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064728

Mr. Mike A. Wilson, Program Manager
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 State of Washington
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Dear Mr. Wilson:

FINAL WASTE VOLUMES FOR THE N AREA PROJECT AND CLARIFICATION TO THE N AREA WASTE EXPEDITED RESPONSE ACTION MEMORANDUM

- References:
- (1) ERC Team Meeting Minutes, "N Basin Sediment Disposal: EPA Brief," dtd. April 9, 1998 (CCN 056952).
 - (2) ERC Team Meeting Minutes, "Polychlorinated Biphenyls at the N-Basin and K-Basin Projects," dtd. November 3, 1997 (CCN 060359).
 - (3) RL ltr. to Mike Bussell and Mike A. Wilson from Linda K. Bauer, "Disposition of Toxic Substances Control Act (TSCA) Regulated Media from the 105-N Fuel Storage Basin," dtd. October 31, 1997 (CCN 052823).
 - (4) RL ltr. to Douglas R. Sherwood and Mike A. Wilson from John D. Wagoner, "Notice of Change to the Waste Volume Estimates in the N Area Waste Expedited Response Action Memorandum," dtd. March 6, 1997 (CCN 043683).

As you are aware, deactivation of the 105-N Fuel Storage Basin (N-Basin) and the other 100-N Area facilities was successfully completed in July 1998 in support of achieving Hanford Federal Facility Agreement and Consent Order Interim Milestone M-16-01-E, "Complete N Reactor/ 100N Area Deactivation." A few follow-up action items associated with the project work scope and facility end-point conditions are being closed out. As was previously committed by the U.S. Department of Energy, Richland Operations Office (RL), this letter and attachment provide clarification regarding previously approved waste streams in the N Area Waste Expedited Response Action Memorandum (Action Memorandum) due to the presence of polychlorinated biphenyls (PCBs) in the N Basin sediment. This letter also provides the final waste volumes for the approved waste streams associated with the N Area Project deactivation work scope, for which the most recent estimates had been provided in Reference 4. The attachment includes the actual waste volumes for the N Area Project, including both N Basin Cleanup and the N Area Building Deactivation tasks. This information is being provided for the administrative record. This notification is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 which, does not require public notice of the revisions to quantity estimates in the Action Memorandum.

As was communicated in Reference 3, and discussed with the U.S. Environmental Protection Agency (EPA), Region X, and the State of Washington Department of Ecology (Ecology) in a meeting held on November 3, 1997, (Reference 2) analysis of a preliminary, non-representative sample of sediment collected from the N Basin exhibited a PCB concentration above the Toxic Substances Control Act (TSCA) regulatory limit of 50 parts per million (PPM). As a result the N Basin sediment was declared a PCB contaminated waste and the disposal requirements of 40 CFR 761 were considered to be applicable to this removal action. It was also discussed at the November 3, 1997, meeting that the 100-N Area Waste Action Memorandum authorizes the disposal of N Basin deactivation wastes at the Environmental Restoration Disposal Facility (ERDF). The ERDF Waste Acceptance Criteria allows PCB wastes below 500 PPM to be disposed in the ERDF. (The ERDF Record of Decision has TSCA as an Applicable or Relevant and Appropriate Requirements, and lists PCB as a constituent of concern.) However, EPA, Region X, requested that RL document how the PCB contaminated sediment waste, as well as water, fuel/hardware, and structural components in contact with the sediment are managed or disposed relative to the requirements found in 40 CFR 761. Documentation was suggested to consist of either a revision to the Action Memorandum or a petition to EPA (as described in 40 CFR 761.120) requesting a variance. Subsequent to the November 3, 1997, meeting, the 100-N Area Ecology Project Manager and the RL N Area Project Managers agreed that a clarification to the Action Memorandum was the appropriate mechanism to provide adequate documentation for the administrative record. RL believes the following information is sufficient to document the applicability of 40 CFR 761 and how the requirements will be implemented for the N Basin waste removal action.

PCB CONTAMINATED N BASIN SEDIMENT: The PCB contaminated N Basin sediment has been removed to the extent practicable and was disposed at the ERDF. The sediment was previously classified as a PCB contaminated waste based on a preliminary, non-representative sample result of 128 PPM, however, the final characterization results from a representative sample were only 22.5 PPM. Both samples are significantly less than the ERDF acceptance criteria of 500 PPM. As documented by Reference 1, a detailed briefing was provided to EPA regarding the characterization of the sediment final waste form and the planned disposal at ERDF. After the briefing, EPA concurred on the characterization methodology, which supported the planned disposal of the grouted sediment at the ERDF.

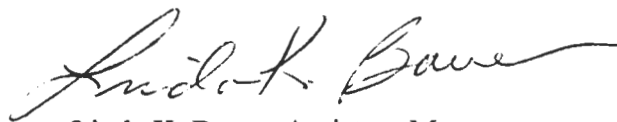
WATER: Analysis of the water in the N Basin detected no PCBs. Detection limits for the analyses were below the EPA established PCB standard for water of 3 parts per billion. Therefore, the water was considered non-regulated for PCB. Over one million gallons of radiologically contaminated N Basin water was filtered through nominal 5 micron filters to remove suspended solids and then transported by tanker to the 200 Area Effluent Treatment Facility for processing and disposal.

FUEL/HARDWARE: Radioactive fuel fragments and hardware removed from the N Basin were segregated from the sediment and rinsed with filtered basin water and/or potable water. As agreed in the November 3, 1997, meeting with RL, EPA, and Ecology, this rinsing was considered sufficient to remove any potential residual PCB contaminated sediment from the items and the items could therefore be considered to be non-regulated for PCBs. Because the N Basin water filters contained suspended solids, they were designated as containing PCBs and were disposed at the ERDF since all of the ERDF waste acceptance criteria were met.

STRUCTURAL COMPONENTS: The basin structure and a small amount of residual sediment will remain in place until future remedial activities occur. Unacceptably high worker radiation exposure, high costs, and schedule delays made it impractical to sample the remaining concrete structure (empty basin) for PCBs as part of the removal (deactivation) action. Such sampling will be included in the characterization performed to support final decommissioning. In the interim, adequate measures have been taken to protect the integrity of the potentially contaminated structure. Concurrent with completion of the water and sediment removal actions, the basin structure (~6,000 ft²) was covered with one foot thick concrete shielding panels. Additionally, the basin resides within a building designed to resist large earthquakes and high winds. The minor amount of residual sediment which remains in the N Basin following completion of deactivation, along with the N Basin structure itself, will be addressed during the future decontamination and demolition of the 105-N Reactor. Until such time, the 100-N Area facilities will be adequately surveilled and maintained, as described in the recently issued *Surveillance and Maintenance Plan for the 100-N Area Deactivated Facilities*, DOE/RL-98-64, Rev. 0. As required, all entrances to the N Basin facility have been appropriately posted with the TSCA PCB mL label, and required annual inspections will assure that the postings remain intact.

If you have any questions regarding this information, please contact Paul M. Pak, Senior Project Manager, at (509) 376-4798.

Sincerely,



Linda K. Bauer, Assistant Manager
for Environmental Restoration

NAP:HRT

Attachment

cc w/attach:

A. Boyd, EPA
D. L. Duncan, EPA
T. E. Logan, BHI
S. Mohan, Ecology
D. R. Sherwood, EPA
P. R. Staats, Ecology
J. J. Wallace, Ecology

Actual N Area Project Waste Volumes

The 100-N Area Waste Action Memorandum authorized the disposal of wastes generated by deactivation activities in the 100-N Area to ERDF. The actual volumes of the various 100N Area Deactivation waste streams, as authorized in the Action Memorandum, are as follows:

Waste Streams	Revised Action Memorandum (3/97) Volume Estimate (cu. ft.)	Actual N Area Project Waste Volumes (cu. ft.)	Reason for Delta
<u>N Building Deactivation</u>			
Low level waste (LLW)	33,370	21,866	Actual disposal volume doesn't include wastes in rooms/facilities restrained beyond FY97 by completion of N Basin Cleanout.
Mixed waste	350	350	
EDB Waste	7,770	5,346	
IDW	1650	1650	
<i>Subtotal N Deactivation</i>	43,140	29,212	
<u>N Basin Cleanout</u>			
High exposure rate hardware monoliths	2,900	5,428	As noted in TPA Change Request M-16-98-01, the project identified increased amounts of wastes requiring disposal, much of which was HERH waste requiring several additional monoliths
N Basin low level waste	25,000	47,944	Accounts for disposal of additional cleanup equipment, volume uncertainty, and resequencing of work. Also includes some building deactivation waste from rooms/bldgs constrained by completion of basin cleanout.
N Basin sediment	350	4,774	In addition to some uncertainty regarding the final volume of sediment, the prior amount was not the packaged volume, as the disposal method and packaging requirements had not yet been determined.
Lift Station low level waste	4,800	Included w/ Basin LLW	The Lift Station waste was consolidated with N Basin wastes and not tracked separately.
Lift Station sediment	360	Included w/ Basin sediment	The Lift Station sediment was consolidated with the N Basin sediment for disposal.
<i>Subtotal N Basin</i>	33,410	58,146	
Overall Total cu. ft:	75,355	87,358	
Overall Total cu. m:	2,134	2,472	