UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

September 22, 2006

Mr. David Edwards
Plant Manager
Honeywell Specialty Chemicals
P.O. Box 430
Metropolis, IL 62690

SUBJECT: NRC INSPECTION REPORT 40-3392/2006-007

Dear Mr. Edwards:

This letter refers to the inspection conducted August 21 to 24, 2006, at the Honeywell Specialty Chemicals facility. The purpose of the inspection was to perform a review of management organization and controls, operator training, maintenance and surveillance, and the safety of uranium hexafluoride cylinders, to determine whether activities authorized by the license were conducted in accordance with NRC requirements. At the conclusion of the inspection on August 24, 2006, the findings were discussed with those members of your staff identified in the enclosed report.

The inspection consisted of an examination of activities conducted under the license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the license. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities in progress, and interviews with personnel.

Based on the results of this inspection, no violations of regulatory requirements occurred.

In accordance with 10 CFR 2.390 of NRC's "Rules of Practice," this document may be accessed through the NRC's public electronic reading room, Agency-Wide Document Access and Management System (ADAMS) on the Internet at http://www.nrc.gov/reading-rm/adams.html.

Should you have any questions concerning this letter, please contact us.

Sincerely,

Deborah Seymour for /RA/

Jay L. Henson, Chief
Fuel Facility Inspection Branch 2
Division of Fuel Facility Inspection

Docket No. 40-3392
License No. SUB-526

Enclosure: NRC Inspection Report

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	40-3392
License No.:	SUB-526
Report No.:	40-3392/2006-007
Licensee:	Honeywell International, Inc.
Facility:	Metropolis Works
Location:	P. O. Box 430 Metropolis, IL 62960
Date:	August 21 to 24, 2006
Inspectors:	John M. Pelchat, Senior Fuel Facility Inspector Jose G. Jimenez Fuel Facility Inspector
Approved by:	Jay L. Henson, Chief Fuel Facility Inspection Branch 2 Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

Honeywell International, Inc.
NRC Inspection Report 40-3392/2006-007

The purpose of this inspection was the conduct of routine and regional initiative observation and evaluation of the licensee's plant operations as well as management organization and controls, operator training, and maintenance and surveillance activities. The inspection involved observation of work activities, a review of selected records, and interviews with plant personnel. The inspection identified the following aspects of the program as outlined below:

Operational Safety Review

- The licensee was taking adequate measures to assess and prevent recurrence of the April 4, 2006, uranium hexafluoride (UF_6)/hydrogen fluoride release. (Paragraph 2.a)

Management Organization and Controls

- The licensee appropriately implemented their license requirements for organizational changes, internal audits, and safety committee meetings. (Paragraph 3.a)

- The licensee's procedure control process was adequately managed and in accordance with the license. The quality assurance program pertaining to the handling of UF_6 cylinders was managed in accordance with the license and American National Standard Institute 14.1: Uranium Hexafluoride Packaging for Transport. (Paragraph 3.b)

Operator Training

- The licensee adequately implemented required training for nuclear safety, general employee, radiation protection, and general emergency training. (Paragraph 4.a)

- The training system used to maintain qualified operators was adequate. (Paragraph 4.b)

Maintenance and Surveillance

- Maintenance activities were properly performed. Maintenance personnel implemented the proper authorizations and procedures. The personnel performing the work were qualified for their positions and tasks. (Paragraph 5.a)

- The licensee's program for conducting surveillance tests and calibration of equipment was adequate. No significant problems were identified. (Paragraph 5.b)

REPORT DETAILS

1. Summary of Plant Status

During the inspection period, routine operations were conducted in the Feeds Materials Building and other areas of the plant.

2. Operational Safety Review (Temporary Instruction (TI) 2600/003)

a. Observation of Plant Activities

(1) Scope and Observations

During this inspection, the inspectors conducted a followup of the licensee's activities as a result of an April 4, 2006, event, involving an uranium hexafluoride/hydrogen fluoride (UF_6/HF) release at the facility. Details of this event are in Special Inspection Team Inspection Report (IR) 40-03392/2006-003. The inspectors noted that the licensee had prepared a presentation for their employees describing the event, the root causes for the system failure, and management's expectations for actions to prevent the recurrence. The inspectors reviewed the licensee's presentation material and interviewed shift operators, and noted that most licensee employees had participated in the presentation. Interviews conducted with control room and maintenance operators demonstrated they could describe the event, expectations for line breaking, use of adequate personal protection equipment (PPE), and appropriate responses to emergencies.

The inspectors reviewed the licensee's revised procedures for performing line breaks and the correct usage of PPE. The procedures were comprehensive and clear in their expectations for the safe completion of the work. The inspectors also observed operators using the revised procedures. These observations demonstrated that the operators were knowledgeable of the procedures, including the appropriate level of PPE required for their jobs.

Unresolved Item (URI) 40-3392/2006-007-01, Followup on April 4, 2006, UF_6/HF Release, is opened to complete the review of the licensee's actions to address this event.

(2) Conclusion

The licensee was taking adequate measures to assess and prevent recurrence of the April 4, 2006, UF_6/HF release. URI 40-3392/2006-007-01, Followup on April 4, 2006, UF_6/HF Release, is opened to complete the review of the licensee's actions to address this event.

3. Management Organization and Controls (Inspection Procedure (IP) 88005, TI 2006/013)

a. Organizational Structure (F5.01)
Internal Reviews and Audits (F5.03)
Safety Committees (F5.04)

(1) Scope and Observations

The inspectors reviewed the licensee's recent organizational changes, the last internal operations audit, and the safety committee meeting minutes, to ensure that the requirements specified in the license were met. The inspectors reviewed newly appointed management positions to ensure that the candidates met the qualifications for their positions. The inspectors also verified that pertinent changes were documented and communicated accordingly. No issues were identified with the organizational changes at the plant.

The inspectors reviewed the last internal audit conducted by the licensee to verify that the self assessment was thorough and that the findings were appropriately tracked through completion. Review of the documented results, team members' qualifications, action plans, and corrective actions developed from the audit observations, demonstrated that the licensee had adequately reviewed the general conditions of operations for the plant, including equipment and personnel. No issues were identified.

The inspectors reviewed safety committee meeting minutes. The committee rosters met the license's requirements for manager attendance. The minutes showed an adequate selection of safety topics for discussions, with emphasis on the corrective actions from recently identified issues. No issues were identified.

(2) Conclusion

The licensee appropriately implemented their license requirements for organizational changes, internal audits, and safety committee meetings.

b. Procedure Controls (F5.02)
Quality Assurance Programs (F5.05)
Follow Up on Previously Identified Issues (F5.06)

(1) Scope and Observations

The inspectors reviewed the licensee's procedure management program to verify that it complied with licensee requirements. The inspectors verified that the licensee had procedures for the different activities at the plant, including operations, maintenance, training, health physics, and nuclear safety. The inspectors reviewed procedures for these activities to verify that the procedures were current, available as required, received proper management reviews, and that procedure changes were implemented

using the established procedure change review process. Through plant tours and interviews with licensee personnel, the inspectors verified that the operators were knowledgeable about the procedures and that the procedures matched the plant configuration.

The inspectors reviewed the licensee's cylinder handling program using the guidance in TI 2006/013: Safety of Uranium Hexafluoride Cylinders at Fuel Cycle Facilities. The inspectors noted that the licensee's procedures provided the operators with information to ensure that UF_6 cylinders entering, leaving, and stored at the facility were in compliance with license requirements. The inspectors also reviewed cylinder inspection documentation. This documentation demonstrated that the licensee was complying with recommended surveillance, tests and quality assurance verifications, in accordance with American National Standard Institute (ANSI) 14.1-2001: Uranium Hexafluoride Packaging for Transport. Observed operations were conducted as specified in the procedures. Interviews with operators demonstrated they were knowledgeable about handling UF_6 cylinders. Random inspections of stored cylinders did not identify any deteriorated cylinders. The licensee also provided the certification documentation for selected cylinders. Based on this review, no issues were identified with the UF_6 cylinder handling program at the site, and TI 2006/013 is considered closed.

(2) Conclusion

The licensee's procedure control process was adequately managed and in accordance with the license. The quality assurance program pertaining to the handling of UF_6 cylinders was managed in accordance with the license and ANSI 14.1.

4. Operator Training (IP 88010)

a. 10 CFR 19.12 Training (F2.01)
General Nuclear Criticality Safety Training (F2.02)
General Radiological Safety Training (F2.03)
General Emergency Training (F2.04)

(1) Scope and Observations

The inspectors reviewed the licensee's training program to verify that employees were trained in accordance with the license and regulations. The licensee has made efforts to strengthen their training department with the development of formal policies, procedures, and goals for personnel qualification. The inspectors reviewed recently qualified operators' documentation, interviewed control room and maintenance operators, and reviewed training material and requirements for operator qualification.

Review of the refresher training verified it included radiation protection, nuclear safety, and emergency evacuation instructions. The area-specific training contained adequate information to enhance an employee's safety awareness. The inspectors also reviewed the test results for selected operators and noted adequate scores and proper testing materials. The review of this information demonstrated the licensee was complying with its new goals, license requirements, and with 10 CFR 19.12.

(2) Conclusion

The licensee adequately implemented required training for nuclear safety, general employee, radiation protection, and general emergency training.

b. Operator Procedure Training (F2.05)
On-the-job Training (F2.06)

(1) Scope and Observations

The inspectors noted that the licensee performed adequate on-the-job training for operators in the Feeds Material Building. Interviews with control room operators demonstrated they knew the functions of the control room alarms, the requirements in their procedures, and recent information presented in safety meetings. The inspectors also reviewed test results for the training of operators on process area procedures. No issues were identified. The inspectors noted that operators were properly qualified for their positions. The inspectors verified that the licensee adequately controlled training records. No issues were identified.

(2) Conclusion

The training system used to maintain qualified operators was adequate.

5. Maintenance/Surveillance (IP 88025) (F1)

c. Conduct of Maintenance (F1.01)
Work Control Procedures (F1.02)
Work Control Authorizations (F1.03)

(1) Scope and Observations

The inspectors reviewed the licensee's conduct of maintenance, including the proper use of procedures and the process to obtain work authorizations, to ensure that maintenance work did not adversely impact the safety of plant operations or the worker. The inspectors observed several maintenance jobs performed in the plant to ensure that the workers knew the requirements for the jobs.

The inspectors noted that operations held a safety review before beginning work. The safety reviews were conducted using work permits and included the required pre-job briefings. The briefings included relevant information to ensure the work was performed safely. The inspectors observed pre-job briefings and determined they provided adequate communication between operations and maintenance to ensure that safety precautions were covered, including actions to take for unexpected conditions. The maintenance packages contained the required information for the safe completion of the work.

The inspectors observed the maintenance operators conducting emergent work due to a UF_6 vapor leak. The maintenance operators followed the PPE requirements and the

required procedures for line breaks, UF_6 handling, and valve replacement. When interviewed, operators were able to satisfactorily explain the safety requirements, and the actions needed to bring the system back to safe operation. The inspectors interviewed operators in the control room to verify they were following the maintenance activities. The operators provided the inspectors with information detailing the maintenance process from scheduling to completion. The information provided was in accordance with procedures.

A sample of personnel qualification records was reviewed to verify that the education and training adequately qualified the maintenance operators for their positions. The records contained information confirming that the workers' expertise was adequate for the tasks assigned to them.

(2) Conclusion

Maintenance activities were properly performed. Maintenance personnel implemented the proper authorizations and procedures. The personnel performing the work were qualified for their positions and tasks.

b. Surveillance Testing (F1.06)
Calibration of Equipment (F1.07)

(1) Scope and Observations

The inspectors reviewed the licensee's program controlling surveillance tests and equipment calibration. This review included a documentation review, observations of work, and interviews with operators.

The inspectors reviewed selected records and procedures for the surveillance and calibration of equipment to verify that an adequate amount of detail was incorporated. The records and procedures were clear and provided the required information to test the reliability of the equipment. No issues were identified.

(2) Conclusion

The licensee's program for conducting surveillance tests and calibration of equipment was adequate. No significant problems were identified.

6. Exit Meeting Summary

The inspection scope and results were summarized on August 24, 2006, with the licensee. The inspectors described the areas inspected and discussed in detail the inspection results. Although proprietary documents and processes were reviewed during this inspection, the proprietary nature of these documents or processes is not included in this report. No dissenting comments were received from the licensee.

On September 22, 2006, a re-exit was conducted with the licensee to discuss the actions taken to address the UF_6/HF release event of April 4, 2006. The inspectors opened a URI to track the completion of the review of the licensee's actions to address this event.

ATTACHMENT

3. PARTIAL LIST OF PERSONS CONTACTED

*S. Patterson, Health Physics Supervisor
*D. Mays, Environmental, Health and Safety Manager
*B. Vandermeulen, Quality Assurance/Supply Chain Manager
*J. Johnson, Safety Supervisor

* Denotes those present at the exit meeting on August 24, 2006

Other licensee employees contacted included engineers, technicians, and office personnel.

4. INSPECTION PROCEDURES USED

IP 88005	Management Organization and Control
IP 88055	Maintenance and Surveillance
IP 88010	Operator Training
TI 2600/003	Operational Safety Review
TI 2600/013	Safety of Uranium Hexaflouride Cylinders at Fuel Cycle Facilities

5. ITEMS OPENED, CLOSED, AND DISCUSSED

40-3392/2006-007-01	URI	Open	Followup on April 4, 2006,UF_6/HF Release (Paragraph 2.a)

6. LIST OF ACRONYMS USED

ADAMS	Agency Document Access and Management System
ANSI	American National Standard Institute
CFR	Code of Federal Regulations
HF	Hydrofluoric acid
IP	Inspection Procedure
IR	Inspection Report
NRC	Nuclear Regulatory Commission
PPE	Personal Protective Equipment
TI	Temporary Instruction
UF_6	Uranium Hexafluoride
URI	Unresolved Item