



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

May 10, 2004

EA-04-064  
EA-04-065

Honeywell International, Inc.  
ATTN: Mr. Rory J. O'Kane  
Plant Manager  
P.O. Box 430  
Metropolis, IL 62690

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 40-3392/2004-003,  
HONEYWELL SPECIALTY CHEMICALS)

Dear Mr. O'Kane:

This report refers to our review of the findings of an inspection conducted by an NRC Augmented Inspection Team (AIT) on December 22, 2003, through January 6, 2004, and the follow up inspection that was conducted on February 17 - 19, 2004, at the Honeywell Specialty Chemicals facility. The purpose of the AIT was to review the circumstances surrounding the December 22, 2003, release of uranium hexafluoride (UF<sub>6</sub>) and subsequent declaration of a Site Area Emergency. The inspection report transmitting the results of the AIT review was forwarded to you by letter dated February 3, 2004. The follow up inspection report was forwarded to you by letter dated March 16, 2004. Based on the NRC's additional review of the significance of the issues, a telephonic discussion was held with you on March 25, 2004. You were informed that the NRC was considering escalated enforcement action based on the identification of two apparent violations. The violations involved the reconfiguration of the fluorination system without detailed instructions, and your emergency response to the release of UF<sub>6</sub>. During the discussion of March 25, you also were informed that the NRC had sufficient information regarding the apparent violations and your corrective actions to make an enforcement decision without the need for a predecisional enforcement conference or a written response from you. You advised during a subsequent telephone conversation of March 26, 2004, that neither a predecisional enforcement conference nor written response was necessary prior to NRC taking enforcement action.

Therefore, based on the information developed during the inspections, the NRC has determined that two violations of NRC requirements occurred. The violations are cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding them are described in detail in the subject inspection reports. The violations involve: (A) the reconfiguration of the fluorination system without detailed instructions, contrary to the requirements of the License and license application; and (B) the failure to maintain and execute various response measures in the Radiological Contingency Plan (Emergency Response Plan) or 10 CFR 40.35(f).

The release of UF<sub>6</sub> on December 22, 2003, occurred while your staff was reconfiguring the piping in the fluorination and pollution control systems, so that the facility could operate two process lines simultaneously. The failure to place the dust collector and system valves in the proper positions during the second part of the fluorinator reconfiguration effort resulted in a

pressurization of the system and the eventual release of UF<sub>6</sub>. In this case, the failure to appropriately prepare the fluorination system for the shut down of a section of the effluent control system resulted in a condition that allowed UF<sub>6</sub> to exit the Feed Materials Building in a manner that bypassed the effluent control system. This system is designed, in part, to prevent or mitigate this type of release. As such, this violation has been categorized at Severity Level III in accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600 (Enforcement Policy).

Violation B involved your failure to implement multiple aspects of your emergency response plan, which resulted in the failure to implement an emergency planning standard involving assessment or notification. Due to these failures, communications with local emergency responders were not adequately maintained and did not provide sufficient, additional information that would have assisted the local authorities in their response decisions. This violation has been categorized at Severity Level III in accordance with the Enforcement Policy.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$12,000 is considered for each Severity Level III violation. Because your company has not been the subject of escalated enforcement action within the last two years, the NRC considered whether credit was warranted for Corrective Action in accordance with the civil penalty assessment process described in Section VI.C.2 of the Enforcement Policy. Your root cause analysis for the December 22, 2003, event, and your corrective actions for the violations were discussed during public meetings with the NRC on February 11, March 18, and April 21, 2004, and were documented in your letter to the NRC dated March 4, 2004. The details of these public meetings and your March 4, 2004, letter are available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

In summary, your corrective actions included the development of substantial enhancements to the safety controls for UF<sub>6</sub> operations and emergency preparedness. In this regard, we note that you conducted a comprehensive Failure Modes and Effects Analyses for UF<sub>6</sub> operations and support systems which resulted in the development of additional safety controls in these areas. You improved the pressure relief systems, upgraded plant controls, alarms and interlocks, upgraded UF<sub>6</sub> operating procedures; reviewed and upgraded your training and qualification program and improved the corrective action program. You also installed sirens and a Community Alert Network to alert members of the public living near the plant in the event of an emergency, implemented a system to provide information to local radio stations in the event of a release, improved the equipment used for communicating with local response organizations and improved emergency plan implementing procedures and training.

A civil penalty was seriously considered for the violations that occurred in this case in recognition of the potential consequences that could have resulted from the UF<sub>6</sub> event. However, the corrective actions that were taken to address these issues were prompt and comprehensive, commensurate with the significance of the potential consequences, and exceeded those actions necessary for correcting the violations and preventing recurrence and NRC requirements. For these reasons, the NRC concluded that credit was warranted for the factor of Corrective Action.

Therefore, to encourage prompt and comprehensive correction of violations and in recognition of the absence of previous escalated enforcement action, I have been authorized to propose

that no civil penalty be assessed in this case. However, similar violations in the future could result in further escalated enforcement action. Issuance of this Notice constitutes escalated enforcement action, that may subject you to increased inspection effort.

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved is adequately addressed on the docket in the meeting summaries of two public meetings held with the NRC on February 11, 2004, and March 18, 2004, and in your letter dated March 4, 2004. Therefore, you are not required to respond to this letter unless the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (should you choose to provide one) will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, the response should not include any personal privacy, proprietary, classified, or safeguards information so that it can be made available to the Public without redaction. The NRC also includes significant enforcement actions on its Web site at [www.nrc.gov](http://www.nrc.gov); select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

If you have any questions regarding this matter, please contact Douglas M. Collins, Director, Division of Fuel Facility Inspection, at 404-562-4700.

Sincerely,

**/RA by Loren Plisco Acting for/**

Luis A. Reyes  
Regional Administrator

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

Enclosure: Notice of Violation

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

Distribution w/encl:

W. Travers, EDO  
 C. Paperiello, DEDMS  
 L. Chandler, OGC  
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 D. Cool, NMSS  
 F. Congel, OE  
 E. Julian, SECY  
 B. Keeling, OCA  
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SIGNATURE	/RA/	/RA/	/RA C. NOLAN VIA EMAIL FOR/		
NAME	CEVANS	DCOLLINS	FCONGEL		
DATE	03/30/04	03/30/04	5/5/04		
COPY?	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  
EA-04-064  
EA-04-065

During an NRC inspection conducted on February 17 through 19, 2004, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below.

- A. 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 application, dated January 30, 2003, requires that "plant operations shall be conducted in accordance with written Standard Operating Procedure Manuals." Each manual provides detailed instructions for proper operation of each Production unit, and includes information pertaining to, in part, hazardous chemicals handled in the unit.

Contrary to the above, on December 22, 2003, a plant operation was conducted that was not covered by a detailed instruction in a Standard Operating Procedure Manual. Specifically, the licensee's staff reconfigured the fluorination system from using one fluorinator to two fluorinators without detailed instructions for proper operation of this unit from a "Standard Operating Procedure Manual." The manner in which the reconfiguration was performed resulted in the build-up of uranium hexafluoride ( $UF_6$ ) in the fluorination system and the simultaneous shut down of the effluent control system designed to prevent or mitigate a release of  $UF_6$  from this system. This condition ultimately resulted in an uncontrolled release of  $UF_6$  from the Feed Materials Building.

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

- B. License Condition No. 11 of NRC License No. SUB-526, Amendment No. 15, requires, in part, that the licensee maintain and execute the response measures in the Radiological Contingency Plan (Emergency Response Plan) dated August 15, 1993, and as amended by letters dated March 19 and 30, 1999, and June 12, 2000, or as provided by the licensee consistent with 10 CFR Section 40.35(f).
- Figure 2, "Emergency Response Organization Off-Shifts/Holidays/Weekends" on page A-4 of the Emergency Response Plan (ERP) assigned the role of the Radiation Officer (RO) to the Health Physics (HP) Technician. As stated on page A-8 of the ERP, the RO is responsible for directing activities through the Incident Commander to minimize public and employee exposure in the event of a release of radioactive materials. The RO is also responsible for advising the Incident Commander of potential public exposure, the need to notify off-site residents, and the classification of the emergency as defined in the Radiological Contingency Plan (RCP).

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- Section 4.3, Off-Site Assistance to Facility, of the RCP, stated, in part, that the Crisis Manager or his designee is responsible for reporting meteorological conditions to the off-site agencies and the NRC.
- 10 CFR 40.35(f) states that "Proposed changes that decrease the effectiveness of the approved emergency plan may not be implemented without application to and prior approval by the Commission."

Appendix A of the RCP, entitled UF<sub>6</sub> RELEASE CONTROL PROCEDURE, described the procedures to follow for release notification and release control for staff on weekdays and on off-shifts, weekends and holidays. Item 6 on page Appendix A-5, stated in part, that "If the UF<sub>6</sub> release cloud is visible going over the North plant fence anywhere between the Sampling Plant and the LPG facility, the technician (the HP Technician is the RO) will instruct the Guard to implement the "Procedure for Alerting Residents of Plant Emergencies"." This procedure provided instruction on notifying local residents of action they should take until the emergency was under control. The recommended action was to instruct the residents to temporarily go indoors and close all windows and doors.

Contrary to the above:

1. On December 22, 2003, the HP Technician did not assume the role of the RO and did not direct activities through the Incident Commander to minimize public and employee exposure during an event involving the release of radioactive materials and did not advise the Incident Commander of potential public exposure, the need to notify off-site residents, and on the classification of the emergency as defined in the Radiological Contingency Plan (RCP). Instead, the HP Technician was assigned the role of First Aid Officer.
2. On December 22, 2003, neither the Crisis Manager nor his designee reported meteorological conditions to off-site agencies; and as a result, these agencies were unable to identify those sectors of the local population that needed to take immediate protective measures as a result of the UF<sub>6</sub> release.
3. Prior to December 22, 2003, a change that decreased the effectiveness of the approved emergency response plan was implemented without application to and prior approval by the Commission. Specifically, the "Procedure for Alerting Residents of Plant Emergencies," cited in the RCP, was eliminated without adequate substitution, which constituted a reduction in the effectiveness of the plan in ensuring that local residents were adequately informed of the protective measures they should take as a result of the UF<sub>6</sub> release on December 22, 2003.

This is a Severity Level III violation (Supplement VIII).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when

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full compliance was achieved is already adequately addressed on the docket in meeting summaries of two public meetings held with the NRC on February 11, 2004, and March 18, 2004, and in your letter dated March 4, 2004. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region II within 30 days of the date of the letter transmitting this Notice.

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, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because any response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/ADAMS.html> (the Public Electronic Reading Room). 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 bases 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 10th day of May 2004

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