



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

August 21, 2008

Mr. Mitch Tillman
Plant Manager
Honeywell Specialty Chemicals
P.O. Box 430
Metropolis, IL 62960

SUBJECT: NRC INSPECTION REPORT NO. 40-3392/2008-004 AND NOTICE OF VIOLATION

Dear Mr. Tillman:

This letter refers to the inspections conducted from July 14 -18, 2008 and July 20 - 24, 2008, at the Honeywell Specialty Chemicals facility in Metropolis, IL. The purpose of the inspections was to determine whether activities authorized under the license were conducted safely and in accordance with NRC requirements. On July 18 and 24, the findings were discussed with you and your staff.

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 inspections 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/about-nrc/regulatory/enforcement/enforce-pol.html>.

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in the NRC Form 591FF, SAFETY AND COMPLIANCE INSPECTION REPORT, Parts 1 and 3. The violation involves the failure to comply with procedures regarding decontamination and housekeeping. If you contest the violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to: (1) the Director, Office of Nuclear Material Safety and Safeguards, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

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.

Based on conversations with members of your staff, we understand that decontamination efforts were implemented to address the above issues, which will be verified in a subsequent inspection. In your response, please provide specific information regarding the long-term corrective actions you plan to take to ensure the timely discovery and remediation of radioactive contamination at the Metropolis Works facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its enclosures 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>.

Should you have any questions regarding this letter, 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. NRC Form 591FF Parts 1 and 3
2. Notice of Violation

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

M. Tillman

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Distribution w/encls:

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PUBLICLY AVAILABLE
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 SENSITIVE
 NON-ENSITIVE
 ADAMS: Yes
 ACCESSION NUMBER:

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI		
SIGNATURE	/RA/	/RA/	/RA/	/RA/			
NAME	M. Crespo	R. Gibson	P. Startz	J. Pelchat			
DATE	08/ /2008	08/21/2008	08/21/2008	08/21/2008	/ /2008		
E-MAIL COPY?	YES	YES	NO	YES	YES	YES	NO YES NO

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SAFETY AND COMPLIANCE INSPECTION REPORT

1. LICENSEE OR CERTIFICATEE/LOCATION INSPECTED: Honeywell International, Inc. P.O. Box 430 Metropolis, IL 62960		2. NRC/REGIONAL OFFICE: U.S. Nuclear Regulatory Commission Region II 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303	
REPORT NO: 2008004			
3. DOCKET NUMBER(S): 40-3392	4. LICENSE OR CERTIFICATEE NUMBER: SUB-526	5. DATE(S) OF INSPECTION: July 14 – 18, 2008, July 20 - 24, 2008	

6. INSPECTION PROCEDURE(S) COMPLETED: 88045, 88050, 88010, and 88005

LICENSEE OR CERTIFICATEE:

The inspection was an examination of the activities conducted under your license or certificate as they related to safety and/or safeguards and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license or certificate. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation by the inspector. The inspection findings are as follows:

- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. Reported events reviewed
- 4. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were non-repetitive, licensee-identified, and corrective action was being taken, and the remaining criteria in the NRC Enforcement Policy to exercise discretion were satisfied.
Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):
- 5. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

(Violations)

See attached NOV

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE/CERTIFICATEE			
NRC INSPECTOR	M. Crespo/ R. Gibson/ P. Startz	/RA/	08/21/2008

**DOCKET FILE INFORMATION
SAFETY AND COMPLIANCE INSPECTION REPORT**

1. LICENSEE OR CERTIFICATEE/LOCATION INSPECTED: Honeywell International, Inc. P.O. Box 430 Metropolis, IL 62960 REPORT NO: 2008004		2. NRC/REGIONAL OFFICE: U.S. Nuclear Regulatory Commission Region II 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303	
3. DOCKET NUMBER(S): 40-3392	4. LICENSE OR CERTIFICATEE NUMBER: SUB-526	5. DATE(S) OF INSPECTION: July 14 – 18 & July 20 - 24, 2008	

6. INSPECTOR(S): M. Crespo, R. Gibson, P. Startz

7. INSPECTION PROCEDURES USED: 88045, 88050, 88010, and 88005

SUPPLEMENTAL INSPECTION INFORMATION

EXECUTIVE SUMMARY

Summary of Plant Status

The Honeywell Specialty Chemicals (licensee) uranium conversion facility is located on an 1100 acre site (60 acres within the fence line). The licensee is authorized to possess 150 million pounds of natural uranium ore and to convert this material to uranium hexafluoride (UF₆). The uranium conversion process occurs in the Feed Materials Building (FMB). During the inspection period, operations were normal.

This routine, announced inspection included observations and evaluations of the licensee's management organization and controls, the training and environmental programs, and emergency preparedness. The inspection involved walk downs of the facility, observation of work activities, reviews of selected records, and interviews with plant personnel.

Operator Training and Retraining

- The site access training program was reviewed for first-time visitors.
- Classroom training for a newly-hired engineer was conducted on the radiological and chemical hazards of the facility. The training was adequate and the trainee demonstrated understanding and comprehension.
- An operator undergoing on-the-job training in a new area was interviewed. The operator was trained on the hazards of the area and was familiar with the general evacuation alarm. The training was being documented in a daily log. The on-the-job records were reviewed and proved to be adequate.
- A "B-Council" meeting was attended by the first-line supervisors, foreperson, and hourly personnel. The meetings were conducted monthly, as specified in the license, and reviewed various aspects of safety.
- The radiation training slide show was reviewed and was in compliance with the requirements of 10 CFR 19.12 and 10 CFR 19.13. All employees are required to have the training.
- The training records for several newly-trained employees and several re-trained employees were reviewed and were adequate.

Executive Summary (Cont.)

Operator Training and Retraining (cont.)

- Course examinations for first-time trainees and retrained operators were reviewed. The exams were equivalent to past exams, and the exam scores were satisfactory. No issues were noted.
- No major changes in the training program had occurred since the last inspection.

Management Organization and Controls

- The recently appointed managers met the training and experience requirements as specified in the license.
- The operators and managers interviewed recognized their responsibilities and authority for safety.
- The use and implementation of the corrective action system was reviewed. The inspectors noted that management was properly reviewing items input into the corrective action system. Management categorized corrective action items with an appropriate level of importance.
- The inspectors reviewed the audits for the corrective action system, calibration of equipment, and the filling of UF₆ cylinders. Reviewed audits adequately evaluated the programs and suggested corrective actions for major findings. The corrective actions were properly entered into the corrective action system and completed.
- The minutes of Plant Safety Committee meetings were reviewed. The meetings were attended by the appropriate level of management. Management's responses to the safety issues were adequate.

Effluent Control and Environmental Protection

- The licensee's environmental monitoring program was implemented in accordance with the license requirements. Environmental sampling results for soil, vegetation, water and ambient air indicated that uranium and fluoride discharges were under regulatory limits.
- An adequate quality control program was maintained for analytical measurements of environmental samples.
- 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.
- The liquid effluent program was effective in maintaining effluent concentrations below the limits specified in the license.
- 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 appeared to be adequately calibrated and maintained. Calculated offsite doses were below regulatory limits.

Executive Summary (Cont.)

Emergency Preparedness

- Changes were made to the Emergency Response Plan (E-Plan) and the Metropolis Works – Emergency Response Procedure (MTW-ERP-PRO) in accordance with emergency planning standards and NRC regulatory guidance. The revised emergency procedures continued to effectively implement the Emergency Response Plan. The changes did not appear to decrease the effectiveness of the program. The annual independent audit was a detailed compliance-based assessment.
- Based on interviews and review of training documentation, the inspectors determined that emergency response personnel were trained and familiar with their roles and responsibilities. The licensee conducted exercises in accordance with the requirements of the E-Plan and MTW-ERP-PRO. The accident scenarios used during drills and exercises provided responders with sufficient challenges to maintain proficiency in responding to postulated accidents.
- Based on interviews and records reviewed, the inspectors determined that the licensee's interface with offsite support groups was properly maintained. The licensee offered training and tours of the facility to the offsite groups in accordance with the E- Plan and applicable Mutual Assistance Agreement.
- Based on review of equipment operability checks and documentation of maintenance and calibration, the inspectors determined that the reliability of selected equipment was good and the equipment was maintained in a state of operational readiness.
- The inspectors reviewed the violation (VIO) 2007-003-01 to verify that the licensee maintain the minimum acceptable inventory of emergency equipment in designated areas. The inspectors determined from observation that the required oxygen therapy units and various sizes of spare face masks for Self Contained Breathing Apparatus were available in the emergency equipment storage cabinets located in designated areas. This VIO is closed.
- During a walk-down outside the FMB, the inspectors observed that a worker while working inside of the dike of the south pad had apparently stepped into the slurry area (potassium hydroxide) of the dike. The worker then stepped out of the dike and onto the street creating a trail of visible footprints of uranium bearing material approximately 30 feet long. During a walk-down inside the FMB, the inspectors observed visible contamination (yellow cake, U_3O_8) on the UF_4 Scrap Recovery Mill (Dry Scrap Rotex), on the walls and the floor of the 2nd floor, and on the wall, floor, and equipment of the 3rd floor of the FMB. In addition, visible contamination was found in the light fixtures and the entry door to the FMB control room. Licensee personnel indicated that decontamination efforts were implemented to address the above issues. These findings were identified as examples of violations of step 4.9.1.2 of Licensee Procedure MTW-ADM-HP-0100 (VIO 40-3392/2008-004-01).

Executive Summary (Cont.)

List of Items Opened, Closed, Discussed

<u>Item Number</u>	<u>Status</u>	<u>Type</u>	<u>Description</u>
40-3392/2007-001-01	Closed	IFI	Implementation of the corrective action program. The inspectors reviewed the licensee's current implementation and found it to be adequate. The inspectors also noted that trending of items would be implemented by the end of the calendar year. This item is considered closed.
40-3392/2007-002-03	Reviewed	IFI	Implementation of formalized and upgraded procedures for environmental and radioactive waste. The licensee continued to have difficulties in filling the radiological waste manager position; therefore, progress on this item has been slow.
40-3392/2007-006-01	Closed	VIO	Failure to identify the need for a procedure to use upon the discovery of a cold UF ₆ process line to ensure line clarity. The UF ₆ line heating procedure was revised to ensure that heating a cool line involved at least one side of the line exposed to vacuum. This item is closed.
40-3392/2007-007-02	Closed	IFI	Additional detail in PM for PFAP 35. This item was cited as part of VIO 2008-001-01. Further corrective actions will be track with the violation. This item is closed.
40-3392/2008-001-01	Reviewed	VIO	Three examples of failure to adhere to Section 9.4.1 of the ISA. Additional details for the testing of PFAP 35 were written, but the testing instructions required additional detail. Also, the test continued to lack an integrated approach to test the safety function of the PFAP.
40-3392/2008-002-01	Closed	VIO	Failure to have written procedures for waste package closing. The licensee wrote and implemented a procedure that adequately addressed the need for written instructions for radiological waste handling. This item is closed.
40-3392/2008-004-01	Open	VIO	Failure to decontaminate areas in the process building, failure of decontaminate a spill created while performing work, and failure to maintain work areas in a clean and orderly fashion at all times and to promptly clean up all spills.
40-3392/2007-003-01	Closed	VIO	Failure to maintain the minimum acceptable inventory of emergency equipment in designated areas. This item is closed.

NOTICE OF VIOLATION

Honeywell Specialty Chemicals
Metropolis, IL

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

During an NRC inspection conducted July 14 - 18 and July 21 - 24, 2008, three examples of a violation of an NRC requirement were identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

License Condition 18 of NRC License No. SUB-526, Amendment No. 0, states that the licensee shall conduct authorized activities at the Honeywell Metropolis Works Facility in accordance with the statements, representations and conditions (or as revised by change and/or configuration management processes as described therein) in Chapters 1 through 7 of the license application dated May 12, 2006, as supplemented by a letter dated March 20, 2007.

Section 2.6.1 of the license application, dated May 12, 2006, requires that the licensee establish a process to identify those process operations that require procedural guidance to ensure proper execution and require that these process operations be conducted in accordance with approved procedures. Written procedures shall govern the procedure control process. These procedures shall address operating procedure preparation, review, revision, approval, and implementation.

Step 4.9.1.2 of Procedure MTW-ADM-HP-0100, "Radiological Protection Program," Revision 0, states that all workers are responsible for decontaminating spills that are created in the course of performing their duties. Step 4.9.1.2 further requires that "any leak or spill of radioactive material that is beyond the capability of an employee shall be reported to the area supervisor. Upon the report of a radioactive material spill or leak, the area supervisor will evaluate the leak and initiate the decontamination efforts and/or corrective actions."

Step 4.2.8 of Procedure MTW-SAF-IP-0018, "Housekeeping," Revision 3, states that "employees and contractors maintain work areas in a clean and orderly fashion at all times," and Step 4.2.10 states "to promptly clean up all spills."

Contrary to the above, the licensee failed to:

- 1) Ensure decontamination of a spill that was created during the course of work. Specifically, an individual while working inside of the dike of the south pad, stepped into the slurry area (potassium hydroxide) of the dike, then stepped out of the dike and onto the street creating a trail of visible footprints of uranium bearing material approximately 30 feet long.
- 2) Initiate the decontamination efforts and/or corrective actions upon report of a radioactive material spill or leak. Specifically, a dried, contaminated spill was found on the floor, walls, and equipment of the third floor of the process building. The contamination was reported to the control room by the NRC inspectors. After 24 hours, no corrective actions or decontamination efforts had been initiated.

Enclosure 2

- 3) Maintain work areas in a clean and orderly fashion at all times and to promptly clean up all spills. Specifically, visible contamination (yellow cake, U_3O_8) was found on the UF_4 Scrap Recovery Mill (Dry Scrap Rotex), and on the walls and the floor of the 2nd floor of the Feed Material Building. In addition, visible contamination was found in the light fixtures and the entry door to the Feed Materials Building control room.

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

Pursuant to the provisions of 10 CFR 2.201, Honeywell Specialty Chemicals is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 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 previously 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 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, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because 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, 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 safeguards 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 21th day of August, 2008