

Specialty Materials

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November 21, 2011

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

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

RE: REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION REPORT 40-3392/2011-004 AND NOTICE OF VIOLATION

This letter is Honeywell Metropolis Works response to the NRC Inspection Report 40-3392/2011-004 and Notice of Violation dated October 28, 2011.

During the NRC inspection conducted from July 1, 2011 through September 30, 2011, six violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, three violations, 40-3392/2011-004-01, 40-3392/2011-004-03, and 40-3392/2011-004-04 (items 1a,b, 2, and 6 in the Notice of Violation) are listed below along with information required to be included in the reply pursuant to 10 CFR 2.201. Three other violations along with information required to be included in the reply will be addressed in a separate document.

1. License Condition 18 of NRC License Number SUB-526 states, in part, that the licensee shall conduct authorized activities in accordance with the statements, representations and conditions (or as revised by change and/or configuration management processes as described, therein), in specific documents including the License Application, dated May 12, 2006.

Section 2.6.1 of the License Application states, in part, that Honeywell shall 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.

- a. Licensee procedure MTW-ADM-HP-0118, External Radiation Exposure Control, Section 4.2.1.2, requires the licensee to establish additional warning devices or barriers and postings in any area where an individual could receive a deep dose equivalent, exceeding 50 mRem in one hour at a distance of 30 centimeters from the surface.

Contrary to the above, on July 14, 2011, the licensee failed to establish additional warning devices or barriers and postings in an area where an individual could receive a deep dose equivalent, exceeding 50 mRem in one hour at a distance of 30 centimeters from the surface. Specifically, a drum storage area located on the South side of the Feed Materials Building contained one 55 gallon drum labeled as green salt with radiation readings exceeding 50 mRem at 30 centimeters from the surface. The actual radiation

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reading was 60 mr/hr at 30 centimeters from the surface resulting in an area where an individual could receive a deep dose equivalent exceeding 50 mRem in one hour.

- b. Licensee procedure MTW-ADM-HP-0118, External Radiation Exposure Control, Section 4.2.1.3, states in any area where an individual could receive a deep dose equivalent exceeding 100 mRem in one hour at a distance of 30 centimeters from the surface will be posted and controlled as a High Radiation Area.

Contrary to the above, on July 19, 2011, the licensee failed to post and control a High Radiation Area where an individual could receive a deep dose equivalent exceeding 100 mRem in one hour at a distance of 30 centimeters from the surface. Specifically, fourteen 55-gallon drums were located in the storage facility for filter fine bed material with radiation reading exceeding 100 mr/hr at 30 centimeters from the surface. The highest radiation readings were 129 mr/hr at 30 centimeters resulting in a High Radiation Area where an individual could receive a deep dose equivalent exceeding 100 mRem in one hour.

These are two examples of a Severity Level IV violation (Section 6.7.d).

Example 1a.

Reason for the Violation:

Honeywell MTW was unaware that the drum yielded a dose rate greater than 50 mRem/hr at 30 cm from the surface because such dose rates are atypical of drums containing green salt.

Upon further inspection, it was discovered that the drum contained contaminated spar and had been mislabeled and misplaced. Spar which has been contaminated with uranium daughter products produces the highest external dose rates at MTW and is stored in areas designated with warning devices or barriers and postings of the potential for dose rates in excess of 50 mRem/hr at 30 cm from the surface of the drums.

Corrective Steps that Have Been Taken and the Results Achieved:

- The mislabeled drum containing spar was re-labeled properly and transported to an appropriate storage location. Completed: July 14, 2011.
- An incident report was initiated in the plant's Incident Tracking & Corrective Action (IT&CA) system on July 14, 2011.
- Other drums located in the area of the mislabeled drum were surveyed. No other drums exceeded 50 mRem/hr at 30 cm from the surface, therefore, no additional drums were suspected to have been mislabeled. Completed: July 14, 2011.
- External exposure monitoring (TLD) results were reviewed for potentially affected personnel. The results indicated no external exposures in excess of the Honeywell MTW action level. TLD results evaluation was completed by November 1, 2011.

Corrective Steps that Will Be Taken to Avoid Further Violations:

Production management will develop a training to reinforce the importance of proper drum labeling and staging from the standpoint of radiological compliance. Target date: January 17, 2012.

Date When Full Compliance Will Be Achieved:

Honeywell is currently in full compliance with License Condition 18 of NRC License Number SUB-526 and MTW-ADM-HP-0118, External Radiation Exposure Control procedure.

Example 1b.

Reason for the Violation:

Honeywell MTW was unaware that the spar drums were yielding dose rates which exceeded 100 mRem/hr at 30 cm from the surface, and therefore, should have been posted as a High Radiation Area and positively controlled.

Drums of spar material, upon recent removal from the fluorination process, have historically yielded dose rates of greater than or equal to 50 mRem/hr at 30 cm from the surface but less than 100 mRem/hr at 30 cm from the surface due to the regular replacement of contaminated spar with virgin, uncontaminated spar in the fluorination system.

For a period of several days prior to the event, virgin spar was not charged into the system on a regular basis, allowing uranium daughter products to concentrate to levels at which a High Radiation Area was created upon transferring the contaminated spar to 55-gallon drums. The spar was not replaced because contaminants such as magnesium, sodium, and iron with unfavorable chemical and physical properties—heretofore the primary driver for spar replacement—remained at acceptable levels due to process improvements.

Corrective Steps that Have Been Taken and the Results Achieved:

- Upon discovery of the High Radiation Area, the affected spar drums were relocated to a location which could be barricaded, posted, and positively controlled. Completed: July 19, 2011.
- The High Radiation Area was surveyed regularly until dose rates were less than 100 mRem/hr at 30 cm from the surface of the spar drums as well as less than 100 mRem/hr at 30 cm from the surface of the trailer in which the drums were temporarily stored, at which time the High Radiation Area was de-posted. Completed: July 27, 2011.
- An incident report was initiated in the plant's IT&CA system on July 19, 2011.
- A facility within the Honeywell MTW Restricted Area has been secured as a controlled storage site in the event that a High Radiation Area is identified in the future. Any single drum or configuration of drums exceeding 100 mRem/hr at 30

cm from the surface can now be locked in a building. The availability of the structure will allow for improved access control. In the event that the facility must be utilized to store a drum or configuration of drums which constitute a High Radiation Area, the building will be posted as a High Radiation Area and all access points locked. The Health Physics department maintains sole ownership of the key(s) required for access. Completed: September 1, 2011.

- External exposure monitoring (TLD) results were reviewed for potentially affected personnel. The results indicated no external exposures in excess of the Honeywell MTW action level. TLD result evaluations were completed by November 1, 2011.

Corrective Steps that Will Be Taken to Avoid Further Violations:

- Health Physics will develop an algorithm for spar replacement based on production rate and/or a spar replacement schedule to which production will adhere in order to regularly dilute the contaminants in the spar system and mitigate dose rates to target levels. Target date: January 17, 2012.
- A control will be put in place to lock the affected drum off station with Health Physics controlling the key to ensure proper surveys are performed in accordance with Health Physics procedures. This action will be implemented by December 30, 2011, and after a period of 6 months, it will be evaluated for effectiveness. At that time, the Radiation Protection Program Manager will determine if this control may be replaced by alternate controls established.

Date When Full Compliance Will Be Achieved:

Honeywell is currently in full compliance with License Condition 18 of NRC License Number SUB-526 and MTW-ADM-HP-0118, External Radiation Exposure Control procedure.

2. License Condition 18 of NRC License Number SUB-526 states, in part, that the licensee shall conduct authorized activities in accordance with the statements, representations and conditions (or as revised by the approved configuration management process as described, therein), in specific documents including the License Application, dated May 12, 2006.

Section 2.6.1 of the License Application states, in part, that Honeywell shall 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.

Licensee procedure MTW-SOP-HP-0216, Respirator Fit Testing, Section 5 of Attachment A states, in part, that individuals have been observed many times pulling the respirator away from the face to talk and that they should not pull their respirators away from their face to talk.

Further, Section 10 of the attachment states that respirator users may leave the work area at any time for relief from respirator use in the event of equipment malfunction, physical or psychological distress, procedural or communications

failure, significant deterioration of operating conditions, or any other condition that might necessitate such relief.

Contrary to the above, on September 20, 2011 (the actual date was September 19, 2011) the NRC inspectors observed three employees, two Shaw contractors and one Honeywell worker, pull their respirators away from their faces to communicate and did not leave the work area. Specifically, this was observed, several times, during maintenance work on the Scrap Material Rotex, where the system was open and the area red light was lit signifying a posted airborne area.

This is a Severity Level IV violation (Section 6.7.d).

Reason for the Violation:

The reason for the event resulting in three workers pulling their respirators away from face in order to communicate in a posted airborne area is a human error caused by lapse in judgment.

Corrective Steps that Have Been Taken and the Results Achieved:

- An incident report was initiated in the plant's IT&CA system on September 19, 2011.
- Two contractors involved in the violation were disciplined according to the progressive disciplinary action program of their employer. Completed: September 19, 2011.
- The Honeywell employee involved in the violation was disciplined per the MTW progressive disciplinary action program. A copy of the written warning issued to the employee within the disciplinary action will become a part of a permanent employee's record. Completed: September 21, 2011.
- Bioassay samples were obtained from workers involved in the incident. Since it was impossible to determine whether the measured concentration of uranium was a result of the incident (or due to the previous work tasks involving un-encapsulated uranium), a conservative interpretation of the data was performed assuming that the measured concentrations of uranium were a result of the incident. This intake investigation revealed that the workers received a maximum exposure of 25 mrem committed effective dose equivalent (CEDE). Employees intake investigations were completed by September 22, 2011.

Corrective Steps that Will Be Taken to Avoid Further Violations:

This violation was identified on September 19, 2011. All planned corrective steps were completed prior to the date of this response.

Date When Full Compliance Will Be Achieved:

Honeywell is currently in full compliance with License Condition 18 of NRC License Number SUB-526, Section 2.6.1 of the License Application, and procedure MTW-SOP-HP-0216, Respirator Fit Testing,

6. License Condition 18 of NRC License Number SUB-526, Amendment 8, dated February 28, 2011, states, in part, 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 the approved configuration management process as described in Item J) in the Safety Determination Report dated May 12, 2006.

Section 2.7.2.6, Fire Extinguishers, of the Safety Demonstration Report, Rev. 10, dated July 19, 2011, states that Honeywell maintains appropriate supplies of portable fire extinguishers. These are distributed and maintained in accordance with NFPA 10 "Portable Fire Extinguishers" (Ref. 2.). [Reference 2, NFPA 10, Portable Fire Extinguishers, National Fire Protection Association, 2002]

Step 5.2.1, Section 5.2, Fire Extinguisher Size and Placement for Class A Hazards, of NFPA 10, "Portable Fire Extinguishers", Edition 2002, states, in part, that fire extinguishers shall be located so that the maximum travel distances shall not exceed those specified in Table 5.2.1, except as modified by 5.2.2. Table 5.2.1, Fire Extinguisher Size and Placement for Class A Hazards, states the maximum travel distance to the extinguisher for all three hazard occupancy levels (low, moderate, and high) is 75 feet.

Contrary to the above, on and before September 1, 2011, the licensee failed to meet the maximum travel distance of 75 feet for Class A fire extinguishers. Specifically, the licensee could not demonstrate the fire extinguishers located in the FMB were located at a maximum travel distance of 75 feet. In addition, three fire extinguishers on the basement and fifth floors of the FMB were not present or moved from designated locations and there was no fire extinguisher assigned for the third floor mezzanine level.

This is a Severity Level IV violation (Section 6.2.d).

Reason for the Violation:

Due to organizational challenges in the fire protection program area in the recent past, Honeywell misinterpreted NFPA 10, "Portable Fire Extinguishers", Edition 2002, provision 5.2.2: "...Up to one-half of the complement of fire extinguishers as specified in Table 5.2.1 shall be permitted to be replaced by uniformly spaced 1 1/2 in. (3.81 cm) hose stations for use by the occupants of the building. Where hose stations are so provided, they shall conform to NFPA 14, Standard for the Installation of Standpipe, Private Hydrant, and Hose Systems..." Honeywell mistakenly assumed that the standpipes can be credited as part of the requirement for 75 feet maximum travel distance to extinguisher. Honeywell failed to recognize that it does not fully comply with NFPA 10, section 5.2.2 and cannot be credited for the standpipes because the ERT members are not trained on the use of fire hoses and the standpipes are not maintained as required by NFPA 14.

Corrective Steps that Have Been Taken and the Results Achieved:

- An incident report was initiated in the plant's IT&CA system on September 1, 2011.
- The entire Feed Materials Building (FMB) was evaluated for travel distances between fire extinguishers. Completed: September 7, 2011.
- Several fire extinguishers were relocated and 13 new fire extinguishers were added throughout FMB. These changes were intended to meet the travel distance requirements. Completed: September 9, 2011.

Corrective Steps that Will Be Taken to Avoid Further Violations:

- Currently the fire extinguishers used for fire watch are exactly the same as those fire extinguishers that are mounted on the building for fire protection. A set of fire extinguishers that will be specifically designated for fire watch will be acquired and made available for use by January 13, 2012.
- A training will be developed to familiarize personnel with new fire watch fire extinguishers. Target date: January 13, 2012.

Date When Full Compliance Will Be Achieved:

Honeywell is currently in full compliance with License Condition 18 of NRC License Number SUB-526, Section 2.7.2.6, Fire Extinguishers, of the Safety Demonstration Report, and Section 5.2, Fire Extinguisher Size and Placement for Class A Hazards, of NFPA 10, "Portable Fire Extinguishers", Edition 2002.

If you have questions, need additional information, or wish to discuss this matter, please contact Mr. Michael Greeno, Regulatory Affairs Manager, at (618) 309-5005.

Sincerely,



Larry A. Smith
Plant Manager

cc: Regional Administrator
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