



Department of Energy
Washington, DC 20585

August 25, 2005

Mr. Cornelius Murphy
President
Fluor Fernald, Inc.
P.O. Box 538704
Cincinnati, OH 45253-8704

EA-2005-05

Subject: Preliminary Notice of Violation and Proposed Civil Penalty - \$33,000

Dear Mr. Murphy:

This letter refers to the radiation protection and quality improvement deficiencies that were identified as part of the recent Price-Anderson Amendments Act (PAAA) Program Review conducted at the Fernald site on July 11-14, 2005. These deficiencies were discussed with you during the outbriefing of that review on July 14, 2005. A report documenting the findings and conclusion of the PAAA Program Review is being issued under separate cover.

Based on further evaluation of the deficiencies, DOE has concluded that violations of 10 CFR 835 and 10 CFR 830 Subpart A have taken place. Accordingly, DOE is issuing this Preliminary Notice of Violation in response to the identified violations.

Section I of the PNOV cites multiple instances over the past year, involving violations of Fernald Radiological Work Permits. These instances were identified by your staff who utilized the Radiological Deficiency Report (RDR) system. Although the individual instances vary in significance, DOE views the number of violations in this area as representing a broader problem that has not been formally recognized as such by your organization.

Section II of the PNOV cites deficiencies associated with the implementation of your 10 CFR 835 self-assessment program. DOE found that your self-assessments conducted as part of this program were not rigorous, and had identified only two findings during the prior twelve assessments. Further examination revealed that one of the two findings stemmed from an event (Hut 5 posting incident) that was originally identified by DOE. DOE views the lack of findings arising from the 10 CFR 835 self-assessment process as inconsistent with operational feedback information being captured in your RDR system and deficiencies consistently being identified by DOE assessments.

Section III of the PNOV cites violations associated with the 10 CFR 830 quality improvement provisions. During the recent PAAA Program Review, DOE found that operational feedback data being captured by your RDR and Field Observation programs identified potential repetitive issues in several areas. Your own informal trending of RDRs identified problem areas associated with contamination control, personnel/work practices, and posting. However, despite this initial identification of potential problem areas, no further effort was made to formally identify, analyze, and develop comprehensive corrective actions.

In accordance with the General Statement of Enforcement Policy, 10 CFR 820, Appendix A, the violations described in the PNOV have been classified as three Severity Level III problems, with an aggregate civil penalty of \$33,000. In determining these Severity Levels, DOE considered the actual and potential safety significance associated with each event or issue under consideration and the programmatic and recurring nature of the violations.

Under some circumstances, DOE would exercise enforcement discretion upon the identification of radiation protection deficiencies such as those described in Section I of the PNOV during the course of a PAAA Program Review. However, for such discretion to be exercised, DOE's expectation would be that the potential generic implications of the deficiencies had been recognized and analyzed by the contractor, and that appropriate corrective actions were being undertaken. In this instance, however, no such recognition had occurred. Frankly, it appears as if the majority of radiation protection issues are being identified through DOE oversight activities, rather than your own. DOE also found that those systems designed to identify such generic concerns (such as the RDR system, Field Observations, and 10 CFR 835 self-assessments) were not being fully or effectively utilized. The decision to proceed with formal enforcement action was heavily influenced by these factors.

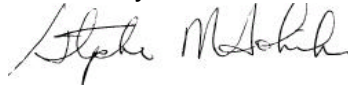
DOE has not requested an enforcement conference in this matter, in recognition of the reduced severity level of the violations and since the compliance issues were discussed with you and your staff during the outbrief following the program review.

You are required to respond to this letter and to follow the instructions specified in the enclosed PNOV when preparing your response. Your response should document any additional specific actions taken to date. Corrective actions will be tracked in the reports filed in the Noncompliance Tracking System (NTS). You should enter into the NTS (1) any additional actions you plan to take to prevent recurrence and (2) the target completion dates of such actions.

After reviewing your response to the PNOV, including your proposed corrective actions entered into NTS, DOE will determine whether further enforcement action is necessary to ensure compliance with DOE nuclear safety requirements. To help make this determination, particularly in light of your accelerated closure schedule, DOE is requesting that you provide the Office of Price-Anderson Enforcement with an update of the status and effectiveness of your corrective actions in approximately three months.

Specific details regarding the date and location of this meeting will be established through separate communication.

Sincerely,



Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Enclosure: Preliminary Notice of Violation

cc: J. Shaw, EH-1
R. Shearer, EH-1
A. Patterson, EH-1
M. Zacchero, EH-1
L. Young, EH-1
T. Weadock, EH-6
R. Gibbs, EH-6
Docket Clerk, EH-6
B. Loesch, EH-31
C. Lagdon, EH-31
C. Anderson, EM-2
L. Vaughan, EM-3.2 PAAA Coordinator
R. Warther, DOE OFO
B. Taylor, DOE FCP
D. Riley, DOE FCP PAAA Coordinator
B. Varchol, FFI PAAA Coordinator
R. Azzaro, DNFSB

**Preliminary Notice of Violation
and
Proposed Imposition of Civil Penalty**

Fluor Fernald, Inc.
Fernald Site

EA-2005-05

As a result of a Department of Energy (DOE) evaluation of occupational radiation protection and quality improvement deficiencies during the conduct of the July 11-14, 2005 Price-Anderson Amendments Act (PAAA) Program Review of Fluor Fernald, Inc. (Fluor Fernald), multiple violations of DOE nuclear safety requirements were identified. In accordance with 10 CFR 820, Appendix A, "General Statement of Enforcement Policy," the violations are listed below. Citations specifically citing the quality assurance criteria of 10 CFR 830.122 represent a violation of 830.121(a), which requires compliance with those criteria.

I. Radiological Control Procedures

10 CFR 835.104, *Written procedures*, requires that written procedures ". . . shall be developed and implemented as necessary to ensure compliance with this part, commensurate with the radiological hazards created by the activity and consistent with the education, training, and skills of the individuals exposed to those hazards."

Fluor Fernald Procedure RP-0020, revision 5, *Radiological Work Permitting and Authorization*, establishes requirements for implementation of the site Radiological Work Permit (RWP) system. Section 4.1.1 of the procedure requires RWP workers to adhere to the requirements of the RWP he/she is working under. Section 7.1 identifies conditions requiring the use of RWPs; these include work in Contamination or High Contamination Areas, excavation in Soil Contamination Areas, and work in Radiation and High Radiation Areas, among other conditions. Sections 7.6.4 and 7.6.5 require RWP workers to sign-in/out on the RWP sign-in sheet each time work begins/or is completed.

Contrary to the above, DOE review of the Fernald Radiological Deficiency Report (RDR) logs for RDRs issued during the period June 2004 through June 2005 identified multiple instances of RWP violations. These included instances in which workers failed to sign-

in or out on RWPs as required (RDR 04-063 through 04-066, 05-016, 05-033 through 05-038); instances in which work was conducted or areas were accessed without the required RWP or Radiological Control Technician (RCT) coverage (RDR 04-041, 04-044, 04-075, 05-018, 05-029, 05-030); and instances in which personnel (including RCTs) violated RWP requirements (04-047, 04-056, 04-081, 04-086, 05-013).

This violation constitutes a Severity Level III problem.
Civil penalty - \$11,000

II. Radiation Protection Program Internal Audits

10 CFR 835.102, *Internal Audits*, requires that “. . . Internal audits of the radiation protection program, including examination of program content and implementation, shall be conducted through a process that ensures that all functional elements are reviewed no less frequently than every 36 months.”

Contrary to the above, the Fluor Fernald process for conducting internal audits of the radiation protection program was not sufficiently rigorous to ensure that all functional elements of the program were effectively assessed.

To meet the 10 CFR 835.102 internal audit requirement, Fluor Fernald conducts a series of radiation protection functional area self-assessments over a three-year cycle in accordance with procedure RP-0021, revision 3, *Radiological Control Administrative Requirements*. Data provided by Fluor Fernald in response to a DOE request indicated that only two findings had been identified as a result of twelve radiation protection assessments covering fourteen functional areas conducted during the period from August 2003 – May 2005. Review of the findings identified that one of the two stemmed from an assessment of a noncompliant condition (Hut 5 posting issue) that had initially been identified by a DOE Facility Representative. This lack of findings is not consistent with the number of radiation protection issues or deficiencies currently being identified through implementation of the Radiological Deficiency Report system or through DOE assessments. Furthermore the lack of findings provides strong evidence that the Fernald 10 CFR 835 self-assessment process is not providing the desired level of critical review.

This violation constitutes a Severity Level III problem.
Civil penalty - \$11,000

III. Quality Improvement Deficiencies

10 CFR 830.122 (c), *Quality Improvement*, requires that the contractor “. . . (1) Establish and implement processes to detect and prevent quality problems. (2) Identify, control, and correct items, services, and processes that do not meet established requirements. (3) Identify the causes of problems and work to prevent recurrence as a part of correcting the problem.”

Contrary to the above, Fluor Fernald processes to identify, control and correct items not meeting established requirements were not effectively implemented. Specific examples include the following:

- A. Fluor Fernald implements a Radiological Deficiency Report (RDR) system in accordance with procedure RP-0021, revision 3, *Radiological Control Administrative Requirements*, to document radiological deficiencies. Sections 7.3.9 and 7.3.10 of that procedure require that a Nonconformance Report (NCR) be generated if an identified deficiency is, or results from, a potential nonconformance of a requirement and long term corrective actions are involved.

Discussion with the Fluor Fernald Radiological Control Manager during the referenced program review indicated that three main problem areas have been identified as a result of RDR trending over the period 2002-2004. The identified areas are contamination control, personnel/work practices, and posting. No NCRs were generated on the basis of this RDR trending to formally capture and drive resolution of these areas. No other quality problem resolution process was initiated to capture and resolve two of the three problem areas (contamination control, personnel/work practices). The issue of posting was described in a Noncompliance Tracking System report issued in 2003; however, 2004 RDR data indicates this issue is a continuing problem area and should require generation of an NCR.

- B. The Fluor Fernald Radiological Control Organization routinely conducts a series of field walkdowns (termed Field Observations) to observe radiological control work practices. Quarterly and annual Radiological Compliance Summaries of these Field Observations are also performed, in which the Radiological Compliance group reviews all Field Observations generated during the review period in an effort to generate a Lessons Learned report and provide information to project management personnel as a tool to gauge overall program implementation.

DOE review of recent Radiological Compliance Summaries of Field Observations indicated that they provide an accounting of the number of negative or positive observations in various areas (i.e., twelve radiological posting issues and two contamination control issues). No additional formal analysis or actions are taken as a result of the totals to identify or respond to trends or identify and enter potentially programmatic issues into a quality problem resolution system.

Collectively, these violations constitute a Severity Level III problem.
Civil Penalty - \$11, 000

Pursuant to the provisions of 10 CFR 820.24, Fluor Fernald is hereby required within 30 days of the date of this Preliminary Notice of Violation (PNOV), to submit a written reply by overnight carrier to the 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 20874-12190. Copies should

also be sent to the Managers of the DOE Ohio Office, the DOE Fernald Site Office, and the Assistant Secretary for Environmental Management. This reply should be clearly marked as a "Reply to a Preliminary Notice of Violation" and should include the following for each violation: (1) admission or denial of the alleged violations; (2) any facts set forth which are not correct; and (3) the reasons for the violations if admitted, or if denied, the basis for the denial. Corrective actions that have been or will be taken to avoid further violations must be delineated with target and completion dates in DOE's Noncompliance Tracking System. In the event the violations set forth in this PNOV are admitted, this Notice will constitute a Final Order in compliance with the requirements of 10 CFR 820.24.

Any request for remission or mitigation of civil penalty must be accompanied by a substantive justification demonstrating extenuating circumstances or other reasons why the assessed penalty should not be paid in full. Within 30 days after the issuance of the PNOV and civil penalty, unless the violations are denied, or remission or additional mitigation is requested, Fluor Fernald shall pay the civil penalty of \$33,000 imposed under section 234a of the Atomic Energy Act by check, draft, or money order payable to the Treasurer of the United States (Account 891099) mailed to the Director, Office of Price-Anderson Enforcement, Attention: Office of the Docketing Clerk, at the above address. If Fluor Fernald should fail to answer within the time specified, the contractor will be issued an order imposing the civil penalty. Should mitigation of the proposed civil penalty be requested, Fluor Fernald should address the adjustment factors described in section IX of 10 CFR 820, Appendix A.



Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

Dated at Washington, DC,
this 25th day of August 2005