UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD/INL PROJECT OFFICE
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P.O. Box 550, A6-33
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Re: EPA Comments on the 200-CW-5 Feasibility Study and Proposed Plan

Dear Mr. Charboneau:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft B versions of the 200-CW-5 Feasibility Study (FS) and Proposed Plan (PP) provided by the U.S. Department of Energy (DOE) to fulfill interim milestone M-015-40D. A milestone extension of three months was granted to DOE by EPA (to July 30, 2008) through a Tri-Party Agreement change notice. Since these documents were extensively revised and were submitted to EPA for review pursuant to a new interim milestone, the initial review period consisted of 45 days. EPA took an extension of an additional 30 days to complete the review. Finally, two extra days were taken in order to allow discussion of DOE's cleanup proposal at the Oregon Hanford Cleanup Board meeting in Cascade Locks, Oregon, prior to finalization of comments.

Our comments are included within the content of this letter. There are still so many differences and major issues between DOE and EPA regarding the cleanup of the 200-CW-5 operable unit, which consists mainly of the Z-Ditches, that our comments are framed at a higher level. We will not provide page-by-page comments on these two documents when we have major differences to resolve.

We appreciate that many of our comments from the Draft A versions were addressed. One change included an engineering study to better delineate potential areas above 100 nCi/g of transuranics and to see if certain portions of the Z-Ditches required different types of responses. Another welcomed change was the inclusion of a more serious and up-to-date evaluation of in situ vitrification as a remedial alternative. These changes along with the wholesale re-racking of the waste sites in the other originally associated operable units (200-CW-2, -4 and 200-SC-1) must have complicated the revision of these documents. We believe the documents were fairly well written, especially the FS, in light of these major changes. However, their readability could be improved as it is very important to convey this highly technical information in a way that is understandable to the public. An excessive use of acronyms, like referring to excess lifetime cancer risk as "ELCR," does not help. Also, some of the figures are not consistent throughout the FS and PP with respect to north and the numbering of work areas (1 and 3 get switched).

Some changes that DOE has yet to make but promised when transmitting these documents are ones that are necessary to be consistent with the outcome of the 200-PW-1/3/6 workshop. These include performing and documenting the tribal risk scenarios and, while not specifically alluded to, costing out institutional controls and monitoring for 1,000 years (instead of the 150 years in the Draft B versions). Running the costs out to 1,000 years was an outcome of the workshop. It is not clear what other outcomes DOE intends to address with their next revision of these documents. We would like clarification on the additional changes.

The primary difference we have with DOE is the choice of preferred alternative. We continue to believe, as we did when we commented on Draft A versions in February 2005, that the remedy for the Z-Ditches should be full Remove-Treat-Dispose (RTD). DOE has not made a logical case for the preferred alternative that involves capping the area of highest transuranic radionuclide concentrations while removing the lower concentration areas. This is clearly evident in the bizarre comparisons made between Alternatives 5A and 5B where the choices are to cap the less contaminated material and RTD the higher concentration area and vice versa.

DOE's preferred alternative appears to be based on cost and an aversion to generate TRU (transuranic waste) over most other considerations. Regarding the costs, the figures in the description of the RTD alternative for disposal costs at the Environmental Restoration Disposal Facility (ERDF) are either a typographical error or are being confused with costs to dispose TRU at the Waste Isolation Pilot Plant (WIPP) in New Mexico. The costs for disposal at ERDF provided in back up material in an appendix are between 50 and 100% higher than the actual costs that EPA tracks for ERDF. These discrepancies, as well as the lack of accounting for long-term monitoring and institutional controls costs that extend beyond 150 years, skew the analysis against full RTD even though this alternative appears to be comparable in cost when corrections are made. The transuranic radionuclides in these ditches will not attenuate for thousands of years, and it is not clear who is going to watch them in this shallow zone (less than 15 or 20 feet) for that long a time period.

Based on the precedent set at the Idaho National Laboratory (INL) and procedures for assaying and evaluating TRU levels, the excavated waste from the high-concentration work area will not necessarily be generated as TRU. It has to be shown to be TRU in whatever container it is in. Experience with determining if waste boxes generated at the 233-S Plutonium Concentration Facility could stay in ERDF or had to be removed has convinced EPA that very little of the Z-Ditches' waste will end up being TRU. This will save on costs and space at WIPP while providing safe disposal (would meet the waste acceptance criteria and any necessary treatment) at depth in a centralized disposal facility. We are especially confident of this since the outlier data was taken out of the exposure point concentration calculations. The one outlier (13 million pCi/g) sample evidently represents plant matter from the U Pond delta that is light weight and had absorbed high concentrations of transuranics, thus throwing off realistic estimates of the overall TRU levels of the soil if not removed as an outlier.

When these considerations are taken into account along with the superior protectiveness of RTD and disposal at ERDF (and possibly some material at the deep geologic repository at WIPP), full RTD should be the preferred alternative. This is consistent with recent comment letters on these documents from the Washington Department of Ecology (Ecology), the Oregon

Department of Energy (ODOE), as well as discussions held this fall with tribal technical staff and the Hanford Advisory Board (HAB) River and Plateau Committee. Also, while not constituting official guidance, the EPA/Ecology white paper on cleaning up the central plateau of Hanford also looked at the comprehensive aspects of addressing transuranic materials across the 200 Area National Priorities List site. The RTD of shallow transuranic materials is consistent with the vision spelled out in that white paper. It also follows HAB Advice #173 on central plateau values regarding the selection of remedial alternatives and when to utilize capping.

Both Ecology and ODOE commented on the lack of some Resource Conservation and Recovery Act (RCRA) analytes in the characterization data from the Z-Ditches. The 200-ZP-1 groundwater operable unit record of decision has set a useful precedent for the integration of RCRA corrective action integration with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup. DOE needs to be more mindful of the opportunities to address the data needs of the various Hanford programs as the various CERCLA remedial investigation and feasibility study processes continue. We do point out that the RTD alternative is less sensitive to the level of characterization than the other remedial alternatives. This is because the observational approach can be used as the waste sites are dug up to make sure that the waste is designated properly and is treated, if necessary, to meet land disposal restrictions and disposal facility waste acceptance criteria.

Backed by the recent joint letter from EPA and Ecology, we disagree with the degree with which the antiquated 200 Area Implementation Plan is cited throughout these documents. That plan has little bearing on what is being done now, especially with regard to the range of applicable technologies and with supplemental characterization requirements. We found the description of the representative and analogous site approach to be confusing and unnecessary, as indicated by some of the text of the FS. DOE should stick with that text and drop any other descriptions of the representative and analogous site approach, especially since the pertinent sites have been sent to other operable units for organizational purposes and to focus on the Z-Ditches.

The Remedial Action Objective (RAO) for protection of workers needs to be stricken. Removing that RAO is consistent with the recent 200-ZP-1 operable unit proposed plan and record of decision. It is the resounding advice of our legal office that we do not clean up waste sites to protect the workers that do the cleanup. Worker protection considerations are addressed through the CERCLA criteria of short-term effectiveness and implementability. We will not allow the use of that RAO.

The discussion of Applicable or Relevant and Appropriate Requirements (ARARs) is absent from the PP. This is entirely unacceptable because many public readers will not go searching for the supporting information throughout the administrative record. One cannot place into context protectiveness and compliance with ARARs if they are not listed and explained. The main text of the FS does not contain an adequate summary of the ARARs and relies too heavily on reference to an appendix.

Descriptions of the land use are not consistent with the recent 200-ZP-1 record of decision. The industrialized portion of the 200 Area needs to be referred to as the "core zone" to differentiate it from the rest of the central plateau. DOE must keep in mind the interest of

stakeholders, tribal groups, and the public in keeping the core zone as small as possible to allow greater flexibility in the future use of the rest of the central plateau.

To wrap up our comments, EPA reminds DOE of their hesitancy to excavate the 200 BC Cribs and Trenches waste sites due to worker safety concerns. The second phase of a treatability study to demonstrate the implementability of excavation there was completed this summer. The results indicate that the work can be performed safely and efficiently and the waste, while high in fission product contamination, can be disposed of at ERDF. This revelation, along with TRU excavation activities at INL, points to the implementability of RTD at all of the work areas of the Z-Ditches. RTD will not be as difficult as the FS and PP make it out to be (although Draft B versions are much less biased against it than the earlier draft versions). DOE Richland needs to embrace the can-do attitude that has been so successful at INL. DOE's contractor most likely would benefit from the field experience of tackling the Z-Ditches remedial action. The experience gained will aid in approaching other TRU and potential TRU contaminated waste sites at Hanford. We ask that DOE change their preferred alternative so that we can go forward with a decision and begin working to cleanup the Z-Ditches.

If you have questions, please contact me at 509 376-8665.

Sincerely,

Craig Cameron

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Project Manager

cc: Tom Fletcher, DOE
Frank Roddy, DOE
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Administrative Record: 200-CW-5 Operable Unit