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Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

January 24, 2017

Dan McDonald
Washington State Department of Ecology
3100 Port of Benton Blvd
Richland, WA 99354
Email: Hanford@ecy.wa.gov

Subject: Review of the proposed changes to the Hanford Facility Dangerous Waste Permit for the Effluent Management Facility (EMF) Secondary Containment System.

Dear Mr. McDonald:

We appreciate the opportunity to review these documents and offer these additional comments. While response is not required, it is our hope that these comments will be taken under serious consideration.

We look forward to discussing our vision of cleanup and all our concerns with you further.

Sincerely,

Marlene George

Marlene George,
Acting Program Manager, Yakama Nation ER/WM

cc:
Administrative Record
Jean Vanni

Attachments:
#1: Additional Comments on the WTP-EMF Permit Application Package

RECEIVED
JAN 31 2017
EDMC

Attachment #1: Additional Comments on the WTP-EMF Permit Modification Application Package:

YN: Additional comments on the WTP-EMF application package: 1-10-2017: YN suggests and/or requests these inputs.

Chapter 4 & Appendix 4:

- General:
  - With the many track-changes, it is difficult to recognize retention of information and it move to another section or its deletion completely. It is equally difficult to recognize newly proposed modification text. We request Ecology thoroughly review deletions and new additions to ensure that changes no changes subject to permit modification process have inadvertently occurred (e.g., Use of 90-day waste accumulation areas and or satellite accumulation areas, Hot cell Solid Waste Management system (HC-14).
  - Appendix 4G:
    - More descriptive and detailed discussion is need for all systems described or there should be a reference to an attached document which fully describes the system and compliance with regulatory requirements of WAC 173-303 and any waivers or Ecology decisions (e.g., Containers-Is Ecology going to require secondary containment?)
    - EMF 90-day accumulation and satellite accumulation areas and compliance with all referenced WACs & Permit conditions. (Note: The LAB appendix H has a well written discussion regarding containers, suggest similar format for EMF section 4G.1)
    - Clarify integration of EMF and the WTP control room.
    - Attach or provide working hyper-links to all referenced documents and/or Hanford Site RCRA Permit Appendices/Attachments or insert applicable text within documents. Some documents used to support Permit requirements may or may not be enforceable; this is unclear.

    - 4G.2:
      - This section doesn't explain compliance with WAC 173-303-640.
      - There seems to be some systems under baseline operations which must be recycled back into the LAW melter and in the direct feed configuration this goes to EMF. Request review of baseline configuration to direct feed LAW/EMF configuration to ensure that no waste streams which need to be captured in LAW glass is transferred to the EMF (e.g. LVP-VSL-00001-RLD-VSL-00017A/B; LVP-TK-0001]).
      - Does EMF have similar equipment to the LAW UFP system? Clarification is needed as to what's going to be operating in EMF and what's going to be done in tank farms for pre-treatment.
      - More details on dimensions are needed to understand and evaluate secondary containment. Clarify actions to be taken in the event of sump failure. YN request that all sumps be equipped/designed to be able to remove residual liquids and additionally request sampling be performed on this liquids (see page 4G-10, line 1)
      - Clarify what precautionary systems are in place to ensure that in the event of an off-normal condition within EMF, there is no transfer of effluent to any tanker trucks (should they be an option) without passing through the evaporator concentrate/feed vessels LAW effluent cooler (DEP-HX-00001)

        - Clarify use of sodium nitrate and how this does or does not affect chemical composition of wastes currently held in the tanks. Would this additional load of sodium nitrate be a concern to be considered in the process of glass formation?
    - 4G.2.4: Clarify what is meant by 'qualified effluent'. Clarify which system which can be by-passed in off-normal situations. Clarify the process and explain what is meant by "in attempt to meet" the LERF/ETF requirements. Where is effluent which cannot meet LERF/ETF waste acceptance criteria sent? What process does the corrections?
    - 4G.2.5: Clarify why sampling doesn't occur at the process condensate vessel prior to transfer to LERF/ETF. This seems the more logical place as there are several waste streams which combine in this vessel. Sampling of all such combined waste streams prior to transfer to LERF/ETF is requested. Sampling needs to occur pre-transfer. Relying on flow ratios isn't sufficient. What happens should the post transfer sampling not verify waste meets DST waste acceptance criteria. Clarify term; 'tee.'
    - 4G.3.1: Clarify need for antifoam reagents. Clarify when off-spec effluent could be transferred to the low-point vessel, what process is in place to ensure this effluent is not transferred to the EMF. Is this a concern?
    - 4G.3.5: Clarify choice of 5-mircon filters.
    - 4G.3.7: Clarify if there are any anticipated solids.
    - 4G.4: Clarify: Is there a diagram or more information in a different section which provides more details as to where specifically these different types of secondary containment are located?
    - 4G.4.1: See comment on the control room, etc.
    - 4G.4.2: Clarification is needed: These are quite long transfer lines and one LDB at the WTP Room-ED-B001 or at the interface point between the WTP property line & LERF/ETF is not adequate. Leaks must be detected within 24hrs. (Note: there was a statement that cathodic protection was not needed because these were coaxial piping, See comment on coaxial protection). Clarification requested. Has Ecology approved use of each protective coating and/or waterstops?
    - Table 4G-3: Does the identified containment areas include those areas which have pipes, etc which only have a protective coating? If not, include these.
    - Table 4G-4: Clarify the areas of secondary containment for these types of equipment.

- 4H Analytical Lab:
    - Clarify what actions are in place to ensure these outsource labs will have the required QAQC requirements in place
    - General for all different laboratories: Confirm there are no Satellite Accumulation Areas in the Labs. Clarify how all sampling waste will be dealt with. Clarify: Does F039 include the F-codes which are stated not to be included in the DST Part A and will not be received at the WTP.
    - Clarify the systems which will handle all laboratory *hood* fumes.
    - Secondary containment system design & Lab containers: Clarify whether or not any containers will hold liquid wastes. If these containers hold liquid wastes, there must be a containment system regardless of ignitability or reactivity.
    - 4H.1.4.3: Ensure all design changes have Ecology approval.
    - 4H.1.4.7: See general comment on F0-39 code.
        - Page 4H-15: lines 33-44: Clarify how this process of transfer of hood sink drains which may contain wastes which require remote handling.

Has the system been rerouted? See earlier comments on use of tanker trucks.

- Page 4H-18, lines 33-34: Clarify whether the EMF or the new LAW Pre-treatment facilities will have similar ventilation systems.
- 4H.4: Clarify if the EMF as a similar maintenance program and whether the DFLAWPS will also.
- Page Appendix 4H-20, lines 36-39: Clarify why waste packing etc is not a permitted activity. Additional clarify secondary containment design and dimensions.
- Table 4H-4: Clarify secondary containment area-including those areas which use pallets. Is the whole area considered covered with pallets? There has to be aisle spaces.

- 4I: General: BOF systems information is stated to be provided only for informational purposes. However many systems are linked and critically essential to the other WTP facilities. Clarify what measures are in place to ensure these systems are designed/operated/maintained in a manner which does not affect WTP facility operations.
  - 4I.1.1: Lines 38-41: Clarify the removal of option of treatment of liquids.
  - 4I.1.2.1:
    - Lines 13-19: Clarify if it is BOF miscellaneous MW containers that are being discussed. The failed melter storage facility is not anticipated to be built before these BOF containers will need a storage/management area. If none of the BOF are needed with the operation of the DFLAW/DFLAWPS/EMF facilities, please state so.
    - Lines 30-: Clarify compliance with WAC container regulations, WAC 173-303-640.
- 4I.1.2.2: Clarify how this is not a part of the record-keeping requirements of WAC 173-303. (e.g., the LIMS).
- 4I.1.3: Clarify that containers will be tracked and information kept as a part of Permit recording-keeping requirements.
- 4I.1.4.1: Clarify how full compliance with WAC 173-303-630 containers regulations are met. For instance, are these in covered areas?
- 4I.1.4.2: RE: Failed Melters: Clarify this will be updated as this facility is designed and permitted.
  - 4I.1.4.6: Clarify: this will not occur in the failed melter storage areas.
  - 4I.2: This is not discussed elsewhere in the other WTP facilities only here in Appendix I. Should it be included in these other sections? Clarify.
  - 4I.3: RE: Use of raw water system: Has this been considered in the overall site facility operations planning? How is this considered in the new DFLAWPS design?
  - 4I.10: Page 4I-11: Clarify Ecology approval of design of transfer lines.
  - Table 4I-1: Clarify the areas of secondary containment for these types of equipment.

Chapter 6 & Appendix 6A:

- General:
  - With the many track-changes, it is difficult to recognize retention of information and it move to another section or its deletion completely. It is equally difficult to recognize newly proposed modification text. We request Ecology thoroughly review deletions and new additions to ensure that changes no changes subject to permit modification process have inadvertently occurred.

- It is understood that Tables are 'examples' but as this is a mod specific to EMF; it would be helpful if the Tables were more populated to reflect EMF equipment.

- 6.1.2: Clarify points of access to waste handling and storage areas will be marked, etc.
- 6.3: Clarify how a waiver for this requirement and what permit modification allowed this decision.
- Clarify how design was re-evaluated (provide calculations and hazard analysis) to demonstrate facility construction supports reductions of aisle spacing requirements.
- 6.4.1: Rewrite for clarification: Other text in the Appendix documents describing transfer seems to indicate that waste transfer will be via underground transfer lines. It does state no cathodic protection will be used but not because of isolation from soils.
- 6.4.4: See previously submitted concerns regarding the continued supply of electrical needs and discuss with more details how this is integrated into overall WTP needs.
- 6.5: Lines 21-22: Clarify why the DST Tank Farm Contractor does not remove the D001 & D003 codes.

Appendix 6A:

- General: Clarification needed throughout regarding:
  - Controlled copies are within the Permit. See previous comments regarding who owns the official copy of any permit documents.
  - There should be some level of inspection of DWM units prior to receipt of wastes to ensure they are meeting or will meet operational requirements (e.g., calibrations of equipment on a timely schedule; corrosion effects).
  - YN Requests that records also be kept in hard copy be a standard requirement.
  - Appropriate uses and purposes of epoxy-type coatings in all WTP facilities
  - Seismic design criteria (in particular in EMF)
  - Clarification and additional descriptive information regarding the LIMS system to track the flow of samples.

  - 6A.1.2: Clarify what is in place to ensure that schedules do not allow for inspections to be so staggered that overlap occurs (i.e., weekly inspection the same day as the monthly inspection)
  - 6A1.3: Clarification requested: This needs specific details: Verbal notification means what? In was situations can WTP decide to violate a Permit condition?
  - 6A.2: YN Requests that records be kept in hard copy be a standard requirement. Request records be retained until unit's final closure.
  - 6A.3.1: Clarify/identify by title the persons & roles of responsibility for performance of remedies and how ecology will be involved.
  - 6A.4.1: See previous comment regarding aisle space determination. Clarify: Term: *waste by-product*
  - 6A.4.2.2: Clarify what process is in place to ensure tank system has structural integrity prior to start of cold/hot commissioning.
  - Table 6A-2: Clarify use of term: frequency of 'ever seven days' in Tables 6A-1/2. Term is not identified in section 6A.1.2.
  - Table 6A-3: Clarify why Primary Containment Sumps as identified in Table 6A-3 is not populated.

Chapter 7:

- General:
  - Clarify somewhere that with loss of utilities due to whatever the cause, Ecology will be notified.

- Clarify somewhere what procedures are in place in the event of airborne contaminations and any 'zone of exclusion.'
- Clarify what process is in place for any contingency situations which affect the critical operational systems of each of the WTP facilities when in baseline and direct feed configurations.

- Section 7.4.1: Summarize and include the applicable portions of DOE-0223 and DOE/RL-94-02, Section 1.3.3.2. It is unclear whether all references to other documents may or may not be under the authority of Ecology and the RCRA Permit process.
- Section 7.4.7.2: clarify the term 'normal condition.'

Chapter 8:

- Table 8-1: Clarify and add position for 'Samplers.'

Chapter 11:

- 11.2.0.: Clarify the use of terms 'risk based cleanup standard.' Is this to be interpreted to mean the cleanup standard is subject to many different standards? Additionally, there will be some component of equipment (e.g., ancillary piping equipment) which will be underground and there are different standards. Clarify how underground components will be dealt with.
- 11.2.0, Section: Closure Strategy for Secondary Containment Areas: YN request sampling rather than assumption to verify clean debris surface standard. Furthermore, we request such sampling for all similar situations in the WTP facilities.
- Section 11.2.1: See line 22-23. YN requests that will closure, there be soil sampling with any loss of secondary containment.