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

0304465
CC Recd: 11/11/2003

04-AMCP-0046

NOV 10 2003

Mr. D. B. Van Leuven, President
and Chief Executive Officer
Fluor Hanford, Inc.
Richland, Washington 99352

Dear Mr. Van Leuven:

CONTRACT NO. DE-AC06-96RL13200 – APPROVAL OF FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR ENVIRONMENTAL ASSESSMENT (EA) ON DEACTIVATION OF THE PLUTONIUM FINISHING PLANT (PFP)

In reference to your letter to me, "PHMC Section J, Appendix D, Performance Incentive S-5, Objective 1, Resubmittal of Draft Environmental Assessment, Deactivation of the Plutonium Finishing Plant, 200 West Area, Hanford Site, Richland, Washington," dated April 18, 2003, (FH-0206027 R1), FHI submitted the draft "Environmental Assessment (EA), Deactivation of the Plutonium Finishing Plant, Hanford Site, Richland, Washington," for review and use by RL as a basis for determining whether the proposed action would result in a FONSI or if an Environmental Impact Statement is required before proceeding with deactivation of PFP.

After RL National Environmental Policy Act panel review and considering comments received from the public, RL approved that the EA be resolved by a FONSI. The approved FONSI is being forwarded for your use, closing GF0030.

The Government considers this action to be within the scope of the existing contract and therefore, the action does not involve or authorize any delay in delivery or additional cost to the Government, either direct or indirect.

If you have any questions, please contact me, or your staff may contact Stacy L. Charboneau, Office of the Assistant Manager for the Central Plateau, on (509) 373-3841.

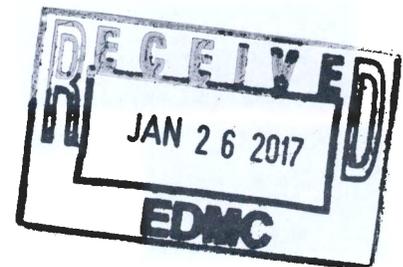
Sincerely,

Keith A. Klein
Manager

AMCP:RSO

Attachment

cc: See next Page



Mr. D. B. Van Leuven
04-AMCP-0046

-2-

cc w/attach:
R. E. Heineman, FHI
W. J. Hoogendoorn, FHI
M.T. Jansky, FHI
B. B. Nelson-Maki, FHI
S. M. Sax, FHI



United States Government

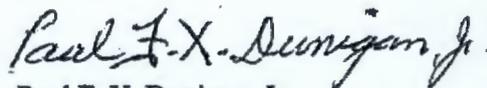
Department of Energy
Richland Operations Office**memorandum**DATE: OCT 20 2003
REPLY TO
ATTN OF: RCA:PFXD/04-RCA-0013SUBJECT: ENVIRONMENTAL ASSESSMENT ON DEACTIVATION OF THE PLUTONIUM
FINISHING PLANT (PFP), HANFORD SITE, RICHLAND, WASHINGTON.
DOE/EA-1469

TO: Keith A. Klein, Manager

The Office of the Assistant Manager for the Central Plateau (AMCP) has prepared the subject Environmental Assessment (EA) to analyze whether the potential environmental impacts of proposed action are significant and would require preparation of an Environmental Impact Statement (EIS). The proposed action is to transition the PFP Complex to a state of low-risk, low-cost, long-term surveillance and maintenance pending final disposition.

An RL NEPA Review Panel reviewed the draft EA to assess conformance with NEPA requirements and to recommend an appropriate resolution of the EA. The Panel was chaired by the Hanford NEPA Compliance Officer, and included representatives of AMCP, the Regulatory Compliance and Analysis Division, the Office of Chief Counsel, the Program Management Support Office, and the Pacific Northwest National Laboratory. Based on the impacts discussed in the draft EA and considering comments received from the Oregon Office of Energy, the Washington State Department of Fish and Wildlife, and the Washington State Department of Ecology, the panel concluded that the potential environmental impacts of these actions are not significant in the NEPA sense. Therefore, the Panel recommends that the EA be resolved by a Finding of No Significant Impact (FONSI).

Attached for your approval are the final EA and FONSI. Authority to approve EAs and FONSI is assigned to you by DOE Order 451.1B change 1. Following your approval, the EA and FONSI will be published and issued as required by the Council on Environmental Quality and DOE regulations. Copies of the approved EA and FONSI will be placed in the DOE Hanford and Headquarters reading rooms, and on the Hanford Home Page, <http://www.hanford.gov/#eis> and submitted for placement on the DOE-HQ NEPA Website. A notice of availability will be placed in the local newspaper.



Paul F. X. Dunigan, Jr.
Hanford NEPA Compliance Officer

Attachment

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) has prepared an Environmental Assessment (EA), DOE/EA-1469, to assess environmental impacts associated with the deactivation of the Plutonium Finishing Plant (PFP) on the Hanford Site, Richland, Washington. Based on the analysis in the EA, and considering public comments, DOE has determined that the proposed action is not a major federal action significantly affecting the quality of the human environment within the meaning of the *National Environmental Policy Act of 1969* (NEPA), 42 U.S.C. 4321, et seq. Therefore, the preparation of an Environmental Impact Statement (EIS) is not required.

ADDRESSES AND FURTHER INFORMATION: Single copies of the EA and further information about the proposed action are available from:

U.S. Department of Energy
Richland Operations Office
Rudy S. Ollero, Document Manager
Project Management Support Organization
P.O. Box 550, MS A6-39
Richland, Washington 99352
Phone: (509) 376-0663
e-mail: [Rodolfo S Rudy Ollero@rl.gov](mailto:Rodolfo_S_Rudy_Ollero@rl.gov)

For further information regarding the DOE NEPA process, contact:

U.S. Department of Energy
Richland Operations Office
P. F. X. Dunigan, Jr., NEPA Compliance Officer
P.O. Box 550, MS A5-58
Richland, Washington 99352
Phone: (509) 376-6667
e-mail: [Paul F Jr Dunigan@rl.gov](mailto:Paul_F_Jr_Dunigan@rl.gov)

Ms. Carol M. Borgstrom, Director
Office of NEPA Oversight
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585
Phone: (202-586-4600)
e-mail: Carol.Borgstrom@eh.doe.gov

PURPOSE AND NEED: The U.S. Department of Energy (DOE) needs to transition the Plutonium Finishing Plant (PFP) complex in the 200 West Area of the Hanford Site to a state of low-risk, low-cost, long-term surveillance and maintenance pending final disposition. The purpose of this transition is to mitigate radiological and chemical hazards associated with

structures (and any remaining processing equipment and ancillary hardware) in the PFP Complex such that the PFP Complex's main plutonium processing structures would be ready for final disposition to be determined under the *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980*.

BACKGROUND: Historically, the PFP Complex was used to conduct plutonium processing, storage, and support operations for national defense. As a result of plutonium processing activities, the PFP Complex contained an inventory of approximately 3,600 kilograms (7,900 pounds) of a variety of reactive plutonium-bearing materials. In addition to the listed plutonium-bearing materials, the PFP Complex contains approximately 50 kilograms (110 pounds) of plutonium-bearing materials in systems (e.g., ventilation, process equipment, piping, walls, floors, etc.). This material accumulated gradually over approximately 40 years of processing; the accumulated material is referred to as hold-up material.

Completion of the ongoing stabilization and packaging of plutonium-bearing materials is expected to be completed by March 2004. Deactivation planning has targeted the PFP Complex to be deactivated, including vaults being de-inventoried, by 2014.

PROPOSED ACTION: The proposed action is to deactivate the PFP Complex, involving those activities necessary to take the PFP Complex to a state suitable for long-term, low-risk/low-cost surveillance and maintenance pending final disposition. The scope of this EA includes deactivation of systems no longer necessary when stabilization and storage activities and planned legacy holdup removal have been concluded; removal/disposition of equipment/components; contamination characterization and reduction/mitigation; packaging plutonium holdup material meeting waste acceptance criteria; maintaining and running muffle furnace operations, as needed, to stabilize removed plutonium holdup material; and demolition of non-process ancillary buildings.

The proposed action includes deactivation activities or activities to prepare and place a facility in a safe and stable condition to minimize the long-term cost of a surveillance and maintenance program while being protective of personnel, the public, and the environment until demolition of former processing and material storage buildings occurs. These activities would include those actions foreseeably necessary for implementation of the proposed action, such as associated transportation activities, waste removal and disposal, and award of grants and contracts.

Specific actions could include the following:

- Draining and/or de-energizing systems as appropriate
- Stabilizing contaminated areas (e.g., with fixatives, sealants, paint)
- Stabilizing or removing gloveboxes, process equipment, tanks, piping, fume hoods, and support equipment
- Removing fencing and paved parking areas adjacent to facilities if required
- Installing alternate environmental monitoring, surveillance, and safety components (e.g., lighting, fencing) if required

- Removing/packaging radioactive and hazardous materials and waste, including stabilization and/or removal of asbestos, and removal, cleanup, and disposition of polychlorinated biphenyls and other regulated materials and transportation to waste management facilities
- Removing equipment and system components
- Size-reducing process equipment for disposal as waste
- Performing physical or chemical treatment processes (e.g., neutralization, solidification, filtering) to render a material less hazardous or to reduce the volume
- Excessing surplus equipment
- Removing excess combustible material
- Disconnecting utilities, piping, and network service systems (if the systems are not necessary to maintain required environmental monitoring or building safety systems), including associated excavation. Note that potential excavation would be minimal and limited to the immediate vicinity of utilities and piping
- Ensuring adequate freeze and heat protection
- Stabilizing, consolidating, or removing small outside contaminated areas within the PFP Complex
- Sealing cracks, gratings, and openings to the building exterior, and repairing roofs
- Removing or reducing radioactive or hazardous contamination from facilities and equipment by washing, heating, chemical or electrochemical action, mechanical cleaning, or other techniques
- Removing residual plutonium holdup material, which might remain throughout the PFP Complex after stabilization activities described in the PFP EIS have been completed; packaging residual plutonium holdup meeting waste acceptance criteria for shipment to an onsite waste management facility¹, or thermally stabilizing material in muffle furnace operations and packaging for storage in existing PFP Complex vaults
- Designing and executing modifications to operating systems and/or structures necessary to place a facility in surveillance and maintenance, pending demolition
- Conducting final process operations to stabilize or eliminate residual operational materials or effluents, such as final process runs; cleaning vessels, pits and trenches; operation of small evaporators; flushing piping systems; and removal or replacement of filters
- Demolishing non-process ancillary buildings.

¹The ultimate disposition of transuranic waste would be shipment to the Waste Isolation Pilot Plant (WIPP) for disposal. These materials are within the estimated waste stream volume from Hanford analyzed in the 1997 Final WIPP Supplemental EIS (DOE/EIS-0026-S2).

The proposed action also might require actions to conserve energy, demonstrate potential energy conservation, promote energy efficiency, or provide routine maintenance of operating portions of PFP.

ALTERNATIVES CONSIDERED: The EA discussed a variety of alternatives as well as the No-Action Alternative.

No-Action Alternative. Under the no action alternative, after stabilization and holdup removal activities under the PFP EIS and the deactivation activities (described in Section 2.0 for 232-Z, 241-Z, and ancillary buildings) are complete, the PFP Complex would be subjected to minimal system deactivation and decontamination activities, leaving residual contaminants in tanks, vessels, piping, and on interior surfaces of structures. Some individual systems would be shut down and de-energized. Surveillance and maintenance activities would be conducted while CERCLA documentation is prepared and final disposition decisions are made.

Alternatives. Alternatives addressed in the EA included: cleanout of systems to minimize surveillance and maintenance and complete cleanout to remove all radiological hazards and dangerous waste.

ENVIRONMENTAL IMPACTS: Activities associated with deactivation of the PFP Complex would not result in any significant environmental impacts.

Routine Operations The proposed action is expected to occur in or adjacent to existing PFP Complex facilities in previously disturbed areas, and is not expected to result in substantial radiological or hazardous material releases to the environment. It is projected that potential personnel exposure to both radiation and hazardous materials during deactivation activities would be no greater than existing conditions at the PFP Complex. As materials continue to be removed and stabilized, background dose rates would be expected to decrease. No significant impacts to air quality, water quality, land use, or ecological, cultural and aesthetic and visual resources would occur.

There would be radiation exposure associated with residual plutonium in equipment and structures. However, the relatively low level of radioactivity associated with the PFP Complex after cessation of stabilization activities makes the risks associated with the deactivation of the plutonium processing systems small when compared to ongoing current stabilization activities. Based on the analysis in the EA for material recovery/deactivation and material disposition, the collective dose to PFP workers is projected to be 300 person-rem from deactivation and material recovery activities and approximately 25 person-rem for material disposition. Based on a dose-to-risk conversion factor of 6×10^{-4} latent cancer fatalities (LCF) per person-rem, no LCFs would be expected (specifically, this equates to 0.2 LCFs).

A toxicological hazard also would exist because of the presence of residual process chemicals. The current potential storage configurations would not release chemicals that would create a potential health hazard.

Accident Scenarios Accident consequences have been considered for the proposed action. Postulated accidents associated with the deactivation of the PFP Complex have been considered, and are believed to be bounded by those potential events associated with management of

plutonium-bearing materials present on the Hanford Site. It is expected that disposition of materials would not contribute substantial additional risks to ongoing onsite transport.

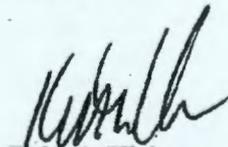
Socioeconomic Impacts The proposed action would not result in significant socioeconomic impacts. It would be expected that the existing Hanford Site workforce would provide the bulk of necessary personnel to support deactivation of the PFP Complex. There would be no significant impact to employment levels within Benton and Franklin counties.

Environmental Justice Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs and activities on minority and low-income populations. The analysis in this EA indicates that there would be minimal impacts to both the offsite population and potential workforce during deactivation of the PFP Complex, under both routine and accident conditions. Therefore, it is not expected that there would be any disproportionately high and adverse impacts to any minority or low-income populations.

Cumulative Impacts Cumulative environmental impacts were considered but no significant cumulative impacts are expected from implementation of the proposed action.

DETERMINATION: Based on the analysis in the EA, and after considering the public comments received, I conclude that the proposed action for deactivation of the PFP Complex on the Hanford Site does not constitute a major federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, an EIS is not required.

Issued at Richland, Washington, this 20th day of October, 2003.



Keith A. Klein
Manager
Richland Operations Office

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author
K. A. Klein/RL

Addressee
D. B. Van Leuven/FH

Correspondence No.
0304465
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Subject: **CONTRACT NO. DE-AC06-96RL13200 – APPROVAL OF FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR ENVIRONMENTAL ASSESSMENT (EA) ON DEACTIVATION OF THE PLUTONIUM FINISHING PLANT (PFP)**

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