Department of Energy
Washington, DC 20585
April 13, 2010

Mr. Frank Sullivan
Vice President and Facility Manager
Parsons Technology Development & Fabrication Complex
3005 East Ainsworth Street, Warehouse 5
Pasco, Washington 99301

Dear Mr. Sullivan:

This letter refers to the Office of Health, Safety and Security's Office of Enforcement's investigation into the facts and circumstances associated with quality assurance deficiencies in the fabrication of safety significant embed plates. These embed plates were fabricated by Parsons Technology Development and Fabrication Complex (PTDFC) a supplier to Parsons Infrastructure & Technology Group, Inc. (Parsons), to support the construction of the Salt Waste Processing Facility (SWPF) located at the U.S. Department of Energy (DOE) Savannah River Site. Noncompliances identified in association with this issue were described in Noncompliance Tracking System report NTS-SRSO--PSC-SWPF-2009-0002.

Based on a review of the evidence associated with these fabrication deficiencies, DOE finds that potential violations of 10 C.F.R. Part 830, *Nuclear Safety Management*, occurred. In late January 2009, the Parsons Quality Control Manager and the DOE Facility Representative observed 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 examined. As a result of this discovery, Parsons initiated an investigation and conducted a 100 percent visual inspection of all embed plate welds at the SWPF (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.

The potential nuclear safety violations include: (1) the failure to maintain effective oversight of welding work processes and quality control inspectors; (2) the failure to ensure that welding fabrication inspectors understood the inspection requirements; (3) the failure to effectively identify, control, and prevent recurrence of quality assurance problems; and (4) the failure to generate weld repair records for welds subject to final inspections.

DOE is concerned that PTDFC's quality control practices failed to identify these welding deficiencies in a proactive and timely manner. Section 234A of the Atomic Energy Act

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of 1954, as amended, 42 U.S.C. § 2282a, subjects most DOE contractors covered by the DOE Price-Anderson Amendments Act indemnification system, and their subcontractors and suppliers, to civil penalties for nuclear safety violations. Title 10 C.F.R. Part 820, *Procedural Rules for DOE Nuclear Activities*, appendix A, section X(a), states that "DOE's enforcement policy is also applicable to subcontractors and suppliers to DOE Price-Anderson indemnified contractors. Through procurement contracts with these DOE contractors, subcontractors and suppliers are generally required to have quality assurance programs that meet applicable DOE Nuclear Safety Requirements." Consistent with this policy, DOE holds PTDFC, a Parsons supplier, responsible for ensuring that fabrication of embed plates for the SWPF construction project is performed in accordance with applicable DOE nuclear safety requirements.

The Office of Enforcement also notes that PTDFC aggressively sought to determine the causes contributing to the identified fabrication deficiencies, assessed other areas of PTDFC operations that may have similar vulnerabilities, and developed corrective actions which seem appropriate to prevent recurrence. 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. In recognition of the comprehensive and conservative approach taken by PTDFC to address the deficiencies, and the fact that weld deficiencies were identified during the construction phase of the facility life cycle, the Office of Enforcement has elected to exercise its enforcement discretion and not pursue further enforcement action at this time.

If nuclear safety deficiencies similar to those described 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.

No 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

cc: Mark Breor, Parsons
William Luce, Parsons
Richard Azzaro, DNFSB