



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10 HANFORD PROJECT OFFICE  
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April 19, 2000

Oscar Holgado  
Spent Nuclear Fuel Project  
U.S. Department of Energy  
P.O. Box 550 S7-41  
Richland, WA 99352

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EDMC

SUBJECT: EPA Comments on Data Quality Objectives Process for Designation of K-Basin  
Debris; dated April 17, 2000

Dear Mr. Holgado:

Thank you for the opportunity to review the subject document. Enclosed are the U.S. Environmental Protection Agency's (EPA's) comments. If you have any questions, please contact me at 509-376-9884.

Sincerely,

*Laurence E Gadbois*

Laurence E. Gadbois  
K Basins Project Manager

Enclosure: EPA Comments on Data Quality Objectives Process for Designation of K-Basin  
Debris; dated April 17, 2000

Cc: Julie Atwood, BHI  
Paul Day, MACTEC  
Jane Hedges, Ecology  
Phil Loscoe, DOE  
Chris Lucas, FH  
Mitzi Miller, EQM  
Owen Robertson, DOE  
Carole Rodriguez, GSSC  
Jeff Westcott, WMH  
Administrative Record, 100-KR-2

EPA Comments on Data Quality Objectives Process  
for Designation of K-Basin Debris; dated April 17, 2000

General Comments:

- 1) The Executive Summary is good.
- 2) Pages 1 through 32 are OK with minor changes (see specific comments below).
- 3) Pages 35 through 57 of this document are vastly more complicated than appropriate for the several simple decisions that need to be made. (Should a piece of waste be placed in the container for low-level rad, or in the container for macro-encapsulation.) This over analysis of simple decisions is a result of applying the BHI version of the DQO process in lieu of common sense. This is exactly the sort of waste of time and money that I hoped to avoid by sending the December 15, 1999 email message (attached for reference). The simplicity of what needs to be done with the waste, evident in tables 7-2 and 7-3 is obscured in the complexity of sections 2 through 6. Pages 58-59 are appropriate detail for the question at hand. Table 7-2 is appropriate detail, but items 2 and 3 in the description should be avoided. Table 7-3 is appropriate. Table 7-4 is simplistic to the point of being misleading. Appendix B is appropriate. Appendix C is superfluous.

Specific Comments:

- 1) Throughout the document, the reference to DOE et al., 1999 (the CERCLA ROD) should be EPA et al., 1999. In the references, the EPA document number (EPA 541-R99-059) should be added.
- 2) Page 2, last full paragraph, last sentence. The phrase "to levels that are below TSCA limits" should be removed. Page 10 last paragraph on Underwater Debris. The sentence "polychlorinated biphenyls in sludge have exceeded the 50 ppm limit for TSCA" should be removed. All similar statements in the document should be removed. There is not a specific concentration that triggers this to be TSCA waste. (40 CFR 761.3 definition of remediation waste: "PCB remediation waste means waste containing PCBs as a result of a spill, release, or other unauthorized disposal...and materials which are currently at any concentration if the PCBs are from a source not authorized for use under this part.")
- 3) Page 3, top paragraph. The phrase "painted debris will be assigned a toxicity characteristic (TC) designation for metals, based on established concentrations in paint;" is misleading. Knowledge of what is in the paint should be used, but "designation" should be based on a ratio of the mass of the RCRA metals to the mass of the painted object - not concentrations in the paint. I suspect the authors had the right intention but its expression in this document needs to be rewritten.
- 4) Page 8, item 8. In addition to lead, fluorescent lights (at least the older ones) also contain mercury.
- 5) Page 10, last paragraph on Underwater Debris. It is hard to keep track of which list of contaminants go with which waste stream. The discussion on coupons is clear. However the discussion of rinsed debris fades into a discussion of water, then sludge is brought up, then water, then sludge. This needs to be clarified.

- 6) Page 11, last sentence. The relevance of the phrase "the 0.1 ug level" is not clear. Was this the detection limit? If so, say so. If it was supposed to be related to TSCA, then it probably isn't applicable (40 CFR 761.3 "remediation waste").
- 7) Page 19, table 1-4, last item "high temp gaskets and seals". If appropriate, PCBs should be added as a COPC for this waste stream.
- 8) Regarding tables 1-5, 1-6, and 1-7, EPA has not reviewed the lists of COPC and preliminary action levels. The principal reason is that EPA claims no ownership of this document. The EPA has not supported doing the DQO (see attached email message). The EPA has tried to save the time, money, and frustration involved in a full-blown DQO of a few more fuel basins and buildings when we have existing SAPs and DQOs for other fuel basins and their buildings. For years those SAPs have worked fine for debris disposal to ERDF. They did not need to be recreated for the K Basins. The EPA does have approval authority of the SAP. The SAP is the legally binding document. The SAP has been and will be EPA's focus.
- 9) Page 32, table 1-8, Project Budget. First, the budget for DQO Workbook Development is missing. It should be included. Second, what is the \$205K cost for the 222-S lab?
- 10) Page 33, the "Statement of the Problem" should be rolled into page 1 which is "Step 1 - State the Problem". Also, in the second last paragraph, second last sentence "which is equivalent to encapsulation" should be changed to "which constitutes macro-encapsulation".
- 11) Page 35. Much of the excessive analysis of the next five chapters may originate in the statement of the principal study questions (PSQs). The first two PSQs are reasonable, and should be answered with rad surveys and the type of isotopic conversion information that is in Appendix B. PSQs 3, 3a, 3b, 3c, and 4 are not necessary PSQs given the intended macro-encapsulation strategy. In section 2.1 PSQs are defined as DQO questions that will require measurements to resolve. When visual inspection suggests there may be a dangerous waste or asbestos issue, the waste can be placed in the container for macro-encapsulation so measurements are not needed and there are no questions to resolve. If PSQs 3, 3a, 3b, 3c, and 4 are removed along with their contribution to the bulk of chapters 2 through 6, this DQO would be a more appropriate match to the waste treatment and disposal decisions to be made.

Mr. Holgado

- 4 -

April 19, 2000

\*\*\*\*\* Attachment: E-mail message from EPA \*\*\*\*\*

E-mail Memo

December 15, 1999

SUBJECT: EPA Qualified Support for the Memorandum of Understanding between Fluor Daniel Hanford, Inc. and Bechtel Hanford Inc. for K Basin Waste to ERDF.

FROM: Larry Gadbois, EPA Project Manager,  
Spent Nuclear Fuel Project

TO: Mike Hughes, BHI  
Ray Jones, FDH

CC: Paul Day, FDH                      Vern Dronen, BHI  
Dave Einan, EPA                      Pam Koeller, BHI  
Roger Landon, BHI                      Owen Robertson, DOE  
Doug Sherwood, EPA

The EPA has directed and authorized the disposal of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) waste from the K Basins CERCLA remedial action to the ERDF. The EPA appreciates the effort FDH and BHI have put forth to coordinate your respective roles and responsibilities for this effort, which is exemplified in the subject memorandum of understanding (MOU), dated December 1999 as revision 0. Although EPA review and approval is not required, the EPA has reviewed the MOU because of our keen interest in both the successful execution of the K Basins project and the operation of ERDF.

With one exception, this MOU appears to be a reasonable allocation of waste management roles and responsibilities to shepherd the FDH-generated waste through disposal by BHI into ERDF. The one exception, under "Sampling, Analysis, and Characterization of Waste," is the requirement to "follow the data quality objectives process per BHI-EE-01, Procedure 1.2."

The EPA requires a sampling and analysis plan for characterization and designation of waste prior to disposal at ERDF. That is a substantive requirement. Hanford has developed and used sampling and analysis plans for the fuel basins at 100-N and 100-B/C, with the resultant waste being disposed at ERDF. For years the K Basins operations staff have been removing debris, sampling, designating the waste, and disposing of most debris at the low level burial grounds. Thus there are numerous existing templates from which to create an approvable sampling and analysis plan.

It is unfortunate that a group within BHI has taken the good intentions of data quality objectives and created such an administratively exhaustive and expensive process. The benefits that could be derived from a reasonable application of the data quality objectives principles are in fact undermined by the administrative burden of BHI's implementation of data quality objectives.

Mr. Holgado

- 5 -

April 19, 2000

For several years, I and the collective EPA staff have been witness to and participants in the frustration of our BHI and DOE counterparts on Environmental Restoration projects as BHI's implementation of data quality objectives has developed into a detriment to the projects. With the subject MOU, this administrative burden that until now BHI has chosen to impose upon itself is now being imposed on the K Basins project.

In EPA's assessment, the requirement to follow the data quality objectives process per BHI-EE-01, Procedure 1.2 is primarily administrative and should not be imposed on the K Basins for the activities of the subject MOU. In addition, it is unfortunate that BHI has developed and imposes this procedure on its own activities. If you have any questions on this matter, please contact me at (509) 376-9884 or Doug Sherwood at (509) 376-9529.