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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

January 7, 2000

U.S. Environmental Protection Agency
Remedy Review Board
712 Swift Blvd., Suite 5
Richland, Washington 99352

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Dear Remedy Review Board Members:

The Washington State Department of Ecology (Ecology) appreciates the opportunity provided by the U.S. Environmental Protection Agency (USEPA) to present to the USEPA Remedy Review Board (Board) Ecology's position and concerns related to the current activities being considered under the Comprehensive Environmental Restoration and Cleanup Liability Act (CERCLA) for the Hanford Site. Ecology will not be making a formal presentation to the Board but will provide its position and concerns in the following pages.

Ecology unequivocally supports the removal, treatment (if necessary), and storage of the contaminated soil in facilities such as the Environmental Restoration Disposal Facility (ERDF) for the cleanup actions being considered for the 100 Area Burial Grounds and 300-FF-2-Operable Unit Focus Feasibility Studies and Proposed Plans, which are currently undergoing review. Ecology firmly believes that the contaminants identified in these documents pose a real and serious threat to the environment and warrant the actions identified as the preferred alternatives.

This is particularly true for the 300-FF-2-618-10 and 618-11 Burial Grounds. These burial grounds were created at a considerable distance from other portions of the 300 Area because of the serious threat they posed. Extreme care was necessary even to transport this waste from the point of origin to these burial grounds. The level of radiation was so extreme that two drivers were needed to make a single trip in order to prevent the driver from receiving excessive radiation exposure. In addition, although both sites were "surface stabilized," it was observed in 1983 that radioactive contaminated oil from the 618-10 Burial Ground migrated to the surface. Therefore, these two burial grounds excavation and removal to more appropriate storage facilities. Ecology fully supports the USEPA in its preferred alternative for these waste sites.



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Ecology understands that the actions under review are interim actions and that a final Record of Decision (ROD) will be needed for the 100 and 300 Areas. Ecology supports the remedy proposed for the 100 Area Burial Grounds. However, Ecology has several concerns related to the details of the 300-FF-2 Operable Unit Focus Feasibility Study and Propose Plan documentation. These concerns are enclosed for your consideration and review. Although these issues are identified as concerns, they do not detract from the overall agreement between the USEPA and Ecology that waste removal is, by far, the preferred alternative. Ecology's concerns primarily impact the points at which soil removal would stop, not the ultimate goal. Ecology looks forward to working cooperatively with USEPA staff and the U.S. Department of Energy to address Ecology's concerns.

Again, thank you for the opportunity to voice our support for the USEPA preferred alternatives and to express our concerns. If you have any questions concerning any issue identified in this letter, Ecology staff will be present at your meeting in Seattle on January 12, 2000, to observe and, where appropriate, to participate in the presentations and discussions. If you have any questions prior to the meeting, please contact Mr. Wayne Soper at (509) 736-3049 or Dr. Alex Stone at (509) 736-3018 for any 100 Area related issues, respectively.

Sincerely,



Michael A. Wilson, Manager
Nuclear Waste Program

AS:MW:db
Enclosure

cc: Dennis Faulk, USEPA ✓
Mike Goldstein, USEPA ✓
Doug Sherwood, USEPA ✓
Bob McLeod, USDOE
George Saunders, USDOE
Steve Wisness, USDOE
Merilyn Reeves, HAB
J. R. Wilkinson, CTUIR
Donna Powaukee, NPT
Russell Jim, YIN ✓
Mary Lou Blazek, OOE
Administrative Record: 300-FF-2 OU and 100 Area Burial Grounds OU

Enclosure

Ecology's concerns include:

Cleanup Standards: Ecology is concerned that the cleanup standards (as derived from remediation action objectives and preliminary remediation goals) selected during this process are not sufficiently protective of human health and the environment. The documents under consideration address waste sites both with shallow depths to groundwater and close proximity to the Columbia River. The Columbia River is an important resource for the area and provides one of the last remaining major breeding grounds for northwest salmon. For the 300-FF-2, there are the added concerns of proximity to human habitation and drinking water wells for the City of Richland. Washington State law directs Ecology to assure that all cleanup of waste protect these present and future resources. Ecology has not been able to verify that these concerns have been adequately evaluated and addressed.

Risk Assessments: Upon review of the information provided, Ecology has not been able to determine whether or not the selected remedies are sufficiently protective of the biological receptors impacted by the contamination. Ecology has serious concerns that a sufficiently detailed risk analysis has not been completed to support some of the details described in the preferred alternatives. For example, the documents limit cleanup to the top 15 feet of any contaminated site. As stated earlier, Washington State law requires that all contamination be remediated such that the air, water, flora and fauna of the state are protected. Therefore, if a detailed risk assessment indicates a threat is posed by contamination below 15 feet, remediation must continue to protect groundwater and surface water pathways. Detailed risk assessments are under consideration for other projects at Hanford, which include impacts not even mentioned in some of these documents (for example, the impacts to Native American lifestyles and customs). Ecology believes detailed, technically defensible risk assessments are needed before remediation can be declared complete.

Separation of Source Sites from Groundwater Concerns: Ecology has serious concerns about the separation of the sources of contamination (source sites) from groundwater. As indicated earlier, Washington State law identifies that waste is to be remediated in order to prevent impacts to the waters (groundwater, surface waters, drinking waters, etc.), flora and fauna of the state. Therefore, the impact to surrounding waters is an important factor in the determination of cleanup standards. To separate the current and future impacts to surrounding waters from waste requiring cleanup is contrary to state regulatory requirements. Ecology understands that impacts to ground, surface, and drinking waters must be considered in both the identification of contaminants of concern and the selection of cleanup standards. Points of compliance have been established beneath the source sites of the Operable Unit at other locations at Hanford (100-BC-1, for example) and should be consistently applied throughout.

Groundwater Monitoring: The current groundwater monitoring for the 300 Area utilizes a general, 300 Area-wide approach. Ecology believes that a more source-specific approach is warranted. As indicated earlier, it is important to determine the impacts to groundwater from each site before, during and after remedial action. Only through these efforts can the impacts from the contamination be adequately identified and contained. Ecology, therefore, supports a

more source-specific approach (i.e., groundwater monitoring impacts must be associated with remediation activities) to groundwater monitoring.

Institutional Controls and Continued Monitoring: In general, detailed descriptions of source-specific institutional controls and environmental monitoring are lacking in the 300-FF-2 Operable Unit remedial action documentation. Institutional controls and continued monitoring are repeatedly identified for most of the options although details are not provided. In addition, institutional controls and continued monitoring are considered an inherent component of the preferred alternatives for a majority of the units. As such, unless detailed descriptions of the controls and monitoring are included in the remedial action documentation, the reviewer is unable to determine whether selected remedial actions are protective of human health and the environment. This is especially true if controls and monitoring are for the 300-FF-2 or 300-FF-5 Operable Units as areas rather than for source-specific units. The omission of descriptions of controls and monitoring in both of these operable units does not satisfy significant applicable ARARs. Institutional controls that satisfy these requirements, at a minimum, have been established at other sites at Hanford (100-NR-1 and 100-NR-2, for example) and should be consistently applied throughout.