



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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

June 18, 2007

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

SUBJECT: NRC INSPECTION REPORT NO. 40-3392/2007-002 AND NOTICE OF VIOLATION

Dear Mr. Edwards:

This letter refers to the inspection conducted from May 7-11, 2007, and May 14 -18, 2007, at the Honeywell Specialty Chemicals facility. The purpose of the inspection was to perform a review of the plant's operations, management organization and controls, maintenance and surveillance, environmental protection, and radioactive waste management programs to determine whether activities authorized by the license were conducted in accordance with NRC requirements. At the conclusion of the inspection on May 11, 2007 and May 18, 2007, the findings were discussed with you and 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 these inspections, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy that may be found on the NRC's web site at <http://www.nrc.gov/what-we-do/regulatory/enforcement/enforce-pol.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 adequately follow the requirements of special work permits. A violation with a severity of this type is normally dispositioned as a non-cited violation (NCV). However, the condition that resulted in this violation had existed for an extended period of time and the licensee had prior opportunities to identify and correct the condition.

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.

D. Edwards

2

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

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

Sincerely,

*/RA/*

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

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

Enclosures: 1. Notice of Violation  
2. NRC Inspection Report

cc w/encls:  
Gary Wright  
Emergency Management Agency  
Division of Nuclear Safety  
1035 Outer Park Dr., 5<sup>th</sup> Floor  
Springfield, IL 62704

Distribution w/encls:  
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\*see previous concurrence

X PUBLICLY AVAILABLE     NON-PUBLICLY AVAILABLE     SENSITIVE    X NON-SENSITIVE

ADAMS: X Yes    ACCESSION NUMBER: \_\_\_\_\_

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI				
SIGNATURE	jp 6/15/07	RG 6/18/07	MC 6/15/07				
NAME	JPelchat*	RGibson*	MCrespo*				
DATE	6/ /2007	6/ /2007	6/ /2007				
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

## NOTICE OF VIOLATION

Honeywell Specialty Chemicals  
Metropolis, Illinois

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

During an NRC inspection conducted on May 7-11, 2007, 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. 16, 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 require that policies and procedures be followed as written.

Step 4.7.1 of procedure MTW-SAF-LS-001, Special Work Permits, requires that, upon job completion, licensee personnel ensure that their work area is clean.

Contrary to the above, on and before May 9, 2007, after completing the disassembly of equipment that resulted in a significant release of an alkaline-uranium byproduct into the work area, licensee personnel failed to clean up the byproduct. The yellow color of the byproduct provided evidence that wide spread contamination had occurred, that contamination had been allowed to accumulate for some time, and suggested that wide spread contamination in this area was a long term pre-existing condition. During maintenance activities performed on and before May 9, 2007, a contractor's coveralls became contaminated with the byproduct while working in the Southpad area and as a result, he suffered a chemical burn to the skin.

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 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 18<sup>th</sup> day of June, 2007

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 40-3392

License No.: SUB-526

Report No.: 40-3392/2007-002

Licensee: Honeywell International, Inc.

Facility: Metropolis Works

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

Dates: May 7-11, 2007 and May 14-18, 2007

Inspectors: Manuel G. Crespo, Senior Fuel Facility Inspector  
Richard Gibson, Senior Fuel Facility Inspector  
Paul Startz, Fuel Facility Inspector (in training)

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

## EXECUTIVE SUMMARY

Honeywell International, Inc.  
NRC Inspection Report No. 40-3392/2007-002

The purpose of this routine core and regional initiative inspection was to observe and evaluate the licensee's plant's operations, management organization and controls, maintenance and surveillance, environmental protection, and radioactive waste management programs to determine whether activities authorized by the license were conducted in accordance with NRC requirements. 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

- A violation was identified for the failure to adequately clean the Southpad following completion of work activities (Paragraph 2.a).

### Maintenance and Surveillance

- The observed maintenance activities in the FMB were properly performed according to maintenance authorizations, work control procedures, and permits (Paragraph 3.a).

### Management Organization and Controls

- The inspectors determined that the reviewed licensee efforts to improve procedures, training, conduct of operations, management oversight, and corrective actions were adequate (Paragraph 4.a).

### Environmental Protection and Effluent Control

- The licensee's environmental monitoring program was implemented in accordance with the license requirements. Environmental sampling results for soil, vegetation, water and ambient air since the last inspection showed uranium and fluoride activities near background levels in the environment (Paragraph 5.a).
- An acceptable quality control program was maintained for analytical measurements of environmental samples (Paragraph 5.b).
- 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 (Paragraph 5.c).
- The liquid effluent program effectively maintained effluent concentrations below the limits specified in the license (Paragraph 5.d).

- 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, had been properly maintained. Calculated offsite doses were below regulatory limits (Paragraph 5.e).

### Radioactive Waste Management

- The radioactive waste shipment tracking system records and waste shipment manifests were complete and accurate. The program for the disposal of low-level radioactive waste was compliant with regulatory requirements. The licensee's program for maintaining control and quality assurance of radioactive waste shipments were found to be adequate (Paragraph 6.a).
- The solid waste program was adequately planned and was operated effectively to reduce the solid wastes on the site. The licensee plans to hire contractors to reduce the inventory of empty ore drums, and potassium hydroxide (KOH) drums with high pH, and drums containing hard ore during calendar year 2007 (Paragraph 6.b).
- Low-level radioactive waste was stored in accordance with regulatory requirements. The waste storage facilities and activities were found in compliance with applicable license and regulatory requirements (Paragraph 6.c).
- An inspector followup item (IFI) was identified for the upgrading and formalizing procedures supporting the environmental protection and radioactive waste management programs (Paragraph 6.d).

### Regional Initiatives

- Three examples of a weakness were identified in the licensee's ALARA practices: inadequate clean up of an alkaline-uranium byproduct released on the Southpad that resulted in a contractor receiving a chemical burn to the skin, inadequate clean up of ore dust dropped from the mudballer connection to the ore dryer, and the inadequate clean out and isolation of bed material filter housing encountered during removal of piping from the bottom of the fluorinators (Paragraph 7).

### Attachment

Persons Contacted

Inspection Procedures

Items Opened, Closed, and Discussed

Acronyms

## REPORT DETAILS

### 1. Summary of Plant Status

During the inspection period, the facility was in an extended outage for maintenance and expansion activities in the Feeds Materials Building (FMB) and other areas of the plant.

### 2. Operational Safety (IP 88020)

#### a. Operations

##### (1) Scope and Observations

The inspectors reviewed the activities ongoing in the facility. During the review, a contractor performing work in the Southpad (the diked area behind the FMB) suffered a minor chemical burn. The burn was the result of the excessive amounts of an alkaline-uranium byproduct in the Southpad that the licensee had failed to clean up. The personnel protective equipment requirements of the area did not require extra measures because the assumption was that the Southpad was normally kept free of excess alkaline materials. However, this burn illustrated that the cleanliness expectation of the Southpad from licensee management was not adequate. Procedure MTW-SAF-LS-001, Special Work Permits, requires that, upon completion of any job, the work area is to be cleaned. Over the course of many jobs and inadequate cleaning, the Southpad was allowed to accumulate an excessive layer of alkaline-uranium material. The inadequate clean up of alkaline-uranium material in the Southpad was identified as a violation (VIO 40-3392/2007-002-01).

##### (2) Conclusion

A violation was identified for the failure to adequately clean the Southpad following completion of work activities.

#### b. Follow up on previously Identified Issues and Events (O1.04)

(Discussed) Inspector Follow-up Item (IFI) 40-3392/2007-001-01: [Implementation of the corrective action program.] The licensee was still in the process of implementing the new incident tracking/corrective action (IT/CA) program. In addition to tracking corrective actions, the new program will incorporate lessons learned and include a better system to create reports and identify data trends. The program is expected to be completed by the end of June. Upon completion, the program will be reviewed to verify proper implementation.

(Discussed) VIO 40-3392/2006-008-01: [Failure to wear adequate protective clothing while performing a UF<sub>6</sub> line break.] The inspectors reviewed the licensee's root cause analysis and the current list of corrective actions to address the issue. Most of the corrective actions were still ongoing. Therefore, this item will remain open to track the licensee's following corrective actions:

- Establish and communicate a policy regarding the actions to be taken when plant personnel should "see and flee" in response to a UF<sub>6</sub> release.

- Establish and communicate a policy regarding when personnel may re-enter an evacuated area for lifesaving versus mitigation activities.
- Document and train in small groups by senior management personnel (operation and maintenance) on believing instrumentation and basic conduct of operations.
- Evaluate installation of indicators on other process heat tracing.
- Add to operator checklists.
- Install an indicator on electrical heat tracing at this location.
- Relocate this specific pressure indicator outside of the process boundary.
- Evaluate installing different value type (possibly soft seats).
- Determine actions that may be taken with personnel protective equipment worn to ensure personnel have appropriate protection from hazards.
- Develop and implement guidance to address working at a utility interface.
- Train operations and maintenance personnel to effectively use STAR (Stop Think Act Respond).
- Evaluate installation of isolation valves close to the pressure indicator (Hoke valves).
- Evaluate installation/alignment of the valve that prevents trapping UF<sub>6</sub> in utility lines at interface points.
- Switch from fluidizing air to nitrogen at interface points.
- Evaluate utility pressure to ensure that utility pressure is greater than process pressure at direct interface points.
- Revise MTW-SOP-DIS-0200, revision 9, Distillation Operation, Checklist T - Removing Blockage on PP2 lines with air pressure.

(Closed) VIO 40-3392/2006-005-01: [Failure to follow the implementation and development of plant technical procedures.] The inspectors reviewed the licensee's final corrective actions which involved the revision of the technical procedures writing procedure (MTW-ADM-PRO-0103, Development and Implementation of Plant Technical Procedures). The licensee had made the necessary changes to the procedure to ensure there is no confusion regarding when the procedure may be used. The inspectors also verified that the licensee had communicated the new expectations to the procedure reviewers of the facility. The licensee's training of new reviewers also emphasized the modification. This item is considered close.

(Closed) VIO 40-3392/2005-004-001: [Failure to implement the procedural requirements for an inoperative control room alarm procedure.] The licensee is in the process of installing a distributed control system (DCS) for the control room. This upgrade to the control room has a significant effect on the status of alarms. In order to track these changes, which should address the remaining issues of this violation, IFI 2007-002-02 is being opened to track the following:

- that alarms are defined and given responses in procedures;
- annunciators are properly differentiated as process indicators or alarms;
- alarms that are no longer used are removed; and
- that procedures reflect the new DCS panels and alarms.

The opening of the IFI will close this item.

### **3. Maintenance and Surveillance (IP 88025)**

#### Follow up on Previously Identified Issues (F1.04)

##### **(a) Scope and Observations**

The inspectors reviewed the training records for a sample of the contractors onsite and noted proper discussion of radiological hazards. The inspectors also interviewed several contractors and found them knowledgeable of the hazards present at the facility.

The inspectors noted that a safety review was performed before beginning work. The safety reviews were conducted using work permits and included the required pre-job briefings. 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 also noted that safety & health, and hot work permits were completed.

The maintenance operators wore adequate personal protective equipment and followed the required procedures for line breaks. When interviewed, operators were able to satisfactorily explain the safety requirements. 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. No safety issues were identified.

The inspectors also reviewed a configuration control package. The package (a PT-101) had yet to be integrated into the new electronic configuration control systems that was being implemented. However, the no issues were noted with the implementation of the work package.

(b) Conclusion

The observed maintenance activities in the FMB were properly performed according to maintenance authorizations, work control procedures, and permits.

**4. Management Organization and Controls (IP 88005)**Follow up on Previously Identified Issues (F5.07)(a) Scope and Observations

The inspectors reviewed a selective sample of the licensee's activities to improve procedures, training, conduct of operations, management oversight, and corrective actions. Although these activities were not regulatory requirements, these improvements were a subset of plant wide enhancements that the licensee committed to the NRC to complete during public meetings after the 2003 Site Area Emergency and past Licensee Performance Review meetings. The commitments were captured in the Honeywell Matrix Table in Inspection Report No. 40-3392/2005-05. The inspectors were able to update the table based on the adequate completed actions by the licensee.

(b) Conclusion

The inspectors determined that the reviewed licensee efforts to improve procedures, training, conduct of operations, management oversight, and corrective actions were adequate.

**5. Environmental Protection and Effluent Control (IP 88045)**a. Management Controls and Quality Assurance (R2.01)(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, sediment, vegetation, surface water and environmental air station samples collected since the last inspection. The licensee was required to perform weekly air station samples, and every six months they were required to collect soil, sediment, vegetation and surface water samples for uranium and fluoride analyses. The inspectors determined that the sample results were consistently well below the licensee's action levels and near background levels in the environment.

(2) Conclusion

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

b. Quality Control of Analytical Measurements (R2.02)

(1) Scope and Observation

The inspectors reviewed instruments used for the environmental monitoring and analysis program, the procedures used, recorded results, and discussed the program with licensee personnel. The inspectors observed the sampling of environmental air and water samplers in the field and the laboratory instruments and reviewed their operation, calibration, and maintenance.

(2) Conclusion

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

c. Environmental Program Audit Review (R2.03)

(1) Scope and Observation

The inspectors reviewed the licensee's environmental program audits since the last inspection (May 2006).

The licensee's environmental audit program was reviewed and was consistent with the license application. Specifically, the inspectors reviewed the annual audit for the environmental program dated July 31, 2006. The inspectors noted that the audits were appropriately distributed to ensure that they received the appropriate management review. The environmental program audits were thorough and corrective actions were tracked to resolution.

(2) Conclusion

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.

d. Radioactive Liquid Effluents (R2.04)

(1) Scope and Observations

The inspectors reviewed the liquid effluent monitoring data for the facilities, in order to verify that releases were compliant to the limits specified in the license application requirements and 10 CFR Part 20. The inspectors toured the outfall stations (002 and 004), observed the composite and grab sampling, and discussed the techniques and

routines with the licensee. The inspectors compared the semiannual environmental sample results with historical ones and determined that they were consistent and were at or near background levels. 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) Conclusion

The liquid effluent program effectively maintained effluent concentrations below the limits specified in the license.

e. Radioactive Gaseous Effluents (R2.05)

(1) Scope and Observations

The inspectors examined selected stack effluent sampling stations throughout the FMB, 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 a health physicist (HP) technician collect daily air particulate filter samples from several stacks in the FMB. The stack samples were taken properly by the HP technician in accordance with the license application. The sampling delivery lines with quick connect were in good condition with no signs of damage or corrosion.

The stack sampling results and quantities of airborne radioactive materials released for the period May 2006 to May 2007, and the semiannual effluent release reports to the NRC for the second six months of 2006 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) Conclusion

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, had been properly maintained. Calculated offsite doses were below regulatory limits.

f. Follow-up on previously Identified Issues and Events (R2.07)

(Closed) VIO 40-3392/2006-008-02: [Failure to post radiation area.] The licensee had posted the vicinity of the filter housing near the secondary cold trap on the fifth floor of the FMB with a "Caution - Radiation Area" sign. The area had been surveyed daily by the licensee to ensure the radiation boundary. The inspectors reviewed surveys of the area and determined that the area was adequately posted. This item is considered closed.

(Closed) VIO 40-3392/2006-008-03: [Failure to perform adequate preshipment inspection of UF<sub>6</sub> cylinders.] Corrective actions taken by the licensee were: providing the cylinder handlers with additional training on the correct way to inspect cylinders prior to shipment, and providing each handler with a checkoff sheet for inspecting the cylinders before shipping. The inspectors determined that the corrective actions by the licensee were adequate. This item is considered closed.

(Closed) VIO 40-3392/2005-005-04: [Failure to restrict access to a visibly contaminated area.] The inspectors observed that the Northpad area was marked off with radiation posting and safety ribbon to identify the area as a contaminated controls and radiation area. The Northpad was in use for the staging of equipment and parts from the FMB during the outages. The inspectors determined that the licensee adequately marked and posted the Northpad for the staging of contaminated equipment and parts. This item is considered closed.

## **6. Radioactive Waste Management (88035/84900)**

### **a. Waste Manifests, Classification and Characterization, Labeling and Shipment (R5.01)**

#### **(1) Scope and Observations**

The inspectors reviewed the licensee's program for preparing waste shipping manifests, and tracking waste shipments, and verified that the licensee had established and maintained adequate management controls of procedures and processes to ensure compliance with the requirements of 10 CFR Part 20, Appendix G, and 10 CFR 61.55 and 61.56.

The inspectors reviewed the licensee's procedures, shipping manifests, and files to determine compliance. Shipment records for solid waste disposals of dry active waste (DAW) to a licensed waste burial facility for the period May 2006 to May 2007, provided an acceptable level of information in order to determine radioactive nuclide quantities. The documentation for radioactive waste shipped for the period May 2006 to May 2007 was complete and met the applicable requirements of 10 CFR Part 20, Appendix G, and 10 CFR 61.55 and 61.56. A program was in place to track waste shipments, and waste shipment tracking logs were current including the acknowledgment of waste receipt.

The inspectors reviewed the annual audits for the radioactive waste management program and determined that corrective action for issues identified in the audits were adequately addressed. The inspectors had no issues with the management, record keeping and quality control of waste shipments.

#### **(2) Conclusion**

The radioactive waste shipment tracking system records and waste shipment manifests were complete and accurate. The program for the disposal of low-level radioactive waste was compliant with regulatory requirements. The licensee's program for maintaining control and quality assurance of radioactive waste shipments were found to be adequate.

b. Radioactive Solid Waste (R3.06)

(1) Scope and Observations

The inspectors toured the radioactive waste areas and discussed the operations with licensee personnel. The inspector reviewed records for the control and release/disposal of solid radioactive wastes in accordance with 10 CFR Part 20. The inspectors reviewed the licensee's overall program for management of radioactive solid wastes and determined that there were no issues identified. DAWs and drums of bed material and filter housing on the site were processed through the licensee's waste processing system for land burial. The licensee possessed several empty ore drums on the site that were awaiting processing through a contractor for proper burial. In addition to the radioactive solid waste on the site, the licensee possessed several drums of KOH that were drummed off from the conversion process and several drums of hard ore. The licensee plans to start processing the drums of KOH and hard ore by the end of calendar year 2007.

The inventory of radioactive solid waste was received and the storage locations were inspected. The solid waste storage areas were posted and controlled in accordance with the regulations. The inspectors found the solid waste program adequately planned and operated effectively to reduce the solid wastes on the site.

(2) Conclusion

The solid waste program was adequately planned and was operated effectively to reduce the solid wastes on the site. The licensee plans to hire contractors to reduce the inventory of empty ore drums, KOH drums with high pH, and drums containing hard ore during calendar year 2007.

c. Low Level Radioactive Waste Storage (R5.02)

(1) Scope and Observations

The inspectors reviewed the licensee's low-level radioactive waste (LLRW) storage program to determine whether LLRW was stored safely and in accordance with regulations and license conditions.

The inspectors reviewed the surveys, inspections and records of the LLRW storage areas. In addition, the inspectors verified random selections of drums of bed material filter housing from the LLRW storage. The waste storage database and the storage areas provided an accurate description and location of the wastes. As of the date of this inspection, the licensee possessed 158,900 pounds of radioactive waste on the site. There were 65,440 pounds of dry active waste shipped during the month of April 2007, and the licensee had 946,800 pounds of empty ore drums on the site at the time of this inspection. The licensee plans to reduce the inventory of LLRW on the site. No discrepancies were identified.

(2) Conclusion

LLRW was stored in accordance with regulatory requirements. The waste storage facilities and activities were found in compliance with applicable license and regulatory requirements.

d. Inspector's Followup Item (R2.07)

The inspectors discussed the ongoing effort to upgrade and formalized the HP procedures supporting the environmental protection and the radioactive waste management programs. The licensee indicated that the turnaround in regulatory affairs managers and the renewal of the license application were reasons for the delay in upgrading the procedures. The inspectors reviewed and discussed the implementation of some draft procedures for the programs. There were a few procedures that needed additional information to complete the revision. The licensee had committed to developing procedures for the implementation of the environmental protection and the radioactive waste management programs from the last NRC inspection. The procedures were in draft forms. This is being tracked as IFI 40-3392/2007-002-03.

7. Regional Initiatives(a) Scope and Observations

The inspectors conducted a regional initiative of the licensee's performing maintenance during shut down outages at the FMB. The inspectors observed refurbishment of the ore dryer, replacement of old piping and valves, and installation of new valves associated with a new automation system.

The inspectors toured the FMB and discussed maintenance work with licensees' personnel during the shutdown. The inspectors observed rigging and fitting of replacement parts for the ore dryer, the installation of replacement dust bag collectors, and the cutting/welding of fluorine and distillation piping. The inspectors noted poor ALARA practices by workers during the rigging of the ore dryer where there was ore dust accumulating at the base of the dryer. A survey of the dust indicated beta reading greater than 2 mrem/hour, 30 centimeters from the dust. The licensee immediately cleaned up the ore dust. In addition, while cutting out a section of fluorine supply piping to the fluorinators, the operator was overcome by spar material (bed material filter housing). The piping was not adequately cleaned out by maintenance workers. This report also identified a violation for failure to clean up an alkaline-uranium byproduct spill in the Southpad that resulted in a minor chemical burn to a maintenance contractor.

(b) Conclusion

Three examples of a weakness were identified in the licensee's ALARA practices: inadequate clean up of an alkaline-uranium byproduct released on the Southpad that resulted a contractor receiving a chemical burn to the skin, inadequate clean up of ore dust dropped from the mudballer connection to the ore dryer, and the inadequate clean out and isolation of bed material filter housing encountered during removal of piping from the bottom of the fluorinators.

**8. Exit Meeting Summary**

The inspection scope and results were summarized on May 11, 2007 and May 18, 2007, and discussed 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.

## ATTACHMENT

### 1. PARTIAL LIST OF PERSONS CONTACTED

D. Edwards, Plant Manager  
S. Patterson, Health Physics Supervisor  
D. Mays, Environmental, Health and Safety Manager  
L. Parscale, Regulatory Affairs Manager  
R. Erickson, Operations Manager

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

### 2. INSPECTION PROCEDURES USED

IP 88005 Management Organization and Control  
IP 88025 Maintenance and Surveillance  
IP 88020 Operational Safety  
IP 88045 Effluent Control and Environmental Protection  
IP 88035 Radioactive Waste Management

### 3. ITEMS OPENED, CLOSED, AND DISCUSSED

40-3392/2007-002-02	IFI	Open	Implementation of new alarm system
40-3392/2007-002-01	VIO	Open	Failure to clean area following completion of work
40-3392/2007-002-03	IFI	Open	Implementation of formalized and upgraded procedures for environmental and radioactive waste
40-3392/2007-001-01	IFI	Discussed	Implementation of the corrective action program
40-3392/2006-008-01	VIO	Discussed	Failure of to wear adequate protective clothing while performing a UF <sub>6</sub> line break
40-3392/2006-005-01	VIO	Closed	Failure to follow the implementation and development of plant technical procedures
40-3392/2005-004-01	VIO	Closed	Failure to implement the procedural requirements for an inoperative control room alarm procedure

40-3392/2006-008-02	VIO	Closed	Failure to post radiation area
40-3392/2006-008-03	VIO	Closed	Failure to perform adequate preshipment inspection on UF 6 cylinders
40-3392/2005-005-04	VIO	Closed	Failure to restrict access to a visibly contaminated area

#### 4. LIST OF ACRONYMS USED

ADAMS	Agency Document Access and Management System
ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
DAW	Dry Active Waste
DCS	Distributed Control System
FMB	Feed Materials Building
HF	Hydrofluoric acid
HP	health Physicist
IFI	Inspector Followup Item
IP	Inspection Procedure
IT/CA	Incident Tracking/corrective Action
KOH	Potassium Hydroxide
LLRW	Low Level Radioactive Waste
NRC	Nuclear Regulatory Commission
UF <sub>6</sub>	Uranium Hexafluoride
VIO	Violation