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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

99-EAP-503

SEP 24 1999

Mr. Robert W. Wilson
Nuclear Waste Program
State of Washington,
Department of Ecology
1315 West Fourth Avenue
Kennewick, Washington 99336

Dear Mr. Wilson:

RESPONSE TO THE STATE OF WASHINGTON DEPARTMENT ECOLOGY (ECOLOGY)
DANGEROUS WASTE INSPECTION AT THE 327 BUILDING NOTICE OF CONCERN,
JANUARY 27, 1999

Ecology conducted an inspection of the 327 Building on January 27 and 28, 1999, to assess waste management practices and deactivation activities. Your letter to Larry Romine, U.S. Department of Energy (DOE); Williams Adair, Fluor Daniel Hanford, Inc.; and George Hayner, Babcock & Wilcox Hanford Company, "January 27, 1999, Dangerous Waste compliance Inspection at the 327 Building," dated May 28, 1999, states that the inspection is considered closed. The letter identifies five concerns expressed by Ecology and the need for DOE, Richland Operations Office (RL) and contractors to address. The concerns and RL responses are listed in the enclosure.

The responses to Ecology's concerns are considered completed. Should you have any questions regarding this matter, please contact Gloria Williams, of my staff on (509) 372-0586.

Sincerely,

James E. Rasmusser, Director
Environmental Assurance, Permits,
and Policy Division

EAP.GAW

Enclosure

cc w/encl:
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Mr. Robert W. Wilson
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cc w/encl:

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cc w/o encl.:

R. H. Engleman, WMH

M. L. Blazek, ODOE

S. M. Price, FDH

J. M. Steffen, BWHC

ENCLOSURE

Concern #1

All chemical materials accumulated in the laboratory hood in room 15 within the 327 Building were not designated dangerous waste, or extremely dangerous waste, at the time of Ecology's January 27th inspection.

327 Facility representatives stated these materials were being staged in the laboratory hood for dispositioning as usable product prior to designation as waste; however, there was no tracking mechanism to determine if these materials were appropriately accumulated, or designated, prior to placement in the laboratory hood. Inventories of these materials received by Ecology indicate waste-like materials were stored in the laboratory hood for up to four (4) months, although facility representatives stated these materials were staged in the hood for approximately three (3) weeks prior to Ecology's inspection. Other than the inventory sheets, no documentation was provided to verify these materials were undergoing waste determinations, or that they had been accumulated in the week immediately preceding Ecology's January 27th inspection. Subsequently, B&W personnel removed the materials and conducted waste determinations, which resulted in some wastes being managed as dangerous (mixed) wastes and other materials determined to be usable products. It is a generator's responsibility to determine if a material is a solid waste, and if solid wastes designate as dangerous, or extremely dangerous waste.

Concern #1 Response

At the time of the January 27, 1999 inspection, the hood in Room 15 was being used to stage product chemicals and materials, while information necessary to support disposal activities was being collected and reviewed. This information gathering and review was necessary to determine whether each item was product or solid waste. Upon determining that a given item was solid waste, waste designation activities were performed. Waste determinations had not been completed yet for some items present in the hood at the time of the Ecology inspection. Some items had been determined to be non-dangerous waste, but had not yet been removed from the hood. A few items were packaged poorly and had not yet been determined to be waste.

The actions that were taken to dispose of the items in the hood have been previously communicated to Ecology, at the Inspection Close out meeting on May 13, 1999. The following actions have been taken to facilitate and support future solid waste management and dangerous waste accumulation activities.

- a) Removal and disposal of all chemicals and materials from the hood were completed and supporting documentation was provided to Ecology on March 17, 1999.

- b) Satellite accumulation areas have been setup within the facility to manage dangerous waste accumulation activities.
- c) Facility specific awareness training was performed with appropriate facility personnel regarding the proper use of satellite accumulation areas for dangerous waste accumulation and the disposal of chemicals and materials.
- d) Chemicals and materials within the 327 Facility have been documented on an inventory that also identifies their location. This list will serve as a tracking mechanism to support future dangerous waste determinations.

Chemicals and materials are no longer being consolidated and staged in the hood in Room 15. Hence, an additional tracking mechanism to support solid waste determinations for consolidated staged chemicals and materials is not needed. However, if chemicals and materials are consolidated and staged in the future, an additional tracking mechanism will be implemented to ensure prompt solid waste determinations and segregation of incompatible chemicals. All dangerous waste management activities will be handled in accordance with the requirements.

Ecology Concern #2

The equipment laydown room in the 327 Building (formerly the burst test room) contains hatchways in the floor to a below grade cell described as the "heat exchanger pit" in architectural drawing H-3-19423 (Revision 1).

Other than reference to this area in drawing H-3-19423, no information was presented to Ecology indicating what materials, or equipment, may be present in the heat exchanger pit. Considering the history of legacy waste within the 327 Building, the 327 Deactivation Plan should require entry into the heat exchanger pit, preferably within FY 2000, to investigate and inventory its contents. Dr. Alex Stone [(509) 736-3018], Ecology's 300 Area Project Manager, should be contacted if entry into the heat exchanger pit will not be conducted within FY 2000.

Response to Ecology Concern #2

An inspection of the heat exchanger pit is scheduled during FY 2000. The 327 Facility Deactivation Plan (HNF-IP-1289, Revision 2) is scheduled for revision during the first quarter of FY 2000. If the inspection has not occurred prior to the revision, the deactivation plan will be revised to require the inspection. The facility understands that Dr. Alex Stone (509) 736-3018, Ecology's 300 Area Project Manager, should be contacted if this activity can not be conducted within FY2000.

Ecology Concern #3

A number of specific tasks within the 324/327 Deactivation Plan incorrectly cite "none" regarding legal drivers for removing legacy waste containers from the 327 basement area (for example see Section 3.0 of task CAPN 1K7Z1A).

Legacy wastes are incompletely described contaminated materials that have been abandoned and accumulated for long periods of time. As such, they are clearly subject to waste determinations per WAC 173-303-016, Identifying Solid Waste, and designation per WAC 173-303-170, Requirements for Generators of Dangerous Waste. Therefore, the 324/327 Deactivation Plan should reference these legal drivers, at a minimum.

Response to Ecology Concern #3

The legal drivers were inadvertently not included as references in the task planning documentation. The facility acknowledges the applicability of WAC 173-303-016 and WAC 173-303-170. The 327 Facility Deactivation Plan (HNF-IP-1289, Revision 2) will be revised to include reference to the legal drivers. The Deactivation Plan is scheduled for revision during the first quarter of FY 2000.

Ecology Concern #4

Eleven (11) containers of legacy waste remain in the 327 basement.

B&W representatives stated these containers were scheduled for confirmation of their contents, and removal from the 327 Building by the end of this federal fiscal year, which is September 30, 1999. This arrangement is satisfactory to Ecology; however, Ecology should be notified if this schedule will not be met. In any event, these containers should be removed as soon as possible, to complete removal of all legacy waste from the 327 Building basement area.

Response to Ecology Concern #4

The path forward and estimated timeline for removal of the legacy containers from the 327 basement were developed and documented for the eleven legacy containers, with estimated removal by September 30, 1999. The path forward documentation was provided to Ecology on May 13, 1999. Facility management understands and acknowledges Ecology's request to be notified if this schedule can not be met and that these containers should be removed as soon as possible to complete removal of all legacy waste from the 327 basement area. Facility management acknowledges that meeting the September 30, 1999 commitment will be challenging. Discussion regarding failure to meet this commitment would be provided at the unit manager's meeting or a separately scheduled meeting.

Ecology Concern #5

The source of liquid discovered within the radioactive liquid waste system (RLWS) in November, 1998, has not been identified.

Multiple possible sources of liquid to the RLWS were identified by B&W representatives during Ecology's inspection; however, the actual source was never defined. Although the liquid was successfully drained, and did not designate as mixed waste, Ecology recommends that weekly monitoring of the RLWS continue until the system is completely isolated from all 327 Building operations. Information supplied to Ecology by B&W indicates absence of listed waste in the RLWS when the liquid accumulated. Therefore, the liquids would be appropriately managed based on the data collected from laboratory analysis of the accumulated liquid per B&W's Sampling and Characterization Plan for Liquid Drained from 327 Building Radioactive Liquid Waste System (RLWS) Piping.

Response to Ecology Concern #5

The facility provided documentation to Ecology that identified four potential liquid sources, but indicated that the exact source could not be pinpointed because of the possibility of water from several sources that connect with the RLWS. These sources included; (1) water diverted from the 327 Building retention process sewer (RPS); (2) water from hot cell or hood equipment; (3) water from facility floor drains; (4) and water from the facility water pool storage basin. These sources have been isolated to the extent feasible, while maintaining contingency water management capability.

As acknowledged in the Ecology inspection letter, the main RLWS pipe liquid was successfully drained, sampled, and analyzed, with the liquid determined to be non-dangerous radioactive water. Supporting documentation was provided to Ecology on May 7 and May 26, 1999. Additionally, the letter states that the RLWS liquids are being appropriately managed based on the data collected from the laboratory analysis of the liquid per the Sampling and Characterization Plan for Liquid Drained from 327 Building Radioactive Liquid Waste System (RLWS) Piping.