Response to Comments

Class 2 Permit Modification to "Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility" Chapter

April 6 – June 4, 2022

For the **Nuclear Waste Program**

Washington State Department of Ecology

Richland, Washington

August 2022, Publication 22-05-019

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State of Washington

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Author

Emma Reynolds, Unit Lead

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Contact Information

Daina McFadden
Permit Communication Specialist
Nuclear Waste Program
3100 Port of Benton Blvd
Richland, WA 99354
Phone: 509-372-7950
Email: Hanford@ecy.wa.gov

Website[2]: Washington State Department of Ecology

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[1] https://apps.ecology.wa.gov/publications/summarypages/2205019.html
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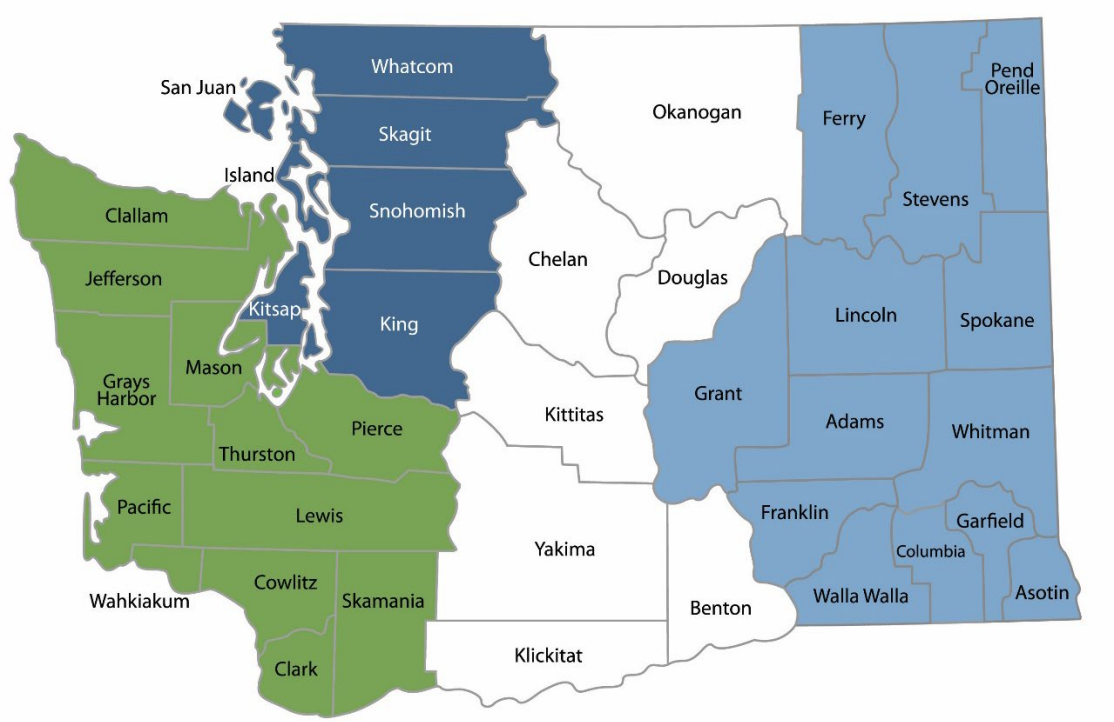
Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400

Region	Counties Served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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Table of Contents

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 Washington Administrative Code [WAC] 173-303-830 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 changes, 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	Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF): BST, ADST, ALDO and Tote Storage modification Class 2 Permit Modification, April 6 – June 4, 2022
Permit	*Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal of Dangerous Waste, LERF and 200 Area ETF*
Permittees	U.S. Department of Energy (USDOE)
Original Issuance date	01/28/1998
Effective date	09/04/2022

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our webpage, Hanford Cleanup[3].

[3] https://www.ecology.wa.gov/Hanford

Reasons for Issuing the Permit

The proposed Class 2 permit modification affects the Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF) portion of the Permit. The modification would allow for the installation of an Acetonitrile Distillate Loadout Facility (ALDO), Acetonitrile Distillate Tote Storage Area, Acetonitrile Distillate Storage Tanks (ADST), and Brine Storage Tanks (BST) to the 200 Area ETF. These additional dangerous-waste management units are needed to support waste management operations resulting from the receipt of liquid effluent from the Waste Treatment and Immobilization Plant.

Public Involvement Actions

USDOE encouraged public comment on the LERF and 200 Area ETF: BST, ADST, ALDO and Tote Storage Class 2 Permit Modification during a 60-day public comment period held April 6 through June 4, 2022.

The following actions were taken to notify the public:

- Mailed a public notice announcing the comment period to 1,005 members of the public.
- Placed a public announcement legal classified advertisement in the Tri-City Herald on April 5, 2022.
- Emailed a notice announcing the start of the comment period to the Hanford-Info email list, which has 1,283 recipients.
- Posted the comment period notice on the Washington Department of Ecology – Hanford's Facebook and Twitter pages.

USDOE held a virtual public meeting 5:30 p.m. May 10, 2022. Seven members of the public attended, and zero comments were collected.

The Hanford information repositories located in Richland, Spokane, and Seattle, Washington, and Portland, Oregon, received the following documents for public review:

- Focus sheet
- Transmittal letter
- Draft LERF and 200 Area ETF: BST, ADST, ALDO and Tote Storage Permit Modification

The following public notices for this comment period are in Appendix A of this document:

- Focus sheet
- Classified advertisement in the Tri-City Herald
- Notices sent to the Hanford-Info email list
- Notices posted on the Washington Department of Ecology – Hanford's Facebook and Twitter pages

List of Commenters

The table below lists the names of organizations or individuals who submitted a comment on the Draft LERF and 200 Area ETF: BST, ADST, ALDO and Tote Storage Permit Modification. The comments and responses are in Attachment 1.

Commenter	Organization
Anonymous	Citizen
Vince Panesko	Citizen
Kelly Norton	Citizen
Steven Gary	Citizen
Hanford Challenge	Organization

Attachment 1: Comments and Responses

Description of comments:

Ecology accepted comments from April 6 through June 4, 2022. 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

Comment I-1-1

Before approving this permit change, I would appreciate if Ecology will investigate the feasibility of DOE being able to meet permit condition 111.3.J.9, which states, "Prior to processing waste through the steam stripper system, the Permittees must provide to Ecology the treatment and disposal pathway for the concentrated acetonitrile distillate secondary waste stream." The current permit change would allow DOE to construct equipment for which there is no identified disposal path. As a result, the tanks will be an attractive nuisance, and will provide motivation to try to be able to use them no matter the cost or hazard. What is the likelihood that DOE can come up with a permitted and approved acetonitrile disposal path before WTP startup?

Response to I-1-1

Permit condition III.3.J.10 will not allow the steam stripper to process waste until a treatment and disposal path has been identified for the acetonitrile distillate. The same requirement pertains to the LERF Basins (See permit condition III.3.J.8).

Startup of hot commissioning for DFLAW operations is important to both Ecology and USDOE, but before that can occur a treatment and disposal pathway for the acetonitrile distillate will need to be in place, and Ecology will ensure the waste stream will be managed in a manner that is protective of human health and the environment.

Comment I-1-2

Permit Condition 111.3.J.7 states, "Prior to operations of the brine loadout system, the Permittees must provide to Ecology for review and approval information demonstrating that the liquid brine waste stream will be shipped to authorized treatment, storage, or disposal facilities for treatment and disposal." Again, the current permit change would allow DOE to construct equipment for which there is no identified disposal path. As a result, the brine tanks will also be an attractive nuisance, and will provide motivation to try to be able to use them no matter the cost or hazard. What is the likelihood that DOE can come up with a brine disposal path before WTP startup? Grouting of brine onsite (which is consistent with the on-site treatment preference in DOE O 435.1, has been "paused." Why?

Response to I-1-2

Permit condition III.3.J.7 will not allow the brine loadout system to process waste until a treatment and disposal path has been identified for the brine waste stream. Startup of hot commissioning for DFLAW operations is important to both Ecology and USDOE, but before that can occur a treatment and disposal pathway for the brine waste stream will need to be in place, and Ecology will ensure the waste stream will be managed in a manner that is protective of human health and the environment.

This Class 2 modification doesn't address where the brine waste should be shipped for treatment and disposal. Therefore, this comment is outside the scope for this permit modification.

Comment I-1-3

Increased concentrations for Acetonitrile in ETF streams are directly attributed to operation of the WTP LAW melters, (it is newly generated dangerous waste) rather than attributed to tank waste, which has much lower concentrations. Specifically, the acetonitrile in the current permit request will be generated in the WTP off-gas system. In WTP, acetonitrile, a volatile organic, is generated in the gas phase. The 1 best available technology, which is used in WTP for volatile organics, has been selected as thermal catalytic oxidation (thermal treatment). Why then, does WTP scrub this gas into the liquid rather than sending it to a TCO? Please note that tank farms is even testing thermal oxidation for tank ventilation systems, per letter 21- NWP-218. Organics are much lower in tank farms off-gases than the WTP-generated acetonitrile, aren't they? Why use steam stripping, which does not destroy the waste? Why has DOE been allowed to use steam stripping, which concentrates the hazard, instead of installing thermal treatment at WTP or ETF?

Response to I-1-3

This Class 2 permit modification does not address the steam stripper unit. The steam stripper unit was permitted under a previous permit modification.

With that, air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam stripping was selected as the most desirable method to remove and capture the acetonitrile for treatment and disposal.

Comment I-1-4

Ecology noted the hazards of acetonitrile processing at PFNW and at ETF in unresolved comments, even showing that the majority of the acetonitrile [a dangerous waste] goes to the atmosphere!

Ecology's comments and questions are excellent ones. See: 21-TF-003810, Submittal of DOE/ORP-2021-05, DFLAW to Meet M-062-51-TOl & M-062-52-TOl RCR comments on DFLAW secondary waste work plan {002}_ECY_3-2-22.docx.

I would appreciate if Ecology would require the comments you wrote in the "RCR for DOE/ORP-2021-05, Rev. 0 Direct-Feed Low-Activity Waste Secondary Liquid And Solid Waste Work Plan," March 2, 2022, be thoroughly resolved, with appropriate "best available technology" analyses completed, and with appropriate universal treatment standards met, on-site, at Hanford.

Ecology's comments should be resolved before construction is allowed to begin, and the responses published in the TPA Administrative Record.

The acetonitrile waste should not be processed off-site and neither should the brine. Nothing in the PFNW EIS even approaches the compositions or volumes that will be transferred from a lower risk to a much higher risk location.

Response to I-1-4

Ecology has resolved all comments with DOE on "DOE/ORP-2021-05, Rev. 0 Direct-Feed Low-Activity Waste Secondary Liquid And Solid Waste Work Plan" related to acetonitrile. Construction on the LERF/ETF facilities relating to this modification will not begin until this permit modification has gone into effect.

This Class 2 modification is to install Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area ETF. This Class 2 modification doesn't address where the acetonitrile distillate should be shipped for treatment and disposal. Comments specific to PFNW's operation should be addressed through the PFNW's permit; therefore, this comment is outside the scope for this permit modification.

Comment I-1-5

Page 8196 of the review package, RPP-CALC-64876, sheet 9 of 15, states "Information is not readily available regarding the specific expected corrosion rates of grades 316 and 316L stainless steel in contact with a 2.3% by weight acetonitrile I DI water solution. For this analysis, the use of a 2 mil per year deterioration factor was selected based upon available information including vendor compatibility charts, material compatibility report RPP-RPT-62550, Rev. 0, and constituent measurements of a sample of the acetonitrile provided in the Inorganic Compounds Report."

The material compatibility reports for brine and for acetonitrile, such as RPP-RPT-62550, are not included in the permit package. I would appreciate if Ecology will check and see if the estimated compositions in these reports match the integrated 2 process flow sheet, including the effects of the dissolved and entrained Carbon Dioxide from the previous permit modification. Often the inputs to these documents are out of date so that the conclusions may not be reliable. Is the compatibility analysis complete and current? Is the input assumption and application for corrosion defensible?

Response to I-1-5

Ecology reviewed the latest material compatibility report RPP-RPT-62550 Rev. B published in 2020. The composition of acetonitrile distillate evaluated in the compatibility report is the same (i.e., 2.3% wt. acetonitrile) as that identified in RPP-CALC-64876 Rev. 0, "Acetonitrile Distillate Storage Tank Corrosion Allowance".

The steam stripper is the last treatment unit in the primary treatment train where acetonitrile distillate is generated. Majority of dissolved organic and inorganic constituents are removed while passing through various units in the primary treatment train before the steam stripper to meet the delisting requirements of treated water. Existing degassing column removes entrained carbon dioxide. The effluent concentration after the degassing column is around 5 ppm. The added carbon dioxide skid removal system will reduce entrained carbon dioxide to lower level than the feed concentration limit of existing degassing column. Thus, effects of these constituents are negligible on corrosion rates of grades 316 and 316L stainless steel that will be

used for construction of acetonitrile distillate storage tank and acetonitrile distillate loadout system.

Therefore, Ecology believes that the compatibility analysis for the constituents of concerns is current and complete. Also, the input data and assumptions made for determining corrosion of stainless steel are defensible.

Comment I-1-6

Secondary containment is addressed in the permit modification package for acetonitrile and brine tanks and totes. Section C.3.10.3 says a portable pumping system will be used, but vapor releases are not contained by the secondary containment equipment in this permit. Acetonitrile has a NIOSH recommended airborne exposure limit of 20 ppm over a 10 hour work shift, with a legal limit of 40 ppm over an 8 hr work shift. At 22,964 ppm in the liquid, the acetonitrile distillate will exceed exposure limits by a lot in the vapor phase, as it is volatile. In the event of a spill how are workers protected from vapors? Are the secondary containment pits sealed or equipped with local ventilation?

Response to I-1-6

ETF sumps are not sealed and, as far as Ecology is aware, ventilation is not specifically designed to pull air from the sumps. The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building.

For this comment, Ecology reviewed the potential hazard that air emissions from a spill or release might pose for workers nearby. Acetonitrile is volatile, with a vapor pressure approximately three times that of water. However, diluted to 2.3% by weight (22,964 ppm), the evaporation rate of acetonitrile from the surface of a liquid spill would be slow enough for building ventilation or natural air movement outside to protect workers while the policies and procedures identified in Addendum J, Section 6 were put into practice.

Acetonitrile is more dense than air and vapors from a spill might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained. In the event of an emergency, the Permittees have plans and procedures in place to help minimize risks.

I-2: VINCE PANESKO

Comment I-2-1

This form is trickey because there is no clear direction as to where to make the comment. Furthermore, I made a long series of comments. After hitting the edit link, my comments disappeared. So your system is designed to frustrate the average user.

My main comment is this. Why wasn't this permit issued years ago when the WTP was built? Why was acetonitrile discovered to be a problem at this late hour? There is more to this story than Ecology put into the permit modification and the public needs to know that story. Has there been a cover up by Ecology to overlook previous organic disposals to the soil? Why is acetonitrile a problem in 2022 when the hazard analysis of the WTP was written years ago? There is more to this story, and I would like to see it written in the permit so that the public can understand what is really going on....or perhaps....what was not going on, i.e. why previous hazard analyses years ago failed to identify anetonitrile as a problem.

Response to I-2-1

Public involvement in the permitting process is very important to Ecology, so we will take a look at our Public Comment system.

Slow reaction kinetics for acetonitrile destruction in the ETF UV/OX system did not allow ETF to take credit for treating acetonitrile. This was originally identified as an issue with the 2004 waste profile for effluent received from WTP PTF and confirmed with the 2018 waste profile for DFLAW effluent.

In compliance with the RCRA permit and facility procedure, the ETF evaluated the new waste stream for treatment and disposal. The final evaluation was published in July 2019, and concluded that, "Either source changes must be made to reduce the acetonitrile concentration or additional treatment capability must be added at the ETF and the delisting treatability envelope modified."

DOE began funding for an ETF Acetonitrile Treatment project in FY2020 (i.e., October 2019). Conceptual design completed in March 2020. Design completion took longer than anticipated, and completed in December 2020. The 100% was then used to finalize a corresponding RCRA permit modification in April 2021. After DOE, review the RCRA permit modification was formally submitted to Ecology in June 2021.

I-3: KELLY NORTON

Comment I-3-1

Dear WA State Department of Ecology Hanford Nuclear Site,

Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

As a 1985 Hanford High School graduate, I am grateful to Hanford Challenge for informing citizens about important issues such as these.

Please take their concerns and recommendations into account, and don't take the easy route that eliminates important worker and environmental protections. People over profits!!

Sincerely,

Kelly Norton

Response to I-3-1

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

I-4: STEVEN GARY

Comment I-4-1

Dear WA State Department of Ecology Hanford Nuclear Site,

Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

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PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

Sincerely,

Steven Gary

Response to I-4-1

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

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Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

O-1: HANFORD CHALLENGE

Comment O-1-1

It is unclear to Hanford Challenge and Columbia Riverkeeper why the steam stripper project was selected instead of a treatment technology that oxidatively or catalytically destroys the acetonitrile. We would like this explained and reconsidered, especially the rationale to concentrate the waste for grouting at Perma-Fix Northwest when acetonitrile is so dangerous in concentrations far smaller than the 23,000 ppm acetonitrile distillate concentration proposed here for grouting. As a separate note, the surveillance was limited to hazards analysis procedure and did not extend itself into the design process scope. How was this process selected? Why was it selected - how does it match up with the design-safety hierarchy to first have solutions that are designed for safety?

Response to O-1-1

This Class 2 permit modification does not address the steam stripper unit. The steam stripper unit was permitted under a previous permit modification.

With that, air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam stripping was selected as the most desirable method to remove and capture the acetonitrile for treatment and disposal.

23,000 ppm is concentration in the liquid distillate. The lower concentrations you are referring to are inhalation toxicity numbers in the worker breathing space. Acetonitrile in solution does not present the inhalation hazards at the temperature range that it is being handled.

Comment O-1-2

We have the understanding that there will be a separate permit modification related to disposal of acetonitrile, however, we would like to state now, that we have major concerns with disposing of a concentrated grouted acetonitrile waste form at IDF, due to is explosive and flammable nature. It does not seem worth the risk of starting an underground fire in this landfill, when there are technologies that could destroy the acetonitrile.

Could you please explain how the steam stripper process was selected when there is no disposal pathway for the concentrated acetonitrile? How could that happen if DOE needs to get a DOE Order 435.1 exemption before sending off-site? What alternatives are being considered for disposal? Where is the preferred onsite treatment?

Response to O-1-2

Maintaining less than 5% acetonitrile concentration in the distillate ensures there are no ignitability concerns. ETF is expected to maintain less than 3% concentration of acetonitrile in the distillate. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

This Class 2 permit modification does not address the steam stripper unit. The steam stripper unit was permitted under a previous permit modification. With that, air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam stripping was selected as the most desirable method to remove and capture the acetonitrile for treatment and disposal.

In accordance with DOE M 435.1-1, the DOE Field Element Manager will issue a letter documenting the approval of an exemption for the use of non-DOE facilities for treatment and disposal of secondary waste on a case-by-case basis. This order will be in place before any shipment of waste off-site.

This Class 2 modification doesn't address where the acetonitrile distillate should be shipped for treatment and disposal. Therefore, this comment is outside the scope for this permit modification.

Comment O-1-3

The May 10, 2022 public meeting indicated that there was no selected offsite treatment facility, however, other documents indicate that Perma-Fix Northwest is the assumed treatment facility. Could you please explain where you imagine the acetonitrile distillate being treated and how long it would sit in storage while awaiting treatment?

Just to note, Hanford Challenge and Columbia Riverkeeper do not believe the acetonitrile distillate should be sent to PFNW for treatment. It poses too great a threat to workers, the public, and the environment

Response to O-1-3

This Class 2 modification is to install Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area ETF to ship acetonitrile distillate off-site for treatment and disposal. This Class 2 modification doesn't address where the acetonitrile distillate should be shipped for treatment and disposal. Comments specific to PFNW's operation should be addressed through the PFNW's permit; therefore, this comment is outside the scope for this permit modification.

Ecology will ensure that all such wastes are treated, stored, and disposed of at an approved facility and in full compliance with dangerous waste regulations and applicable permits in a manner fully protective of human health and the environment.

Comment O-1-4

Please explain what is being done to protect workers from the contents of the process and tanks? Are there design changes planned for the ETF ventilation system?

We believe real-time monitoring is necessary to detect dangerous working conditions (i.e. not modeling) and that workers should be required to wear respirators if they are in a work area where there is the potential to be exposed to acetonitrile vapors. Not only should workers have access to respirators, but these respirators should be in good working order and maintained properly.

Response to O-1-4

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5 minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does

not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

Comment O-1-5

Perma-Fix NW appears in documents related to the ETF Steam Stripper projects as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

If acetonitrile is shipped to Perma-Fix NW, then comprehensive worker protection measures including thorough worker trainings, adequate PPE, robust safety systems, and full protection from chemical vapors must be implemented.

Response to O-1-5

This Class 2 modification is to install Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area ETF to ship acetonitrile distillate off-site for treatment and disposal. This Class 2 modification doesn't address where the acetonitrile distillate should be shipped for treatment and disposal. Comments specific to PFNW's operation should be addressed through the PFNW's permit; therefore, this comment is outside the scope for this permit modification.

Ecology will ensure that all such wastes are treated, stored and disposed at an approved facility and in full compliance with dangerous waste regulations and applicable permits in a manner fully protective of human health and the environment.

Comment O-1-6

Where will offsite environmental impacts be evaluated for acetonitrile treatment? There is an incomplete analysis of the plan to concentrate acetonitrile distillate and grout it offsite, without information, such as groundwater impacts, worker health and safety threats, and transportation risks resulting from treating waste at Perma-Fix Northwest in Richland or another offsite treatment facility.

Response to O-1-6

A supplement analysis (SA) is currently being developed by DOE - "Supplement Analysis: Offsite Treatment and/or Disposal of Hanford Liquid and Solid Secondary Waste". The SA will cover the acetonitrile distillate. The SA will need to be finalized and in place prior to any shipments of

acetonitrile distillate offsite. When a draft SA is issued, Ecology will review the draft SA to make an appropriate permitting decision for the LERF and 200 Area ETF Permit.

Comment O-1-7

"The mass and energy balance calculation performed in the RPP-CALC-63989, "ETF Steam Stripper Process Vent LFL Calculation," report indicated that the acetonitrile concentration could reach up to 463,343 ppm in the concentrator condensate tank vent, which is connected to the vessel offgas system and normally under negative pressure with respect to atmosphere, and could reach 49,910 ppm (H-2- 839048 SHI) in the vapor leaving the concentrator column, which is estimated to be at 12 inches water gauge positive pressure with respect to the surrounding equipment room in which it was installed." (p. 4-5 of 12, DOE Surveillance)

"WRPS designers stated they performed modelling to observe the effects of a hypothetical spill from the condensate tank but did not perform any modeling or calculations to determine the effect of a vapor leak. Despite having multiple columns and flanged piping connections with very high concentrations of acetonitrile in vapor phase, the WRPS Industrial Hygiene (IH) team only modelled acetonitrile spills in liquid phase. During the June 7 interview with WRPS IH, it was determined that WRPS IH was unaware of the presence of a vapor-phase contaminant and was not consulted or made aware of this aspect of WRPS engineers originally stated that acetonitrile in the vapor phase would essentially be at atmospheric pressure, and thus there will be no large motive force that would cause a significant acetonitrile leakage from the flanges/fittings to enter the room."

"In general, the design team and the HAZOP process appeared to have focused primarily on hazards associated with condensed acetonitrile liquid and had not considered the toxicological hazard to workers associated with the high concentration of acetonitrile in vapor phase."

We are curious about why was this hazard not identified long ago in the decades of interface control documents (ICDs) revisions and treatability studies being done for ETF/WTP?

Response to O-1-7

Slow reaction kinetics for acetonitrile destruction in the ETF UV/OX system did not allow ETF to take credit for treating acetonitrile. This was originally identified as an issue with the 2004 waste profile for effluent received from WTP and confirmed with the 2018 waste profile for DFLAW effluent.

In compliance with the RCRA permit and facility procedure, the ETF evaluated the new waste stream for treatment and disposal. The final evaluation was published in July 2019, and concluded that, "Either source changes must be made to reduce the acetonitrile concentration or additional treatment capability must be added at the ETF and the delisting treatability envelope modified."

DOE began funding for an ETF Acetonitrile Treatment project in FY2020 (i.e., October 2019). Conceptual design completed in March 2020. Design completion took longer than anticipated, and completed in December 2020. The 100% was then used to finalize a corresponding RCRA permit modification in April 2021. After DOE, review the RCRA permit modification was formally submitted to Ecology in June 2021.

Comment O-1-8

DOE told Ecology in the secondary waste plan in December that the concentrated acetonitrile distillate (produced in the steam stripper) would meet disposal criteria as generated, and it only needs solidification at PFNW. Is this information correct? The concentration as identified in the surveillance documents far exceed the treatment standards:

Acetonitrile Data

Concentrator Condensate Tank (Stream 302)

Acetonitrile 4.2309 lb/hr T

otal Stream lb/hr 184.2393

PPM = 22,964 ppm Acetonitrile (2.3 wt%)

The universal treatment standard for acetonitrile (methyl cyanide) is 5.6 mg/L (5.6 ppm) for wastewater, and 38 mg/kg (38 ppm) for non-wastewater. Per 40 CFR 268.48

Response to O-1-8

WTP's current certified waste profile to LERF/ETF is the basis for waste codes and LDR requirements tracked through LERF/ETF. The certified waste profile information documents waste codes F001-F005. No "D" waste codes are applied to the certified WTP waste profile, and therefore no Underlying hazardous constituent (UHC) evaluation applies to the waste stream.

Normally, assignment of a "D" waste code is required to trigger the UHC evaluation. Acetonitrile is not identified as an LDR organic in this waste stream, and is not subject to LDR treatment standards when received at LERF/ETF.

For the brine concentrate (waste stream from the ETF evaporator bottoms in the secondary treatment train) modelling results showed the waste stream waste designation to be F001-F005, D008, D009, D010. Based on comparison of the modelled results to the LDR wastewater treatment standards, the waste stream requires LDR treatment for some of the F001-F005 organic constituents, the heavy metal "D" codes, and the following three organic underlying hazardous constituents (UHCs): Acetonitrile, Acrylonitrile, and N-Nitrosomorpholine.

The acetonitrile distillate will meet LDR treatment standards as generated when it is collected and managed from the ETF primary treatment train. This conclusion is based on the modelling results showing the waste designation at the point of generation is waste codes F001-F005. The Hanford tank farms F001-F005 constituents subject to LDR are below LDR treatment standards in the waste. Treatment standards for underlying hazardous constituents (UHCs) are not triggered from the F001-F005 treatment standards in 40 CFR 268.40. UHC treatment standards in 40 CFR 268.48 for acetonitrile do not apply to the waste stream.

O-2: HANFORD CHALLENGE

Comment O-2-1

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

I'm grateful to Hanford Challenge for translating this problem. I attended the recent online DOE hearing last month and found it incomprehensible. Given the explosive and flammable nature of this material, it should not be sent to Perma-Fix NW, and not grouted and buried. I too think it should be destroyed. Sincerely, Laura Feldman

Response to O-2-1

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more

suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-2

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please

create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

Yet another challenge of nuclear waste to deal with - when trying to do the right thing with glass vitrification!! While I am not at all certain about how to destroy acetonitrile - I hope you do and will not require more storage of long lived poisonous hazards. Good luck and thanks again for allowing public comment and continued education about Hanford!

Sincerely, Jeanne Poirier

Response to O-2-2

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out

(ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-3

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent

Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

Add your personalized comment here

Sincerely, Linda Greene

Response to O-2-3

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-4

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

Please prioritize worker and environmental safety!

Sincerely, Pedro de la Torre III

Response to O-2-4

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

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The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-5

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

retired executive, eighth generation Oregonian, very committed to nuclulear cleanup and safety

Sincerely, James Burke

Response to O-2-5

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate

stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-6

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

This permit modification takes for granted that it is possible safely to remove, concentrate and dispose of this dangerous, toxic, potentially lethal by-product of vitrification - acetonitrile, methyl-cyanide. Scientific data and commonsense dictate that destroying the chemical at its source is preferable from the points of view of worker safety, flammability and explosion hazard, community safety, and probably cost. The technology exists to destroy it. That would avoid having to build holding tanks and pipelines; transporting and processing the concentrated product, and potential harm to nearby communities from any processing accidents. Appropriate worker training and PPE, acetonitrile gas alarm systems, and disaster protocols are of course vital. I wholeheartedly support the above "to whom it may concern" document!

Sincerely, Diane Burke

Response to O-2-6

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-7

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

Estimated volume of waste stream acetonitrile per month would be welcomed. Also has SPACE waste disposal been considered? I am afraid we are really at that point of the conversation!

Sincerely, Lisa Brining

Response to O-2-7

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing

additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Regarding estimated volume of the acetonitrile distillate is provided over the 10 year life of the Direct Feed Low Activity Waste (DFLAW) Program. Over that period, the expected volume of acetonitrile distillate is around 420,000 gallons.

At this time space disposal is not under consideration.

Comment O-2-8

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am

writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

Ad

W.e are concerned about nuclear waste and acetonitrile Feel more research and data needed

Sincerely, Damon Ogle

Response to O-2-8

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-9

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures;

clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

There already more than enough health hazards at Hanford. Please take care of this one.

Sincerely, Coral Shaffer

Response to O-2-9

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does

not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Comment O-2-10

Dear WA State Department of Ecology Hanford Nuclear Site, Thank you for the opportunity to provide comments on the Class 2 Permit Modification to LERF and ETF on Acetonitrile. I am writing because I care about efforts to protect human and environmental health. Thank you for considering my comments:

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT: Due to Acetonitrile's flammability, explosion risk, and hazard in low concentrations to workers, please create a solution that destroys acetonitrile instead of concentrating it into a liquid that then requires treatment and disposal.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS: More robust worker protections are needed including training on the hazard and appropriate emergency response measures; clean, compliant, fit-tested, and functional personal protective equiment, such as respirators and supplied air; real-time monitoring of acetonitrile at the point of generation and anywhere the acetonitrile is present; and alarm systems at the Low-Activity Waste facility, Effluent Management Facility, and at the Effluent Treatment Facility to ensure that workers are protected.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT: Perma-Fix NW appears in documents related to the ETF Steam Stripper project as one of the potential treatment locations for treatment of acetonitrile distillate. Perma-Fix NW has off-gas stacks and groundwater within the Richland city limits, where residential communities are potentially

impacted from releases. Perma-Fix NW is not a facility that should be under consideration for treating acetonitrile distillate.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF): As we understand it, acetonitrile is often explosive and is flammable. Due to these risks, this waste should not be grouted in a concentrated form for disposal on the Hanford site at IDF. It would be better to destroy the acetonitrile, rather than bury it at IDF where it could potentially start an underground fire.

The Columbia River system/ aquafer is too important to compromise. These recommendations need to be heeded. Why risk another catastrophy like what happened with the kitty litter in Las Cruces, New Mexico? I've lived along the Snake River, and presently the Spokane which empty into the Columbia system, and they're polluted too much as they are now. People should be able to count on poison free Salmon from the Columbia River. I remember when Amway use to dump acetone products in the Grand River back in Michigan. Would you like to eat a Walleye Pike from that?

Sincerely, Robert Richard

Response to O-2-10

Thank you for your comment.

CREATE A SOLUTION THAT DESTROYS ACETONITRILE INSTEAD OF CONCENTRATING IT:

Air stripping and steam stripping were ranked highest after a rigorous engineering evaluation and alternative analysis of 26 different technologies. It was determined these two technologies were best suited to achieve removal of the acetonitrile from the WTP liquid effluents that will be processed at ETF. This technical evaluation was conducted to ensure there was not a more suitable technology that was readily available and applicable to the waste stream being treated. Steam Stripping was finally selected since it would minimize the risk of needing additional unanticipated treatment for air stripper off-gas, as well as the risk that acetonitrile condensate would form in the ductwork.

PROTECT WORKERS FROM ACETONITRILE VAPOR HAZARDS:

The Permittees will use leak detection to ensure acetonitrile will not be allowed to build up and exceed applicable worker protection standards in 2025E or the Acetonitrile Distillate Load-Out (ADLO) Building. Along with leak detectors, worker breathing zone samples were collected using air sampling (air pump and sample media) and laboratory analysis based on NIOSH 1606 (GC-FID). Acetonitrile was detectable at ~0.5 ppm in a 5-minute air sample.

Acetonitrile is more dense than air and vapors might tend to sink. It could potentially collect in stagnant areas of a sump, which is an industrially-recognized risk with sumps and confined spaces in general. The Permittees do use confined space permits, monitoring, and other standard practices to help minimize these risks and concentrated acetonitrile, once cooled, does not appear be significantly more hazardous than some of the chemicals products already in use at ETF.

Based upon these factors, Ecology concluded that the Permittees should be able to meet worker protection standards if systems are properly operated and maintained.

PPE Requirements for workers are out of the scope of this permit modification, though access to respirators in the 2025E building are provided for recovery of known hazards, according to Addendum J, Section 8.4. Direct read real-time flame ionization detector (FID) technology is also used to detect Acetonitrile levels ranging nominally from 1 to 10,000 ppm. FIDs take about 3.5 seconds to respond to 90% of final value (concentration) of detectable Acetonitrile.

DON'T SEND ACETONITRILE TO PERMA-FIX NORTHWEST FOR TREATMENT:

Ecology will ensure that all such wastes are treated, stored, and disposed at an approved facility and in full compliance with dangerous waste regulations and application permits in a manner fully protective of human health and the environment.

DON'T BURY GROUTED ACETONITRILE AT THE INTEGRATED DISPOSAL FACILITY (IDF):

Maintaining the acetonitrile concentration in the distillate less than 5% ensures there are no ignitability concerns. ETF is expected to maintain the concentration of acetonitrile distillate stored at ETF lower than 3%. This low concentration will carry over to the grouted concentrated acetonitrile distillate, eliminating ignitability concerns.

Appendix A. Copies of All Public Notices

Public notices for this comment period:

- Focus sheet
- Classified advertisement in the Tri-City Herald
- Notices sent to the Hanford-Info email list
- Notices posted on Washington Department of Ecology – Hanford's Facebook and Twitter pages

THE HANFORD SITE

PUBLIC COMMENT PERIOD
Class 2 Permit Modification to the Hanford Dangerous Waste Permit

Fact Sheet

GET INVOLVED

Comment Period
April 6 – June 4, 2022

Virtual Public Meeting
May 10, 5:30 p.m. PT
(see page 3 for details)

Send comments by June 4 to
https://nw.ecology.commentinput.com/?id=rMVa7

Administrative Record:
https://pdw.hanford.gov/document/AR-18484

Contact Information
Dana Gribble, Hanford Mission Integration Solutions
(509) 961-5609
dana_c_gribble@rl.gov

Daina McFadden, Washington State Department of Ecology
(509) 372-7950
Hanford@ecy.wa.gov

An aerial view of the Effluent Treatment Facility in the 200 East Area

The U.S. Department of Energy (DOE) is holding a 60-day public comment period on a proposed Class 2 permit modification to the Hanford Dangerous Waste Permit, "Liquid Effluent Retention Facility and 200 East Area Effluent Treatment Facility" chapter. This proposed permit modification is necessary to add an Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area Effluent Treatment Facility (ETF). These new dangerous-waste management units are necessary to support waste management operations resulting from the receipt of liquid effluent from Hanford's Waste Treatment and Immobilization Plant.

Background

The Hanford Site is in southeastern Washington state along the Columbia River. The 580-square-mile site was created in 1943 as part of the Manhattan Project to produce plutonium for the nation's defense program. Today, waste management and environmental cleanup are the main missions at Hanford.

The DOE and its contractor Washington River Protection Solutions are requesting a Class 2 modification to the Liquid Effluent Retention Facility (LERF) and ETF operating unit group of the Hanford Dangerous Waste Permit. The LERF and ETF are mixed-waste treatment and storage units for treating liquid effluents from Hanford cleanup facilities. These facilities will process liquid waste from the Waste Treatment and Immobilization Plant in support of Hanford's Direct-Feed Low-Activity Waste Program for treating tank waste. The facilities are in the 200 East Area of the Hanford Site (see map).

THE HANFORD SITE

PUBLIC COMMENT PERIOD
Class 2 Permit Modification to the Hanford Dangerous Waste Permit

Overview

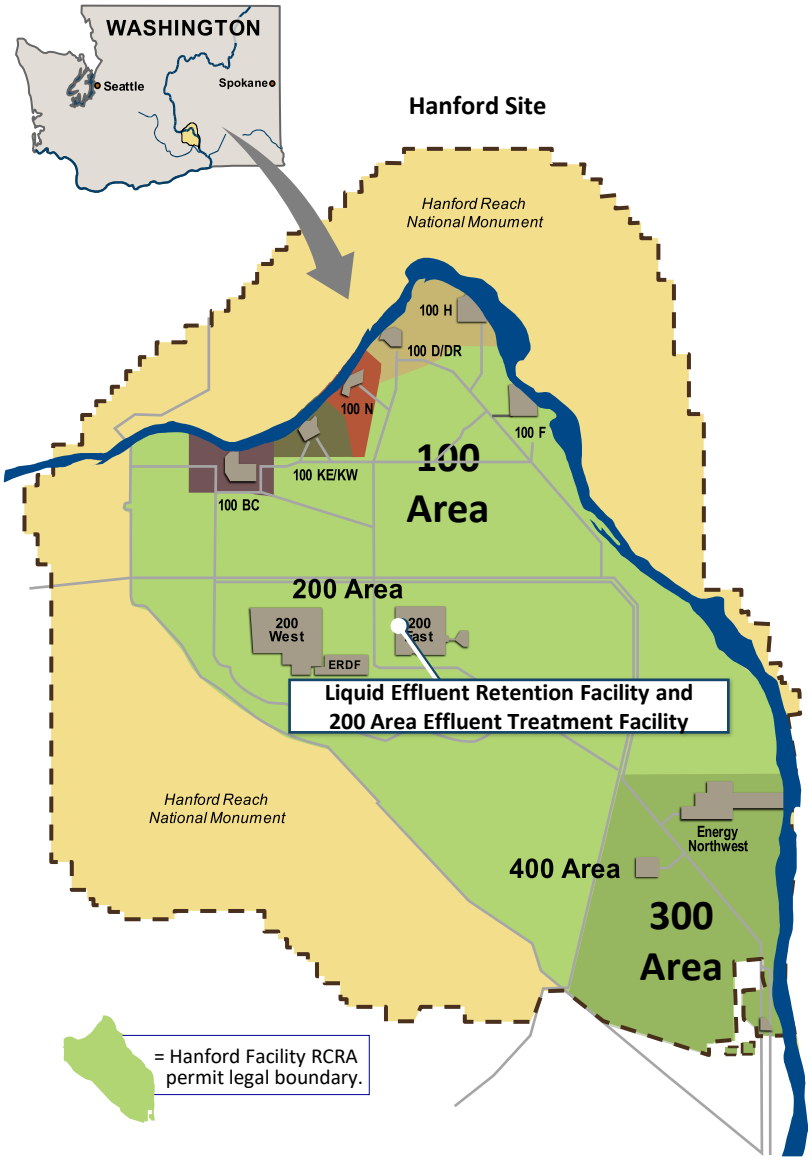
The Hanford Dangerous Waste Permit establishes requirements to ensure that waste management activities protect human health and the environment. The DOE is proposing a Class 2 permit modification pursuant to WAC 173-303-830, which requires a 60-day comment period, a public meeting, a newspaper notice, and a mailing list notice. This fact sheet is the mailing notice.

Summary of Changes

If approved, the modification would allow DOE to install additional dangerous-waste management units at the LERF and 200 Area ETF.

Permit Chapters Affected by this Modification

- Unit-Specific Conditions
- Addendum A, "Part A Form"
- Addendum B, "Waste Analysis Plan"
- Addendum C, "Process Information"
- Addendum F, "Preparedness and Prevention"
- Addendum I, "Inspection Requirements"
- Addendum J, "Contingency Plan"



The Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility are monitored closely by the operations staff in the control room.

Outside the 200 Area Effluent Treatment Facility

THE HANFORD SITE

PUBLIC COMMENT PERIOD
Class 2 Permit Modification to the Hanford Dangerous Waste Permit

Public Involvement

A 60-day public comment period will begin April 6 through June 4, 2022. A virtual public meeting will be held May 10 at 5:30 p.m. PT. During the virtual meeting, you can view the presentation, hear the speakers and ask your questions. To participate via Microsoft Teams, please follow the instructions below:

Join on your computer or Teams mobile app
Click here to join the meeting
https://bit.ly/3MFTwmG

Join with a video conferencing device
197920091@teams.bjn.vc
Video Conference ID: 115 997 854 6

Or call in (audio only)
(509) 931-1284 United States
(833) 633-0875 United States (Toll-free)
Phone Conference ID: 258 551 990#

All comments must be submitted by June 4, 2022, in writing, by mail or electronically (preferred) to:

Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, WA 99354
https://nw.ecology.commentinput.com/?id=rMVa7 (preferred)

At the conclusion of the public comment period, the Washington State Department of Ecology will address public comments and issue a final permit.

Copies of the proposed plan and supporting documentation will be available online during the public comment period on the Hanford public involvement website at https://go.usa.gov/xVmew, in the Administrative Record at https://pdw.hanford.gov/document/AR-18484, and in the Hanford Public Information Repositories at https://go.usa.gov/xVDTS.

The permittee's compliance history during the life of the permit being modified is available from the Washington State Department of Ecology contact person.

Please contact Dana Gribble, at dana_c_gribble@rl.gov or (509) 961-5609, at least 10 working days prior to the event to request disability accommodation. DOE makes every effort to honor disability accommodation requests.

Dana Gribble
P.O. Box 450, H6-60
Richland, WA 99352

Daina McFadden
3100 Port of Benton Boulevard
Richland, WA 99354

THE HANFORD SITE

PUBLIC COMMENT PERIOD

Class 2 Permit Modification to the Hanford Dangerous Waste Permit

Public Involvement Opportunity

Comment Period:

April 6 – June 4, 2022

Public Meeting: May 10, 5:30 p.m. PT (see page 3 for details)

Class 2 Permit Modification Fact Sheet
U.S. Department of Energy
P.O. Box 450, H6-60
Richland, WA 99352

BOB BRAWDY bbrawdy@tricityherald.com

DRIVERS DODGE BLOWING TUMBLEWEEDS IN TRI-CITIES

Dust and tumbleweeds are blown in front of vehicles northbound on Steptoe Street near Center Parkway in Kennewick early Monday, in what was expected to be the windiest day of the year to date. A 70-mph gust was recorded near Kahlotus in Franklin County.

DEATHS

EBER M. HERNANDEZ HERNANDEZ

Eber Magdiel Hernandez Hernandez, 36, of Grandview, died April 1 in Grandview.

He was born in Cuautitlan, Mexico, and was a longtime Grandview resident.

He was a supervisor at a cold storage facility.

Smith Funeral Home, Grandview, is in charge of arrangements.

CARMEN JIMENEZ

Carmen Jimenez, 92, of Walla Walla and formerly of Sunnyside, died April 2 in Walla Walla.

She was born Salvatierra, Guanajuato, Mexico, and was a longtime Sunnyside resident.

She was a retired farmer and laborer.

Smith Funeral Home, Sunnyside, is in charge of arrangements.

SHARON A. MEYER

Sharon Anne Meyer, 86, of Kennewick, died April 1 in Seattle.

She was born in Seattle and lived in the Tri-Cities for 63 years.

She was a retired administrative assistant.

Mueller's Tri-Cities Funeral Home, Kennewick, is in charge of arrangements.

CLARENCE SCHEENSTRA

Clarence Scheenstra, 92, of Sunnyside, died April 4 in Sunnyside.

He was born in Poppingwrest, The Netherlands, and was a longtime Valley resident.

He was a retired self-employed dairy farmer.

Smith Funeral Home Sunnyside is in charge of arrangements.

Coroner identifies 6 people killed in Calif. mass shooting

BY ADAM BEAM
Associated Press

RICH PEDRONCELLI AP

A Sacramento City Police officer stands near a field of evidence markers after a mass shooting Sunday in Sacramento, Calif.

SACRAMENTO, CALIF.

Authorities in California's capital city on Monday identified the six people killed in Sacramento's mass shooting as police searched for at least two shooters who opened fire in a crowd as bar patrons filled the streets at closing time on the outskirts of the city's entertainment district.

The Sacramento County coroner identified the three women who were killed as Johntaya Alexander, 21; Melinda Davis, 57; and Yamile Martinez-Andrade, 21. The three male victims were identified as Sergio Harris, 38; Joshua Hoye-Lucchesi, 32; and Devazia Turner, 29. One of the victims had been identified Sunday.

The sound of rapid-fire gunshots at about 2 a.m. sent people running in terror. Twelve people were wounded in the neighborhood anchored by the Golden One Arena that hosts concerts and the NBA's Sacramento Kings. The team's home game against the Golden State Warriors went on as scheduled Sunday night and began with a moment of silence for the victims.

Police Chief Kathy Lester revealed few details from the investigation and pleaded with the public to share videos and other evidence that could lead to the killers.

"The scale of violence that just happened in our city is unprecedented during my 27 years here," Lester told reporters during a news conference at police headquarters. "We are shocked and heartbroken by this tragedy. But we are also resolved as an agency to find those responsible and to secure justice for the victims and the families."

Small memorials with candles, balloons and flowers were placed Monday morning near the crime scene. One balloon had a message on it saying in part: "You will forever be in our hearts and thoughts. Nothing will ever be the same."

Streets were reopened to car and foot traffic and police tape had been removed. Aside from a handful of TV cameras, there was little indication on the downtown block of the previous day's bloodshed.

Sacramento Mayor Darrell Steinberg and other city officials decried escalating violence in the city while also urging people to keep coming downtown for events like NBA games and performances of the Broadway musical "Wicked."

"We can never accept it as normal and we never will," Steinberg said of the shooting. "But we also have to live our lives."

The gunfire erupted just after a fight broke out on a street lined with an upscale hotel, nightclubs and bars, and police said they were investigating whether the altercation was connected to the shooting. Video from witnesses posted on social media showed rapid gunfire for at least 45 seconds as people screamed and ran for cover.

The gunfire startled sleeping guests at the Citizen Hotel, which included a wedding party and fans of the rapper Tyler the Creator, who performed at a concert hours earlier.

From her window on the fourth floor of the hotel, 18-year-old Kelsey Schar said she saw a man running while firing a gun. She could see flashes from the weapon in the darkness as people ran for cover.

Judge blocks Air Force action on vaccine objections

BY JOHN SEEWER
Associated Press

TOLEDO, OHIO

A federal judge blocked the military from disciplining a dozen U.S. Air Force officers who are asking for religious exemptions to the mandatory COVID-19 vaccine.

The officers, mostly from Wright-Patterson Air Force Base near Dayton, Ohio, along with a handful of airmen and reservists, filed a lawsuit in February after their exemption requests were denied.

U.S. District Court Judge Matthew McFarland in Cincinnati granted a preliminary injunction last Thursday that stops the Air Force from acting against the officers, airmen and reservists until their lawsuit is resolved.

The plaintiffs accuse the Air Force of using a double standard when it comes to approving exemption requests, saying it had allowed thousands of medical and administrative exemptions but only a handful for religious reasons.

Last week, a federal judge in Texas barred the Navy from taking action for now against sailors who have objected to being vaccinated on religious grounds.

U.S. District Judge Reed O'Connor had, in January, issued a preliminary injunction preventing the Navy from disciplining or discharging 35 sailors who sued over the Navy's vaccine policy while their case played out. A week ago, O'Connor agreed the case could go forward as a class action lawsuit and issued a preliminary injunction covering about 4,000 sailors who have objected on religious grounds to being vaccinated.

MANUEL BALCE CENETA AP

Senate Judiciary Committee member Sen. Lindsey Graham, R-S.C., speaks during the committee's business meeting Monday to consider the confirmation of Supreme Court nominee Judge Ketanji Brown Jackson. Graham said Thursday that he won't support Jackson's nomination.

FROM PAGE 1A

NOMINATION

confirmation to replace retiring Justice Stephen Breyer.

After more than 30 hours of hearings and interrogation from Republicans over her record, Jackson is on the brink of making history as the third Black justice and only the sixth woman in the court's more than 200-year history. Democrats cite her deep experience in nine years on the federal bench and the chance for her to become the first former public defender on the court.

The chairman of the Judiciary Committee, Sen. Dick Durbin, D-Ill., said as he opened Monday's meeting that Jackson has "the highest level of skill, integrity, civility and grace."

"This committee's action today in nothing less than making history," Durbin said. "I'm honored to be a part of it. I will strongly and proudly support Judge Jackson's nomination."

But the committee's top Republican, Iowa Sen. Chuck Grassley, said he was opposing Jackson's nomination because "she and I have fundamental, different views on the role of judges and the role that they should play in our system of government."

The committee last deadlocked in 1991, when Biden was chairman of the panel and a motion to send the nomination of current Justice Clarence Thomas to the floor with a "favorable" recommendation failed on a 7-7 vote. The committee then voted to send the nomination to the floor without a recommendation, meaning it could still be brought up for a vote.

A deadlocked vote on Jackson would be "a truly unfortunate signal of the continued descent into dysfunction of our confirmation process," Delaware Sen. Chris Coons, a Democrat on the committee, said last week.

So far, Democrats know they will have at least one GOP vote in favor on the floor – Collins, who announced last week that she will support the nominee. Collins said that even though she may not always agree with her, Jackson "possesses the experience, qualifications and integrity to serve as an associate justice on the Supreme Court."

It's unclear so far whether any other Republicans will join her. Senate Republican leader Mitch McConnell of Kentucky set the tone for the party last week when he said he "cannot and will not" support Jackson, citing GOP concerns raised in the hearing about her sentencing record and her support from liberal advocacy groups.

Collins and Sens. Lisa Murkowski of Alaska and Lindsey Graham of South Carolina were the only three to vote for Jackson when the Senate confirmed her as an appeals court judge last year. Graham said Thursday he won't support her this time around; Murkowski says she's still deciding.

Collins' support likely saves Democrats from having to use Vice President Kamala Harris' tie-breaking vote to confirm Biden's pick, and the president called Collins on Wednesday to thank her. Biden had called her at least three times before the hearings, part of a major effort to win a bipartisan vote for his historic nominee.

From: Washington Department of Ecology
To: McFadden, Daina (ECY)
Subject: Notice of Upcoming Public Comment Period on Proposed Changes to the Hanford Dangerous Waste Permit
Date: Monday, March 7, 2022 8:49:34 AM

THE HANFORD SITE

This is a message from the U.S. Department of Energy

Notice of Upcoming Public Comment Period on Proposed Changes to the Hanford Dangerous Waste Permit

The U.S. Department of Energy (DOE) is planning a 60-day public comment period on a proposed Class 2 permit modification to the Hanford Dangerous Waste Permit, "Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility" chapter. This proposed permit modification is necessary to add an Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area Effluent Treatment Facility (ETF). These new dangerous-waste management units are necessary to support waste management operations resulting from the receipt of liquid effluent from Hanford's Waste Treatment and Immobilization Plant.

The Liquid Effluent Retention Facility and ETF are mixed-waste treatment and storage units for treating liquid effluents from operating Hanford cleanup facilities. These facilities will process liquid waste from the Waste Treatment and Immobilization Plant in support of Hanford's Direct-Feed Low-Activity Waste Program for treating tank waste.

The comment period is expected to begin in April, with a public meeting in May.

The proposed modification and supporting documentation will be available online during the public comment period on the Hanford events calendar, the Hanford Administrative Record, and at the Hanford Public Information Repositories.

A summary fact sheet and details of the public meeting will be provided when the comment period begins.

Questions? Please contact Dana Gribble, Hanford Mission Integration Solutions, at dana_c_gribble@rl.gov, or Daina McFadden, Washington State Department of Ecology, at Hanford@ecy.wa.gov.

From:	Washington Department of Ecology
To:	McFadden, Daina (ECY)
Subject:	Public Comment Period for New Construction Additions to the Effluent Treatment Facility
Date:	Wednesday, April 6, 2022 7:34:09 AM

THE HANFORD SITE

This is a message from the U.S. Department of Energy

Public Comment Period on a Class 2 Permit Modification to the Hanford Dangerous Waste Permit, "Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility" Chapter

The U.S. Department of Energy is holding a 60-day public comment period on a proposed Class 2 permit modification to the Hanford Dangerous Waste Permit, "Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility" chapter. This proposed permit modification is necessary to add an Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area Effluent Treatment Facility (ETF). These new dangerous-waste management units are necessary to support waste management operations resulting from the receipt of liquid effluent from Hanford's Waste Treatment and Immobilization Plant.

The Liquid Effluent Retention Facility and ETF are mixed-waste treatment and storage units for treating liquid effluents from operating Hanford cleanup facilities. These facilities will process liquid waste from the Waste Treatment and Immobilization Plant in support of Hanford's Direct-Feed Low-Activity Waste Program for treating tank waste.

The comment period will run from April 6 through June 4, 2022. A virtual public meeting will be held on May 10, 2022, at 5:30 p.m. PT. To participate via Microsoft Teams, please follow the instructions below:

Join on your computer or Teams mobile app
Click here to join the meeting
https://bit.ly/3MFTwmG
Join with a video conferencing device
197920091@teams.bjn.vc
Video Conference ID: 115 997 854 6
Or call in (audio only)
(509) 931-1284 United States
(833) 633-0875 United States (Toll-free)
Phone Conference ID: 258 551 990#

Please submit any comments by **June 4**, electronically (preferred) or by mail to:

Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, WA 99354

The proposed permit modification and supporting documentation are available online during the public comment period on the Hanford events calendar, the Hanford Administrative Record, and at the Hanford Public Information Repositories. Please see the attached summary fact sheet.

Questions? Please contact Dana Gribble, Hanford Mission Integration Solutions, at dana_c_gribble@rl.gov, or Daina McFadden, Washington State Department of Ecology, at Hanford@ecy.wa.gov. *To request disability accommodation, please contact Dana Gribble, dana_c_gribble@rl.gov, at least 10 working days prior to the event.*

- Fact Sheet_LERF ETF ADLO-ADST-BST_FINAL.pdf

Washington Department of Ecology - Hanford
Published by Ecology Ryan · 1m ·

Heads up!

A new U.S. Department of Energy public comment period began today, involving the Liquid Effluent Retention Facility and Effluent Treatment Facility. Check it out and provide your input by June 4: https://ecology.wa.gov/.../Nuclear.../Public-comment-periods

Washington Department of Ecology Hanford Site U.S. EPA, Region 10 U.S. Department of Energy, Office of River Protection

See Insights Boost post

Like Comment Share

Write a comment...

Ecology - Hanford @ecyHanford · 2m

Heads up!

A @HanfordSite/@RiverProtection public comment period began today, involving the Liquid Effluent Retention Facility and Effluent Treatment Facility. Check it out and provide your input by June 4: ecology.wa.gov/Waste-Toxics/N... @EcologyWA @EPAnorthwest

Class 2 Permit Modification to "Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility" chapter

April 6, 2022 - June 4, 2022

The U.S. Department of Energy (Energy) is holding a 60-day public comment period on a proposed Class 2 permit modification to the Hanford Dangerous Waste Permit, "Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility" chapter. This proposed permit modification modification is necessary to add an Acetonitrile Distillate Loadout Facility, acetonitrile distillate tote storage, acetonitrile distillate storage tanks, and brine storage tanks to the 200 Area Effluent Treatment Facility (ETF).

Proposed changes

If approved, the modification would allow Energy to install additional dangerous-waste management units at the Liquid Effluent Retention Facility (LERF) and 200 Area ETF.

Facility background

The LERF and ETF are mixed-waste treatment and storage units for treating liquid effluents from Hanford cleanup facilities. These facilities will process liquid waste from the Waste Treatment and Immobilization Plant in support of Hanford's Direct-Feed Low-Activity Waste Program for treating tank waste.

Review and comment

For more information on the public comment period and supporting documents, visit Energy's website.

Please submit any comments by **May 28, 2022**, electronically (preferred), or by mail to:

Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

Public meeting

Energy is holding a virtual public meeting **5:30 p.m. PT, May 10, 2022.** To participate via Microsoft Teams, please follow the instructions below:

Join on your computer or Teams mobile app

- Use this link to join the meeting or https://bit.ly/3MFTwmG

Join with a video conferencing device

- 197920091@teams.bjn.vc
- Video Conference ID: 115 997854 6

Or call in (audio only)

- (509) 931-1284 United States
- (833) 633-0875 United States (Toll-free)
- Phone Conference ID: 258 551 990#

Questions? Please contact Dana Gribble, U.S. Department of Energy, or Daina McFadden, Ecology.