August 7, 2003

Mr. David Douglass, [ ]
Honeywell FM&T
2000 East 95th Street
P.O. Box 419159
Kansas City, MO 64141-6159

Subject: Price-Anderson Amendment Act (PAAA) Program Review

Dear Mr. Douglass:

During the period June 10-11, 2003, the Office of Price-Anderson Enforcement (OE) conducted a review of the Honeywell Federal Manufacturing and Technologies (FM&T) Price-Anderson Amendments Act (PAAA) program. Our review included an evaluation of processes to screen noncompliances for applicability under the PAAA, reporting and tracking in the Noncompliance Tracking System (NTS) and internal tracking systems, and correcting deficiencies in a timely manner.

As you are aware, the scope of PAAA applicability to the Kansas City Plant is not as broad as at other DOE sites where there are nuclear facilities. Your Radiation Protection Program is limited and only a number of your products and programs are subject to the Quality Assurance Rule. Taking these factors into account, we found FM&T to be implementing a satisfactory PAAA program and noted the following strengths:

- FM&T personnel associated with the PAAA program were found to be knowledgeable, qualified, and familiar with site issues and processes.

- FM&T is screening a relatively large number and broad scope of items for potential PAAA applicability, including the following: assessment results, Occurrence Reporting Processing System reports, employee concerns, Significant Finding Investigations and issues documented on the Corrective Action Tracking System database.

- A significant percentage of quality problems being tracked by FM&T were identified through FM&T assessment activities, rather than retrospectively through event follow-up.

- FM&T has developed a formal causal analysis training program and has provided training to a large number (approximately 1000) of its employees.

- Several examples were noted in which audit scopes included a review of the effectiveness of prior corrective actions and whether quality problems were recurring in a specific division or functional area.

- During 2001, FM&T conducted an internal audit of its PAAA program and, during 2003, arranged for an independent audit of its program by the PAAA Coordinator from another National Nuclear Security Administration site.

Our review did identify a number of weaknesses with your program, most notably the use of nonconservative screening thresholds for identification of "nuclear safety noncompliances." OE believes the use of these nonconservative screening thresholds has inappropriately reduced the number of quality problems that FM&T considers to be PAAA applicable. Additional weaknesses included the following:

- The PAAA Program Work Instruction does not accurately reflect the level of implementation being carried out within the PAAA program because it has not been updated.

- Documentation is not maintained for the PAAA screening of employee concerns and occurrence reports.

- No formal process is in place for the routine trending of PAAA noncompliances to identify recurrent or programmatic issues.

- FM&T procedures do not require problem investigation team members, who have responsibility for performing causal analyses, to complete the FM&T causal analysis training.

- The most recent audit of the FM&T Radiation Protection Program did not include a subject matter expert and did not appear to review all required 10 CFR 835 subparts.

On a positive note, we found that your staff was aware of the majority of the above weaknesses, and that actions were underway to correct them. One reason for your staff's awareness was that FM&T took the initiative to bring in a PAAA Coordinator from another site during 2003 to conduct a PAAA program review.

Failure to correct the weaknesses noted above may result in a potential reduction in or loss of mitigation as described in the DOE Enforcement Policy (10 CFR 820 Appendix A) for any future FM&T enforcement actions. Details of the OE review are provided in the enclosure. No reply to this letter is required. Please contact me at (301) 903-0100, or have your staff contact Tony Weadock at (301) 903-4283, should you have any questions.

Sincerely,

Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

Enclosure: Honeywell Federal Manufacturing and Technologies Program Review

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ENCLOSURE

OFFICE OF PRICE-ANDERSON ENFORCEMENT REVIEW OF THE HONEYWELL FEDERAL MANUFACTURING & TECHNOLOGIES PRICE-ANDERSON AMENDMENTS ACT PROGRAM

I. Introduction

The National Nuclear Security Administration's (NNSA) Kansas City Plant (KCP) is responsible for the manufacture and assembly of various nonnuclear mechanical, electronic, and engineered material components for national defense systems, including nuclear weapons. The KCP is operated for the NNSA by Honeywell Federal Manufacturing & Technologies (FM&T). FM&T activities fall within the scope of DOE's nuclear safety regulations (10 CFR Parts 830 and 835) due to its use of radiation generating devices, radiological sources, and the potential effects of a subset of their items and/or services on nuclear safety.

During the period June 10-11, 2003, the Office of Price-Anderson Enforcement (OE) performed a review of the FM&T PAAA program. This review included an evaluation of contractor processes for identification and screening of potential noncompliances, reporting and tracking noncompliances in the Noncompliance Tracking System (NTS) and internal tracking systems, and the formal tracking and resolution of quality issues.

Overall, OE found that essential program elements were in place and that FM&T was implementing a satisfactory Price-Anderson Amendments Act (PAAA) program, consistent with the scope of their applicable activities. However, several areas of weakness were identified for future improvement, most notably related to FM&T's screening criteria and definition of a nuclear safety noncompliance. The results of the review are summarized below.

II. General Implementation

The FM&T PAAA program is described in Work Instruction (WI) 01.05.03.00.13, *How to Manage the Price-Anderson Amendments Act Review Process*. The FM&T PAAA Coordinator resides within the site Quality Assurance (QA) organization, and reports to the QA Manager. The PAAA Coordinator is also the Manager for the QA Assessment Group. Screening for potential PAAA noncompliances is performed by the Coordinator; with assistance as necessary from approximately 25 designated Subject Matter Experts (SME) within the various production or support divisions.

The following program strengths were noted:

- The FM&T PAAA Program is established by formal procedure.

- FM&T personnel associated with the PAAA Program were found to be knowledgeable, qualified, and familiar with site issues and processes.

- Several levels of PAAA training have been established for the various program participants (employee, SME, Coordinator).

The following weakness was noted:

- WI 01.05.03.00.13 did not accurately reflect the level of implementation currently being carried out within the FM&T PAAA program. Specifically,

  – As noted above, FM&T is currently implementing or requiring several levels of PAAA training, including training specific for the PAAA Coordinator, SMEs, the Emergency Management Specialist, and for affected general employees. WI 01.05.03.00.13 only addresses training for the Coordinator and SMEs.

  – FM&T uses Corrective Action Reports (CAR) to document quality problems and has identified numerous categories or types of CARs for documentation and tracking. Discussion with the PAAA Coordinator indicates he screens all CAR types that are generated. WI 01.05.03.00.13 only identifies a subset of the CAR types for PAAA screening; several categories of CARs with potential PAAA applicability (i.e., Annual Tour CARs, Audit External CARs, ES&H System CARs) are not formally identified for PAAA screening.

III. Identification and Screening

OE evaluated FM&T processes for screening of potential PAAA noncompliances by interview of personnel and review of selected screening documentation. FM&T documents a variety of quality problems on CARs, which are formally tracked on the Corrective Action Tracking System (CATS) database. The PAAA Coordinator also maintains a screening database identifying items reviewed for PAAA applicability.

Review of the PAAA Coordinator's screening list and discussion with cognizant personnel identified the following strengths associated with the FM&T identification and screening program:

- FM&T is screening a relatively large number and broad scope of items for potential PAAA applicability, including assessment results, ORPS reports, employee concerns, Significant Finding Investigations, as well as issues documented on the CATS database.

- OE noted that a significant percentage of the quality problems being tracked by FM&T were identified through FM&T self-assessment activities, rather than retrospectively through event follow-up.

Several program weaknesses were identified during the above review, including a notable deficiency associated with FM&T's screening thresholds for a "nuclear safety noncompliance." OE noted that, to date, FM&T has identified a very small number of non-reportable PAAA noncompliances as a result of their screening activities. A review of their screening process indicated that, to be considered a PAAA noncompliance, an identified quality problem has to meet the following criteria:

- The deficient item or material must have escaped from the FM&T quality system (i.e., delivered to NNSA for acceptance or sent off-site), and

- The deficient material or item must be one of several categories that have been determined to have the potential for a negative effect on nuclear safety.

OE views the use of the above screening thresholds as non-conservative, reflecting an overemphasis on materials and items rather than processes. With respect to the first criteria, PAAA noncompliances should be identified as such and tracked regardless of whether it is later "caught" in a subsequent quality check. Delivery of a noncompliant item to another site or NNSA relates to the significance of the noncompliance, not whether it occurred or should be considered.

With respect to the second criteria, OE noted that many of the processes used at KCP have applicability both to the production of "nonnuclear" and "potentially affecting nuclear safety" items or components. Consequently, an identified process noncompliance (e.g., repetitive procedural violations, training program inadequacies) discovered in connection with a "nonnuclear" component would represent a potential vulnerability in the "potential nuclear" item's production process, and should therefore be considered a PAAA noncompliance unless there was some additional control in place that would prevent it from occurring.

The OE review identified the following additional weaknesses:

- Two examples were noted in which documented quality problems (a radiological deficiency and two CARs) were not forwarded to the PAAA Coordinator for his review. The OE review of the radiological deficiency report indicated it clearly represented a PAAA noncompliance and should have been identified and tracked as such. These examples were made known to the PAAA Coordinator during the development of FM&T's response to the OE document request made in preparation for this review.

- Occurrence reports and employee concerns are being screened for PAAA applicability by FM&T SMEs but documentation of this screening is not being formally maintained.

IV. Evaluation of NTS Reportability/Trending

The FM&T NTS reporting function is described in WI 01.05.03.00.13. Initial decisions regarding NTS reportability are made by the PAAA Coordinator, with follow-up review and approval by the FM&T Law Department.

To date, FM&T has issued one NTS report. The report was issued in 2002 and met OE guidelines for timeliness of reporting. During the current review, OE evaluated various CARs, assessment results, and the PAAA Coordinator's screening database. OE did not identify any PAAA noncompliances exceeding NTS reporting thresholds.

Discussion with the PAAA Coordinator indicated he regularly conducts informal trending of quality problems to identify potential recurrent or programmatic issues for NTS reporting. This informal trending is based on the Coordinator's extensive knowledge of facility events and problems, assessment results, and routine attendance at operational meetings where problems are discussed. No formal program, however, has been established to trend potential PAAA noncompliances on an established frequency. This lack of a formal program was noted as a program weakness.

V. Cause Determination and Corrective Action Process

FM&T Process Description 01.05.03.00, *Corrective and Preventive Action Process*, describes the process and requirements for performing Cause Analysis and Mistake Proofing. CARs are generated for all quality and radiological deficiencies, including PAAA deficiencies, and are used to manage the corrective action process. When a CAR is initiated, the CAR owner forms a Natural Team to perform the causal analysis and develop corrective actions. The Natural Team typically consists of personnel who are knowledgeable of the process and controls related to the deficiency and a subject matter expert. The Natural Team performs the causal analysis and develops and performs follow-up on corrective actions. A Single Point of Contact is also identified to provide oversight to the process and in some cases to review and approve corrective actions.

The following program strengths were noted:

- Formal causal analyses are completed for all CARs.

- FM&T has developed a formal cause analysis training program and has provided training to a large number (approximately 1000) of their employees.

- FM&T management has established and routinely monitors metrics associated with the CAR process (e.g., number delinquent, cycle time).

- FM&T performs independent validation of the closure of PAAA corrective actions and other significant CARs.

OE also noted that FM&T occasionally performs a follow-up effectiveness review, at some period after corrective actions for a deficiency have been completed, to evaluate whether corrective actions have resolved the subject deficiency. Unlike some sites at which PAAA program reviews have been conducted, FM&T does not routinely perform such an effectiveness review for significant PAAA deficiencies.

The following weaknesses were identified during this review:

- FM&T has self-identified the need to improve the process for the identification of systemic issues. Revisions were recently made to WI 01.05.03.00.03, *How to Administrate the Corrective Action System*, to expand on processes used to identify systemic issues.

- FM&T procedures do not require Natural Team members, who have responsibility for performing causal analyses, to complete the FM&T causal analysis training.

VI. Assessment and Quality Improvement

FM&T Process Description 01.06.09.00, *Internal Quality Audit*, describes the formal internal quality audit program. A dedicated audit and assessment staff is maintained and SMEs are assigned to support the audits and assessments as necessary. A yearly audit schedule is developed, reviewed, and updated quarterly. In addition, FM&T has established a Management Observing and Promoting Safety program in which management is expected to routinely tour work areas and monitor safety practices.

The following program strengths were identified:

- The OE review of the list of completed audits for 2001-2002 identified that a significant number of audits are being performed. Review of selected audits indicated that significant issues were being identified through the audit process.

- Several examples were noted where audit scopes included a review of the effectiveness of prior corrective actions and whether quality problems were recurring in a specific division or functional area.

- During 2001, FM&T conducted an internal audit of its PAAA program and during 2003 arranged for an independent audit of the program by the PAAA Coordinator from another NNSA site. OE noted that, by virtue of the 2003 independent audit, FM&T was already aware of the majority of weaknesses identified by this PAAA program review and was developing corrective actions to address them.

OE discussed FM&T's implementation of the required triennial audit of the Radiation Protection Program (RPP). FM&T's most recent audit of the RPP was conducted in 2001. The following weaknesses were noted specific to that audit:

- The audit team did not include a radiation protection subject matter expert.

- The audit report did not fully demonstrate that all applicable subparts of 10 CFR 835 were reviewed.

VII. Conclusion

The above summarizes OE's review of the FM&T PAAA program during the period of June 10-11, 2003. Improvement items identified during the subject review should be addressed to receive mitigation consideration in any future enforcement deliberation. They should also be addressed to ensure that nuclear safety problems receive appropriate recognition and action. Any actions taken to address these items should be appropriately coordinated with the responsible NNSA Site and Program Office management.