



U.S. Department of Energy
Office of Inspector General
Office of Audits and Inspections

AUDIT REPORT

Corrective Action Systems at the Pantex Plant

OAS-L-15-01

October 2014



Department of Energy
Washington, DC 20585

October 20, 2014

MEMORANDUM FOR THE MANAGER, NATIONAL NUCLEAR SECURITY
ADMINISTRATION PRODUCTION OFFICE

A handwritten signature in black ink, appearing to read "David Sedillo".

FROM: David Sedillo, Director
Western Audits Division
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on "Corrective Action Systems at the
Pantex Plant"

BACKGROUND

The National Nuclear Security Administration's (NNSA) Pantex Plant (Pantex), formerly managed and operated by Babcock & Wilcox Technical Services Pantex, LLC (B&W Pantex), serves as the primary site for assembly and disassembly of nuclear weapons. In January 2013, NNSA awarded a consolidated management and operating contract for Pantex and NNSA's Y-12 National Security Complex to Consolidated Nuclear Security, LLC (CNS). The 10-year contract took effect on July 1, 2014, and is valued at approximately \$23 billion.

To ensure safe and effective operations, the Department of Energy (Department) requires its contractors to implement a quality assurance program to assist in the detection and correction of actions and processes that do not meet established requirements. B&W Pantex implemented several independent programs that comprised its corrective action systems to address identified issues. Some of the primary programs included the Problem Evaluation Request/Electronic Suspense Tracking and Routing System (PER/ESTARS) for reporting, tracking, resolving, and trending issues requiring corrective actions; Employee Concerns Program, which enabled employees to identify and seek resolution of workplace concerns; and the No More Surprises Program, which allowed employees to electronically submit less significant issues to B&W Pantex management.

Given the importance of ensuring safe and effective operations at Pantex, we initiated this audit to determine whether corrective action systems were operating effectively to meet established requirements. Due to the recent contractor transition and the fact that the new contractor had not decided whether to replace the existing corrective action systems, our review was limited to the systems in place under the prior management of Pantex.

RESULTS OF AUDIT

We found that B&W Pantex had generally implemented corrective action systems that provided for the reporting, documenting, and tracking to resolution of findings, weaknesses, and

significant quality issues. However, we identified certain aspects of the program that needed improvement; issues that should be considered by CNS as corrective action systems under the new contract are implemented. Specifically:

- Several concerns were identified that were not included in PER/ESTARS, but should have been in accordance with B&W Pantex guidance. In particular, we found issues in the Employee Concerns Program, the No More Surprises Program, and internal assessments that met the criteria to require generation of a PER, however, none were created. This was, in part, because B&W Pantex personnel did not always have a full understanding of corrective action systems requirements.
- "Extent of condition" information, used to identify recurring and systemic issues, was inconsistent and incomplete in some cases. For example, we identified 18 of 52 PERs where the extent of condition was not adequately addressed or not documented at all. According to a B&W Pantex official, there was an overall lack of knowledge regarding when extent of condition reviews were required.
- Personnel responsible for the Employee Concerns Program did not periodically assess the effectiveness and direction of the program in meeting goals and objectives or perform activities to improve program operations, due to a lack of resources allocated to the program. According to a B&W Pantex official, the Employee Concerns Program did not have adequate staffing to ensure it was effectively administered.

As a result, there was an increased risk that quality or safety issues could remain unresolved. Specifically, when identified issues were not entered into PER/ESTARS, they were not subject to screening, cause analysis, and trending to identify repeat occurrences, generic issues, and weaknesses before they became a more significant concern. In addition, there was an increased risk that the lack of visibility of these issues could have adversely affected operational performance and mission accomplishment.

Reporting Concerns

Although we did not identify any major violations of Department or Pantex Technical Safety Requirements, we noted that several concerns were not properly reported. According to the B&W Pantex Work Instruction *Develop, Track and Administer Problem Evaluation Requests*, a PER should be generated for conditions, including findings, weaknesses, and discoveries of noncompliance with internal or contractual requirements. Also, according to the B&W Pantex Work Instruction *Utilize the Employee Concerns or No More Surprises Programs*, Employee Concerns Program personnel were responsible for referring safety and quality issues to an appropriate subject matter expert for evaluation. The subject matter expert would then be responsible for generation of a PER, if appropriate. Creation of a PER was important because the PER system was used for reporting, documenting, tracking, resolving, and trending an issue.

However, during our review of 85 Employee Concerns Program files and 492 No More Surprises Program submissions from Fiscal Years (FY) 2011 through 2013, we found 7 concerns submitted through the Employee Concerns Program and No More Surprises Program that

appeared to meet the criteria for generation of a PER, yet none were generated. For example, we found that one employee submitted a concern through the Employee Concerns Program involving potential retaliation and safety concerns regarding the removal of a barricade from an overhead door that safety personnel determined was unsafe. Another example related to a concern submitted through the No More Surprises Program that initially started out as an issue for security to address but ended up being a nuclear safety concern. Specifically, mailbox-type keys used to maintain two-person access control to sensitive areas were not adequately controlled.

According to B&W Pantex Governance and Performance Assurance officials, PERs would have been appropriate for these cases. In the first example, the Employee Concerns Program evaluated the retaliation aspect of the issue and referred the safety concern to management; however, management failed to recognize the need for a PER submission. Also, PERs were not generally required for No More Surprises Program submissions because they were typically "quick-fix" issues that did not meet the reporting level of a PER. After we brought this issue to B&W Pantex's attention, they agreed that there may be instances where a No More Surprises Program submission would warrant generation of a PER. In fact, B&W Pantex officials stated that they planned to start reviewing No More Surprises Program submissions on a weekly basis to determine if the issues reported met PER criteria.

In addition, we reviewed 41 of B&W Pantex's 369 FY 2013 internal assessments and found 4 occurrences in which PERs were not generated as required. For instance, we noted one weakness concerning an incorrect document reference to an archived work instruction regarding sending and receiving classified matter that also met PER criteria. A PER was also not generated in this situation. According to a B&W Pantex official, a PER was not generated for this weakness because the corrective actions were assigned to a lead assessor who was not familiar with the PER/ESTARS system; thus, he only entered the corrective actions into ESTARS.

Documenting Extent of Condition

We also reviewed 52 PERs generated from the 41 FY 2013 internal assessments previously mentioned and noted that in some cases, extent of condition information was inconsistent and incomplete. This is significant because the extent of condition process is used to identify recurring and systemic issues. We identified 18 PERs in which the extent of condition was not adequately addressed or not documented at all. For instance, a PER was initiated for a weakness regarding a plant document erroneously released to the public, an action which may have included information that violated Federal regulations. The PER noted that an extent of condition was not required, without further explanation or justification. In another example, a PER was generated for a weakness regarding segregation of duty issues for access to the Work Authorization Control System. The PER noted an extent of condition was not required because it was an administrative issue. However, our review of B&W Pantex DESKAID, *Causal Analysis Graded Approach*, revealed that an extent of condition review should have been performed in both instances.

According to a B&W Pantex official, although most PERs have some level of extent of condition review, the level of detail concerning these reviews needed improvement. The official also indicated that there was a lack of knowledge regarding when extent of condition reviews were required, and individuals were unclear as to who was responsible for performing the reviews.

Staffing of the Employee Concerns Program

We further noted that the Employee Concerns Program did not appear to have adequate staffing to ensure it was effectively administered. Specifically, we found that the Employee Concerns Program was comprised of only two employees: one Human Resources Specialist and one administrative position for approximately 3,300 Pantex employees. The Human Resources Specialist held the position of Acting Employee Concerns Program Manager and was responsible for implementing the program and assisting in the evaluation and resolution of employee concerns. This individual also had the responsibility of managing the Equal Employment Opportunity Program, Ethics Program, and Energy Employees Occupational Illness Compensation Program. According to a B&W Pantex official, because of a lack of personnel, staff did not periodically assess the effectiveness and direction of the program in meeting goals and objectives. Staff was also unable to perform activities, such as assessments and surveys to improve program operations. In the past, the Employee Concerns Program had a staff of five individuals. However, according to the B&W Pantex official, positions were vacated over the years and were not filled. The low staffing level was attributed, in part, to a perceived lack of commitment by B&W Pantex management to the Employee Concerns Program. To its credit, CNS told us that it was addressing the staffing issue.

IMPACT ON OPERATIONS

Failure to effectively use corrective action systems to manage identified issues could negatively affect the safety and health of Pantex employees. Also, without effective corrective action systems, quality issues may recur and continuous improvement will be difficult, thus, potentially adversely affecting operational performance and mission accomplishment.

SUGGESTED ACTIONS

Because of the recent transition of the contract to CNS, we are not making formal recommendations. However, we suggest that the Manager, National Nuclear Security Administration Production Office, direct CNS to ensure:

- Employees fully understand requirements for corrective action systems; and
- Staffing is adequate for the Employee Concerns Program.

We appreciated the cooperation of your staff who provided information and assistance during the audit.

Attachment

cc: Deputy Secretary
Administrator, National Nuclear Security Administration
Chief of Staff

OBJECTIVE, SCOPE, AND METHODOLOGY

OBJECTIVE

The objective of this audit was to determine whether corrective action systems at the Pantex Plant were operating effectively to meet established requirements.

SCOPE

We performed this audit between October 2013 and October 2014, at the Pantex Plant, located near Amarillo, Texas. The audit was conducted under Office of Inspector General Project Number A14LV001.

METHODOLOGY

To accomplish the objective, we:

- Reviewed and analyzed procedures for corrective action systems that included the Differing Professional Opinions Program, Employee Concerns Program, No More Surprises Program submissions and the Problem Evaluation Request/Electronic Suspense Tracking and Routing System.
- Interviewed Federal and contractor personnel responsible for the management of the corrective action systems.
- Reviewed applicable Department of Energy orders and other guidance, policies, and procedures.
- Selected a sample of 41 assessments from a universe of 369 for Fiscal Year (FY) 2013 to determine whether identified issues were properly reported in the Corrective Action Program. We also reviewed all closed 85 Employee Concerns Program files and the 492 No More Surprises Program submissions for FY 2011 through FY 2013 to determine whether weaknesses, quality issues, or other significant issues were reported in the Corrective Action Program and if the corrective actions properly addressed the weaknesses.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objective. The audit included tests of controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Additionally, we assessed the implementation of the *GPRA Modernization Act of 2010* and found that performance measures related to the corrective action systems were established as required. Because our review was limited, it would not necessarily have disclosed all internal control

deficiencies that may have existed at the time of our audit. We did not rely on computer-processed data to satisfy our audit objective and therefore did not conduct a data reliability assessment. Management waived an exit conference.

FEEDBACK

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