



Confederated Tribes and Bands
of the Yakama Nation ERWM

Established by the
Treaty of June 9, 1855

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[0067981H]

August 15, 2017

Jeff Lyon
Washington Department of Ecology
3100 Port of Benton Boulevard
Richland, WA 99354
Hanford@ecy.wa.gov

Re: *Class 2 Permit Modification to Part III, Operating Unit 4; 242-A Evaporator*

Dear Mr. Lyon:

The Confederated Tribes and Bands of the Yakama Nation is a federally recognized sovereign pursuant of the Treaty of June 9, 1855 made with the United States of America (12 Stat. 951). The U.S. Department of Energy Hanford site was developed on land ceded by the Yakama Nation under the 1855 Treaty with the United States. The Yakama Nation retains reserved rights to this land under the Treaty. YN's position regarding the ultimate closure of all Hanford Site waste facilities is cleanup actions (with confirmatory sampling and analysis of surface and subsurface soils) to demonstrate attainment of cleanup levels protective of YN Tribal member health and welfare. With this in mind, we submit the following comments.

We appreciate the opportunity to review these documents. We look forward to discussing our vision of cleanup and all our concerns with you further.

Sincerely,

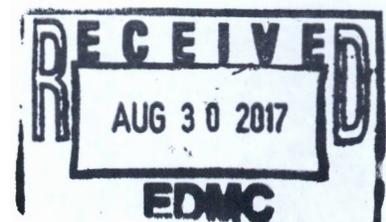
Jean Vanni, YN ERWM

cc:

Administrative Record

Marlene George, YN ERWM
Rose Longoria, YN ERWM Interim Program Manager
Environmental Portal

Attachment: #1:



Attachment #1: YN ERWM program's comments/requests on the proposed Class 2 Permit modification to the 242-A Evaporator permit:

General comments:

- For the DST System waste in the vapor-liquid separator (C-A-1), no determination has been performed to determine if the waste is acutely or chronically toxic by inhalation. When will this determination be performed?
- YN requests clarification of the rationale for removal of ion exchange equipment and equivalent replacement equipment.
- YN requests that consideration be taken of our comments submitted on the draft Rev 9 permit for the 242-A Evaporator and request additional changes be made through Ecology's issue of the Permit. These are included for your convenience.
- Additionally, although not a consensus product, YN requests consideration of the points from Advice # 262 and Addendum 1 COTW/HAB on the draft Permit, Rev 9 for LERF/ETF RCRA TSDs. They are as follows:

Advice # 262:

- The Board advises Ecology to include in unit-specific Permit conditions requirements for upgrades and equipment replacement necessary to ensure the safe operation of Hanford RCRA-permitted facilities (e.g., 242-A Evaporator, WTP melters systems, and-so-forth).

Addendum 1: 242-A Evaporator:

1. Include a Permit condition to ensure the 242-A Evaporator has necessary upgrades, including replacing equipment, to safely operate the additional campaigns to process WTP waste streams.
2. Include a Permit condition to address accumulation of organics in the facility's tanks.
3. Identify requirements for limiting volatile organics within the waste acceptance criteria condition.
4. Ensure Permit conditions address the dangers of ammonia, including flammability and corrosivity.

Part A Form comments:

- Section IV - YN requests street location, etc to be specifically identified. Delete proposed; retained current information or update to reflect U.S. Department of Energy Owner/Operator office location.
- Section IX-Clarify the addition of NAICS Code for Remediation Services. It is thought code information in this section is to be specific to the 242-A Evaporator not the whole Hanford site as noted in Section .
- Section X-YN requests clarification as to the comment/ information proposed provided regarding the AOP. Delete or include as needed.
- Section XII -Verify and confirm Process Design Capacities calculations are correct. Section XIII-Clarify use of U code. Section XIV-Verify and confirm all estimated annual quantities of wastes. [Note: Earlier Part A Forms have differing capacities; unknown if these changes have had public review opportunity]
- YN notes text in Section XI indicates the 242-A Evaporator's capacities are based on continuous feed operating 24hours/day/182days/year. Please provide clarification and/or verification as to how evaporator campaigns will coordinate/integrate with the newly proposed DFLAW facilities and the rest of tank farm operations to ensure adequate attention is given to operational and maintenance needs for the 242-A facility.

Chapter 6 comments:

- With reliance on a short-term *Uninterruptable power supply (UPS)* source, additional details are requested within this chapter and Chapter 7- Contingency Plan to clarify what equipment will maintain the ventilation system as described until it is safe for normal operations to resume.

- Provide rationale for removal of instrumentation to detect the presence of a separable organic phase from Tank C-100.
- Table 6.4:
 - YN requests frequency of inspections of Slurry and PC-5000 leak detectors is maintained as currently set. With a maximum of 182 operational days/year, and information provided during public meeting indicating probability of 2 or maybe 3 campaigns a year, it seems reasonable to request inspection of these systems prior to startup of a campaign.
 - YN requests monthly inspections of back-up emergency equipment.
- Referenced in Chapter 6 regarding secondary containment for leak detectors: Excerpt from Chapter 4-4.1.7.2.5 indicates the room itself is the containment, which may or may not be adequate. Clarification is requested regarding 242-A Evaporation flooring as use for secondary containment volumes for such equipment as leak detectors, etc, and piping without its own secondary containment that transports dangerous wastes. In addition, text in this section states *The room contains two recirculation lines and samplers used to sample the feed and slurry streams. The feed sampler has been isolated and is no longer capable of sampling feed.* Clarify reason for isolation of feed sampler and what has replaced it.
- Section 6.2.2.4, Line 42, pg 53 states *Performance of Table 6.1 daily inspections is not possible.* Suggest edits to clarify or delete statement.

Chapter 7 comments:

- Verify and confirm that the Hanford Facility RCRA Permit (Permit) Attachment 4 Hanford 4 Emergency Management Plan (DOE/RL-94-02) will subsequently be updated to incorporate approved modifications to support the 242-A Evaporator.

SEPA comments: Providing the SEPA checklist for public review promotes better understanding of the SEPA process and enhances public knowledge of the unit. As noted in our attached comments, the Yakama Nation believes this proposed permit modification falls within the definition of a Class 3 Permit Modification. This should include a new SEPA determination available for public review.

Fact Sheet comments:

- The Factsheet does not speak to changes resulting in increasing the quantity and updating the basis for the process design capacity and estimated annual quantity of waste. Nor does it provide details of changes to include additional NAICS Codes. YN requests verification and clarification that changes in capacities do not exceed the 25% increase limits due to modifications or additions of tanks or container units [WAC 173-303-830-Appendix I]. Should these changes indicate exceedance of limits, YN requests this proposed modification be reclassified as a Class # 3 modification. YN requests clarification of all changes on the Part A Form to be provided with new Factsheet for Class #3 modification should this be required.
- YN requests that all documentation supporting modifications to the Hanford Site RCRA Permit which are located in the Administrative Record sites (particularly electronic copy format) be verified to contain all necessary information (i.e. dates of comment period and contact information for the person to whom comments are to be sent). YN does appreciate the inclusion of hyperlinks where feasible, but requests that they be verified to be active.
- Given that within the comment period for this 242-A modification, DOE has requested a *Temporary Authorization* to allow the operation of the facility without the backup diesel generator, this should have been included within the Factsheet and the public meeting discussion. The lack of effort of the part of DOE to provide meaningful dialogue with the public is frustrating to say the least. It is our hope that Ecology will be able to assist DOE. YN suggests Ecology consider advising DOE that lack of compliance with the letter as well as the spirit of the law will result in extensions of comment period to the extent that information is unavailable or incorrect.

Previously submitted comments on the draft REV 9 RCRA Permit:

The YN ERWM program requests the following changes to the draft 242-A Evaporator permit:

SEPA: Based on old previously submitted SEPA checklists; determinations are previous determinations. Permit permits require new evaluations.

General comments on Fact Sheet:

1. Does not address major upgrades recently made (e.g., new off gas system).
2. Does not address need for equipment replacement. The thirty-five (35) yr old evaporator has had equipment failures on established frequency which will continue into the future (e.g., the facility needs to work at a minimum, for another twenty (20) years. Key is the boiler system. Loss of the main boiler unit will result in facility shut-down; requiring a minimum of one to two years to replace it). Failure of the facility will significantly impact the function of the WTP facility.
3. The fact sheet omits the fact that ammonia specifications for evaporator feed have been routinely ignored resulting in corrosion in the off-gas system.
4. The fact sheet omits any of the events which have yielded unplanned contamination.

Permit Conditions General Comments:

5. Include a Permit condition to ensure the 242-A Evaporator has necessary upgrades, including replacing equipment (including pre-purchasing of the *broiler unit replacement equipment*), to safely operate the additional campaigns to process WTP waste streams and to ensure operational lifetime as necessary to do so.
6. Include a permit condition to require a maintenance schedule and plan to address the projected future equipment failures. Base this schedule on a review of historical failure frequency. Require detail operational descriptions per WAC 173-303 requirements.
7. Revise/include permit conditions to ensure that past events where contamination and hazardous waste have been unconfined inside the evaporator building do not occur. Require all modifications to secondary containment be prior approved by Ecology. Require these modifications must be subject to WAC 173-303-830 process.
8. Include a Permit condition to address accumulation of organics in the facility's tanks.
9. Identify requirements for limiting volatile organics within the waste acceptance criteria condition.
10. Ensure Permit conditions address the dangers of ammonia, including flammability and corrosivity.
11. Include details of PCB management.

Addenda:

Addendum B:

General comments:

1. Edit Addendum to include detail description of how waste streams received by the DST may be chemically adjusted to ensure compliance with the 242-A Evaporator waste acceptance criteria. (note: Include these details in the DST permit).
2. Edit throughout to include requirements to comply with WAC 173-303-300.
3. Edit to include requirements for compliance with WAC 173-303-140 for those waste streams subject to WAC 173-303-170.
4. Edit (to ensure consistency) to include updates to the LERF WAP. See comments on the draft LERF/ETF permit.
5. Edit to include compliance with WAC 173-303-110.
6. Provide regulatory authority and clarity of details for the following: *Waste may be staged for candidate tank sampling in any DST, including tank 241-AW-102.*
7. Provide and include schedule of and identification of *candidate waste feed tanks*. A modification per WAC 173-303-830 can be requested if needed to re-align schedule.
8. Provide details for regulatory path for waste unacceptable for processing, and no acceptable pre-treatment or blending options can be identified. Include a permit condition to ensure compliance with WAC 173-303 for disposition of these waste streams. Include this in the DST permit.

9. Provide details of the determination that The 242-A Evaporator steam condensate, cooling water and 242-A-81 back flush water waste streams have been determined to not designate as dangerous waste are not subject to requirements of WAC 173-303.
10. Include a permit condition(s) for the submittal of a Sampling and Analysis plan for waste streams to ensure compliance with WAC 173-303-300. Furthermore, it is unclear how the *process control plan* relates to LERF acceptance criteria or how it ensures compliance with WAC 173-303-140. Provide details. Include permit conditions to ensure compliance with WAC 173-303-140 for waste streams subject to WAC 173-303-170 as well.
11. Include requirement Quality Assurance/Quality Control as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.
12. Include details to describe potentially abnormal feed streams which could threaten human health or the environment and how these will be documented.
13. Include details on how the solids are prevented in the waste streams or removed to prevent fouling
14. Provide justification: Statements in Section B.11.1.1 indicate use of only one riser. While it is indicated that there is negligible lateral variability in tank supernates, there remains difficulties in obtaining representative samples. There needs to be a caveat for those instances where additional sampling to ensure a representative sample is taken at the required incremental depths.
15. Include details on how waste streams reflect EPA SW-846, Method 9090 to insure compatibility with LERF liner materials.
16. Edit Addendum and Table 2.B.3 to include detail description of management of PCBs.

Specific comments:

1. Edit Addendum C, Section C.1.7 regarding the schedule for conducting integrity assessments for the 242-A Evaporator. Require integrity assessment to be at a frequency of every 5 (calendar) years or as required for system repairs This increase is warranted due to future necessary additional campaigns to process WTP waste streams. (See WAC 173-303-640(2)(e)).
2. Edit Addendum C, Section C.1.7 to delete following text: *Preventive and corrective maintenance including some replacement in kind activities or work that does not change the form, fit or function of existing equipment do not require an IQRPE review under either WAC 173-303-640(7)(f) or WAC 173-303-640(2)(a)*. Edit and require Ecology approval of "replacement in kind activities or work" (i.e. *equivalent equipment*). Include a permit condition to ensure compliance with WAC 173-303 regarding facility expansion. Require requests subject to the WAC 173-303-830 process. Require IQRPR review.

Addendum H:

General Comments:

1. Edit Addendum (and elsewhere as needed) to include text that in addition to EPA/240/B-01/003 (EPA/QA R-5), *EPA Requirements for Quality Assurance Project Plans*, as amended, the sampling and analysis plan will be consistent with Ecology Publication #94-111, Guidance for Clean Closure of Dangerous Waste Units and Facilities as amended.
2. Revise Addendum (an elsewhere throughout the document as necessary) to also state tanks closures will comply with WAC 173-303-640(8) requirements. Define that all tanks not meeting clean debris performance standards will be macro-encapsulated in their entirety, by use of a jacket of inert inorganic materials and disposed of in a RCRA compliant storage facility [e.g. ERDF].
3. Revise Addendum to state *If it is not possible to meet the clean debris surface standard or the piping or ancillary equipment cannot be inspected, those portions of the piping and ancillary equipment will be removed, designated, and disposed of according to WAC 173-303-640(8) and will be macro-encapsulated in their entirety, by use of a jacket of inert inorganic materials and disposed of in a RCRA compliant storage facility [e.g. ERDF].*

4. To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils:
 - Closure performance standards for soils will satisfy the most stringent (lowest) of:
[WAC 173-303-610(3)(a)(v)]
 - Direct contact consistent with WAC 173-340-900 (Table 745-1),
 - Soil concentrations to protect groundwater: derived using WAC 173-340-747(4),
 - Protection of ecological receptors achieved through one of the following methods:
 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or
 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or
 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.

Addendum I:

General Comments:

1. Edit appropriate Sections to ensure compliance with WAC 173-303-320, -630(6), -640(6) requirements.
2. Edit Addendum to ensure compliance with WAC 173-303-320(2)(d) requirements with regards to identification of the date and nature of any repairs or remedial actions taken throughout the facility to be included in the inspection log(s).
3. Edit Addendum to include an Attachment with example of the checklist used by the qualified inspector.