



# Oregon

Theodore R. Kulongoski, Governor

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OF ENERGY

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July 15, 2004

Larry Gadbois  
U.S. Environmental Protection Agency, Region 10  
Hanford Project Office  
712 Swift Avenue, Suite #5  
Richland, WA 99352

Jim Todd  
U.S. Department of Energy  
Richland Operations Office  
P.O. Box 550, MS 5-18  
Richland, WA 99352

Dear Mr. Gadbois and Mr. Todd:

Oregon has reviewed the Proposed Changes to K-Basin Sludge and K-Basin Cleanup Milestones (M-34 and M-16). We generally support the proposed changes but do have several concerns.

Most importantly, the proposed milestones provide little detail about how a treatment process for the sludge will be developed. The problems in dealing with the sludge to date are attributable in large part to the lack of a definitive plan for how and where to process the sludge. A detailed plan and associated milestone is needed to assure that plans are developed, waste form(s) identified, and tests are performed resulting in a waste form acceptable to whatever disposal site for which the waste is ultimately approved. We understand that the Environmental Protection Agency (EPA) proposes to require these plans be detailed in remedial action work plans in an amendment to the Record of Decision on the basins. Given that this work is critical to the success of the project, we would prefer to see these requirements as a major M-34 milestone, allowing EPA to take enforcement action and levy penalties if they are missed.

One or more facilities must be identified for storage and processing of the sludge. The U.S. Department of Energy (DOE) previously identified T Plant for interim storage of the sludge. DOE Headquarters later indicated a strong preference to close T Plant. Recently, the Record of Decision for the Hanford Solid Waste Environmental Impact Statement designated T Plant for various activities. Frankly, we're not certain at this point what DOE's plans are for T Plant. DOE must assure that needed facilities – whether T Plant or some other facility or combination of facilities – are funded and available.

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HANFORD PROJECT OFFICE

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U. S. EPA

We agree that the sludge is likely transuranic waste and appears best suited for disposal at the Waste Isolation Pilot Plant (WIPP). However, DOE and EPA must not simply presume the waste will meet WIPP acceptance requirements. We are greatly concerned that the State of New Mexico has not yet provided written agreement that the sludge meets the WIPP Waste Acceptance Criteria. Without this assurance, there is a risk the treated sludge could become orphan waste and remain permanently at Hanford.

The proposed milestones indicate that some waste that has characteristics of transuranic waste but does not meet the WIPP 100 nCi/gram threshold may be disposed in the Environmental Restoration Disposal Facility. We have previously questioned whether the DOE standard at 100 nCi/gram properly reflects the definition of transuranic waste under Federal law, which we understand to be 10 nCi/gram. We request that DOE respond in writing, and document the basis upon which its definition of transuranic waste was established.

Following are additional, specific comments on the milestones proposed:

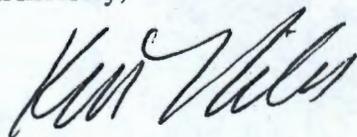
- We understand that the sludge will be moved into containers built in the basins, and then later sluiced to an onsite facility for processing, or into other containers for transport to a processing facility. There have been serious problems with sludge handling in the past, including hydrogen off-gassing. We are concerned that the proposed milestones leave too many questions unanswered and provide little assurance that EPA will have the tools it needs to assure this work is completed in a timely manner.
- Milestones are missing for removal of the sludge from the K-West Basin, for groundwater remediation, and for completion of water removal from the basins. The draft change package indicates that the sludge treatment actions will be detailed in a work plan. A milestone is still needed for submittal and approval of this work plan. If the intent is to use completion of major project milestones to drive these actions, this should be so noted.
- We understand that DOE's current plans for processing the north load out pit sludge include diluting the sludge by about twelve to one with grout for shielding purposes. Treatment of the sludge should be done in such a way as to minimize the increase in volume of the waste and consumption of WIPP capacity. Much waste remains at Hanford and elsewhere that needs to go to WIPP.
- Cleanup of the leaked wastes under the pickup chute at K-East is not specifically identified, and is presumably included as a part of soil remediation under M-016-57. This should be clarified. Removal of the leaked waste should occur as part of the interim remedial action for the basin and not be postponed to an uncertain removal 75 years from now when the reactors are dealt with.
- The draft change package notes that Milestone M-034-30 (commencement of sludge removal) is not satisfied by beginning removal of sludge from the K-East Basin north load out pit. It is advisable and preferable for the milestone to specify the conditions that will satisfy the milestone, rather than including a note about one particular action that will not satisfy it.

Oregon Department of Energy comments on  
Proposed Changes to K-Basin Sludge and K-Basin Cleanup Milestones (M-34 and M-16).  
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As a general comment, the ordering of the milestones is tremendously confusing. The public would be better served when complex milestones are changed by the Tri-Parties by including a table detailing the milestones, their dates and changes that more clearly shows the order in which the tasks will occur (see attached example).

If you have any questions about our comments, please call me at 503-378-4906, or Dirk Dunning of my staff at 503-378-3187.

Sincerely,



Ken Niles  
Assistant Director

CC: Mike Wilson, Washington Department of Ecology  
David Grover, Defense Nuclear Facilities Safety Board, Hanford Office  
Stuart Harris, Confederated Tribes of the Umatilla Indian Reservation  
Patrick Sobotta, Nez Perce Tribe  
Russell Jim, Yakama Nation  
Barbara Jarvis, Chair, Oregon Hanford Cleanup Board  
Todd Martin, Chair, Hanford Advisory Board  
Terry Lindsey, Oregon Health Services

| Subject Area               |          | KE     |                  |            |           |            | KW     |                  |            |           |           |
|----------------------------|----------|--------|------------------|------------|-----------|------------|--------|------------------|------------|-----------|-----------|
|                            |          | New    |                  |            | Original  |            | New    |                  |            | Original  |           |
|                            |          |        | Number           | Date       | Number    | Date       |        | Number           | Date       | Number    | Date      |
| <b>Water</b>               |          |        |                  |            |           |            |        |                  |            |           |           |
| Removal                    | Begin    |        | M-34-23          | 9/30/2004  | Not Spec. | Not Spec.  |        | M-34-21-T01      | 12/31/2005 | Not Spec. | Not Spec. |
|                            | Complete | Before | M-34-32          | 3/31/2007  | M-34-24   | 9/30/2005  | Before | M-34-00A         | 3/31/2009  | M-34-22   | 8/31/2006 |
| <b>Sludge</b>              |          |        |                  |            |           |            |        |                  |            |           |           |
| Containerization           | Begin    |        | M-34-33          | 10/31/2004 |           |            |        | Not Spec.        | Not Spec.  |           |           |
|                            | Complete |        | M-34-33          | 3/1/2005   |           |            |        | M-34-35          | 6/30/2006  |           |           |
| Removal                    | Begin    |        | Not Spec.        | Not Spec.  | M-34-08   | 12/31/2002 |        | Not Spec.        | Not Spec.  |           |           |
|                            | Complete |        | M-34-34          | 1/31/2006  | M-34-10   | 8/31/2004  | Before | M-34-00A         | 3/31/2009  | M-34-10   | 8/31/2004 |
| Treatment                  | Begin    | Note 1 | M-34-30          | 2/28/2007  |           |            |        |                  |            |           |           |
|                            | Complete |        |                  |            |           |            |        | M-34-35          | 10/31/2007 |           |           |
| Shipment                   | Begin    |        |                  |            |           |            |        |                  |            |           |           |
|                            | Complete | Target | M-16-53          | 12/31/2012 |           |            | Target | M-16-53          | 12/31/2012 |           |           |
|                            |          | Actual | M-16-00          | 9/30/2024  |           |            | Actual | M-16-00          | 9/30/2024  |           |           |
| <b>Basin Removal</b>       | Begin    |        |                  |            |           |            |        |                  |            |           |           |
|                            | Complete |        | M-34-32          | 3/31/2007  |           |            |        | M-34-00A         | 3/31/2009  |           |           |
| <b>Soils cleanup</b>       | Begin    |        | M-16-57          | 4/30/2007  |           |            |        | M-16-58          | 4/30/2009  |           |           |
|                            | Complete | Before | M-16-53          | 12/31/2012 | Same      | Same       | Before | M-16-53          | 12/31/2012 | Same      | Same      |
| <b>Groundwater Actions</b> | Begin    |        | Not Spec.        | Not Spec.  | Same      | Same       |        | Not Spec.        | Not Spec.  | Same      | Same      |
|                            | Complete | Before | M-16-53          | 12/31/2012 | Same      | Same       | Before | M-16-53          | 12/31/2012 | Same      | Same      |
|                            |          |        | Not a final date |            |           |            |        | Not a final date |            |           |           |

Note 1: Removal of sludge from the north load-out pits does NOT satisfy M-34-30

"Before" - No specific milestone is specified, however the activity must be completed before the referenced milestone can be completed.

"Not Spec." - The action is not specified in a milestone.