



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD PROJECT OFFICE

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November 5, 2003

Larry Earley, Director
Office of Spent Nuclear Fuel
U.S. Department of Energy
P.O. Box 550
Richland, WA 99252

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Subject: EPA Comments on K Basins Deactivation Documents.

EDMC

Dear Mr. Earley:

Larry

This morning you faxed documents related to K Basins deactivation to EPA for our review including the request to provide comments back to you by the end of the work day. The documents were the following:

- 1) Draft Fluor letter FH-0303942 titled "PHMC Section C.2.1.1.1, K Basins Deactivation - Notification of Intent Regarding 100 K Area Deactivation Actions".
- 2) A four page attachment to the above identified draft letter consisting of red-lined section C.2.1.1.1
- 3) DOE letter 03-AMCP-0020 dated August 21, 2003 titled "Contract No. DE-AC06-96RL13200 - PHMC Section C.2.1.1.1 - K Basin Deactivation - Spent Nuclear Fuel Project Deactivation Alternatives".
- 4) Draft responses from Fluor, dated November 4, 2003 1:22 PM to DOE letter 03-AMCP-00202.

Thank you for your ongoing efforts to keep EPA informed of this potential change to the project plan. As we have indicated previously, we are inclined to support the basin grouting option provided issues we have raised are resolved. The two principal issues are that an appropriate process and level of effort to remove sludge is used, and that a grout monolith isn't created that is too difficult to remove or can't be disposed to ERDF. The above documents that EPA reviewed touch on some of EPA's high-interest aspects of this project and are addressed in the enclosed comments. If you have any questions, please contact me at 509-376-9884.

Sincerely,

Larry Gadbois

Larry Gadbois

K Basins Project Manager

Cc: Carole Rodriguez, DOE
Tony Umek, Fluor

Dave Watson, Fluor
Administrative Record, 100-KR-2

EPA Comments on K Basins Deactivation Documents

1) Draft Fluor letter, 1st page, 2nd paragraph, item 1

The letter states "effectively immediately, FH is deferring activities associated with deactivation of the 100 K ancillary facilities...to offset the anticipated FY 2004 funding reduction." DOE is reminded of the requirements in the TPA sections 148 and 149 to seek sufficient funding to achieve full compliance with the TPA.

2) Attachment to draft Fluor letter, page C-1.

In the "deliverables" column, for the disposition for 105 KE Basin, the due date is TBD. Elsewhere, such as page 1 of Fluor responses to the DOE letter, it is stated that the 105 KE Basin will be removed by March 31, 2006. It is not clear why this 3-3-2006 commitment data isn't included on page C-1.

3) Attachment to draft Fluor letter, page C-1

In the "deliverables" column, for the disposition for 105 KW Basin, the due date is TBD. Without a date, EPA does not know if this will comply with the TPA, so we don't have a basis to support this approach for the KW basin. This lack of commitment for the KW basin is included elsewhere too, such as the first response, page 1 of the Fluor responses to the DOE letter.

4) Fluor responses to DOE letter, page 2

Regarding considering the ERDF WAC prior to placement of grout, the document states "FH has also reviewed the WAC for other disposal sites (e.g. the Central Waste Complex [CWC]). Removal of spent nuclear fuel elements and/or fuel fragments, are prerequisites for placement of grout." Two comments related to this passage: In addition to removal of fuel and fragments, sludge and debris that contains fuel or sludge in significant quantities must also be removed as a prerequisite for placement of grout. Secondly, while the WAC is an important consideration prior to placement of grout, fuel and sludge need to be removed to meet other project requirements. As written, it appears that the ERDF WAC will be used as the basis to determine what is clean enough regarding removal of fuel, fuel fragments, sludge, or large debris items that may contain fuel fragments and/or sludge. Removal of fuel/fragments and sludge should be performed in accord to an agreed upon process and level of effort (which EPA anticipates, and other project documents state or suggest, would be much cleaner than necessary if the ERDF WAC was the only performance requirement for this action). Only if the agreed to process and level of effort aren't sufficient to meet the ERDF WAC would more aggressive decontamination or alternative treatment or remedial efforts be performed.

5) Fluor responses to DOE letter, page 3

The comment is similar to the previous comment. The document states "Spent fuel and sludge will be removed prior to grouting the basins, as necessary to meet established end point criteria." Again, the end point criteria are not the only drivers for how clean these basins need to be. The appropriate procedure and level of effort need to be performed which may exceed the minimum cleanup necessary to meet the ERDF WAC.

6) General comment

These documents identify the requirement to remove the fuel and fuel fragments, and a few of these places also identify the need to remove sludge prior to placement of sludge. Nowhere in

these documents does it discuss removing or repositioning fuel canister racks or other debris to gain access and ensure adequate removal of sludge and hidden fuel fragments. EPA has raised this issue to DOE before, and in fact at a recent bi-weekly interface meeting EPA brought up this issue and several folks chimed in that of course the racks would have to be relocated to accomplish sludge removal and to check for fuel fragments. I don't see that approach reflected in the project documents that have been provided to EPA.

7) Fluor responses to DOE letter, page 5

The document states that "Encapsulated equipment will include...in-basin piping...". Consistent with EPA's other comments regarding sufficient removal of sludge prior to grouting, piping or other hollow debris that could contain sludge needs to be removed (likely resulting in TRU waste) or mechanically or hydraulically flushed underwater to dislodge the sludge.

8) Fluor responses to DOE letter, page 9

Regarding waste characterization relative to the ERDF WAC, the document states "or gaining acceptance for an alternate limit." It is not clear if this implies changing the SNF projects' assumptions in order to meet the ERDF WAC, or if this implies changing the ERDF WAC. This touches on the second of EPA's principal concerns with the grout option, and that is creating a monolith that can't be removed or meet ERDF WAC. It would be a disaster if this project created a concrete monolith that could not reasonably be removed from the hole, or if removed could not be disposed to ERDF.