



Department of Energy

Washington, DC 20585

April 13, 2010

Mr. Mark Breor
Vice President and Project Manager
Parsons Infrastructure & Technology Group, Inc.
1080 Silver Bluff Road
Aiken, South Carolina 29803

NCO-2010-02

Dear Mr. Breor:

The Office of Health, Safety and Security's Office of Enforcement has completed its investigation into the facts and circumstances associated with construction deficiencies at the Salt Waste Processing Facility (SWPF) located at the U.S. Department of Energy (DOE) Savannah River Site. The investigation addressed specific areas of potential noncompliance with DOE nuclear safety requirements established in 10 C.F.R. Part 830, *Nuclear Safety Management*.

The Office of Enforcement investigation identified significant deficiencies related to Parsons Infrastructure & Technology Group, Inc. (Parsons) oversight of the two suppliers responsible for the fabrication of two types of embed plates (Nelson Studs and threaded anchor bolts) and stainless steel basemat drain pipe. Specific deficiencies by Parsons included: (1) failure to provide sufficient human resources to perform supplier oversight responsibilities; (2) failure to adequately define the roles and responsibilities of quality control (QC) inspectors; (3) failure to sufficiently flow down requirements to construction suppliers; (4) failure of QC inspectors to sufficiently record the results of their supplier inspection activities; and (5) failure of the receipt inspection process to identify obvious visual deficiencies in embed plate fabrication.

Although significant construction delays and associated costs have resulted from these problems, it appears that the deficiencies have been addressed without an adverse impact on workers, the public, or the environment. Further, the Office of Enforcement review of the Parsons response to these problems acknowledges the completion of two root cause analyses, an internal investigation into the drain pipe quality issues, and an extent-of-condition review. Particularly noteworthy are the investigation report (MSA-09-04) and the extent-of-condition review (MSA-09-05), which the Office of Enforcement believes are well constructed, technically inquisitive, and broadly based. In addition, Parsons' corrective action plan appears to adequately address the causal factors associated with the fabrication deficiencies. DOE reserves the right to initiate enforcement proceedings against Parsons if it later becomes known that any of the facts or information provided to DOE regarding the described deficiencies was false or inaccurate in any material way.



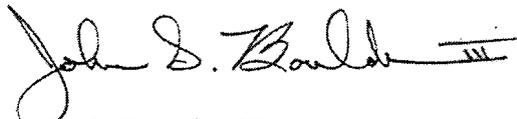
In accordance with 10 C.F.R. § 820.23, the Office of Enforcement has exercised its enforcement discretion to resolve these issues through a Consent Order. DOE's decision to enter into a Consent Order is based upon Parsons' corrective actions taken in response to the identified deficiencies in supplier oversight during the construction of the SWPF, and because the identified deficiencies in the fabrication of the embed plates and drain pipe were discovered and corrected in a comprehensive manner prior to transition of the SWPF from construction to commissioning, and thus were addressed without an adverse impact on workers, the public, or the environment.

If nuclear safety deficiencies similar to those identified above recur, the Office of Enforcement may decide to pursue further enforcement action. Both the Office of Enforcement and the Office of Environmental Management will continue to closely monitor quality assurance related performance for this project.

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 1 week from the date of receipt of this Order. By signing this Consent Order, Parsons agrees to remit a \$190,000 monetary remedy, payable to the Treasurer of the United States, in accordance with the directions in the enclosed Order. Other than submission of the signed copy of the Consent Order and the settlement amount, no written response to this letter is required.

Should you have any questions, please contact me or your staff may contact Mr. Steven Simonson, Acting Deputy Director, Office of Enforcement, at (301) 903-2178.

Sincerely,



John S. Boulden III
Acting Director
Office of Enforcement
Office of Health, Safety and Security

Enclosure

cc: William Luce, Parsons
Richard Azzaro, DNFSB

In the matter of) Report No. NTS-SRSO--PSC-SWPF-2009-0002
) Report No. NTS-SRSO--PSC-SWPF-2009-0003
)
Parsons Infrastructure &)
Technology Group, Inc.)
)
) Consent Order NCO-2010-02

CONSENT ORDER INCORPORATING AGREEMENT BETWEEN
U.S. DEPARTMENT OF ENERGY AND PARSONS INFRASTRUCTURE &
TECHNOLOGY GROUP, INC.

I

Parsons Infrastructure & Technology Group, Inc. (Parsons) is the primary construction contractor for the Salt Waste Processing Facility (SWPF) located on the Savannah River Site. Parsons contracted with Amer Industrial Technologies, Inc. (AIT) to fabricate stainless steel basemat drain pipe and arranged with Parsons Technology Development & Fabrication Complex (PTDFC)¹ to fabricate two types of embed plates (Nelson Studs and threaded anchor bolts).

II

In February 2008, Parsons arranged with PTDFC to fabricate safety significant embed plates for use during the construction of the SWPF. In late January 2009, the Parsons' Quality Control (QC) Manager and a U.S. Department of Energy (DOE) Facility Representative noticed that a Nelson Stud broke loose from an embed plate and that ceramic residue from the welding process used to attach the studs to the plates remained on several of the plates observed. As a result of this discovery, Parsons initiated an investigation and conducted a 100 percent visual inspection of all embed plate welds on the site (with the exception of approximately 30 plates that had already been encased in concrete). Specifically, 116 embed plates with Nelson Studs and 60 embed plates with threaded anchor bolts were visually inspected. Approximately 2 percent of the Nelson Stud welds were found to be nonconforming, and approximately 40 percent of the manually welded threaded anchor bolts were found to be nonconforming.

In May 2008, Parsons entered into contract with AIT to fabricate safety significant stainless steel basemat drain pipe for use during the construction of the SWPF. In February 2009, during the installation of a section of the basemat embedded drain pipe by Parsons, a DOE representative observed deficiencies on the exposed internal surface of the drain pipe weld. Progressive sampling using radiographic testing (RT) was conducted and yielded an unexpectedly high weld failure rate. This high failure rate was not expected because the procurement contract with AIT called for a 5 percent random

¹ PTDFC is not a separate legal entity from Parsons.

sampling program of the drain pipe welds using RT. Subsequently, it was determined that the AIT random sampling using RT had identified failures that were not appropriately documented and transmitted to Parsons, nor were additional samples conducted by AIT based on the existence of welding failures. In addition, Parsons discovered that the records of the welders and the welds they fabricated were improperly documented on drain pipe weld maps. Based on this knowledge, Parsons performed a 100 percent volumetric examination of all basemat drain pipe fabricated by AIT, much of which had already been installed. The results of this 100 percent volumetric examination indicated that approximately 30 percent of all AIT drain pipe welds were found to be defective.

The Office of Enforcement investigation identified significant deficiencies related to Parsons' oversight of the two suppliers responsible for the fabrication of embed plates and basemat drain pipe. Specific deficiencies by Parsons included: (1) failure to provide sufficient QC inspectors to perform supplier oversight responsibilities; (2) failure to adequately define the roles and responsibilities of QC inspectors; (3) failure to sufficiently flow down requirements to construction suppliers; (4) failure of QC inspectors to sufficiently record the results of their supplier inspection activities; and (5) failure of the receipt inspection process in identifying gross deficiencies in embed plate fabrication.

III

Parsons voluntarily reported the potential noncompliances with nuclear safety requirements to DOE via the Noncompliance Tracking System (NTS) in two reports (NTS-SRSO--PSC-SWPF-2009-0002, NTS-SRSO--PSC-SWPF-2009-0003). DOE has concluded that Parsons' investigation and analysis taken in response to the identified embed plate and basemat drain pipe fabrication deficiencies at the SWPF are thorough and comprehensive. The corrective actions identified by Parsons appear appropriate to address the causes contributing to the deficiencies and prevent recurrence.

IV

DOE and Parsons have reached agreement on this matter, under which both have agreed to issuance of this Consent Order in lieu of enforcement proceedings on this matter, including the potential for the issuance of a Notice of Violation with the imposition of a civil penalty. DOE and Parsons further agree that, in recognition of the corrective actions developed and implemented by Parsons in this matter, the payment to be provided by Parsons has been reduced from what could have been proposed through the formal enforcement process.

V

DOE and Parsons agree that the sum paid by Parsons to resolve this matter shall not be considered a reimbursable cost. Pursuant to 41 U.S.C. § 256(k) and the implementing provisions of 48 C.F.R. § 31.205-47, *Federal Acquisition Regulation*, DOE and Parsons

further agree that all costs incurred by, for, or on behalf of Parsons relating to DOE's investigation of the matters covered by this Consent Order shall be treated as unallowable under Contract No. DE-AC09-02SR22210 between DOE and Parsons.

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 the implementing provisions of 10 C.F.R. § 820.23. Parsons agrees to pay to the Treasurer of the United States (Account Number 891099), mailed to the Director, Office of Enforcement, U.S. Department of Energy, an amount of \$190,000, reflecting an agreed amount in lieu of any potential Notice of Violation and imposition of a civil penalty for the nuclear safety deficiencies discussed herein.

VII

DOE agrees to not initiate enforcement activity against Parsons for any potential violations pertaining to the referenced matters. This Consent Order does not preclude DOE from investigating or pursuing enforcement activity: (1) if it later becomes known that any of the facts or information provided regarding the described deficiencies were false or inaccurate in any material way, (2) for incidents or conditions other than those described in the above referenced NTS reports, or (3) for failure to timely and effectively complete the corrective actions, as outlined in the above referenced NTS reports, to prevent recurrence.

VIII

Accordingly, it is hereby Ordered as follows:

1. Parsons agrees to return a signed copy of this Consent Order, within 1 week from the date of receipt, to the address provided in Item 2.
2. Parsons agrees to remit \$190,000 by check, draft, or money order payable to the Treasurer of the United States (Account number 891099) within 30 days of the issuance of this Order. Payment shall be sent by overnight carrier to the Director, Office of Enforcement, at the following address:

Director, Office of Enforcement
Attention: Office of the Docketing Clerk
HS-40
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874-1290

3. 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 C.F.R. Part 820, arising from the referenced NTS reports.
4. In accordance with 10 C.F.R. § 820.23(d), this Consent Order shall become a Final Order 30 days after the signed copy, referenced in Item 1, is filed by the Office of Enforcement's Office of the Docketing Clerk unless the Secretary of Energy files a rejection of the Consent Order or a Modified Consent Order.
5. Parsons waives any and all rights to appeal or otherwise seek judicial review of this Consent Order. DOE and Parsons retain the right, however, to judicially enforce the provisions herein 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 Parsons Infrastructure & Technology
Group, Inc.


John S. Boulden III
Acting Director
Office of Enforcement
Office of Health, Safety and Security


Mark Breort
Vice President and Project Manager
Parsons Infrastructure & Technology Group, Inc.