

August 18, 2003

Mr. Woodrow Jameson
[]
Fluor Fernald, Inc.
P.O. Box 538704
Cincinnati, OH 45252-8704

EA-2003-05

Subject: Consent Order Incorporating Agreement between U.S. Department of Energy
and Fluor Fernald, Inc.

Dear Mr. Jameson:

This letter refers to the Department of Energy's (DOE) evaluation of a recent investigation conducted by Fluor Fernald, Inc. (Fluor Fernald) into the facts and circumstances surrounding an unposted High Radiation Area adjacent to the small concrete building [] currently used for thermoluminescent dosimeter (TLD) irradiations. This unposted condition, present during irradiator operations, existed for over a year before discovery by DOE on March 27, 2003. Fluor Fernald reported the deficiency using the Noncompliance Tracking System on April 16, 2003.

Although the [] event was superficially of limited safety significance, with no apparent unplanned exposures, your subsequent investigation identified multiple and significant deficiencies. These included inadequate radiological survey practices, failure to comply with work control and radiological posting procedures, the lack of effective radiological engineering and activity startup reviews, deficiencies in the qualifications and technical expertise within the Radiological Control organization, and deficiencies in Fluor Fernald oversight and assessment of its work activities. Your investigation also noted similarities between the [] event and the unposted airborne radioactivity area event at the Waste Pits Remedial Action Project (WPRAP) facility, which was the subject of a prior enforcement action.

DOE has evaluated the results of your investigation and concluded it represents a comprehensive and thorough evaluation of the deficiencies leading to the [] event. Your initial analysis of the event was somewhat limited in scope and depth. However, this was self-recognized and you followed that analysis with a more in-depth review. In recognition of the collective implications of the [] and WPRAP events, you also commissioned an independent, broad scope review of the Radiological Control Program to identify potential programmatic deficiencies. Corrective actions developed in conjunction with your investigation appear to be broad and should effectively address the identified deficiencies in a timely manner. Based on our review, we have concluded that further investigation into this matter by DOE is unnecessary and unwarranted. The issues involved in this matter, and Fluor Fernald's response to them, have been reviewed in the context of the Office of Price-Anderson Enforcement's

guidance regarding Consent Orders (see Enforcement Guidance Supplements EGS 00-04 and EGS 03-01). We have found that the expectations set forth in those documents are met in this case.

Therefore, in order to encourage such full disclosure and responsiveness in the future, DOE has elected to issue the enclosed Consent Order in accordance with 10 CFR 820.23, in lieu of pursuing other enforcement options (such as a possible Notice of Violation and/or civil penalties). With this Consent Order, Fluor Fernald has agreed to remit a \$40,000 monetary remedy, payable to the Treasurer of the United States, in accordance with the directions in the enclosed order. Other than submission of the remedy, no written response to this letter is required.

In choosing to issue this Consent Order, I have exercised significant latitude based upon your aggressive response to this event and the overall effective implementation of your site Price-Anderson Amendments Act (PAAA) Program. I am aware, however, of the significant radiological challenges posed by the upcoming silos project. In consideration of these challenges, my office will continue to closely coordinate with the DOE Fernald Closure Project Office to follow your progress on corrective actions associated with the [] event, and to monitor the overall effectiveness of your Radiological Control Program in anticipating and controlling radiological hazards.

In accordance with the terms and conditions of the enclosed Consent Order, any required changes to completion dates established or content of corrective actions shall receive prior approval by the Director, DOE Fernald Closure Project Office. I have enclosed two signed copies of the Consent Order. Please sign both, keep one for your records, and return the other to this office within one week.

Sincerely,

Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Enclosure: Consent Order

cc: R. Warther, [], DOE-OH
M. Reker, DOE-OH
G. Griffiths, Acting Director, FCP
D. Riley, FCP
J. Roberson, EM-1
B. Cook, EH-1
L. Vaughn, EM
B. Varchol, Fluor Fernald
T. Weadock, OE
Docket Clerk, OE



Department of Energy

Washington, DC 20585

In the matter of) Report No. NTS-OH--FN-FFI-FEMP-2003-0002
Fluor Fernald, Inc.)
)
)
) Enforcement Action 2003-05

CONSENT ORDER INCORPORATING AGREEMENT BETWEEN U.S. DEPARTMENT OF ENERGY AND FLUOR FERNALD, INC.

I

Fluor Fernald, Inc. (Fluor Fernald) is the closure project contractor for the Department of Energy (DOE) at the Fernald site. Fluor Fernald is responsible for managing all site remediation activities, including facility decontamination, decommissioning, and disposition of site nuclear waste.

II

On March 27, 2003, a Facility Representative from the DOE Fernald Closure Project Office identified a potential concern with the radiological posting associated with the Fernald thermoluminescent dosimeter (TLD) irradiation facility, known as []. The TLD irradiation source, a 12-curie Cesium 137 (Cs 137) sealed radioactive source, had been moved into [] in March 2002.

Follow-up radiation surveys performed by Fluor Fernald verified the lack of required radiological posting (High Radiation Area sign) for the small fenced-in area behind []. This area was subject to elevated radiation dose rates during periods of irradiator operation. Records indicated the irradiator had been used approximately 114 hours since being moved into the [] location.

Fluor Fernald undertook immediate actions to address the posting deficiencies and initiated an investigation into the event. The investigation included the performance of two separate causal analyses and the commissioning of an external assessment of the site Radiological Control Program.

The Fluor Fernald investigation identified multiple programmatic deficiencies associated with the relocation of the Cs-137 source to the [] facility and the implementation of the site Radiological Control program. These deficiencies included failure to perform adequate radiological surveys, failure to comply with work control and radiological posting procedures, failure to conduct effective radiological engineering and

activity startup reviews, deficiencies in qualifications and level of technical expertise within the Radiological Control organization, and deficiencies in Fluor Fernald oversight and assessment of its activities. The Fluor Fernald investigation noted similarities between the current event and a prior event involving unposted radiological areas at the Fernald Waste Pits Remedial Action Project (WPRAP) facility.

As part of its investigation, Fluor Fernald identified specific actions to correct the above deficiencies and prevent their recurrence. These included the actions based on specific recommendations included in the external assessment of the Radiological Control Program.

III

Fluor Fernald voluntarily reported this matter to DOE in the Noncompliance Tracking System (NTS-OH--FN-FFI-FEMP-2003-0002) on April 16, 2003. DOE evaluated the investigation performed by Fluor Fernald, and has concluded that the findings and conclusions with respect to the incident are comprehensive. Relevant facts have been fully and accurately disclosed, including the identification of potential violations of nuclear safety requirements. DOE's evaluation of Fluor Fernald's aggressive investigation of this occurrence, coupled with Fluor Fernald's history of prompt and proactive identification and resolution of nuclear safety issues, leads DOE to conclude that a full independent investigation by DOE into these matters is unnecessary and unwarranted.

IV

DOE has evaluated and agrees with the adequacy of the corrective actions already completed and those proposed by Fluor Fernald to address the above deficiencies. These include the corrective actions and implementation schedule described in NTS-OH--FN-FFI-FEMP-2003-0002, and the associated corrective actions developed in response to the second root cause analysis and the external assessment of the Radiological Control Program. These associated corrective actions, along with completion dates, will be entered onto the Noncompliance Tracking System (NTS) by August 29, 2003, in accordance with the Fluor Fernald and DOE Fernald Closure Project Office's review and approval process for NTS reports.

DOE and Fluor Fernald have reached agreement on this matter under which both have agreed to issuance of this Consent Order in lieu of potentially protracted and otherwise unnecessary additional investigation by DOE and possible enforcement proceedings, including the potential issuance of Notices of Violation with the imposition of civil penalties. DOE and Fluor Fernald agree that in recognition of the response by Fluor Fernald in this matter, the payment to be provided by Fluor Fernald has been significantly reduced from what could have been proposed through the formal enforcement process.

V

DOE acknowledges that Fluor Fernald's execution of, and payment in accordance with, this Consent Order does not constitute or imply admission by Fluor Fernald of potential regulatory violations. DOE and Fluor Fernald agree that the sum paid by Fluor Fernald to resolve this matter shall not be considered a reimbursable cost.

VI

This Consent Order is issued pursuant to DOE's authority in Section 234A of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2282a), and 10 CFR Part 820.23. Fluor Fernald agrees to pay to the Treasurer of the United States (Account Number 891099), mailed to the Director, Office of Price-Anderson Enforcement, U.S. Department of Energy, an amount of \$40,000 reflecting an agreed amount in lieu of any subsequent investigation, Notice of Violation and Imposition of Civil Penalty.

VII

DOE agrees that it will not pursue an enforcement action or civil penalty for any potential violations pertaining to the referenced matters. DOE may subsequently consider enforcement action if it later becomes known that any of the facts or information provided regarding the described events were knowingly false or inaccurate in any material way.

This Consent Order does not preclude DOE from investigation or pursuing enforcement action against Fluor Fernald for (1) cases other than described in the above referenced NTS report, or (2) a failure to proceed with the corrective actions as outlined in the above NTS report and the associated corrective actions added to the NTS report in accordance with Section IV.

VIII

ACCORDINGLY, it is hereby Ordered as follows:

1. Fluor Fernald will proceed with the corrective actions detailed in NTS report NTS-OH-FN-FFI-FEMP-2003-0002 and the associated corrective actions added to the NTS report in accordance with Section IV. Any required changes to completion dates established or content of the corrective action shall receive prior approval by the Director, DOE Fernald Closure Project Office. Any failure by Fluor Fernald to timely complete such corrective actions may, at the sole discretion of DOE, constitute a sufficient basis to reopen the investigation with respect to the subject potential violations.

2. Fluor Fernald agrees to pay \$40,000 to the Treasurer of the United States within 15 days of the issuance of this Order. It shall be mailed to the Director, Office of Price-Anderson Enforcement, at one of the following addresses:

(if sent by U.S. Postal Service):

Director, Office of Price-Anderson Enforcement
 Attention: Office of the Docketing Clerk
 EH-6, 270 Corporate Square Building
 U.S. Department of Energy
 1000 Independence Avenue, SW
 Washington DC 20585-0270

(if sent by overnight carrier):

Director, Office of Price-Anderson Enforcement
 Attention: Office of the Docketing Clerk
 EH-6, 270 Corporate Square Building
 U.S. Department of Energy
 19901 Germantown Road
 Germantown, MD 20874-1290

3. Upon completion of all corrective actions to the satisfaction of DOE, the payment made to DOE under this Consent Order shall completely resolve and serve as a full and final settlement of any and all enforcement actions taken under 10 CFR 820 arising from the referenced NTS report.
4. This Consent Order shall become a Final Order upon receipt of said amount referenced in Item 2, above.
5. Fluor Fernald waives any and all rights to appeal or otherwise seek judicial review of this Consent Order. However, DOE and Fluor Fernald retain the right to judicially enforce the provisions hereof by all legal means.

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 Fluor Fernald, Inc.

 Stephen M. Sohinki
 []
 Office of Price-Anderson
 Enforcement

 Woodrow Jameson
 []
 Fluor Fernald, Inc.