



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

August 25, 2005

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

SUBJECT: NRC INSPECTION REPORT 40-3392/2005-004 AND NOTICE OF VIOLATION

Dear Mr. Edwards:

This letter refers to the inspections conducted on July 13 - 14, and July 25 - 29, 2005, at the Honeywell Specialty Chemicals facility. The purpose of these inspections was to perform a routine review of the implementation of the environmental safety and waste management programs, and a regional initiative review of your management controls and plant operations programs, to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspections on July 14 and 29, 2005, the findings were discussed with those members of your staff identified in the enclosed report.

The inspections 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 inspections are identified in the enclosed report. Within these areas, the inspections consisted of a selective examination of procedures and representative records, observations of activities in progress, and interviews with personnel.

Based on the results of these inspections, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG 1600, which is included on the NRC's web site at <http://www.nrc.gov/what-we-do/regulatory/enforcement.html>. The violation is cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding the violation are described in the subject inspection report. The violation involves the failure to implement procedural requirements for an inoperative control room alarm.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

NOTICE OF VIOLATION

Honeywell Specialty Chemicals
Metropolis, Illinois

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

During an NRC inspection conducted on July 13 through 14, 2005, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below.

License Condition 10 of NRC License No. SUB-526, Amendment No. 15, authorizes, in part, the use of licensed materials in accordance with the statements, representations, and conditions in Chapters 1 through 7 of the license application dated January 30, 2003.

Chapter 2, Section 2.6 of the license application, dated January 30, 2003, requires that "plant written procedures shall be reviewed, revised, approved, and implemented in accordance with Plant Policy titled "Procedure Control Policy."

Procedure Control Policy AD-7, states, in part, that procedures written after March 1, 2004, shall be reviewed, revised, approved, and implemented in accordance with Procedure MTW-ADM-PRO-0100, "Development and Implementation of Policies And Administrative Procedures."

Step 4.11.2 of Procedure MTW-ADM-PRO-0100 requires that policies and procedures be followed as written.

Step 4.1 of Procedure MTW-ADM-PRO-0201, "Disabled Alarms And Instrumentation," requires, in part, that an "out-of-order" tag be placed on a defective alarm, a work order be issued to correct the problem, and the information be recorded in the "inoperative alarm and instrument log."

Contrary to the above, on July 13, 2005, the inspectors identified that licensee staff had not placed an "out-of-order" tag on defective alarm "UF6 surge tank high temperature," had not issued a work order to correct the problem, and had not recorded the information in the "inoperative alarm and instrument log."

This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Honeywell Speciality Chemicals is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous

NOV

docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

Because your response will be made publically available, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld, and provide in detail the basis for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguard's information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 25th day of August, 2005

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 40-3392

License No.: SUB-526

Report No.: 40-3392/2005-004

Licensee: Honeywell International, Inc.

Facility: Metropolis Works

Location: P. O. Box 430
Metropolis, IL 62960

Dates: July 13-14, and July 25-29, 2005

Inspectors: David Hartland, Senior Fuel facility Inspector
Richard Gibson, Jr., Health Physicist

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

EXECUTIVE SUMMARY

Honeywell Specialty Chemicals
NRC Inspection Report 40-3392/2005-004

A routine, announced inspection was conducted in the areas of environmental protection, waste management, and low-level radioactive waste storage, and a regional initiative review was also conducted in the areas of management controls and plant operations. 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 licensee programs as outlined below:

Plant Operations

- A violation for failure to implement procedural requirements for an inoperative control room alarm was identified. (Paragraph 2.a)
- The licensee made a verbal notification to the NRC to report a spread of contamination in the Feeds Material Building due to an ash vacuum cleaner filter failure. The licensee put a hold on use of the vacuum cleaner pending an investigation into the cause of the failure, which will be documented in the 30-day event report to the NRC. (Paragraph 2.b)

Environmental Protection

- The licensee's environmental monitoring program was implemented in accordance with the license requirements. Environmental sampling results for soil and ambient air since the last inspection showed uranium and fluoride activities near background levels in the environment. (Paragraph 3.a)
- An acceptable quality control program was maintained for analytical measurements of environmental samples. (Paragraph 3.b)
- The environmental audit program was consistent with the requirements specified in the licensed application. The environmental program audits were thorough and corrective actions were tracked to resolution. (Paragraph 3.c)

Waste Management

- The licensee effectively maintained liquid effluent concentrations below the limits specified in the license and 10 CFR Part 20. (Paragraph 4.a)
- The gaseous effluent monitoring program was effective in controlling and measuring effluents, and compliant with the requirements of the license. The effluent air sampling equipment, including the sample delivery lines, were being properly maintained. Calculated offsite doses were below regulatory limits. (Paragraph 4.b)

Low-level Radioactive Waste Storage

- The waste storage management program was adequately implemented and provided the information needed to ensure proper storage, safe shipment, and disposal of waste. Low-level radioactive waste was stored in accordance with regulatory requirements. A negative observation was identified in that several 55-gallon drums containing hard uranium ore concentrate were leaking on the floor of the Bed Material and Filter Fines Building and other waste storage areas due to the deteriorating containers. The licensee has allotted funds to clean up and process the legacy material for shipment and offsite disposal. (Paragraph 5)

Management Organization and Controls

- The licensee had adequately completed some corrective actions taken in response to an area needing improvement regarding implementation of radiation protection controls and practices identified during the previous licensee performance review period. However, the inspectors identified that some short-term corrective actions taken in response to issues previously identified regarding operator attentiveness were not adequately addressed. In response, the licensee issued a letter to the NRC with revised commitments and will discuss their status at a public meeting on August 30, 2005. (Paragraph 6)

Attachment:

Partial List of Persons Contacted

Inspection Procedures Used

Items Opened, Closed, and Discussed

List of Acronyms Used

REPORT DETAILS

1. Summary of Plant Status

During the inspection period, routine operations were conducted in the Feeds Material Building (FMB) without incident with the exception of an unplanned contamination event discussed in Section 2.b below.

2. Plant Operations (IP 88020)

a. Failure to Follow Inoperative Alarm Procedure

(1) Scope and Observations

On July 13, 2005, while observing activities in the FMB control room, the inspectors noted that an alarm for uranium hexafluoride (UF₆) surge tank high temperature was illuminated. The inspectors noted that a recorder in the control room indicated that the tank temperature was 21F, while the applicable alarm response procedure stated that alarm set point was 30F. As the alarm appeared to have illuminated prematurely, the inspectors questioned whether it was functional. The function of the alarm was to detect a lifted relief valve on cold traps while being heated.

The inspectors discussed the issue with the shift supervisor and confirmed that the alarm was not functional. However, the inspectors noted that the operators had not implemented the procedure for inoperative alarms, which required that an "out-of-order" label be attached to the alarm, a work order be written to correct the problem, and any compensatory actions be taken to ensure continued safe operations. As followup, the licensee identified a related alarm for UF₆ surge tank high weight was also illuminated and not available to perform its intended function. As immediate corrective action, the licensee implemented the requirements in the inoperative alarm procedure.

Step 4.1 of Procedure MTW-ADM-PRO-0201, "Disabled Alarms And Instrumentation," required, in part, that an "out of order" tag be placed on a defective alarm, a work order be issued to correct the problem, and the information recorded in the "inoperative alarm and instrument log."

Contrary to the above, on July 13, 2005, the inspectors identified that licensee staff had not placed an "out of order" tag on defective alarm "UF₆ surge tank high temperature," had not issued a work order to correct the problem, and had not recorded the information in the "inoperative alarm and instrument log." Failure to implement the procedural requirements for an inoperative control room alarm is a violation (VIO 40-3392/2005-004-01).

(2) Conclusions

The inspectors identified a violation for failure to implement procedural requirements for an inoperative control room alarm.

b. Unplanned Contamination Event in the FMB

(1) Scope and Observations

On July 25, 2005, filters on the ash vacuum cleaner in the FMB failed which allowed spar and dust filter fines containing uranium to be discharged outside of the building. Due to the close proximity of the discharge line and the inlet to the building ventilation, some of the material was picked up by the ventilation system and distributed throughout the FMB. Upon identification, the operators secured the vacuum cleaner and immediately donned respiratory protection in affected areas.

Special bioassay samples were required for 19 people who were present in the building during the occurrence. The results of the bioassays indicated no uptake of radioactivity by the personnel sampled. Fixed air samplers analyzed after the event on all floors indicated air activity in the range of 5 E-11 uci/ml to greater than 17 E-11 uci/ml. The licensee's action level for fixed air samples was 5 E-11 uci/ml. Air samples and contamination surveys performed outside of the building, downwind of the release, were at background levels. The inspectors reviewed the bioassay and survey methodology and results and did not identify any issues.

The licensee immediately began clean-up of the contamination in the FMB. However, since additional radiological controls (respiratory protection) were required in areas of the building for more than 24 hours, the licensee made a verbal notification to the NRC in accordance with 10 CFR 40.60. The licensee put a hold on use of the vacuum cleaner pending an investigation into the cause of the failure, which will be documented in the 30-day event report to the NRC.

(2) Conclusions

The licensee made a verbal notification to the NRC to report a spread of contamination in the FMB due to an ash vacuum cleaner filter failure. The licensee put a hold on use of the vacuum cleaner pending an investigation into the cause of the failure, which will be documented in the 30-day event report to the NRC.

3. Environmental Protection (IP 88045) (R2)

a. Monitoring Program Implementation and Results (R2.06)

(1) Scope and Observations

The inspectors reviewed selected portions of the licensee's environmental program to verify that environmental monitoring was implemented in accordance with the license requirements and verify the licensee's capabilities to measure and assess environmental radiological contamination as a result of plant operations.

The inspectors reviewed selected environmental sampling results from soil, ambient air, and ground water collected since the last inspection. The licensee was required to perform monthly and quarterly uranium and fluoride analyses of the soil, vegetation, air, and ground water samples. The inspectors determined that the sample results were consistently below the licensee's action levels.

(2) Conclusions

The licensee's environmental monitoring program was implemented in accordance with the license requirements. Environmental sampling results for soil and ambient air since the last inspection showed uranium and fluoride activities near background levels in the environment.

b. Quality Control of Analytical Measurements (R2.03)

(1) Scope and Observations

The inspectors reviewed the licensee's quality control program for environmental sampling as described in the Health Physics (HP) Procedure Manual and Chapters 4 and 12 of the license application and verified that there were no significant changes to the manual or the license application since the last inspection. The inspectors also verified that the licensee had an adequate chain of custody process in place for environmental samples.

During the last inspection, it was noted that the environmental sampling procedures lacked specific guidance for the collection of environmental air samples. During discussions with licensee representatives, the inspectors learned that a task team consisting of corporate and regional managers and consultants was brought in to formalize the licensee's environmental and HP procedures. The inspectors will continue to monitor the licensee's progress in developing the procedures as part of the implementation of its performance improvement plan.

(2) Conclusions

The licensee maintained an acceptable quality control program for analytical measurements of environmental samples.

c. Environmental Program Audit Review (R2.02)

(1) Scope and Observations

The inspectors reviewed the licensee's environmental program audits since the last inspection (August 2004). The licensee's environmental audit program was reviewed and was consistent with the license application and the HP Manual. Specifically, the inspectors reviewed the semi-annual HP review for 2004, and the quarterly environmental audits dated July 27, 2005. The inspectors noted that the audits were adequately distributed to ensure that they received the appropriate management review. The environmental program audits were thorough and corrective actions were tracked to resolution.

(2) Conclusions

The environmental audit program was consistent with the requirements specified in the license application. The environmental program audits were thorough and corrective actions were tracked to resolution.

4. Waste Management (IP 88035) (R3)

a. Liquid Effluent Monitoring Results (R3.01)

(1) Scope and Observations

The inspectors reviewed the monitoring and sampling of liquid waste effluent to the Ohio River. The inspectors toured the environmental monitoring locations as specified in the license application. The sample locations were consistent with license requirements. The inspectors observed the collection of a daily composite and grab samples for the liquid waste process and storm drain systems. The technician's performance in collecting the effluent samples was adequate.

The inspectors reviewed the licensee's results for liquid effluent monitoring to verify that releases were within the limits specified in 10 CFR Part 20 and license requirements. The inspectors reviewed the liquid effluent sampling results and quantities of liquid radioactive materials released for calendar year (CY) 2004 provided in the semiannual reports to the NRC. The reported liquid releases for CY 2004 were below the applicable limits in 10 CFR Part 20, Appendix B. The inspectors concluded that the licensee's liquid effluents monitoring programs were effective in controlling and measuring effluents, and met the requirements of the license.

(2) Conclusions

The licensee effectively maintained liquid effluent concentrations below the limits specified in the license and 10 CFR Part 20.

b. Airborne Effluent Program Controls, Instrumentation, Ventilation, and Airborne Effluent Monitoring Results (R3.02)

(1) Scope and Observations

The inspectors examined selected stack effluent sampling stations in the FMB, including the hydrogen sulfide incinerator, to ensure that equipment was properly maintained and representative samples were being collected. The inspectors reviewed the airborne effluent monitoring results to verify that releases were within license application limits.

The inspectors observed HP technicians collect daily air particulate filter samples from various stacks and dust collectors. The stack samples were taken properly by the technicians in accordance with the HP procedure manual. Most of the sampling equipment was located inside the FMB, was in good condition with no signs of damage or corrosion, and was protected from environmental conditions.

The stack sampling results and quantities of airborne radioactive materials released for the period August 14, 2004 to July 26, 2005, and the semiannual effluent release reports to the NRC for CY 2004 were reviewed. The calculated offsite doses for gaseous effluents were well below the 10 CFR Part 20 constraint level of 10 millirem per year.

(2) Conclusions

The gaseous effluent monitoring program was effective in controlling and measuring effluents, and compliant with the requirements of the license. The effluent air sampling equipment, including the sample delivery lines, was being properly maintained. Calculated offsite doses were below regulatory limits.

5. Low-level Radioactive Waste (LLRW) Storage (IP 84900) (R5)

a. Scope and Observations

The low level radioactive waste (LLRW) storage management program was reviewed for adequacy of proper storage area, waste container integrity, and the safe shipment, processing, and disposal of LLRW. The waste tracking system was also reviewed for completeness and adequacy.

The inspectors toured the radioactive material and waste storage areas and observed that the licensee had stored material containing dry radioactive waste, compressed in 55-gallon drums located in the secured fenced-in waste management area. In addition, there were several legacy materials (e.g., contaminated wooden pallets, crushed ore drums, large radioactive scrap metal, contaminated concrete, hard ore drums, empty ore drums, etc.) stored throughout the fenced area, the East Pad, and the Bed Material and Filter Fines Building.

The inspectors observed that the dry waste containers were labeled properly and that there were no significant container degradation or posting discrepancies. However, the inspectors also observed that several rusted 55-gallon drums containing hard uranium ore concentrate were leaking the material onto the floor of the Bed Material and Filter Fines Building, East Pad, and the fenced-in waste management area.

No spread of contamination to the environment was occurring, as any effluent from the storage areas was directed to holding ponds that was monitored prior to being released. From discussions with licensee representatives and review of legacy inventory records, the inspectors determined that the licensee has allotted funds to clean up and process the legacy material for shipment and offsite disposal.

b. Conclusions

The waste storage management program was adequately implemented and provided the information needed to ensure proper storage, safe shipment, and disposal of waste. Low-level radioactive waste was stored in accordance with regulatory requirements. A negative observation was identified in that several 55-gallon drums containing hard uranium ore concentrate were leaking on the floor of the Bed Material and Filter Fines Building and other waste storage areas due to the deteriorating containers. The licensee has allotted funds to clean up and process the legacy material for shipment and offsite disposal.

6. Management Organization and Controls (IP 88005)

a. Scope and Observations

The inspectors reviewed corrective actions taken in response to an area needing improvement regarding implementation of radiation protection controls and practices identified during the previous licensee performance review period. Through discussions with the licensee, review of records, and verification, the inspectors concluded that the licensee had completed several improvement items.

The inspectors toured the FMB with the Health Physics Supervisor and verified that additional red lights were installed in the building so that they could be easily seen at all entry points into the facility when a high airborne area was posted. The inspectors also verified that a red-light alarm system was installed in the HP office to signal posted high airborne area(s) in the FMB.

Other improvement items regarding the radiation protection area that were completed by the licensee included enhanced postings of the drum storage area for the bed material and filter fines, a financial allotment that was set aside for the processing and shipment of legacy waste to an offsite disposal facility, and the creation of a new "E-Council" which focused on environmental protection improvement.

During verification of the improvement items, the inspectors identified two negative observations. One observation was that a door on the third floor to the FMB was propped open while the area was posted as a high airborne area. The second negative

observation was that maintenance personnel were performing repairs on the green salt elevator, and they left the system open with green salt on the floor of the FMB basement during a shift turnover. In response, the HP supervisor discussed the issues with building management and intended to increase HP coverage in the FMB during significant maintenance activities.

The inspectors also reviewed short-term corrective actions taken in response to issues previously identified regarding operator attentiveness. The inspectors reviewed evidence provided by the licensee to justify completion of the short-term actions and noted that some actions were not adequately addressed. Specific examples included completion of training for supervisors on how to recognize, confront, and effectively manage policy violations; training for managers, supervisors, union leadership, and employees on the meaning of "safety conscious work environment"; training for management, supervisors, and union leadership on managing through significant cultural changes and change management; and, determining a process of surveying employees on a periodic basis to better understand employee perception of safety conscious work environment.

In addition, a commitment by corporate management to provide oversight, including review of milestone reviews, during routine monthly visits was not effectively implemented, as it did not identify that the short-term actions were not being adequately addressed. In response, the licensee issued a letter to the NRC on August 12, 2005, to provide an explanation for why each item was not adequately completed and revised commitments for when they would be. The NRC also scheduled a public meeting with the licensee on August 30, 2005, to discuss the status of the items in more detail. The inspectors will continue to monitor the status of these items as part of the licensee's implementation of its performance improvement plan.

b. Conclusions

The licensee had adequately completed some corrective actions taken in response to an area needing improvement regarding implementation of radiation protection controls and practices identified during the previous licensee performance review period. However, the inspectors identified that some short-term corrective actions taken in response to issues previously identified regarding operator attentiveness were not adequately addressed. In response, the licensee issued a letter to the NRC with revised commitments and will discuss their status at a public meeting on August 30, 2005.

7. Exit Meeting Summary

The inspectors presented the inspection results to members of the plant staff and management at the conclusion of the inspection on July 14 and 29, 2005. 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.

Attachment

1. PARTIAL LIST OF PERSONS CONTACTED

Honeywell Specialty Chemicals

D. Edwards, Plant Manager
C. Blanden, Process Leader
D. Dodge, Environmental Supervisor
M. Ginzel, Health Physics Supervisor
D. Mays, Manager, Health Safety and Regulatory Affairs
J. Riley, Interim Nuclear Regulatory Affairs
B. Vandermeulen, Quality Assurance/Supply Chain Manager

2. INSPECTION PROCEDURES (IP) USED

IP 88005	Management Organization And Controls
IP 88020	Plant Operations
IP 88045	Environmental Protection
IP 88035	Waste Management
IP 84900	Low-Level Rad Waste Storage
IP 83822	Radiation Protection

3. ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Item</u>	<u>Status</u>	<u>Description</u>
VIO 40-3392/2005-004-01	Open	Failure to implement the procedural requirements for an inoperative control room alarm (Paragraph 2.a).

4. LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
CY	Calendar Year
FMB	Feeds Material Building
HP	Health Physics
IP	Inspection Procedure
LLRW	Low Level Radioactive Waste
NRC	Nuclear Regulatory Commission
UF ₆	Uranium Hexafluoride
VIO	Violation