirement.

#### Comment I-2-9

Perma-Fix noted in 2017 that one generator had shipped more activity than was listed on the waste manifest (a fraudulent or mismanaged manifest). This was caught, not by quality control, but by having emissions results that were greater than the quantity received. This was too late to prevent public exposure. Ecology should be concerned about this because there could be other manifests that undercount the amounts of hazardous constituents as well. No extent of condition review was conducted against other manifests or for dangerous waste quantities.

9. Was the inaccurate manifest generator a DOE contractor? The public should know. How does Perma-Fix verify the quantities on each manifest including those from other generators? How does Perma-Fix ensure that the received material is processed in the correct facility so that there are no unintended releases?

#### Response to I-2-9

Ecology received the following response from the Washington Department of Health: The licensee was not a DOE contractor. PFNW verifies manifests & verifies that samples remain below notification & action levels which are well below regulatory requirements. This incident was reported to WDOH when discovered & the inaccurate manifest did not result in a release.

#### I-3: GARY PETERSEN

#### Comment I-3-1

Dana McFadden Washington State Department of Ecology 3100 Port of Benton Blvd. Richland, WA 99354 Dave Bartus Environmental Protection Agency 1200 Sixth Ave., Suite 155 Seattle, WA 98101 Subject: Comments in support of Perma Fix Northwest's permit modification for an upgraded in-container mixer Dear Ms. McFadden and Mr. Bartus This letter is in strong support of the proposed permit modification to PermaFix Northwest's (PFNW) Dangerous Waste Permit and TCSA Approval No. WAR 000 10355 as per the Department of Ecology's notification to a Class 2 notice. I personally have worked with PermaFix Northwest and their staff for some 20 years and have been through their North Richland facilities several times over those years. I have witnessed PFNW's use of the earlier in-container mixer and have been fully briefed on this improved and upgraded in-container mixer. PFNW needs this permit to allow them to continue their commercial treatment of mixed low-level waste which PermaFix has been receiving from all across the U.S. This new mixer is a state-of-the-art system which should improve the mixing, and thereby the enhance the safety of mixed low-level waste treatment. This grout treatment system is a standard treatment technique being used for the large majority of mixed low-level waste across the U.S. PFNW's facilities are located nearly directly adjacent to the Hanford Site, and in close proximity to other commercial nuclear processing facilities also located in North Richland. This company has long been a member of the Tri-Cities business community; operating safely and consistently for a long period of time. Approval of this permit modification will strengthen this company's commercial business opportunities by treating, and disposing of, some of our nation's mixed low-level wastes. As a long-time community resident, I have a history and a knowledge of, nuclear waste and nuclear waste issues. I was one of three local businessmen who sued the U.S. government and the Nuclear Regulatory commission relative to the repository at Yucca Mountain. We won that lawsuit in support of a National Repository! Our nation's nuclear waste, as well as the nuclear waste at Hanford, needs to be treated and disposed

of. This permit, and this mixer, will go a long way toward making our nation safer through the treatment of mixed low-level waste. I encourage your agencies to move forward with granting this permit. Sincerely Gary R. Petersen President, Northwest Energy Associates

#### Response to I-3-1

Thank you for taking the time to review and comment on this Class 2 Permit Modification request. Ecology appreciates your input and will take your thoughts into consideration as we proceed with making our permitting decision for this specific request.

#### I-4: ROBERT FERGUSON

#### Comment I-4-1

Robert Ferguson

Daina McFadden Washington State Department of Ecology 3100 Port of Benton Blvd. Richland, WA 99354

Dave Bartus Environmental Protection Agency 1200 Sixth Ave., Suite 155 Seattle, WA 98101

Subject: Comments in support of PermaFix Northwest's permit modification for an upgraded incontainer mixer

Dear Ms. McFadden and Mr. Bartus,

I am writing in support of the proposed permit modification to PermaFix Northwest's (PFNW) Dangerous Waste Permit and TCSA Approval No. WAR 000 10355 as per the Department of Ecology's notification to a Class 2 notice.

My comments are based on a thorough understanding of the PFNW's operation, processes, and equipment, as founder of PermaFix Northwest's predecessor company and service on its board of directors for many years.

PFNW urgently needs this permit modification to continue its commercial treatment of mixed low-level waste at the Hanford Site. The upgraded in-container mixer will improve the mixing process and make treatment of mixed low-level waste safer, faster, and more cost-effective. The grout treatment system already is used as the standard treatment technique for the majority of mixed low-level waste across the United States and the world, and it is essential to accelerating the cleanup of waste at Hanford.

PFNW has been a key contributor to the Hanford cleanup effort and a responsible member of the Tri-Cities business community, operating safely and consistently for decades. There is no reason not to approve the permit modification that will allow PFNW to cost-effectively treat and dispose of a significant volume of the nation's mixed low-level waste.

I have more than 50 years' experience in the nuclear field, a good portion of that time spent at the Hanford Site directing construction of the Fast Flux Test Facility and the Columbia Generating Station. I also was one of three Tri-Cities business leaders who sued the U.S. government, the Department of Energy, and the Nuclear Regulatory Commission for unlawfully shutting down the Yucca Mountain Project, which was designated to dispose of Hanford's high-level

radioactive waste. We won that case in a landmark decision in 2013; however, continued political roadblocks make it unlikely that a repository will ever be built at Yucca Mountain.

Therefore, other methods for treatment and disposal such as PFNW has been using and improving are available and ready for operation if the modification to PFNW's Dangerous Waste Permit can be acquired.

As founder of a new non-profit organization, Northwest Energy Associates doing business as Clean Up Hanford Now, I am committed to making sure that the legacy of nuclear waste from Cold War nuclear weapons manufacturing is finally cleaned up using the safest, fastest, and most cost-effective methods available. I consider PFNW's new mixer and treatment process to be an essential for achieving Hanford's cleanup goal.

The science behind PFNW's mixer is sound and the process is effective. I urge your agencies to grant this permit immediately.

Robert L. Ferguson, former U.S. Department of Energy Assistant Secretary for Nuclear Programs, former CEO for the Washington Public Power Supply System, former President of Tri-City Development Council, and current founder of Northwest Energy Associates/Clean Up Hanford Now

#### Response to I-4-1

Thank you for taking the time to review and comment on this Class 2 Permit Modification request. Ecology appreciates your input and will take your thoughts into consideration as we proceed with making our permitting decision for this specific request.

### **B-1: TRI-CITY DEVELOPMENT COUNCIL**

### Comment B-1-1

This letter is to express the Tri-City Development Council's (TRIDEC) support for the proposed permit modification to PermaFix Northwest's (PFNW) Dangerous Waste Permit and TCSA Approval No. WAR 000 10355, as per the Department of Ecology's notification to a Class 2 notice. Our reasons for this position are as follows:

1. PermaFix has facility has served a critically important function in support of the Hanford cleanup mission, as well as to commercial customers, for decades. The PFNW treatment facility is in a highly industrialized part of north Richland, nearly adjacent to the Hanford site. It is in close proximity to other complex nuclear facilities where hazardous materials of all types move regularly and safely. There is no reason to believe the addition of a proven and demonstrated, mature, and well understood grout mixing capability will negatively impact the adjacent businesses or facilities.

2. PermaFix Northwest at one time had a state permitted grout mixing treatment capability at its subject Richland plant. Due to system obsolescence it was retired and decommissioned. Technologies have improved and the system that is a subject of the requested permit is considered state-of-the-art. We have no reason to believe that adding this capability would negatively impact the environment, the safety of the workers or the community. In addition, we are confident that Ecology, EPA and any other relevant enforcement organizations have the

capability to provide responsible monitoring and oversight for such a simple and well understood treatment process.

3. The PermaFix requested grout treatment system that is the subject of this permit modification is the standard treatment technique for the vast majority of the mixed low-level waste in the US and the world. It is used in commercial and government applications for the treatment and stabilization of RCRA and low-level radioactive wastes prior to permanent disposal. Again, we have no reason to believe the permitted operation of such a unit at PFNW would in any way cause worker safety or an environmental hazard. Such treatment processes have been demonstrated and are in operation at hundreds of other permitted sites throughout the US and the world.

4. The new mixer is a state-of-the-art system which should improve the mixing and further enhance the safety of mixed low-level waste treatment.

PermaFix is a long-term valuable member of the local business community and the region. The services they provide are important to the cleanup of Hanford as well as addressing environmental issues associated with dispositioning waste from commercial nuclear power plants like the Columbia Nuclear Generating Station. In addition, approval of the requested permit modification strengthens the company's capabilities, provides good jobs and promotes growth of the local work force.

We encourage your agencies to move forward with granting this permit.

### Response to B-1-1

Thank you for taking the time to review and comment on this Class 2 Permit Modification request. Ecology appreciates your input and will take your thoughts into consideration as we proceed with making our permitting decision for this specific request.

# **O-1: ANONYMOUS**

### Comment O-1-1

We strongly support Perma Fix's request for a permit modification to include this capability to their waste treatment facility and request that Ecology issue the permit modification as soon as possible. Our reasons for this position are as follows:

1. PermaFix has been safely operating its waste treatment facility in compliance with federal, state and local regulations for decades. The Perma-Fix treatment facility is in a highly industrialized part of north Richland and nearly adjacent to the Hanford site. It is adjacent to other complex, nuclear facilities where hazardous materials of all types move regularly and safely. There is no reason to believe the addition of a proven and demonstrated, mature, well understood grout mixing capability as requested by this permit application will in any way negatively impact the outstanding operational safety and regulatory compliance record of the company nor negatively impact the adjacent businesses or facilities.

2. Perma-Fix Northwest at one time had a state permitted grout mixing treatment capability at its subject Richland plant. Due to system obsolescence it was retired and decommissioned. Technologies have improved and the system that is a subject of the requested permit is considered state-of-the-art. There is no reason to believe nor are there any known industrial

examples where such a process technology would in any way negatively impact the environment, the safety of the workers or the community. The state regulators and enforcement organizations certainly know how to provide monitoring and oversight for such a simple and well understood treatment process. We know this to be true since they previously performed such oversight at Perma Fix when a similar treatment mixer was in operation in the past.

3. The Perma Fix requested grout treatment system that is the subject of this permit modification, is the standard treatment technique for the vast majority of the mixed low-level waste in the US and the world. It is used in commercial and government applications for the treatment and stabilization of RCRA and low-level radioactive wastes prior to permanent disposal. Again, there is no reason to believe the permitted operation of such a unit at PermaFix Northwest would in any way cause worker safety or an environmental hazard. Such treatment processes have been demonstrated and are in operation at hundreds of other permitted sites throughout the US and the world.

4. PermaFix is a long-term valuable member of the local business community and the region. The services they provide are important to the cleanup of Hanford as well as addressing environmental issues associated with dispositioning waste from commercial nuclear power plants like the Columbia Nuclear Generating Station. Approval of the requested permit modification strengthens the company's business offerings, provides for good wage jobs and promotes growth of the local work force. The agencies of the state of Washington and the Federal government should support and encourage businesses to invest and provide needed services in a safe and environmentally compliant manner. It should be the job of regulatory agencies to grant permits then provide proper oversight through its enforcement organizations to ensure the company remains in compliance with regulatory requirements. It is not the responsibility of the state to determine which commercial businesses should continue to operate and what services the businesses should provide. That should be market driven.

#### Response to O-1-1

Thank you for taking the time to review and comment on this Class 2 Permit Modification request. Ecology appreciates your input and will take your thoughts into consideration as we proceed with making our permitting decision for this specific request.

### **O-2: HANFORD CHALLENGE**

#### Comment O-2-1

The RCRA permit application by Perma-Fix Northwest, Inc. (hereinafter, Perma-Fix NW) is deficient and raises significant concerns about compliance with environmental requirements, safety of operations, and increases in the amounts of radioactive and other hazardous wastes currently and planned to be processed at the facility. As a result, the requested Permit Modification should be rejected until numerous concerns and issues are addressed. These concerns include:

- Proximity of Residential Housing and Children: According to the U.S. Environmental Protection Agency, 10,324 people live within 3 miles of the Perma-Fix NW facility. A children's day care center is located less than a mile away.

#### Response to O-2-1

The proximity of the Perma-Fix NW Facility to housing and the daycare center was accounted for and evaluated in the Final Environmental Impact Statement for Treatment of Low-Level Mixed Waste (Feb. 1998) (1998 SEPA EIS) and through the Washington Department of Health's (WDOH) verification of PFNW modeling via licensing and inspection processes. WDOH has verified that current CAP88 dose modeling is to the appropriate receptor. This is accomplished by calculating the dose to the members of the public at the point of maximum annual air concentration in an unrestricted area where any member of the public may be. The determination varies depending on stack height, plume rise, meteorological data dispersion and deposition.

The Class 2 Modification to support the operation of the In-Container Mixer at the Perma-Fix NW Facility does not seek an increase in the capacity of the In-Container Mixer. Therefore, the evaluation of potential impacts based on the proximity of the Perma-Fix NW Facility to housing and the daycare center in the 1998 SEPA EIS and through WDOH's licensing and inspection processes remains the same.

#### Comment O-2-2

- History as a Significant Non-Complier: Between October 2018 and October 2019, the U.S. Environmental Protection Agency designated the Perma-Fix NW facility as a "significant Non-Complier" with environmental laws. EPA performance and compliance history for Perma-Fix is available on a web page.1 In 2008, EPA settled with Perma-Fix for \$304,000 for PCB waste handling violations. More recently, Perma-Fix is listed as a "significant" noncomplier from October 1, 2018 to December 31, 2019. Fines from the last 5 years total \$59,775 for Enforcement Actions and \$23,375 for EPA cases. Violations were identified in every quarter from June 30, 2017 to March 331, 2018. Perma-Fix NW's history of non-compliance with environmental laws argues against allowing it to expand its production operations, and brings into focus whether this company has the requisite character, competence and integrity to be allowed to operate a nuclear facility which is surrounded by a residential population of over 10,000 persons within a 3-mile radius.

### Response to O-2-2

Thank you for your comment related to PermaFix Northwest's compliance history. Ecology and EPA carefully consider the compliance history of a facility in making dangerous waste permitting and TSCA/PCB approval decisions. In particular, the requirements for the content of an application for approval as a commercial storer of PCBs specifically require applicants to document that "The applicant, its principals, and its key employees responsible for the establishment or operation of the commercial storage facility are qualified to engage in the business of commercial storage of PCB waste,"(See 40 C.F.R. §761.65(d)). These regulations also provide that in making a decision to approve an application for commercial storage of PCBs, "The environmental compliance history of the applicant, its principals, and its key employees may be deemed to constitute a sufficient basis for denial of approval whenever in the judgment of the appropriate EPA official that history of environmental civil violations or criminal convictions evidences a pattern or practice of noncompliance that demonstrates the applicant's unwillingness or inability to achieve and maintain compliance with the regulations.

While PFNW has been the subject of multiple enforcement actions as documented in your comment, each of these issues has been resolved to the satisfaction of Ecology and EPA. Further,

the specifics of the various compliance actions do not directly relate to the in-container mixer unit or its proposed operations. Therefore, EPA has determined that PFNW, its principals and key employees are qualified to engage in the business of commercial storage of PCB waste, including through operation of the in-container mixer (ICM), and that the compliance history of PFNW does not provide a sufficient basis to deny approval of the requested approval modification related to the ICM. EPA will, of course, continue to consider these factors in the context of the pending re-issue of the state-issued dangerous waste permit and EPA-issued TSCA commercial storage approval."

#### Comment O-2-3

- Percentage of DOE Waste Exceeds Original Operational Scope: According to the U.S. Department of Energy (DOE), the operation was originally scoped to process no more than 25% of wastes from DOE. However, Hanford and other DOE sites (including Los Alamos National Laboratory in New Mexico, the Idaho National Engineering site, and the Oak Ridge nuclear reservation in Tennessee) provided the Perma-Fix NW facility with about 95% of all of its mixed low- level wastes and about 70% of the volume of low-level radioactive wastes.2 That the Perma-Fix NW facility would survive without DOE customers is questionable.

### Response to O-2-3

This comment is relevant to the upcoming permit renewal of the PFNW Mixed Waste Facility Dangerous Waste/Toxics Substances Control Act Permit and the commenters concern is being taken under consideration during the drafting of the SEPA EIS supplement. That said, this comment is outside of the scope of this Class 2 Modification to support the operations of the In-Container Mixer at the Perma-Fix NW Facility.

#### Comment O-2-4

- Potential Conflict of Interest Due to Subsidized Technologies: DOE at Hanford has heavily subsidized the technologies Perma-Fix NW with nearly \$400 million in R&D funds, which poses questions about conflicts-of-interest and whether DOE should include Perma-Fix NW in its air permits as a Hanford stack.

### Response to O-2-4

This comment is outside of the scope of this Class 2 Modification to support the operation of the In-Container Mixer (ICM) at the Perma-Fix NW Facility. Any change to the Hanford Site Air Operating Permit would need to be evaluated through the Hanford Site Air Operating Permit permitting process.

#### Comment O-2-5

- Compliance Issues for Long-Dormant GasVit Processing Facility: Perma-Fix NW continues to maintain a long-dormant processing facility, which failed to operate properly in apparent violation of state requirements. According to the permit application, the shuttered GasVit operation will annually process 8.6 million pounds of solid and liquid Mixed Low Level Waste (MLLW), transuranic wastes, polychlorinated biphenyls (PCBs), and other hazardous substances. However, Perma-Fix NW does not provide any information as to what steps it will have to take to make this hazardous processing facility operational, after some 20 years of dormancy. Has the Department of Ecology officially determined the Gas/Vit facility is safe and fully operational? The publicly-reported inability to ensure the Gas/Vit air ventilation system

was functioning properly is what caused the Gas/Vit plant to fail - leading to the bankruptcy of its previous owner.

## Response to O-2-5

This comment is outside of the scope of this Class 2 Modification to support the operation of the In-Container Mixer (ICM) at the Perma-Fix NW Facility. The Gas/Vit unit has been decommissioned and Ecology accepted the closure certification for the unit in 2013.

## Comment O-2-6

- Risks to Workers and Community from Expanded GeoMelt Unit: Perma-Fix NW is seeking to expand its GeoMelt (bulk vitrification) unit beyond its first small scale pilot operation to process approximately 1.5 metric tons of radiologically contaminated liquid sodium from the failed Fermi 1, plutonium "breeder" reactor near Detroit, Michigan. The Fermi 1 reactor experienced a partial core meltdown in 1966 and never restarted. Liquid sodium is highly reactive and pyrophoric, catching fire when exposed to the air. This activity increases the potential risks to workers and the nearby community. In fact, in the summer of 2019, records indicate that a sodium-related fire did occur at Perma-Fix NW. The fire occurred at a time when the fire sprinklers were inoperable, and the hourly checks by workers to compensate for the sprinkler system failure were not occurring. Ecology inspector notes characterized this fire as "a near catastrophe."

### Response to O-2-6

This comment is outside of the scope of this Class 2 Modification, which is specifically to support the operations of the In-Container Mixer (ICM) at the Perma-Fix NW Facility, and does not include a request to operate or expand a GeoMelt unit.

### Comment O-2-7

- Scattered and Fragmented Approach to Safety: There is a haphazard approach to regulating the work of PermaFix NW. Some work falls under the Department of Ecology, while other work falls under Department of Health. A lack of coordination and enforcement presents increased risks to safety and health.

### Response to O-2-7

Perma-Fix NW is regulated by different agencies pursuant to distinct regulatory authorities set forth in State law. Washington State Department of Ecology has authority to regulate the storage and treatment of mixed waste at the Perma-Fix NW facility under the Hazardous Waste Management Act, Chapter 70.105 Revised Code of Washington (RCW), and the associated regulations promulgated in Chapter 173-303 Washington Administrative Code (WAC). WDOH, Office of Radiation Protection has authority to license and regulate the possession and use of radioactive material at the Perma-Fix NW facility pursuant to RCW 70.98 and RCW 70.94.

### Comment O-2-8

- Risk to Surrounding Community from Significant Increase in Amount of Radioactive Material Handled: Washington State has been incrementally permitting the Perma-Fix NW operation to significantly increase the amounts of radioactive materials it can handle, especially the highly toxic plutonium-239. By 2017, the Perma-Fix NW facility processed 3.5 times the annual limit set in 2005. Between 2013 and 2018, the facility processed more than 5.6 kilograms of plutonium-239. Last year, to accommodate the operation of the GeoMelt unit, the Washington

State Department of Health granted a 30 percent increase in the radioactive emission license for Perma-Fix NW, including strontium-90. This proposed Permit Modification would increase the amount of waste that Perma-Fix NW can handle in the In-Container Mixer Unit. The modification would allow the Mixer Unit throughput up to 1,071 lb/hour, from 770 lbs/hour, an increase of nearly 40%.

## Response to O-2-8

The Class 2 Modification to support the operation of the In-Container Mixer at the Perma-Fix NW Facility does not seek an increase in the capacity of the In-Container Mixer. In addition, Ecology received the following response from WDOH: "Based on the emissions reductions enacted with the Geomelt license limit, the comment '30 percent increase in the radioactive emission license' is inaccurate. It appears the comments may be based on curies reported in environmental reports or Annual Procession Quantities (APQs) rather than dose in mrem (emissions). Curie amounts do not take abatement, which results in significant reductions, into account. Stack sampling results verify that emissions are below licensed and regulatory limits, and these results are reviewed by WDOH annually. Dose, in mrem/yr., is the way to characterize risk to human health and the basis for regulatory limits."

### Comment O-2-9

- Eliminated Requirements for Treatability Testing: This permit modification includes a troubling deletion of the requirement for treatability tests. Treatability tests, require measurements of the composition of waste to be treated to assure that waste acceptance criteria are met. Instead of a test, employees are now able to look at the waste to make that determination using "careful consideration." Subjective "consideration" is a poor substitute for controlled tests and measurements, and this provision should be eliminated. Hanford waste, for example, requires a treatability analysis in order to process waste at LERF/ETF. Treatability testing is required to meet acceptance criteria for the disposal facility.

### Response to O-2-9

The quoted text of "careful consideration" detailed in the comment does not pertain to the removal of treatability tests. Page 81 of the Process Information (Attachment PP) in the current permit, states the following regarding treatability tests: "If necessary, a treatability test is conducted to evaluate the compatibility of the wastes for mixing with reagents and absorbents or verifying the safety and effectiveness of a given chemical treatment or stabilization process." Careful consideration is meant to be all inclusive, in that PFNW must consider all of the parameters for a given waste stream prior to processing any wastes in the ICM. Ecology also believes that some of the parameters can only be determined by performing the treatability tests, such as ratio of the reagent to the wastes and types of reagents to be used, unless the reagents are well practiced commercially for the types of wastes to be used in ICM.

The generator is responsible to fully characterize their waste prior to the shipment and acceptance by PFNW. After treatment, the resulting material is fully tested and analyzed to verify that the treated waste meets the Waste Acceptance Criteria (WAC) of the disposal site and the applicable Land Disposal Restrictions.

# Comment O-2-10

- Perma-Fix Should Be Included as a Stack in DOE Hanford's Air Operating Permit: Perma-Fix NW meets the criteria for inclusion in DOE Hanford's Air Operating Permit (AOP) as a stack,

and Ecology and EPA should reconsider its earlier decision to exclude Perma-Fix NW from the AOP.

#### Response to O-2-10

This comment is outside of the scope of this Class 2 Modification to support the operation of the In-Container Mixer (ICM) at the Perma-Fix NW Facility. Any change to the Hanford Site Air Operating Permit would need to be evaluated through the Hanford Site Air Operating Permit permitting process.

#### Comment O-2-11

- Future Plans to Treat Hanford Tank Waste Should Be Disallowed: DOE has publicized plans to utilize Perma-Fix NW's treatment systems to potentially handle millions of gallons of tank waste treatment from Hanford. Given Perma-Fix NW's history as an EPA "significant non-complier", the long list of violations and penalties assessed against the facility, the recent serious lapses in judgment that led to a "near catastrophe" fire while fire sprinklers were disabled and hourly inspections were not occurring, and the alarming proximity of this facility to over 10,000 residents within 3 miles of the facility (including a day care center), expanded operations at Perma-Fix NW should not be permitted by Ecology, the Department of Health, the NRC or the EPA.

#### Response to O-2-11

The Class 2 Modification to support the operation of the In-Container Mixer at the Perma-Fix NW Facility does not seek an increase in the capacity of the In-Container Mixer.

In addition, Ecology received the following response from WDOH: "Prior to approval of any expanded operations, Perma-Fix NW is required to submit a (modification) application request that will be reviewed, as part of the application process, in accordance with our regulations, as provided for in RCW 70.94 and 70.98. The technical aspects of the request as well as ability of the facility to safely perform the requested actions is reviewed as part of the application process."

Perma-Fix NW should not be permitted by Ecology, the Department of Health, the NRC or the EPA.

### Response to O-2-11

The Class 2 Modification to support the operation of the In-Container Mixer at the Perma-Fix NW Facility does not seek an increase in the capacity of the In-Container Mixer.

In addition, Ecology received the following response from WDOH: "Prior to approval of any expanded operations, Perma-Fix NW is required to submit a (modification) application request that will be reviewed, as part of the application process, in accordance with our regulations, as provided for in RCW 70.94 and 70.98. The technical aspects of the request as well as ability of the facility to safely perform the requested actions is reviewed as part of the application process."

# Appendix A: Copies of all public notices

Public notices for this comment period:

- Public notice
- Classified advertisement in the Tri-City Herald
- Notice sent to the Commercial Mixed Rad Waste email list
- Event posting on Washington Department of Ecology Hanford's Facebook and Twitter pages



#### PUBLIC NOTIFICATION

Perma-Fix Northwest Richland, Inc. (PFNW-R), the Permittee, is providing this public notice regarding the Class 2 permit modification to the Dangerous Waste Permit and TSCA Approval No. WAR 0000 10355 for clarification and updates to operational requirements of the In-Container Mixer Unit at their Mixed Waste Facility. The Permittee contact is Mr. Richard Grondin at 509-375-7026.

A copy of the Class 2 Permit Modification Request is available for review and copy by contacting the Department of Ecology Office, at (509)-372-7950. Additionally, a copy of the proposed modification can be viewed at the Richland Public Library located at 955 Northgate Dr. in Richland, Washington.

The 60-day public comment period begins January 24<sup>th</sup>, 2020 and ends March 24<sup>th</sup>, 2020. Any comments on the Class 2 permit modification should be submitted in writing by March 24<sup>th</sup>, 2020 to:

Mr. John Temple (509) 372-7929 3100 Port of Benton Blvd. Richland, Washington, 99354

or

Mr. Dave Bartus (206) 553-2804 1200 Sixth Avenue, Suite 155 Seattle, Washington, 98101.

Notice is also provided hereby for a public meeting on February 3<sup>rd</sup>, 2020. The public meeting will be held at 4:30pm at Richland Public Library located at 955 Northgate Dr. in Richland, Washington.

The permittee's compliance history during the life of the permit being modified is available from Mr. John Temple or Mr. Dave Bartus.

#### How to Comment

PFNW invites you to review and comment on this proposed permit modification. Copies of the proposed permit and fact sheet are located online at Ecology's <u>public comment period</u> page.

Public Comments can be done electronically at http://nw.ecology.commentinput.com/?id=3eZAr

Please submit comments by March 24<sup>th</sup>, 2020.

2025 Battelle Boulevard · Richland, Washington 99354

Tel. (509) 375-5160 · Fax (509) 375-0613

www.perma-fix.com





# AFFIDAVIT OF PUBLICATION

Account #	Ad Number	Identification	PO	Amount	Cols	Depth
766122	0004539915	PUBLIC NOTIFICATION Perma-Fix Northwest R	Legal Notice	\$140.89	1	5.15 In

#### Attention: Rick Huckfeldt

PERMA-FIX NORTHWEST 2025 BATTELLE BOULEVARD RICHLAND, WA 99354

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Dr. in Nichland, Washington. The 60-day public comment period be-gins January 24th, 2020 and ends March 24th, 2020. Any comments on the Class 2 permit modification should be submitted in writing by March 24th, 2020 br.

2020 to: Mr. John Temple (509) 372-7929 3100 Port of Benton Blvd Richland, Washington, 99354 **D**I

Mr. Dave Bartus

(206) 553-2804 1200 Sixth Avenue, Suite 155 Seattle, Washington, 98101. Notice is also provided hereby for a public meeting on February 3rd, 2020. The public meeting will be held at 4:30pm at Richland Public Library lo-cated at 955 Northgate Dr. in Richland, Washington. Washington.. The permittee's compliance history dur-

ing the life of the permit being modified is available from Mr. John Temple or Mr. Dave Bartus.

How to Comment PFNW invites you to review and com-ment on this proposed permit modification. Copiese of the proposed permit modifica-tion. Copies of the proposed permit and fact sheet are located online at Ecolo-gy's public comment period page. Public Comments can be done elec-tronically at http://mw.ecology.commen tinput.com/?id=3eZAr Please submit com March 24th, 2020. mments by

#### COUNTY OF BENTON)

STATE OF WASHINGTON)

Victoria Rodela, being duly sworn. deposes and says, I am the Legals Clerk of Tri-City Herald, a daily The newspaper. That said newspaper is a local newspaper and has been as a legal newspaper by approved order of the superior court in the county in which it is published and it is now and has been for more than six months prior to the date of the publications hereinafter referred to, published continually as a daily newspaper in Benton County, Washington. That the attached is a true copy as it was printed in the regular and entire issue of the Tri-City Herald and not in a supplement thereof, ran 1 time(s) commencing on 01/26/2020, and ending on 01/26/2020, and that said newspaper was regularly distributed to its subscribers during all of this period.

.SS

(Signature of Legals Clerk)

#### SUBSCRIBED AND SWORN BEFORE ME THIS 27th DAY OF January, 2020

Notary Public in and for the State of Texas

residing in Dallas County



Extra charge for lost or duplicate affidavits. Legal document please do not destroy!

From:	Info on Ecology"s decisions for US Ecology, PermaFix, Areva & Bremerton Naval Sh on behalf of McFadden, Daina (ECY)
To:	ECY-COMMERCIAL-MIXED-RAD-WASTE@LISTSERV.ECOLOGY.WA.GOV
Subject:	Perma-Fix public comment period for the In-Container Mixer Unit
Date:	Monday, January 27, 2020 11:35:28 AM

#### PUBLIC NOTICE

#### FOR CLASS 2 PERMIT MODIFICATION

Perma-Fix Northwest Richland, Inc. (PFNW-R) the Permittee, is providing this public notice regarding the Class 2 permit modification to the Dangerous Waste Permit and TSCA Approval No. WAR 0000 10355 for clarification and updates to operational requirements of the In-Container Mixer Unit at their Mixed Waste Facility. The 60-day public comment period began January 24, 2020, and ends March 24, 2020.

A copy of the Class 2 permit modification request is available on the <u>Ecology Public comment</u> <u>period page</u> or by contacting the Ecology Nuclear Waste Program office at 509-372-7950. A copy can also be viewed at the Richland Public Library, 955 Northgate Drive, in Richland, WA.

A public meeting is being held on February 3, 2020, at 5:30 at the Richland Public Library, 955 Northgate Drive, Richland, WA 99352.

Please submit comments by March 24, 2020, <u>electronically</u> (preferred) or by mail to:

Washington State Department of Ecology Daina McFadden (509) 372-7950 3100 Port of Benton Blvd Richland, Washington, 99354

or

Environmental Protection Agency Dave Bartus (206) 553-2804 1200 Sixth Avenue, Suite 155 Seattle, Washington, 98101.

The permittee's compliance history during the life of the permit being modified is available from Ecology or the EPA. The Permittee contact is Mr. Richard Grondin at 509-375-7026.

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	?	

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From:	Rick Huckfeldt
To:	ECY-COMMERCIAL-MIXED-RAD-WASTE@listserv.Ecology.wa.gov
Cc:	McFadden, Daina (ECY)
Subject:	PUBLIC NOTICE - Class 2 Modification for In-Container Mixer
Date:	Monday, February 10, 2020 8:58:02 AM

#### THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Perma-Fix Northwest Richland, Inc. (PFNW-R) the Permittee, is providing this public notice regarding the Class 2 permit modification to the Dangerous Waste Permit and TSCA Approval No. WAR 0000 10355 for clarification and updates to operational requirements for the In-Container Mixer Unit at their Mixed Waste Facility. The Permittee contact is Mr. Richard Grondin at 509-375-7026.

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or

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Public Comments can be done electronically at http://nw.ecology.commentinput.com/?id=3eZAr

Please submit comments by March 24th, 2020.

 Washington Department of Ecology - Hanford

 Published by Ryan Ecology Miller [?] - 1 min - 🔇

We want to hear your input! A public comment period, held by Perma-Fix Northwest, began Friday. The comment period is about a permit modification involving their facility.

Check out the details of the comment period and get your comments in by March 24 here: https://ecology.wa.gov/.../Nuclear-was.../Public-comment-periods





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We want your input! Perma-Fix Northwest is holding a public comment period that began Friday, about a permit modification involving their facility.

Check out the details and get your comments in by March 24 here: ecology.wa.gov/Waste-Toxics/N... @EcologyWA @EPAnorthwest @HanfordSite

