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

00-ERD-115

JUL 17 2000

Mr. M. C. Hughes, President
Bechtel Hanford, Inc.
3350 George Washington Way
Richland, Washington 99352

RECEIVED
AUG 14 2000

Dear Mr. Hughes:

EDMC

**CONTRACT NO. DE-AC06-93RL12367 – ROLES AND RESPONSIBILITIES FOR
MANAGEMENT OF POTENTIAL DISCOVERY OF SPENT NUCLEAR FUEL (SNF) AT
105-F AND 105-H REACTOR FUEL STORAGE BASINS**

The U.S. Department of Energy, Richland Operations Office (RL) Manager has made the following assignments to the Office of Assistant Manager for Environmental Restoration and Waste Management (AMEW) and the Office of Spent Nuclear Fuels (SFO). Your planning in support of these missions should reflect these identified roles and responsibilities.

The enclosure identifies an understanding of RL roles and responsibilities between AMEW and SFO. The focus of the letter of direction is to define work and funding responsibilities to assure that any SNF, that may be discovered at 105-F Reactor and 105-H Reactor Fuel Storage Basins, will be placed in safe, compliant storage at the K Basins.

Based on the RL responsibilities identified in the enclosure, Bechtel Hanford, Inc. is requested to develop a plan for recovery and transfer of the 105-F and 105-H Reactor Fuel Storage Basins Decommissioning SNF to the K Basins. The plan will be predicated on completion of the 105-F and 105-H fuel transfer without impact to K Basins fuel and sludge removal Hanford Federal Facility Agreement and Consent Order commitments. The SNF packaging and transfer plan must be reviewed and approved by Fluor Hanford, Inc. It is requested that the plan be provided to RL for information, and implemented to support the Interim Safe Storage schedule. This request has been concurred by P. G. Loscoe, Director, SFO.

As identified in the letter of direction, AMEW is responsible for funding all activities for retrieval, transfer, and placement of this fuel into storage at the K Basins. SFO will provide two fuel storage canisters from an existing excess for AMEW use, and is responsible for funding activities after the fuel is successfully emplaced within approved storage positions at K Basins.

If, in my capacity as a Contracting Officer's Representative (COR), I provide any direction which your company believes exceeds my COR authority, you are to immediately notify the Contracting Officer and request clarification prior to complying with direction.

Mr. M. C. Hughes
00-ERD-115

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JUL 17 2000

If you have any further questions regarding this matter, please contact Ronald E. Gerton, of my staff, on (509) 376-7167.

Sincerely,



Helen E. Bilson
Contracting Officer's Representative

ERD:DCS

cc w/encl:

M. A. Mihalic, BHI

R. L. McCormack, FDH

Admin Record, H6-08 (105-F and 105-H)

LETTER OF DIRECTION

From

**U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE (RL)
OFFICE OF THE MANAGER**

To

**ASSISTANT MANAGER FOR ENVIRONMENTAL RESTORATION AND
WASTE MANAGEMENT (AMEW)**

And

OFFICE OF SPENT NUCLEAR FUELS (SFO)

By this direction, the RL Manager modifies the roles and responsibilities of the SFO and the AMEW as follows.

The AMEW and the SFO agree to work jointly to assure that any spent nuclear fuel (SNF) that may be discovered during cleanout of the 105-F Reactor and 105-H Reactor Fuel Storage Basins will be placed in safe, compliant storage at the 100 Area Interim Storage 105-K Fuel Storage Basins (K Basins). A supplemental agreement will be required for any fuel retrieval after K Basins fuel removal activities are completed. This letter of direction establishes the roles and responsibilities of each Division associated with this action. AMEW is responsible for funding all activities for retrieval, transfer, and placement of this fuel into storage at the K Basins. SFO is responsible for funding activities after the fuel is successfully emplaced within approved storage positions at K Basins.

Any change to this letter of direction requires AMEW and SFO concurrence. This letter of direction will expire at the time safe, compliant storage of any discovered SNF is achieved at the K Basins.

The Department of Energy (DOE) needs to remove any SNF found in the 105-F Reactor and 105-H Reactor Fuel Storage Basins to satisfy interim storage requirements defined in the DOE Spent Fuel Program's Requirements Document.

To meet retrievability capabilities, Spent Nuclear Fuel (SNF) is defined as pieces of fuel confirmed in accordance with procedure and greater than or equal to a 1-inch long by 1 $\frac{1}{2}$ -inch diameter fragment. The portable in situ Germanium-based spectrometry system (ISOCS™) that is to be used to provide information on types and amounts of radioactive material will identify irradiated SNF during basin(s) cleanout excavation. Pieces with dimensions of a 1-inch long by 1 $\frac{1}{2}$ -inch diameter and smaller will contain less than 0.5g of Pu²³⁹ fissionable material and will be properly packaged for disposal.

These actions will also resolve health and safety vulnerabilities identified in the Spent Fuel Working Group's Report on Reactor Irradiated Nuclear Materials Health and Safety Vulnerabilities, consistent with commitments delineated in the October 1994 report "Plan of Action to Resolve Spent Nuclear Fuel Vulnerabilities *Phase III*".

ROLES AND RESPONSIBILITIES ASSOCIATED WITH MANAGEMENT OF THE SNF

The role and responsibilities of each division (and their contractors) at different stages of the management of any SNF that may be discovered during cleanout of the 105-F Reactor and 105-H Reactor Fuel Storage Basins are listed in the narrative and summarized in Table 1.

AMEW

- Maintain ownership¹ of SNF at the 105-F Reactor and 105-H Reactor Fuel Storage Basins until acceptance of ownership by SFO at receipt of the 105-F/-H FSB SNF at the K Basins.
- Provide data records necessary to satisfy Safeguards and Security, nuclear criticality safety, and other safety authorization basis requirements at the K Basins,
- During ownership by AMEW, obtain SFO concurrence on those issues that could impact transfer of the SNF to the CSB or at the K Basins, interim storage prior to final disposition, or final disposition of the SNF.
- Perform activities within 105-F Reactor and 105-H Reactor Fuel Storage Basins to prepare SNF for loading into canisters provided by AMEW, ensure closure of the canisters, and load the canisters into the casks. Provide input to SFO and approve 105-F Reactor and 105-H Reactor Fuel Storage Basins interface requirements for canisters.
- Establish, approve and maintain the safety authorization basis for all SNF activities at 105-F Reactor and 105-H Reactor Fuel Storage Basins.

Direct ERC to establish activities for retrieval of SNF containers from the 105-F Reactor and 105-H Reactor Fuel Storage Basins and transfer to the K Basins. Acquire SFO approval for on-site transport system to ensure acceptable interface with the K Basins.

- Direct ERC to establish, approve and maintain 105-F Reactor and 105-H Reactor Fuel Storage Basins internal procedures and documents to retrieve the SNF and transfer the SNF to K Basins. Additionally, establish and approve the Safety Analysis Report for Packaging, if required. The internal procedures and documents include air permitting, and other environmental, safety, health, and quality assurance documentation required at 105-F Reactor and 105-H Reactor Fuel Storage Basins for loading the SNF onto the on-site transport system and executing the shipment.

¹ Ownership, as used in this Letter of Direction, is defined as having technical cognizance and engineering, operations, safeguards, and authorization basis responsibility.

- Participate in readiness assessment activities at 105-F Reactor and 105-H Reactor Fuel Storage Basins for preparation, loading, and shipping the SNF to the K Basins.

SFO

- Maintain cognizance of SNF handling, packaging, cask loading, and transportation activities performed by AMEW at 105-F Reactor and 105-H Reactor Fuel Storage Basins.

- Approve, accept and maintain SNF data records.

- Provide technical requirements and engineering information to AMEW necessary for AMEW to develop internal procedures for canister preparation, loading, ensuring closure of the canisters, and cask loading.

- Provide interim storage canisters for 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF, as required.

- Establish and approve all procedures and documents required for receipt and storing 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF at the K Basins, including the K Basins Safety Analysis Report modification for the 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF. The procedures and documents include required NEPA, air permitting, and all other environmental, safety, health, and quality assurance documentation, except 105-F Reactor and 105-H Reactor Fuel Storage Basins internal procedures and documents identified under AMEW responsibilities.

- Establish and approve the safety authorization basis for all SNF activities at the K Basins.

- Establish and complete any readiness assessment and accept ownership of 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF at receipt from 105-F Reactor and 105-H Reactor Fuel Storage Basins, transfer loaded casks from transport to the K Basins, and implement interim storage.



Keith A. Klein, Manager
DOE Richland Operations Office

7/15/00

Date

¹ Ownership, as used in this Letter of Direction, is defined as having technical cognizance and engineering, operations, safeguards, and authorization basis responsibility.

Table 1. Summary of Division Roles and Responsibilities over Time

FUEL LOCATION	AMEW	SFO ²
<p>105-F Reactor and 105-H Reactor Fuel Storage Basins</p>	<p>OWNERSHIP¹</p> <p>Surveillance and maintenance activities at 105-F Reactor and 105-H Reactor Fuel Storage Basins.</p> <p>Direct ERC to prepare detailed work plan for fuel recovery and transfer to K Basins.</p> <p>Prepare 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF data records.</p> <p>Establish and complete Readiness Assessment activities for packaging and delivery of SNF.</p> <p>Establish and approve safety authorization basis for SNF activities at 105-F Reactor and 105-H Reactor Fuel Storage Basins.</p> <p>Direct ERC to establish and approve all internal procedures and documents at 105-F Reactor and 105-H Reactor Fuel Storage Basins required for removal and packaging SNF.</p> <p>Acquire/provide 105-F and 105-H Reactor FSBs transport cask and storage canisters and systems for SNF loading preparation and canister closure.</p> <p>Perform operations to load canisters at 105-F and 105-H Reactor Fuel Storage Basins, prepare SNF for canister loading, ensure closure of canisters, and load canisters into casks.</p> <p>Ship 105-F and 105-H Reactor FSB SNF canisters to K Basins.</p>	<p>MAINTAIN COGNIZANCE</p> <p>Review and concur with packaging and shipping procedures and documents that affect path forward of SNF, including plan for fuel transfer to K Basins.</p> <p>Approve and maintain 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF data records.</p> <p>Establish and complete readiness for receipt of SNF.</p> <p>Establish and approve procedures and documents, except 105-F Reactor and 105-H Reactor Fuel Storage Basins internal procedures and documents that do not affect fuel acceptance at K Basins.</p> <p>Establish and approve K Basins SAR modification for the 105-F Reactor and 105-H Reactor Fuel Storage Basins SNF.</p>

¹ Ownership, as used in Table 1, is defined as having technical cognizance and engineering, operations, safeguards, and authorization basis responsibility.

² SFO roles and responsibilities which are not completed prior to completion of the SFO mission will be formally obligated to the SFO successor organization.