



Department of Energy
Richland Operations Office
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0052153

DEC 08 1999



00-FTD-006

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504

Dear Mr. Wilson:

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) INTERIM MILESTONE M-89-02, COMPLETE REMOVAL OF 324 BUILDING REC B-CELL MW AND EQUIPMENT, NOVEMBER 30, 2000

The U.S. Department of Energy, Richland Operations Office (RL) and RL contractor, Fluor Daniel Hanford Inc. have developed a more complete definition of the performance standard to be met in order to indicate that interim milestone M-89-02 "Complete Removal of 324 Building Radiochemical Engineering Cell (REC) B-Cell Mixed Waste (MW) and Equipment, November 30, 2000," has been completed. This understanding is provided in the attachment to this letter, and centers around a more complete definition of what equipment will be removed from B-Cell and what equipment needs to remain in the cell. Included in the attachment is a table of the specific equipment in question, indicating its required disposition.

It is requested that the State of Washington Department of Ecology concur with this expanded definition to assure that our mutual expectations for meeting this milestone are adequately communicated between our organizations.

This approach has been discussed with Alisa Huckaby, of your staff, in some detail, and the general need to reach agreement on expectations for meeting this milestone was discussed at our recent Unit Manager's meeting with Alex Stone on November 4, 1999. Your formal concurrence is requested.

DEC 08 1999

Should you have any questions regarding this matter, please contact me on (509) 376-6888, or you may contact David W. Templeton, 324/327 Program Manager, on (509) 373-2966.

Sincerely,



George H. Sanders, Program Manager
Office of Regulatory Liaison

FTD:DWT

Attachment

cc w/attach:

M. L. Blazek, OOE

N. C. Boyter, FDH

J. S. Hertz, FDH

A. Huckaby, Ecology

R. Jim, YN

M. B. Reeves, HAB

D. R. Sherwood, EPA

P. Sobotta, NPT

R. F. Stanley, Ecology

A. Stone, Ecology

J. R. Wilkinson, CTUIR

TPA Administrative Record, FDH

Environmental Portal, LMSI

Ecology Library, Kennewick

ATTACHMENT

EXPANDED DEFINITION OF PERFORMANCE STANDARDS TO BE MET IN MEETING TRI-PARTY AGREEMENT INTERIM MILESTONE M-89-02, COMPLETE REMOVAL OF 324 BUILDING REC B-CELL MW AND EQUIPMENT, NOVEMBER 30, 2000

In a little over one year from now, the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Interim Milestone M-89-02 will require verification for completion. This milestone requires physical actions to be completed within the 324 Building Radiochemical Engineering Cell (REC) B-Cell. These physical actions involve removal of dispersible material containing radioactive and dangerous waste constituents (mixed waste [MW]) and removal of excess equipment from within B-Cell. Completion of interim milestone M-89-02 leads to the overall closure actions for B-Cell, as defined in the 324 Building Radiochemical Engineering Cells, High-Level Vault, Low-Level Vault, and Associated Areas Closure Plan, DOE/RL-96-73 (Closure Plan). These closure actions for B-Cell are contained within "Phase I" of closure as described in the Closure Plan schedule.

Since milestone M-89-02 is an interim step to closure, with significant physical activities required to be completed prior to and after completion of this milestone, a definable and measurable endpoint for this milestone is required. This attachment with table are intended to provide greater definition for the performance standards to be met by this interim milestone. Tri-Party Agreement Change Request M-89-98-03, October 14, 1998, defines M-89-02 as follows:

"Milestone M-89-02, Complete Removal of 324 Building REC B-Cell MW and Equipment.
November 30, 2000

Actions under this milestone include containment and removal of all B-Cell dispersible materials, excess equipment and debris. Containerized MW will be managed in compliance with Chapter 173.303 WAC, thereby reducing risks to human health and the environment. Any remaining residues following removal actions will be managed through the final closure process. USDOE's 324 REC Building B-Cell Clean-out Project (BCCP) will be used as a guide for containerizing dispersible MW and removing unnecessary equipment and materials from B-Cell."

The activities required for this interim milestone and ultimate major milestone M-89-00 closure are currently described in the integrated 324/327 Buildings Stabilization/Deactivation Project, Project Management Plan (PMP), HNF-1289, and supporting Appendix A-2, "REC Closure Phase I (B-Cell Cleanout)." This plan, and all supporting appendices, was previously provided to Washington State Department of Ecology (Ecology). The referenced 324 Building REC B-Cell Clean-out Project (BCCP) developed by PNNL was replaced upon completion and approval of the integrated PMP, March 1998 (Revision 2, released December 1998).

Completion of the interim milestone M-89-02 requires three distinct actions. For the first distinct action, all MW must be containerized, removed from B-Cell and placed in a condition that is compliant with Chapter 173.303 of the Washington Administrative Code (WAC). The B-Cell closure strategy includes gross removal of dispersibles through retrieval with a pneumatic clamshell from the B-Cell floor, followed by a filtered vacuum of the floor. Dispersibles collected by these methods are then transferred to specially designed "engineered containers" and placed in a container for interim storage. The container(s) are then moved to a compliant mixed waste storage area (i.e., 324 REC A-Cell [pending changes to the Closure Plan] or the 200 Area Central Waste Complex). Completion of these tasks is required to complete

interim milestone M-89-02. As provided for in the M-89-02 definition above, residual MW remaining within B-Cell will be managed through the final closure process. The final closure process steps include removal through a decontamination method consistent with the "Alternative Treatment Standards for Hazardous Debris," as defined in Chapter 6.0, Section 6.2 of the Closure Plan.

The following language is proposed as the performance standard for this first action required by interim milestone M-89-02:

Removal of MW from the REC B-Cell requires the collection and containerization of dispersible material from the B-Cell. Collection will not include destructive and/or chemical methods (i.e. spalling or decontamination washes) so that a determination of liner integrity (closure activity required post M-89-02) can be made prior to liner decontamination. The dispersible material will be containerized in a compliant (with receipt facility acceptance criteria) container system, removed from the REC B-Cell and moved to an interim storage area.

The second distinct action required under interim milestone M-89-02 requires the removal of excess equipment. At the time M-89-02 was written, several large process racks containing process piping and tanks were present in B-Cell (all but one of these racks, 2A, have been removed). In addition, other equipment was present and required removal. Equipment removed prior to submittal of the final Closure Plan is provided in Table 3-2 of the subject Closure Plan. Items identified as remaining at the issuance of the Closure Plan are provided in Section 2.3.1.2 of the plan. The milestone, as written, requires a determination of excess equipment versus equipment required to either complete closure or completes the overall deactivation of the 324 Building. It was the intent of this milestone to remove all historical process equipment that either treated, transferred, and/or stored mixed wastes. The main equipment remaining after this milestone is completed is associated with the B-Cell Spent Fuel storage system (i.e., Racks, Gattling Gun, Thimbles), as it is required to store the SNF until the SNF can be shipped from the 324 Building (deactivation end point) after the 200 Area Interim Storage Area (ISA) is available in the third quarter FY 2001. The table which follows provides all equipment currently within the REC B-Cell and a proposed definition of "Excess" versus "Required" equipment. In addition, a brief comment is provided as to why the determination of equipment need was reached. Excess equipment is required to be removed from the REC B-Cell in order to meet M-89-02.

The following language is proposed as the performance standard for this second action required by interim milestone M-89-02:

Removal of Excess Equipment from the REC B-Cell requires the removal and containerization of all equipment (excluding SNF) from the B-Cell not required for the implementation of further closure actions and/or deactivation end-points as established in the Closure Plan and the 324/327 Building integrated PMP (HNF-1289). The following table provides the current listing of B-Cell stored equipment and a determination of its disposition status per M-89-02.

The final (third) distinct activity requires the removal of debris. Debris has historically collected on the B-Cell floor during operations, and more recently during size reduction of the excess equipment described above. The debris is typically removed from the B-Cell floor during the pneumatic clamshell activities associated with dispersible material collection described above. The debris is sifted from the clamshelled material and the debris is rinsed and packaged consistent with the size-reduced equipment removed from B-Cell. The following language is proposed as the performance standard for this final (third) action required by M-89-02:

Miscellaneous Debris (i.e. tools, metal scrap, manipulator boots) located on the B-Cell floor will be removed from the B-Cell floor and packaged for removal. The packaged debris will be removed from the REC B-Cell.

Although there is over a year until completion of these actions is required, this proposed language is required to more clearly establish a measurable completion of this interim milestone. This clarification, as defined, is consistent with the original language of interim milestone M-89-02 and will allow for an integrated and logical closure of the B-Cell and the 324 Building.

Tri Party Agreement Milestone M-89-02
Description and Status of B-Cell Equipment Per Completion of M-89-02

| Equipment | Location | Disposition Status per M-89-02 | Comment |
|---|---|--------------------------------|--|
| 2A Rack and remaining portions of previously size reduced racks | Throughout B-Cell | Excess | Part of processing system for vitrification testing. Does not support future closure or deactivation activities. |
| 2,265-kilogram steel block | B-Cell Floor | Excess | Required for bulk removal of B-Cell floor dispersible. Does not support future closure or deactivation activities. |
| Sump trench cover screen | East end of B-Cell floor | Excess | Required to be removed to retrieve sump trench dispersible material. Does not support future closure or deactivation activities. |
| Waste containers (i.e., grout containers, engineered containers, and Standard Waste Box [SWB] liners) | B-Cell floor | Excess | All partially and full containers (i.e., grout containers, engineered containers, and SWB liners) will be removed. |
| Special-Case Waste (SCW) and Mixed Waste Storage Rack (Engineered Container wagon wheel) | In B-Cell holding Engineered Containers | Excess | No longer required after removal of MW out of B-Cell. Does not support future closure or deactivation activities. |
| Cell Penetration Plugs | B-Cell Penetrations | Required | Shielding/ventilation control is required during closure and deactivation. Plugs and penetrations will be dispositioned as required to meet deactivation end-points. |

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| West Window Work Tray | Below West Window in B-Cell | Required | Supports material/tool handling during in-cell cleanout/closure. Work tray will be dispositioned with the B-Cell liner (if required) and as required to meet deactivation end-points. |
| 10 Ton Crane | B-Cell overhead Crane Rail | Required | Supports meeting closure plan and facility deactivation end-points. Will be deactivated and drained to meet overall building deactivation end-points. |
| 3 Ton Crane | B-Cell overhead Crane Rail | Required | Supports meeting closure plan and facility deactivation end-points. Will be deactivated and drained to meet overall building deactivation end-points. |
| Two Temporary Fuel Storage Racks* | West wall of B-Cell | Required | Required to store Spent Nuclear Fuel (SNF) until SNF packaging and transportation system is available. Will be removed during disposition of SNF and prior to the liner integrity/decontamination activities in Phase I. |
| Fuel Pin Storage Container (Gatling Gun)* | West wall of B-Cell | Required | Required to store SNF until SNF packaging and transportation system is available. Will be removed during disposition of SNF and prior to the liner integrity/decontamination activities in Phase I. |
| Fuel Thimbles* | West side of B-Cell in Fuel storage racks | Required | Required to store SNF until SNF packaging and transportation system is available. Will be removed during disposition of SNF and prior to the liner integrity/decontamination activities in Phase I. |

* Note: SNF currently stored within B-Cell will remain in B-Cell pending availability of the 200 Area Interim Storage Area (ISA). This is a delay in the removal of the fuel out of B-Cell. The former schedule had an interim movement of this fuel out of B-Cell and into A-Cell pending availability of the ISA. The project will benefit by eliminating this interim move within the facility and result in an earlier shipment of SNF out of the 324 Building, and allow for an overall better sequencing of closure activities within the 324 Building.

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| Installed Electrostatic Precipitator/HEPA filters | B-Cell North wall | Required | Used during size reduction activities. Will need during size reduction of fuel storage equipment and potentially for removal of the B-Cell Liner (if required). Note: Used HEPA filters and ESP's will be removed as waste prior to the completion of Phase I. |
| Installed Manipulators | B-Cell Penetrations | Required | Will be required to operate cell equipment and perform maintenance/manipulations of various in-cell equipment. Manipulators will be removed and penetrations will be dispositioned as required to meet deactivation end-points. |
| Useable deactivation equipment such as vacuum cleaner/robotic crawler, and end effectors/ tools, etc. | B-Cell Floor | Required | This covers equipment which may be applied to future 324 Building deactivation activities including the B-Cell pipe trench, High Level Vault (HLV), D-Cell, C-Cell. These items will be removed as waste or surplus equipment prior to the completion of Phase I. |
| Empty Grout Containers, lids, Engineered Containers | B-Cell Floor | Required | Unused containers located in B-Cell will be used to support B-Cell pipe trench, HLV, D-Cell, C-Cell and other REC location cleanout. These items will be removed as waste or surplus equipment prior to the completion of Phase I. |