



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

June 19, 2012

EA-12-082

Mr. Larry Smith  
Plant Manager  
Honeywell Metropolis Works  
P.O. Box 430  
Metropolis, IL 62960

SUBJECT: HONEYWELL METROPOLIS WORKS – NRC INSPECTION REPORT NO.  
40-3392/2011-005 – RESPONSE TO DISPUTED NOTICE OF VIOLATION

Dear Mr. Smith:

I am responding to your letter dated March 23, 2012, in which you disputed the Notice of Violation (NOV) issued on January 24, 2012. The subject violation was identified by the NRC during inspections conducted from October 1 through December 31, 2011, at your Honeywell Metropolis Works facility. The violation involved the failure to make a required notification in accordance with 10 CFR 40.60(b)(2), after a loss of offsite and standby electrical power on March 4, 2011. HF detection was disabled or failed to function as specified in the facility Emergency Response Plan and no redundant equipment was available and operable to perform the required safety function. The NRC characterized the violation as a Severity Level IV violation. We acknowledged receipt of your reply to NRC Inspection Report No. 40-3392/2011-005 in our letter of April 3, 2012.

In your letter, you disputed Violation A (40-3392/2011-005-01) stating that the reporting requirements of 10 CFR 40.60 (b)(2) are not applicable to the incident that forms the basis for the violation. Specifically, you stated that the reporting requirements are not applicable to the fence line halide monitors which are designed to detect chemical, not radiological hazards.

The NRC has independently reviewed the information provided in your letter of March 23, 2012, and has concluded that the violation occurred as stated in the NOV of January 24, 2012. The bases for the NRC's conclusions regarding this matter are provided in the Enclosure to this letter. You are required to respond to this letter within 30 days and should follow the instructions specified in the NRC's NOV, dated January 24, 2012, when preparing your response to Violation 40-3392/2011-005-01.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (i.e., the Public Electronic Reading Room).

L. Smith

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Should you have any additional questions, please contact Joselito O. Calle of my staff at 404-977-4418.

Sincerely,

***/RA/***

Anthony T. Gody, Director  
Division of Fuel Facility Inspection

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

Enclosure:  
NRC Evaluation and Conclusion for  
Violation 40-3392/2011-005-01

cc w/encl:  
Jonathan Monken, Director  
Emergency Management Agency  
Division of Nuclear Safety  
Electronic Mail Distribution

L. Smith

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Jonathan Monken, Director  
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Electronic Mail Distribution

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**\*see previous concurrence**

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ADAMS:X Yes      ACCESSION NUMBER ML12171A182

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## **NUCLEAR REGULATORY COMMISSION'S EVALUATION AND CONCLUSIONS**

### **Summary of Violation A (40-3392/2011-005-01):**

Violation 40-3392/2011-005-01 was identified during a routine, announced inspection conducted by the Nuclear Regulatory Commission (NRC) RII staff between October 1 through December 31, 2011, at Honeywell Metropolis Works facility in Metropolis, IL. The violation involved the failure to notify the NRC within 24 hours, in accordance with 10 CFR 40.60(b)(2), when the licensee lost electrical power to the site and had no redundant equipment to perform the required safety function for detection of a possible hydrogen fluoride (HF) release, Violation 40-3392/2011-005-01. The NRC characterized the violation as a Severity Level IV violation (Enforcement Policy 6.9.d).

On March 23, 2012, Honeywell provided its written response to the above violation. In summary, Honeywell stated that the reporting requirements of 10 CFR 40.60(b)(2) are not applicable to the incident described in Violation A (40-3392/2011-005).

NRC's evaluation and conclusions regarding the violation are provided below.

### **SPECIFIC BASIS FOR DISPUTING THE VIOLATION**

In response to the violation, Honeywell performed an analysis of 10 CFR 40.60(b)(2) reporting requirements to determine applicability of the requirements to the event that occurred on March 4, 2011, when the plant experienced a loss of offsite power. The loss occurred when there was an electrical overload to the uninterrupted power supply (UPS) in the administration building and loss of power to the HF detection systems. Specifically, power was lost to: 1) the DCS alarm system, associated with ionization detectors (smoke detectors) in the Feed Materials Building (FMB), 2) the series of halide detectors located at the plant security fence, 3) the facility video cameras, including those located in the distillation areas, and 4) parking lot lighting.

Honeywell concluded that according to the Statement of Considerations (SOC) provided in the final rulemaking for the regulation (56 FR, 40757), only equipment required by a regulation or a license condition is covered by the 24 hour reporting requirement, and that safety equipment is needed when a radiation hazard is present. A report is required when the safety equipment malfunctions and an incident requiring the use of safety equipment is possible. Honeywell stated that the primary function of the fence line halide monitors is to detect an anhydrous hydrofluoric acid (AHF) release; they are not required for radiation hazards, and therefore, are not subject to the reporting requirements of 10 CFR 40.60(b)(2).

Honeywell also concluded that the equipment listed in the violation is not capable of performing a mitigation function, again relying on the SOC which states that mitigating the consequences of an accident means to minimize serious injuries and severe damage after an accident occurs. Honeywell further stated that the equipment referenced in the violation is not designed to minimize serious injuries and severe damage after an accident occurs, and therefore, is not subject to the reporting requirements of 10 CFR 40.60(b)(2).

Finally, Honeywell concluded that the ionization (smoke) detectors and the video cameras in the FMB distillation areas only duplicate visual observations by operational personnel, which is the primary means of quickly determining a release of uranium hexafluoride (UF<sub>6</sub>), HF, or uranyl

Enclosure

fluoride ( $\text{UO}_2\text{F}_2$ ). Honeywell stated that there are procedural instructions that require personnel to be in the distillation area to perform activities related to safe shutdown of the process in response to a power outage. In the event of visual observations of a release, personnel would immediately initiate actions prescribed by the emergency plan. Therefore, the equipment duplicates the primary release detection capability of visual observations by employees working in the operating areas and does not meet the reporting requirements of 10 CFR 40.60(b)(2).

## NRC EVALUATION OF LICENSEE'S RESPONSE

The NRC staff has carefully reviewed Honeywell's response and disagrees with Honeywell's assertion that Violation A does not meet the reporting requirements of 10 CFR 40.60(b)(2). The NRC staff has concluded that the violation occurred as stated in our letter dated January 24, 2012, "Inspection Report 40-3392/2011-005 and Notice of Violation." The basis for the determination is as follows:

The alarm systems associated with detecting  $\text{UF}_6$  releases include the ionization detectors (smoke) located within the FMB and a series of halide detectors located at the plant security fence. These alarm systems are required by Section 2.7.2 of the Emergency Response Plan (ERP).

The ERP is authorized under License Condition 18 of the License, which states, in part, that the licensee shall conduct authorized activities in accordance with the statements, representations, and conditions in the ERP. Section 2.7.2 of the ERP further states, in part, that because the most reliable indicator of a  $\text{UF}_6$  release is visual detection of the condensing  $\text{UF}_6$  cloud, an alarm associated with either of these systems will trigger operating personnel to undertake efforts to perform a visual confirmation of the release. Therefore, the detectors in the FMB and the fence line halide monitors are required by the license, are credited with detecting both radiological and chemical hazards, and are subject to the reporting requirements of 10 CFR 40.60(b)(2).

The licensee's assertion that the primary function of the fence line halide monitors is only to detect an AHF release, and that they are not required for radiation hazards is not consistent with the licensee's own ERP. Furthermore, it is a fact that a release of  $\text{UF}_6$  at the site is both a radiation and a chemical hazard, and a release will be detected by either the ionization detectors within the FMB or the fence line halide monitors or both. Therefore, these detectors are subject to the reporting requirements of 10 CFR 40.60(b)(2). Notwithstanding the reporting requirement of 10 CFR 40.60(b)(2), the licensee may change the ERP in accordance with 10 CFR 40.35(f) as long as the change does not decrease the effectiveness of the plan.

Honeywell's response states that the HF detection system is not capable of performing mitigation functions as defined in the SOC (i.e., to minimize serious injuries and severe damage after an accident occurs). Section 2.5 of the ERP, Mitigating Actions, dated August 10, 2011, states in part, the risk assessments associated with the licensee indicate that accidents involving releases of  $\text{UF}_6$  constitute the most significant hazard to public health and safety. The licensee maintains a wide range of systems and administrative controls to reduce the likelihood of accidents involving the release of hazardous materials and the risk associated with multi-chemical release scenarios. These systems and controls are directed toward preventing releases of significant quantities of hazardous materials under normal operating conditions and mitigating the effects of such releases under emergency conditions. These systems and controls include the HF detection system. On the basis of the foregoing, the equipment is subject to the reporting requirements of 10 CFR 40.60(b)(2).

The NRC also disagrees with Honeywell's statement that the ionization detectors and the video cameras in the FMB distillation areas only duplicate visual observations by personnel. In the event of a power outage, personnel are required to be in the distillation area to perform activities related to safe shutdown of the processes, not to specifically stand watch for indications of a release of UF<sub>6</sub>, HF, or UO<sub>2</sub>F<sub>2</sub>. The sole purpose of the ionization (smoke) detectors and video cameras is to detect a release; therefore they serve as a primary means of detection and meet the reporting requirements of 10 CFR 40.60(b)(2).

#### NRC CONCLUSION

The NRC disagrees with Honeywell's position and maintains that the licensee was required to notify the NRC within 24 hours after the discovery of the event described in the NOV.

Based on the above, the NRC staff concludes that the violation occurred as stated in the NRC's letter of January 24, 2012.