**Performance Materials and Technologies** Honeywell P.O. Box 430 2768 North US 45 Road Metropolis, IL 62960

March 4, 2014

**UPS/Next Day Air** 

ATTN: Document Control Desk U.S. Nuclear Regulatory Commission 11555 Rockville Pike Rockville, MD 20852

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

Subject Honeywell Metropolis Works 30-Day Written Follow-Up Report Event No. 49785

The Honeywell Metropolis Works facility (MTW) reported to the NRC Operations Center in accordance with 10 CFR 40.60(b)(3) an event that required unplanned medical treatment at a medical facility of an individual with spreadable radioactive contamination on the individual's clothing. This letter is a follow-up report to address specific items required by 10 CFR 40.60(c)(2).

### NRC Event Number 49785 dated February 2, 2014

The following information was provided in the 24 Hour NRC Telephone Report:

#### **Description of the Event:**

# CONTAMINATED PLANT EMPLOYEE RECEIVED MEDICAL TREATMENT INSIDE THE RESTRICTED AREA

"An employee with a laceration to his ear reported to the on-site dispensary yesterday evening. The plant nurse administered first aid. A whole body survey of the employee in his plant clothing was performed; the maximum amount of contamination was present on the employee's boots, 2,136 dpm/100cm2. The plant nurse allowed the employee to return to work. The employee remained inside the Restricted Area over the course of the event."

NRC Region II informed: David Hartland via email

**Reporting Requirement:** 10 CFR 40.60(b)(3), unplanned medical treatment of a contaminated individual.

**Isotope, Quantities and Chemical Form:** The source of the contamination is Uranium Ore Concentrates inside the process building.

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**Personnel Radiation Exposure Data (if applicable):** The licensee will request a bioassay when the employee returns to the site.

### 10 CFR 40.60(c)(2) written 30-day follow up report required sections

(2)(*i*) A description of the event, including the probable cause and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned.

On 2/1/2014 at 2115 CST, an employee was working on a flange in the A Bottom Hydrofluorinator area in the Feed Materials Building. While backing away after using a torque wrench, he felt a tug on his ear shortly followed by dripping blood caused by an ear laceration. At 2120, he reported to the plant's dispensary for evaluation and first aid. The plant's nurse administered first aid. A whole body survey of the employee in his plant clothing was performed; the maximum amount of contamination was present on the employee's boots, 2,136 dpm/100cm<sup>2</sup>. At 2215, the employee was released for work. The employee remained inside the Restricted Area over the course of the event.

A post-treatment survey of the dispensary did not identify any contamination exceeding the action level specified for this area.

The bioassay was performed when the employee returned to the site on 2/3/2014. The results adequately demonstrate that no occupational radiation exposure limits have been exceeded.

(2)(ii) The exact location of the event.

The employee was evaluated at the plant's dispensary located within the Restricted Area boundary.

(2)(iii) The isotopes, quantities, and chemical and physical form of the licensed material involved.

The isotope involved was natural uranium in the form of  $U_3O_8$ , which was in the form of spreadable contamination on the employee's clothes. The highest contamination level was 2,136 dpm/100cm<sup>2</sup> on the individual's boots.

(2)(iv) Date and time of the event.

The incident occurred at 2120 CST on February 1, 2014, and the 24-hour report was submitted on February 2, 2014 at 1121 ET.

(2)(v) Corrective actions taken or planned and the results of any evaluations or assessments.

The following actions were taken in response to the event:

1. A Problem Evaluation Report (PER) was initiated in Honeywell's Incident Tracking & Corrective Actions (IT&CA) system on 2/1/2014.

- 2. The bioassay was performed when the employee returned to the plant on 2/3/2014. The results adequately demonstrate that no occupational radiation exposure limits have been exceeded.
- 3. According to Health Physics procedures, a First Aid/Medical Treatment Contamination Report for documenting unplanned dispensary treatments and unplanned off-site medical treatments was developed for this event on 2/1/2014.
- 4. The plant's dispensary is surveyed daily.
- 5. The dispensary is cleaned routinely. Additional cleaning can be requested as required.

## (2)(vi) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

The bioassay was performed when the employee returned to the plant on 2/3/2014. Measured urinary bioassay results did not exceed the investigation level for the intake of uranium. Although a positive bioassay result was measured, it is highly unlikely that the wound was the cause of the uranium measured within the bioassay sample. Regardless of intake mode, the results adequately demonstrate that no occupational radiation exposure limits have been exceeded.

Please contact Mark Wolf, Nuclear Compliance Director, at (618) 309-5013, if you have questions or comments regarding this matter.

Sincerely.

Ji//Pritchett Plant Manager

cc: Regional Administrator U.S. Nuclear Regulatory Commission, Region II 245 Peachtree Center Ave. NE, Suite 1200 Atlanta, GA 30303