



February 26, 2014

Andrea L. Prignano
Washington State Department of Ecology
Port of Benton Blvd.
Richland, WA 99354

Subject: Review of the Proposed Class 2 Resource Conservation and Recovery Act (RCRA) Permit modifications to Permit Conditions (including II.F), Permit Attachments 8 & 10, and Groundwater Monitoring at the Hanford Facility Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility (LERF-ETF) and Addendums C, F, I for LERF/ETF, and temporary authorization request.

Dear Ms. Prignano:

The Confederated Tribes and Bands of the Yakama Nation appreciate the opportunity to review and provide comments on these documents.

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.

As these modifications are running concurrently, we have included our responses to both Class II mod requests within this response. We apologize for any confusion, but please note, Attachment #2 has both text edits and comments embedded within the document as there were no line identifiers.

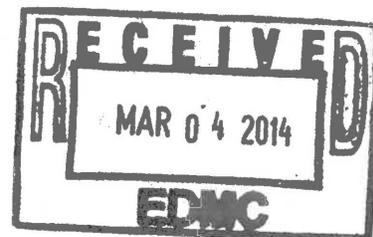
We look forward to discussing our concerns regarding these proposed modifications to the Hanford RCRA permit with you.

Sincerely,

Russell Jim
Yakama Nation ERWM Program Manager

cc:

Jane Hedges, Washington Department of Ecology
Matt McCormick, U.S. Department of Energy
Ken Niles, Oregon Department of Energy
Stuart Harris, CTUIR
Gabe Bohnee, Nez Perce



Marlene George, YN ERWM
Administrative Record
Attachments:

Attachment # 1: YN ERWM program comments on Proposed Class 2 Resource Conservation and Recovery Act (RCRA) Permit modifications to Permit Conditions, Permit Attachments 8 & 10, and Groundwater Monitoring at the Hanford Facility Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility (LERF-ETF):

General Comment:

- YN ERWM finds some edits acceptable; however, we are concerned over the appropriateness of any modifications to the II.F. Condition outside of the permit renewal process. The proposed modification will affect all RCRA units, not solely ETF/LERF. As there are multiple underlying issues which will not be resolved, edits to this condition are unwarranted at this time. **YN requests Ecology deny proposed modifications to II.F.**

Below are our specific concerns/comments.

Request 1):

Bullet 1 (II.F.1): As stated, the general facility conditions (e.g., II.F), where appropriate, address dangerous waste management activities which may not be directly associated with distinct TSD units, or which may be associated with many TSD units (including corrective actions at solid waste management units and areas of concern). Deletion of Permit Condition II.F.1 undermines the authority of Ecology to enforce groundwater protection and monitoring in accordance with WAC 173-303-610 and WAC 173-303-645 requirements. Furthermore, reference to proposed changes within a unit-specific chapter does not suffice, meet compliance requirements, or support elimination of WAC 173-303 groundwater requirements for the RCRA permit.

YN ERWM program opposes deletion of Permit Condition II.F.1 and its replacement to be 'marked as reserved.' YN requests the condition be retained with update reference to purgewater management as in accordance with the Hanford Site Strategy for Management of Investigation Derives Waste (DOE/RL-2011-41, Revision 0).

Bullet 2 (II.F.2):

- Hanford Facility wells will continue to require *remediation/abandonment* needs. This text of II. F.2 should be retained.
- Deletion of II.F.2.a is supported.
- Modifications to II.F.2.b are supported in part. YN ERMW program supports the additional clarification text to require well inspections and maintenances. WAC 173-160-381 states *Any well which is unusable, abandoned, or whose use has been permanently discontinued, or which is in such disrepair that its continued use is impractical or is an environmental, safety or public health hazard shall be decommissioned.* It is clear that a well must first be deemed abandoned, etc. YN requests the term abandoned be retained.

Additionally, YN request Ecology clarify within Permit Condition II.F.2.b that DOE will be required to demonstrate whether a well has potential use as a RCRA monitoring well prior to abandonment/decommissioning. YN requests that Condition II.F.2.b be applied to Part IV units of the RCRA Permit for consistency across the Hanford site groundwater monitoring programs and in compliance with WAC 173-303-645/646 requirements.

- YN does not support Modification s to II.F.2.c as it undermines Ecology's authority to require a determination of the need for abandonment and lessens Ecology's knowledge regarding the well activities/issues.

- YN requests the definition of *rehabilitate unusable wells*. The term rehabilitate/rehabilitation is not defined in WAC 173-160 and as such should not be used to define actions for Hanford site wells.
- YN program does not fully support II.F.2.d modifications. Inclusions of citations for WAC 173-160 and Chapter 18.104 RCW are supported. Deletion of completion of the process by 2012 is acceptable as this year has passed. The rest of the proposed modification is not acceptable. This modification lessens Ecology's authority to enforce WAC 173-303-645/646 requirements through Permit conditions/Closure Plans/Contingency Plans. Replacing non-compliant wells requires changes to the groundwater monitoring plan would, in itself, require a permit modification. Necessarily, this would require analysis of the groundwater monitoring network and the identification of any needs changes to the number of wells, groundwater flow, etc. These wells would then need to be identified in the permit. To simply say the schedule is under the milestone does not suffice compliance requirements under RCRA. Furthermore, is the proposed modification is structured such that the schedule is outside of the RCRA Permit and WAC 173-303-830 process (and outside of the public involvement process).

Attachment #2: YN comments and suggested edits to the proposed Hanford Well Maintenance and Inspection Plan HNF-56398, Revision 0.

**Hanford Well Maintenance and Inspection Plan
HNF-56398, Revision 0
Previously BHI- 01265, Revision 0**

- YN ERWM notes this plan lacks details and requests changes listed in comments below. The document does not have line numbers. Comments are attached to paragraphs to help identify concerns and requests. Pages breaks were eliminated. YN comments, text changes, etc are highlighted.

Contents

1.0 INTROUCTION.....	3
2.0 REQUIREMENTS.....	3
3.0 SCHEDULE.....	3
4.0 WELL INSPECTIONS.....	4
5.0 WELL MAINTENANCE.....	4
6.0 MANAGEMENT CONTROL	
• YN : Edited to add and reflect 6.0: Management Control	
REFERENCES.....	5
7.0 REFERENCES	
8.0 BIBLIOGRAPHY.....	5

1.0 Introduction

This document presents the well maintenance and inspection plan for use in supporting groundwater activities at the Hanford Site. Wells located across the Hanford Site are used by Site contractors for a variety of groundwater programs. As such, these wells require various types of inspections and/or maintenance during their lifecycles. The wells that must be maintained are defined in Section 2.0, "Requirements."

- This document's title indicates it covers only well maintenance and an inspection yet decommissioning (i.e. abandonment) is discussed. YN suggest you retain 'abandonment' in title as well as decommissioning.
- YN ERWM requests edits to text to include the requirements of 173-160-101/400/406/410/420/430/440/442/450/451/456/457/458/460.

2.0 Requirements

Washington Administrative Code (WAC) 173-160, "Minimum Standards for Construction and Maintenance of Wells," states "It is the responsibility of the resource protection well operator, resource protection well contractor and the property owner to take whatever measures are necessary to guard against waste and contamination of the groundwater resource." The provisions

of the dangerous waste section of the *Resource Conservation and Recovery Act of 1976 Permit for the Treatment, Storage, and Disposal of Dangerous Waste at the Hanford Site* Permit are controlled by the “State of Washington Hazardous Waste Management Act of 1976” (RCW 70.105). Part II.F.2.a of Ecology 1994 states that “...the Permittees shall inspect the integrity of active resource protection wells as defined by WAC 173-160-030 subject to this Permit at least once every five (5) years.”

Wells subject to the RCRA Permit requirements are defined as wells actively monitoring treatment, storage, and disposal (TSD) unit closures (in Part V of the Permit); TSD operating units (in Part III of the Permit); and TSD units undergoing postclosure/modified closure (Part VI of the Permit).

- YN: Part IV wells should be subject to WAC 173-160 regulations and identified in II.F conditions of the Permit. YN requests text edits to include also **Part IV** wells as subject to these requirements.
- Additional comment: Delete term “postclosure/modified closure”. Modified closure is not authorized under RCRA. Replace with “postclosure”.
- YN requests the following deleted text from the current Attachment 8 be included as it supports a comprehensive and consistent Hanford site groundwater monitoring program: “Additionally, the "Second Responsiveness Summary" section (Ecology 1994), which discusses interpretation of the RCRA Permit (found in Part II.F.2.a, page 99), states that Ecology requires maintenance inspections because of the likelihood that monitoring wells can act as preferential pathways for the migration of contaminants. Although the inspections are only required for the wells subject to the Permit, Ecology further states that" ... the Department will pursue enforcement action outside of this Permit to assess and remediate and/or abandon, where applicable, those wells not being addressed by this Permit. " Groundwater monitoring wells included in the maintenance/inspection plan are determined by the RCRA permit and various programs such as the Hanford Site Groundwater Vadose Zone Integration Project. Maintenance of wells supporting other programs or projects across the Hanford Site may be included in the maintenance schedule at the request of the program manager.”

3.0 Schedule

The list of RCRA wells to be considered for maintenance or inspection will be based on a review of information on the current wells. This review shall include field sampling notations and history, previous inspection results, or other data collected during sampling of the wells. In addition, the installation date and/or location of a well will also be considered as well as the elapsed time since last routine maintenance

Well inspections, consistent with the requirements in permit condition II.F.2.a, will occur in 2015, and continue every 5 years after that. The schedule will accommodate changes that will occur with the addition of new wells, adjustments in the TSD unit closures, and wells that are no longer needed for monitoring. The schedule will also accommodate wells used by other programs.

- YN requests text edits to state the schedule shall be developed on a **yearly** schedule approved by Ecology and any changes to the inspection schedule shall require a Permit modification in accordance with the WAC 173-303-830/840 process.

YN suggests the schedule be performed on a 3-5 year schedule or as needed to repair problems identified during sampling. Additionally, YN suggests if a ground water monitoring well becomes unsuitable for use, the status be documented and reported to Ecology within fifteen (15) days of identifying the well as unsuitable for use. In addition, the “unsuitable-for-use” well should be evaluated within thirty (30) days of the designation to determine if a new well should be constructed. A copy of the evaluation should be provided to Ecology. If applicable, the “unsuitable-for-use” well shall be placed on a well decommissioning list for Ecology’s approval. YN suggests this text be incorporated into this document and reflected in the I.F conditions.

- YN ERWM requests edits to text to include the specific requirements of 173-160-460 for the decommissioning process for resource protection wells. YN requests that the Permittees must obtain Ecology’s written approval to remediate or decommission the well and this text stated within this document.

4.0 Well Inspections

Well inspections are conducted as an integral part of field maintenance activities. Inspections include visual examination of the well site, surface components of the well structure (e.g., barrier posts, concrete surface pad and seal, protective well casing, well cap), identification of equipment installed in the well, and where possible measurements of the depths to water and/or bottom of the well. Inspections are documented on field reports.

- YN requests these reports also be placed in the Administrative File for the specific Unit.
- As Inspections are discussed and remain the basis of maintenance, and there does not appear to be an Inspection Plan for Groundwater Resource Wells in place for any Permitted Units, YN requests details for inspections are included similar to those for performing maintenance/restoration. YN requests the following be included within this document as inspection requirements:
 - Security control devices: well caps, and locks
 - Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events.
 - Location, integrity, and inspections of benchmarks, if appropriate
 - Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey
 - Vegetative cover condition
 - Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment

5.0 Well Maintenance

- YN requested text edits in yellow:

Based on review of the 3-5 year inspection results, or other evaluations such as field sampling notations, well sampling issues, etc., well maintenance for groundwater monitoring wells will be performed as needed. Well maintenance will include the following tasks, as necessary, to restore the well to its intended use:

1. Removing groundwater sampling pump system and/or aquifer testing instrumentation/equipment.
2. Inspecting and repairing (or replacing, as necessary) the sampling pump system and/or aquifer testing instrumentation/equipment
3. Cleaning the well casing perforations

- YN requests clarification: What actions are to be done to ensure all wells are constructed to meet RCRA requirements?
- 4. Inspecting and cleaning well screen or repair of well screen (if possible)
- 5. Removing debris and fill material.
- YN requests adding: *and accumulated sediment*
- 6. Performing borehole video camera surveillance
- 7. Re-installing sampling and/or aquifer testing instrumentation/equipment
- 8. Redeveloping the well after performing maintenance
- 9. Inspecting final conditions after well maintenance (e.g. cap is replaced, concrete surface pad integrity, lock is secure, etc.)
- 10. Documenting well conditions and maintenance activities
- YN request text be included which deals with actions taken to deepen “dry” wells. YN suggests the Permittee be required to submit a well deepening plan for Ecology approval that satisfies the groundwater protection standards of Chapter 173-160 WAC, and that the well deepening plan shall not be implemented until after the Permittee receives Ecology’s approval of the plan.

6.0 Management Control

- YN requested deleted text from current Attachment 8 be included to ensure QA/QC plans, etc are in place.

Well maintenance activities will be performed by subcontract using approved subcontractor procedures, quality assurance and quality control plans, health and safety plan, and other appropriate and/or required documentation. The following will control environmental compliance, quality assurance, and reporting:

- BHI-EE-02, *Environmental Requirements*, establishes the overall environmental compliance requirements for BHI. YN recognizes that this citation is no longer the appropriate document and requests the appropriate document be cited.
- Program implementation and procedural compliance will be monitored periodically through surveillance and self-assessments.
- Well maintenance activities will be documented and transmitted for entry into the Hanford Well Information System Database. Inspections are to be recorded in the RCRA operating records, where necessary. All documentation shall be submitted to Document and Information Services.

7.0 References

WA7890008967, 2007, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*, as amended,
 Washington State Department of Ecology, Richland, *Washington Resource Conservation and Recovery Act of 1976*, 42 U.S.C. 6901, et seq.
 RCW 18.104, “Well Construction,” *Revised Code of Washington*, as amended.
 RCW 70.105, “State of Washington Hazardous Waste Management Act of 1976,” *Revised Code of Washington*, as amended.
 WAC 173-160, “Minimum Standards for Construction and Maintenance of Wells,” *Washington Administrative Code*, as amended.
 WAC 173-162, “Regulation and Licensing of Well Contractors and Operators,” *Washington Administrative Code*, as amended.
 WAC 173-303-645, “Releases from regulated units,” *Washington Administrative Code*, as amended.

8.0 BIBLIOGRAPHY

DOE-RL, 1994, *Hanford Site Groundwater Management Program*, DOE/RL-89-12, as amended, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Attachment #3: YN ERWM Program questions regarding text changes in Addendum C page C-36 (see Addendum C text below):

- It is unclear how fluid levels in each leachate sump can be manually maintained if the system is currently designed to operate under automated controls. YN request clarification.
- It's the YN ERWM program's understanding is that currently other instrumentation provided is real-time continuous level monitoring and this information is sent to the 242-A Evaporator control room. YN understood this information would continue to be recorded and monitored daily rather than continuously. YN requests clarification and editing to ensure such real-time data continues to be provided and recorded in the Control Room.
- YN suggest additional text to clarify how both methods/types of equipment calculate leak rates through the primary liner.

9 | ~~Automated controls maintain~~The fluid level in each leachate sump is maintained below 33 centimeters
10 | to prevent significant liquid backup into the drainage layer. The leachate pump is activated when the
11 | liquid level in the sump reaches about 28 centimeters, and is shut off when the sump liquid level reaches
12 | about 18 centimeters. This operation ~~may be done either manually or automatically, prevents the leachate~~
13 | ~~pump from cycling with no fluid, which could damage the pump.~~ Liquid level control is accomplished
14 | with conductivity probes that trigger relays selected specifically for application to submersible pumps and
15 | leachate fluids. A flow meter/totalizer on the leachate return pipe measures fluid volumes pumped and
16 | pumping rate from the leachate collection sumps, and indicates volume and flow rate on local readouts. In
17 | addition, a timer on the leachate pump tracks the cumulative pump operating hours. Other
18 | instrumentation provided is real-time continuous level monitoring with readout at the catch basin ~~and the~~
19 | ~~242-A Evaporator control room.~~ Leachate levels are monitored at least weekly. A sampling port is
20 | provided in the leachate piping system at the catch basin. ~~Leak detection is provided through inspections~~
21 | ~~of~~The leak rate through the primary liner is calculated using the leachate flow meter/totalizer readings or
22 | pump operating hours readings along with the pump flow rate. Calculations using either method are
23 | sufficient for compliance. For more information on inspections, refer to Addendum I.

- . See Attachment #3.

Attachment 1: