

Department of Energy

Washington, DC 20585

October 24, 2014

Mr. Michael Kluse Laboratory Director Battelle Memorial Institute Pacific Northwest National Laboratory 790 6th Street MSIN: K1-46 Richland, Washington 99354

WCO-2014-01

Dear Mr. Kluse:

This letter transmits the consent order between the Office of Enterprise Assessments' Office of Enforcement and Battelle Memorial Institute (Battelle) to resolve the Department of Energy's (DOE) investigation into the deficiencies identified by Battelle related to the Pacific Northwest National Laboratory's (PNNL) Chronic Beryllium Disease Prevention Program (CBDPP). Battelle reported to DOE noncompliances with 10 C.F.R. Part 850, *Chronic Beryllium Disease Prevention Program*, requirements, including baseline inventory, hazard assessment, permissible exposure limits, housekeeping, release criteria, medical surveillance, and performance feedback. After these conditions were discovered, Battelle immediately recognized their significance and performed comprehensive evaluations to determine the nature and extent of the causes as well as their impact on PNNL worker safety and health. Battelle implemented compensatory measures to prevent potential worker exposures to beryllium in contaminated areas, and has subsequently initiated corrective actions that fully address the regulatory noncompliances and CBDPP implementation weaknesses.

In accordance with 10 C.F.R. § 851.41 and upon agreement with Battelle, the Office of Enforcement is exercising enforcement discretion by resolving these potential violations through a Consent Order. The decision to enter into a Consent Order is based upon Battelle's thorough and self-critical evaluation of the noncompliances, prompt and accurate reporting to DOE of all noncompliances associated with the conditions, and comprehensive corrective actions to address the CBDPP deficiencies that will prevent recurrence.

DOE reserves the right to initiate enforcement proceedings against Battelle if any of the facts or information provided to DOE regarding the described deficiencies were false or inaccurate in any material way. Further, if there is a recurrence of worker safety and health noncompliances similar to those identified above, the Office of Enforcement may decide to pursue additional enforcement activity. The Office of Enforcement, the Office of Science, and the Pacific Northwest Site Office will continue to closely monitor Battelle's progress in implementing corrective actions and achieving full compliance with Part 850 requirements.



Enclosed are two signed copies of the Consent Order. Please sign both, keep one for your records, and return the other copy to this office within one week from the date of receipt of this Order. By signing this Consent Order, Battelle agrees to remit a \$200,000 monetary remedy, payable to the Treasurer of the United States, in accordance with the directions in the enclosed Consent Order and to provide DOE with the information specified in section IV of the Consent Order.

Should you have any questions, please contact me at (301) 903-7707, or your staff may contact Mr. Kevin Dressman, Director, Office of Worker Safety and Health Enforcement, at (301) 903-0100.

Sincerely, teven

Steven C. Simonson Director Office of Enforcement Office of Enterprise Assessments

Enclosure: Consent Order (WCO-2014-01)

cc: Julie Erickson, PNSO Cindy Doyle, Battelle In the matter of

Battelle Memorial Institute

) Consent Order WCO-2014-01

CONSENT ORDER INCORPORATING AGREEMENT BETWEEN U.S. DEPARTMENT OF ENERGY AND BATTELLE MEMORIAL INSTITUTE

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Battelle Memorial Institute ("Battelle") is the management and operating contractor for the Pacific Northwest National Laboratory (PNNL). Battelle performs work under Contract No. DE-AC05-76RL01830 (Contract) with the U.S. Department of Energy's (DOE) Office of Science. PNNL conducts research relating to national security missions, nuclear materials stewardship, non-proliferation missions, the nuclear fuel life cycle, and energy production. PNNL is engaged in expanding the beneficial use of nuclear materials such as nuclear process engineering, and radiomaterials characterization, separation and processing.

Π

In September 2013, three beryllium-contaminated milling machines were removed from the machine shop in the Radiochemical Process Laboratory (RPL) at PNNL and removed from the building as excess equipment. In December 2013 workers raised concerns about a lack of surface sampling in support of the equipment removal. On December 23, 2013, Battelle received results for wipe samples collected from inaccessible surfaces of the equipment, which revealed removable contamination above the prescribed 10 C.F.R. § 850.31(b) limit of 0.2 micrograms per 100 square centimeters ($0.2 \mu g/100 \text{ cm}^2$) for the release of equipment to the general public or for use in a non-beryllium area of a DOE facility.

The beryllium-affected workers reviewed the sampling results at a February 2014 bi-monthly meeting and expressed concerns regarding compliance with PNNL's Chronic Beryllium Disease Prevention Program (CBDPP). In response, Battelle conducted a review of CBDPP implementation at RPL and determined that routine beryllium sampling, established to verify the effectiveness of control measures and characterize hazards in support of dispatch work planning (e.g. skill of the craft), was not performed for several years. Additionally, guidance documents used in support of work planning to characterize beryllium hazards lacked a valid approved

technical basis, were inconsistent with PNNL's beryllium program requirements, and did not accurately reflect conditions in the laboratory.

A PNNL investigation in February 2014 also revealed that approximately 50 employees were dropped from enrollment in the voluntary beryllium medical surveillance program following PNNL's transition to a new occupational medical provider in October 2012. PNNL identified the discrepancy only after a worker expressed concern that occupational medicine staff had not contacted him regarding program services.

The above events and conditions revealed multiple deficiencies in PNNL's CBDPP and Battelle's implementation of 10 C.F.R. Part 850, *Chronic Beryllium Disease Prevention Program*, requirements. PNNL conducted a cause analysis to identify weaknesses in the CBDPP. Before completion of the cause analysis, Battelle implemented a Beryllium Program Recovery Project to initiate immediate recovery actions, to understand the extent of conditions, and define the actions and processes necessary to address programmatic deficiencies. After completion of the cause analysis, Battelle issued a document entitled: *Corrective Action Plan: Weaknesses in PNNL Chronic Beryllium Disease Prevention Program* to address and prevent recurrence of the causal factors.

Battelle recognized that the latent organizational weaknesses in the implementation of the CBDPP could exist within other worker safety and health programs and performed an extent of condition assessment to determine if the potential for similar deployment gaps existed in other programs. The extent of condition identified potential programmatic weaknesses in several other worker safety and health programs.

On March 31, 2014, PNNL voluntarily reported CBDPP noncompliances with 10 C.F.R. Part 850, *Chronic Beryllium Disease Prevention Program*, and 10 C.F.R. Part 851, *Worker Safety and Health Program* requirements into DOE's Noncompliance Tracking System (NTS) in report NTS-PNSO—PNNL-PNNLBOPER-2014-0001, *Management Concern Related to Beryllium Monitoring*.

On June 24, 2014, the Office of Enforcement notified Battelle of a decision to conduct an investigation into the facts and circumstances associated with potential deficiencies in the implementation the PNNL's Chronic Beryllium Disease Prevention Program. In a July 2, 2014, letter to the Office of Enforcement, Battelle requested a Consent Order to settle this matter based on the following factors: (1) demonstrated and consistent track record for noncompliance reporting; (2) a comprehensive cause analysis, beryllium program compliance assessment, worker safety and health program extent of condition review, timely and conservative compensatory measures, and initiation of the program recovery project; (3) continuous and transparent consultation with the Pacific Northwest Site Office (PNSO); (4) prompt and thorough reporting of noncompliances associated with CBDPP to DOE, and; (5) a final comprehensive corrective action plan to address both the beryllium program issues and related noncompliances, and to prevent recurrence in similar worker safety and health programs.

Pursuant to 10 C.F.R. § 851.41, DOE may resolve any or all issues in an outstanding enforcement proceeding with a Consent Order if the settlement is consistent with the objectives of the Atomic Energy Act of 1954, as amended, and 10 C.F.R. Part 851 requirements.

To resolve the potential noncompliances with 10 C.F.R. Part 850 and in consideration of the adequacy of Battelle's investigation, causal analysis, and associated corrective actions initiated since the submission of the NTS report identified above, DOE has elected to enter into settlement. DOE and Battelle have reached agreement to resolve this matter through execution of this Consent Order.

IV

Accordingly, the terms of this Consent Order are as follows:

In consideration of the mutual agreements set forth in this section, the sufficiency and adequacy of which are acknowledged by DOE and Battelle (hereinafter the "Parties"), the following terms represent agreement by the authorized representatives of the Parties to resolve by settlement the potential violations, in lieu of an enforcement action that DOE may issue pursuant to 10 C.F.R. § 851.43.

- 1. Battelle shall:
 - a. Fully implement the measures described in the document entitled: *Corrective Action Plan: Weaknesses in PNNL Chronic Beryllium Disease Prevention Program,* dated July 2014, by the due dates specified for each corrective action.
 - b. Provide quarterly written updates on the status of corrective actions to the Office of Enforcement and PNSO.
 - c. Notify the Office of Enforcement and PNSO of corrective actions that require an extension to the due date at least 30 calendar days before the due date.
 - d. Notify the Office of Enforcement upon completion of all actions specified in the Corrective Action Plan identified in item 1a above.
 - e. Provide to PNSO, the Office of Science, and the DOE Office of Enforcement a copy of the independent effectiveness review report when completed.
- 2. Battelle shall pay the amount of \$200,000 reflecting an agreed upon monetary remedy in lieu of the issuance of an enforcement action with the proposed imposition of a civil penalty pursuant to 10 C.F.R. § 851.43.
- 3. Battelle agrees to return a signed copy of this Consent Order, within one week from the date of receipt, to the address provided in item 5 below.

- 4. The Effective Date of this Consent Order shall be the date upon which Battelle signs this Consent Order.
- 5. Battelle shall remit the monetary remedy of \$200,000 by check, draft, or money order payable to the Treasurer of the United States (Account Number 891099) within 30 calendar days after the Effective Date of this Consent Order. Payment shall be sent by overnight carrier to:

Director, Office of Enforcement Attention: Office of the Docketing Clerk, EA-10 U.S. Department of Energy 19901 Germantown Road Germantown, MD 20874-1290

- 6. This Consent Order shall constitute a full and final settlement of the potential noncompliances identified in the referenced NTS reports, subject to: (a) Battelle's payment of the monetary remedy in accordance with item 5 above, and (b) Battelle's completion of all actions set forth in item 1 above to the satisfaction of DOE.
- 7. In accordance with the Major Fraud Act, as amended, 41 U.S.C. § 4310, and the implementing provisions of the Federal Acquisition Regulation, 48 C.F.R. § 31.205-47, neither the monetary remedy nor any costs, as defined in the Federal Acquisition Regulation, 48 C.F.R. § 31.205-47, incurred by, for, or on behalf of Battelle relating to coordination and cooperation with DOE concerning the investigation of matters covered by this Consent Order, shall be considered allowable costs under the Contract. However, costs incurred by, for, or on behalf of Battelle relating to the development and implementation of corrective actions, including costs associated with the effectiveness review required under item 1 above, may be considered allowable costs under the Contract.
- 8. This Consent Order does not preclude DOE from re-opening the investigation or from issuing an enforcement action under 10 C.F.R. § 851.42 with respect to a potential noncompliance if: (a) after the Effective Date (as defined in item 4 above), DOE becomes aware of any false or materially inaccurate facts or information provided by Battelle; (b) there is a recurrence of worker safety and health deficiencies similar to those identified above; or (c) Battelle fails to complete all actions specified in item 1 above in a timely and effective manner to prevent recurrence of the identified issues.
- 9. Any modification to this Consent Order requires the written consent of both Parties.
- 10. Battelle waives any and all rights to appeal or otherwise seek judicial or administrative review of the terms of this Consent Order. DOE retains the right to judicially enforce the provisions of this Consent Order by all available legal means.
- 11. This Consent Order is issued pursuant to DOE's authority under Section 234C of the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2282c), and the implementing provisions of

10 C.F.R. Part 851 governing enforcement of worker safety and health requirements at DOE sites.

12. This Consent Order shall become a Final Order after the signed copy, referenced in item 4 above, is filed by the Office of Enforcement's Office of the Docketing Clerk.

On behalf of my respective organization, I hereby agree to and accept the terms of the foregoing Consent Order.

FOR U.S. Department of Energy

FOR Battelle Memorial Institute

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Date 10/24/14

Steven C. Simonson Director Office of Enforcement Office of Enterprise Assessments U.S. Department of Energy

hue Date 10/31/2014

Michael Kluse Laboratory Director Battelle Memorial Institute