



January 9, 2018

Mr. Doug S. Shoop, Manager  
Richland Operations Office  
United States Department of Energy  
PO Box 550, MSIN: H5-20  
Richland, Washington 99352

Re: Creation of Danger Pursuant to Article XXXII Hanford Federal Facility Agreement and Consent Order (HFFACO)

Reference: "Plutonium Finishing Plant (PFP) Timeline of Contamination Spreads, Surveying of Areas and Workers, and Safety Controls", Issued by CH2M HILL Plateau Remediation Company and Department of Energy Richland Operations Office, December 20, 2017

Dear Mr. Shoop:

This letter notifies the United States Department of Energy - Richland Operations Office (USDOE-RL) that the Washington State Department of Ecology (Ecology) and the United States Environmental Protection Agency (EPA) have determined that the recent contamination events at the Plutonium Finishing Plant (PFP) on the Hanford site are creating a danger to the health or welfare of the people on the Hanford Site and to the environment.

Ecology and EPA are aware that USDOE-RL has stopped work at the PFP site at this time. However, given our determination, we hereby invoke Hanford Federal Facility and Consent Order (HFFACO) Article XXXII ("Creation of Danger") and order all work at PFP to stop until Ecology and EPA determine that USDOE-RL has taken actions sufficient to allow the remaining work at PFP to continue and informs USDOE-RL that work may resume.

As provided by Article XXXII, any dispute on this stop work shall be immediately referred to the Interagency Management Integration Team level of the appropriate HFFACO dispute resolution process.

**Summary of Events:**

Ecology and EPA were notified on December 14, 2017, of a decision to stop work as a result of elevated radiation levels detected by air samplers worn by workers conducting PFP demolition activities (reference). These workers were not in areas where respiratory protection is required.

Elevated readings on these personnel air monitors were detected on December 8, 9, and 12. The stop work directive based on these elevated radiation levels was lifted on Thursday, December 14, after additional surveys of trailers and vehicles resulted in no additional detections and the control area was extended.

On Friday, December 15, demolition of the Plutonium Reclamation Facility (PRF) resumed. On swing shift, worker surveys following demolition of PRF found contamination at a stationary, passive monitoring point located northwest and outside established control areas. Subsequent monitoring found contamination on the hood of one vehicle, on a jersey barrier, on the stairs of an office trailer, on a dumpster near an office trailer, and near mobile office trailers.

No work occurred on Saturday, December 16. When work resumed on Sunday, December 17, CH2M HILL Plateau Remediation Company issued a stop work directive after notification of the contamination discovered on December 15. Additional surveys were taken, and no additional contamination was found outside the contamination area. The PRF demolition debris was covered with soil for stabilization and a fixative was applied.

On Monday, December 18, a second layer of soil and fixative was placed on the PRF debris. Surveys on Monday found contamination on the hoods of cars and around and between mobile trailers at PFP. Ecology and EPA were notified on December 18 that contaminated personal vehicles had been driven home over the weekend.

By Tuesday, December 19, a total of seven contaminated personal vehicles that had been driven home were identified. Contamination surveys were conducted at the seven homes. No contamination was found.

As of January 3, 2018, Ecology and EPA understand that contamination is still being detected at passive monitoring points at PFP within control areas, indicating that the contamination has not yet been controlled.

**Determination:**

Ecology and EPA agree that the events described above have created a danger to the health or welfare of the people on the Hanford Site and to the environment within the meaning of Article XXXII of the HFFACO.

Because of these circumstances, Ecology and EPA want to ensure the circumstances that created the danger are corrected before work at PFP resumes. To that end, the two agencies request the following information from USDOE-RL no later than January 26, 2018:

1. A description of the corrective actions that were developed as part of the causal analysis for these events and those that were implemented.
2. A briefing summarizing these corrective actions.

Mr. Doug S. Shoop  
January 9, 2018  
Page 3 of 4

3. Records of both the Continuous Air Monitoring stations (CAMs) and surveys taken from November 1, 2017, to January 5, 2018. This should include alarm set points and calibration dates for CAMs.
4. Log books and/or Radiological Work Packages detailing contamination controls (i.e. water, fixative, and cover material) from November 1, 2017, to January 5, 2018.
5. Location and usage logs of water foggers for contamination control from November 1, 2017, to January 5, 2018.
6. Lapel monitor readings from November 1, 2017, to January 5, 2018.
7. Bioassay Results to include:
  - a. Dose, location, sample date, and result date.
  - b. Dates that employees were offered bioassays.
  - c. Any dose modeling done to account for delays from uptake to bioassay.

Once Ecology and EPA have a chance to review the requested documents, we will make an additional determination on whether these actions are sufficient to allow the remaining work at PFP to continue. Ecology and EPA's priority is for the remaining work at PFP to be completed in a manner that protects both workers and the environment.

If you have questions regarding this determination please contact Emy Laija, Remedial Project Manager for EPA, at (202) 564-2724 or [laija.emerald@epa.gov](mailto:laija.emerald@epa.gov) or Stephanie Schleif, Facility Transition Project Manager for Ecology, at (509) 372-7929 or [stephanie.schleif@ecy.wa.gov](mailto:stephanie.schleif@ecy.wa.gov).

Sincerely,



Alexandra K. Smith  
Program Manager  
Nuclear Waste Program  
Washington State Department of Ecology



Laura Buelow  
Acting Manager  
Hanford Project  
United States Environmental Protection Agency

Hand delivered  
cc: See Page 4

Mr. Doug S. Shoop  
January 9, 2018  
Page 4 of 4

cc electronic:

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CHPRC Correspondence Control  
Environmental Portal  
Hanford Facility Operating Record  
MSA Correspondence Control  
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Administrative Record  
NWP Central File