November 27, 2002

Mr. J. William Lessig
Plant Manager
Honeywell International, Inc.
P.O. Box 430
Metropolis, IL 62690

SUBJECT: NRC INSPECTION REPORT 04003392/2002-008(DNMS) - HONEYWELL

Dear Mr. Lessig:

On November 4 - 6, 2002, the NRC conducted a routine emergency preparedness inspection at your Metropolis, Illinois facility, including observation of your annual exercise on November 5, 2002. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. An NRC inspector discussed the findings with you on November 6, 2002.

Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection included a selective examination of procedures and representative records, interviews with personnel, and observations of activities in progress.

Licensed activities involving source materials at your plant were performed in accordance with approved procedures and license requirements and were effective in ensuring safe operations. However, the inspectors identified two follow-up items during the exercise regarding weaknesses in scenario management and failure to downgrade the emergency classification prior to completing the exercise with an “all clear” announcement.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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/reading-rm/adams.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,
/RA/
Patrick L. Hiland, Chief
Fuel Cycle Branch

Docket No. 04003392
License No. SUB-526

Enclosure: Inspection Report No. 04003392/2002-008(DNMS)

cc w/encl: T. Ortciger, Illinois Department of Nuclear Safety

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML023360351.wpd

To receive a copy of this document, indicate in the box:"C" = Copy without enclosure "**E**"= Copy with enclosure"**N**"= No copy

OFFICE	RIII		RIII		RIII		RIII	
NAME	Hartland:js		Berg		Phillips		Hiland	
DATE	11/27/02		11/27/02		11/27/02		11/27/02	

OFFICIAL RECORD COPY

Distribution w/encl:
Docket File
PUBLIC IE-07
M. Raddatz, NMSS
M. Leach, NMSS
W. Schwink, NMSS
L. Fields, NMSS
J. L. Caldwell, RIII
M. L. Dapas, RIII
RIII Enf. Coordinator
R. Bellamy, RI
D. Ayres, RII
D. B. Spitzberg, RIV

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.	04003392
License No.	SUB-526
Report No.	04003392/2002-008(DNMS)
Licensee:	Honeywell International, Inc.
Facility:	Metropolis Works
Location:	P.O. Box 430 Metropolis, Illinois
Dates:	November 4 - 6, 2002
Inspector:	David J. Hartland, Senior Resident Inspector Portsmouth Gaseous Diffusion Plant Mary L. Thomas, Resident Inspector Paducah Gaseous Diffusion Plant
Approved by:	Patrick L. Hiland, Chief Fuel Cycle Branch Division of Nuclear Materials Safety

EXECUTIVE SUMMARY
Honeywell International, Incorporated
Metropolis Works
NRC Inspection Report 04003392/2002-008(DNMS)

This inspection included aspects of the licensee's emergency preparedness program and review of follow-up issues identified during previous inspection reports.

Plant Support

- The inspectors concluded that plant staff's performance during the annual emergency exercise was adequate. However, the inspectors identified two follow-up items regarding weaknesses in scenario management and failure to downgrade the emergency classification prior to completing the exercise with an "all clear" announcement. (Section P1)

- The inspectors observed that kits used during the exercise were refurbished in a timely manner following the exercise. However, the inspectors identified that the emergency generator operating switch was not returned to the "auto" position following the exercise and that applicable procedures were not updated when the generator was replaced in 2001. The inspectors determined that the issues were not significant as the licensee did not take credit for auto start of the generator, and plant staff had previously demonstrated the ability to start and load the new generator with existing procedures. (Section P2)

Report Details

I. Plant Support

P1 Observation of Annual Exercise

a. Inspection Scope (88050)

The inspectors observed licensee performance during the annual emergency preparedness exercise on November 5, 2002, including scenario management, incident response, and crisis management to determine if the actions were performed in accordance with the licensee's Emergency Plan.

b. Observations and Findings

Scenario Management

The inspectors reviewed the exercise scenario and determined that it was adequately challenging. The exercise was initiated by a plant-wide power failure that resulted in a large hydrogen fluoride (HF) release from an emergency scrubbing system that had been activated due to an over-pressurized vaporizer. A few minutes after the HF release was initiated, a uranium hexafluoride (UF_6) release was also simulated at the product cylinder filling area in the Feed Materials Building due to stripped threads on a pigtail coupling. The scenario also included an injured employee who was found unconscious and suffering from chemical burns after being exposed to the HF plume.

While observing the exercise and during discussion with drill coordinators and participants, the inspectors became aware of some issues that potentially compromised the integrity of the exercise scenario:

- The inspectors noted that the individual who played the Crisis Manager was initially involved in the development of the exercise scenario. About a month before the exercise, the individual who had originally intended to play the role of Crisis Manager (the Plant Manager) was unable to do so because of another commitment. Although the individual who stepped in to play the Crisis Manager (the Regulatory Manager) immediately removed himself from his exercise planning role, he still had detailed knowledge of the exercise scenario.

- The inspectors noted exercise prompts, in the form of written instructions, which were provided to drill participants to communicate information regarding simulated plant conditions and plume location, also appeared to prompt participants to respond with specific actions to mitigate the plant transients. For example, written instructions provided to the operator in the South Fluorine Plant Control Room, describing the activation of the emergency scrubbing system due to the overpressurized vaporizer, also prompted the operator to "go outside and verify that the scrubber pump is on and simulate opening the large water supply valve." In addition, the instructions prompted the operator to notify his supervisor and suggested that he manually close the HF and steam supply valves to the vaporizer if not told to do so by the supervisor.

In addition, the instructions provided to the Incident Commander stated that the emergency power generator needed to be started and reminded him to sound the plant alarm system. The instructions also reminded him that the HF plume would only go away when there was water and a pump available for the scrubber and that the UF_6 release could not be mitigated until there was vacuum available or the coupling was repaired.

- During discussion with plant staff, the inspectors also learned that the Radiation Officer was prompted before the exercise to recommend to the Incident Commander that a Site Area Emergency be declared at a specified time after the exercise was initiated. This pre-exercise prompt did not allow the Radiation Officer to demonstrate her ability to assess the ongoing conditions and make a decision regarding the event declaration. The inspectors also learned that one of the scenario coordinators asked the Radiation Officer questions during the exercise in order to prompt the Officer to take specific actions.

Licensee actions to address scenario management issues regarding the prompting of participants to take specific actions is an inspector follow-up item.
(IFI 04003392/2002-008-01)

Incident Command

The inspectors noted that plant staff evacuated the affected area and were accounted for in a timely manner. The simulated injured person was also located in a timely manner. Decontamination and medical treatment of the injured person and emergency responders were initiated in an effective manner.

The inspectors observed that command and control exhibited by the Incident Commander was adequate. Appropriate actions were taken to mitigate the simulated releases. The Incident Commander also properly classified the event as a Site Area Emergency based on the HF plume crossing the plant boundary. However, as discussed above, some prompting was provided by the exercise coordinators on specific actions that were taken, including the event classification.

The inspectors noted that the Crisis Manager, after conferring with the Incident Commander, granted an “all clear” on the emergency response after the release paths were isolated, normal power was restored, and the injured individual was decontaminated and transported to the dispensary. However, the inspectors noted that the Incident Commander did not downgrade the Site Area Emergency prior to the “all clear.”

A similar issue was identified during the previous exercise, as documented in Inspection Report 04003392/2000-04. In that case, the inspectors noted that the decision to downgrade from a Site Ares Emergency at the end of the exercise did not include a simulation of the evaluation of the type of information necessary, such as survey and sample results that would have been needed to recommend changes to protective actions. Licensee actions to address the process or basis for downgrading an event declaration is an inspector follow-up item. (IFI 04003392/2002-008-02)

Crisis Manager

The inspectors observed that the Crisis Manager took the proper actions delineated in the licensee's Emergency Plan. These actions consisted of timely notification of offsite agencies including the state, local emergency services and disaster coordinator, and the NRC; informing those agencies of the time of the releases and meteorological conditions; providing status of the facility including release locations and event classification; and providing brief description of personnel injuries and property damages, and recommended protective actions. However, as discussed above, the Crisis Manager granted the "all clear" without addressing the need to evaluate the downgrading of the event classification.

Critiques

The inspectors attended the licensee's post-exercise critiques and noted that, overall, issues identified during the critiques were similar to observations made by the inspectors. Examples included problems with radio communications (too much traffic) and confusion regarding how the "all clear" was granted. However, additional issues were identified by the inspectors including a lack of formality during radio communications (i.e., not repeating back important actions) and the follow-up items discussed above regarding scenario management and the failure to downgrade the emergency classification.

c. Conclusions

The inspectors concluded that plant staff's performance during the annual emergency exercise was adequate. However, the inspectors identified two follow-up items regarding weaknesses in scenario management and failure to downgrade the emergency classification prior to completing the exercise with an "all clear" announcement.

P2 Status of Facilities, Equipment, and Resources

a. Inspection Scope (88050)

The inspectors examined selected emergency equipment specified in the licensee's Emergency Plan to ensure that it was being properly maintained.

b. Observations and Findings

The inspectors determined that selected equipment was being checked and serviced at the required frequencies and maintained in good condition. The inspectors observed that kits used during the emergency exercise had been refurbished before the end of the day of the exercise.

However, the day after the exercise, while inspecting the emergency power generator, the inspectors observed that the control switch was in the "off" position rather than in "auto," which would have prevented the generator from starting automatically on loss of normal power to the site. The inspectors determined that the switch was apparently not returned to the normal "auto" position after it was operated during the exercise the previous day. During follow-up inspection, the inspectors determined that the issue was

not safety significant, as the licensee did not take credit for the auto start feature of the generator, and that existing procedures directed operators to manually start the generator if it failed to auto start on loss of normal power.

The inspectors also identified an error in the "emergency power action plan," which was a one page instruction located in the control room adjacent to the generator. The action plan instructed the operator, when turning off the diesel engine, to return the switch to the "run" position instead of "auto." Plant staff immediately made a change to the action plan to correct the deficiency.

The inspectors noted that the generator had been replaced in October 2001 and that plant staff appropriately implemented PT-101, "Process Modification." As the generator replacement was not "like-for-like," the screening required by PT-101 required that applicable procedures be amended and training provided to affected staff. The inspectors noted that training had been conducted but that applicable operating and maintenance procedures were not updated. Again, the inspectors determined that the issue was not safety significant, as plant staff had successfully operated and loaded the generator during a power outage since the new generator was installed. In response, plant staff took immediate action to update the procedures.

c. Conclusions

The inspectors observed that kits used during the exercise were refurbished in a timely manner following the exercise. However, the inspectors identified that the emergency generator operating switch was not returned to the "auto" position following the exercise and that applicable procedures were not updated when the generator was replaced in 2001. The inspectors determined that the issues were not safety significant as the licensee did not take credit for the auto start feature of the generator, and plant staff had previously demonstrated the ability to start and load the new generator with existing procedures.

P8 Miscellaneous Emergency Preparedness Issues

P8.1 (Closed) IFI 04003392/98006-10: Corrective actions for lack of command and control by incident command which resulted in the delayed removal of victims due to the overall coordination of decontamination activities and the lack of medical treatment. As corrective action, incident command training was conducted for affected emergency response personnel by an outside contractor. The inspectors observed that incident command displayed adequate command and control in ensuring that the injured individual was decontaminated and treated in a timely manner during the 2002 exercise. This item is closed.

P8.2 (Closed) IFI 04003392/99004-01: Lack of firm initial decision on what constituted the "hot zone" and where to establish the decontamination line involving injured personnel. The inspectors observed that emergency response personnel took timely and effective action to ensure that the injured individual was decontaminated and treated during the exercise. The inspectors have no further issues and this item is closed.

II. Management Meeting

X1 Exit Meeting Summary

An inspector presented the inspection results to licensee management, who acknowledged the findings presented, on November 6, 2002. The inspector asked licensee management whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Honeywell Specialty Chemicals

B. Vandermeulen, Plant Controller
D. Mays, Safety Manager
M. Davis, Supervisor of Heath Physics Technicians

Other members of the licensee's staff were also contacted during the inspection.

INSPECTION PROCEDURES USED

IP 88050: Emergency Preparedness

ITEMS OPENED, CLOSED, AND DISCUSSED

Open	Type	Summary
04003392/2002-008-01	IFI	Licensee actions to address scenario management issues regarding the prompting of participants to take specific actions.
04003392/2002-008-02	IFI	Licensee actions to address the process/basis for downgrading an event declaration.

Closed

04003392/98006-10	IFI	Corrective actions for lack of command and control by incident command which resulted in the delayed removal of victims due to the overall coordination of decontamination activities and the lack of medical treatment.
04003392/99004-01	IFI	Lack of firm initial decision on what constituted the "hot zone" and where to establish the decontamination line involving injured personnel.

Discussed

None

ACRONYMS and INITIALISMS

ADAMS	Agencywide Document Access and Management System
CFR	Code of Federal Regulations
HF	Hydrogen Fluoride
IFI	Inspector Follow-up Item
IP	Inspection Procedure
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
UF_6	Uranium Hexafluoride