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WASHINGTON STATE DEPARTMENT OF ECOLOGY

Delisting Petition

For Hanford 200-Area Effluent Treatment Facility

Modification to the Existing Hanford 200 Area Effluent Treatment Facility (ETF) Delisting Exclusion Promulgated in June 1995

This responsiveness summary is a result of written comments received by the Washington State Department of Ecology (referred to hereafter as Ecology or Department) on the tentative decision to grant a petition that was formally submitted by the U.S. Department of Energy on May 27, 2004, in accordance with Washington Administrative Code (WAC) 173-303-910(3). The petition requests modifications to the existing Hanford 200 Area Effluent Treatment Facility (ETF) (water mixed with waste matter) delisting, under which ETF-treated effluent has been managed since initial promulgation of this exclusion by the Environmental Protection Agency (EPA) in 1995 and subsequent approval by Ecology. The delisting will allow for land disposal of the treated effluent. The comment period on Ecology's tentative decision to approve the delisting petition was from August 30; 2004, to September 29, 2004. This Responsiveness Summary will be made part of the Hanford Facility Administrative Record for future reference.

Ecology received the following comments and has responded to each of them.

- Eight comments were received from David Blumenkranz on September 30, 2004

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COMMENT 1

The proposed modification does not contain schematics and process description for ETF storage areas and unit operations as recommended by *EPA RCRA DELISTING PROGRAM GUIDANCE MANUAL FOR THE PETITIONER*. Assuming this information is provided in the original delisting petition, the reader should be directed to the appropriate reference(s) (presumably, DOE/RL-98-72). Otherwise, the petition modification should provide sufficient information to independently assess the capability of ETF to consistently produce effluent that meets delisting criteria. Many other elements of the *EPA RCRA DELISTING PROGRAM GUIDANCE MANUAL FOR THE PETITIONER* are not explicitly addressed; the appropriate references should be cited, at a minimum. Although this is not a critical flaw in the proposed petition modification, without public access to information recommended by EPA guidance documents, independent assessment of ETF's proposal is difficult.

ECOLOGY RESPONSE

Ecology provides the following clarification:

The original ETF Delisting Petition is document number DOE/RL 92-72. This document contains the schematics and process description for ETF storage areas and unit operations. Current schematics and process description for ETF is also included in the Hanford Facility Dangerous and/or Mixed Waste Permit issued by Ecology. EPA included DOE/RL 92-72 in their list of documents in the federal rulemaking docket. Ecology believes that the public has the resources needed to access and review the information.

COMMENT 2

Section 3.2, page 3-3, lines 22-25, and Section 4.2 in its entirety: The text indicates the proposed delisting modification will include powders and evaporator brine. From Section 2.1, page 2-2, line 28 clearly identifies these waste streams as the result of the secondary waste treatment system. Section 1.4 indicates the proposed delisting modification is for treated effluent resulting from treatment in the primary effluent treatment system. The delisting modification needs to clearly delineate which effluent streams are subject to the proposed delisting modification. Figure 2-1, page F2-1, should also indicate the stream that is subject to delisting modification (also see Item 8 of "Part 3: Delisting Process Information, Contributing Manufacturing Processes" from Appendix A, *Framework For Delisting Petitions*, from the EPA guidance document, *EPA RCRA DELISTING PROGRAM GUIDANCE MANUAL FOR THE PETITIONER*). Please clarify the scope of the petition in Section 1.4.

ECOLOGY RESPONSE

Ecology provides the following clarification:

Ecology believes that the scope of the applicant's (USDOE) delisting is identified in Section 1.4. USDOE, the applicant of the proposed delisting modification, requested the delisting to include the concentrated wastes (powders and evaporator brine). Ecology cannot instruct the applicant how to write a delisting proposal to EPA. EPA's final rule language is clear that it applies to the treated effluent only. Additionally, Ecology will approve the delisting for treated effluent only.

COMMENT 3

Section 4.1.2.1, page 4-2, lines 31-32: The text indicates that sulfide, thallium, osmium, cobalt and tin are new constituents of concern to be added to the ETF delisting by the proposed modification. What is the basis for regulation of osmium, cobalt and tin? They do not appear in Table B-1, and should be excluded if there's no basis for regulation.

ECOLOGY RESPONSE

Ecology neither agrees nor disagrees with the comment.

Ecology believes that the applicant was providing the inorganic constituent information as an update to the original inorganic constituents previously addressed in the initial ETF Delisting Petition (DOE/RL-92-72). This is for informational purposes, not for regulation. EPA has not established exclusion limits for osmium, cobalt, and tin; Ecology does not have exclusion limits either.

COMMENT 4

Section 4.1.2.2, page 4-3, lines 11-16, and Table 4.1, and Appendix B constituents, and Appendix C: The proposed treatment envelopes and acceptance criteria need to be compared to projected Waste Treatment and Immobilization Plant (WTP) effluent constituent levels and volumes to ensure waste acceptance criteria (and delisting criteria, by association) are not exceeded when WTP begins sending its effluent to ETF. No data are provided to indicate the results of such an evaluation, and thus there's no indication as to whether or not accepting WTP effluents will impact ETF's ability to adhere to petition conditions. The United States Department of Energy, Office of River Protection (USDOE/ORP) should be consulted for information concerning volume and composition estimates for WTP effluents.

ECOLOGY RESPONSE

Ecology agrees in part, as discussed below.

The petitioner has consulted with USDOE/ORP and its contractors to obtain data on the projected Waste Treatment Plant (WTP) effluents and made every effort to ensure this proposed modification petition was broad enough to encompass the projected effluents. EPA clearly stated in their language that the data was not considered in development of the proposed federal rule, and required an engineering evaluation process and associated exclusion conditions in the event that other waste streams (i.e., WTP effluent) could be managed by ETF in the future.

COMMENT 5

Section 4.2, page 4-5, lines 4-12: Indicate whether brine characterization data are available for use with Delisting Risk Assessment Software (DRAS), and if so, provide such data to facilitate independent evaluation of proposed delisting levels that might be established in the final ruling.

ECOLOGY RESPONSE

Ecology neither agrees nor disagrees as discussed below.

EPA is the lead regulatory agency for this proposed modification delisting petition and accepted the DRAS model, not Ecology, therefore; EPA would be the lead agency on providing requested data. In addition, EPA is not proposing a delisting exclusion for the evaporator brine at this time, and neither is Ecology. Characterization data applicable to the evaporator brine are contained in Appendix D of the applicant's petition.

COMMENT 6

Section 5.0, page 5-1, lines 40-41, and page 5-2, line 8-10: The ETF should be permitted to use alternate EPA or the American Society for Testing and Materials (ASTM) approved analytical techniques as long as detection limits support decisions regarding meeting delisting limits, and as long as the precision, accuracy, and calibration verification protocols of the method(s) are comparable to SW-846 counterparts. Specifying Method Detection Limits (MDLs) that are the same or lower that comparable SW-846 method could be overly conservative in those cases where delisting limits are well above SW-846 method MDLs. Such sensitivity may not be warranted and may be unnecessarily burdensome.

ECOLOGY RESPONSE

Ecology disagrees as discussed below.

ETF is required to meet other regulatory limits associated with other permits and which are also defined in their Waste Analysis Plan (WAP). For example, the WAP may require lower detection limits for permitted parameters in the ETF State Waste Discharge Permit. ETF has other permits with limits to consider, not just meeting delisting limits.

COMMENT 7

Table A-1. The table should indicate whether the column, "Pilot Plant Predicted Treatment Efficiency" is the maximum or average predicted treatment efficiency, and the data in the column for the historic ETF treatment facility should be the equivalent. Otherwise, the qualitative statements in Section 4.1, page 4-1, lines 37-41 cannot be verified.

ECOLOGY RESPONSE

Ecology agrees in part as discussed below.

The "Pilot Plant Predicted Treatment Efficiency" was determined by averaging the removal efficiencies determined from the surrogate solutions during the pilot plant testing as explained in Section 3.0 of the DOE/RL 92-72 original federal delisting petition. However, the data is provided to determine the average historic ETF treatment efficiency and there is only a small difference between the maximum and average values. Ecology disagrees that the qualitative statements in Section 4.1 cannot be verified.

COMMENT 8

Table D-1, and accompanying text in Section 4.2, page 4-5, lines 14-16: The petition needs to clarify how the minimum, maximum, mean, standard deviation, and confidence limits were computed, particularly in those cases where there were no constituents detected. The petition needs to indicate the assumptions regarding the distribution of constituent concentrations when the confidence limit is provided.

ECOLOGY RESPONSE

Ecology disagrees as discussed below.

Section 4.2 and Table D-1 applies to concentrated waste (evaporator brine). Because EPA is not proposing at this time a delisting exclusion for the evaporator brine (and neither is Ecology), clarification is not required.