

Specialty Materials
Honeywell
P.O. Box 430
2768 North US 45 Road
Metropolis, IL 62960

December 14, 2010

Certified Mail: 7009 1410 0001 3772 2547

ATTN: Document Control Desk
Director, Office of Nuclear Material Safety Safeguards
US Nuclear Regulatory Commission
Washington, DC 20555-0001

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

RE: REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION REPORT 40-3392/2010-005 AND NOTICE OF VIOLATION

Dear Sirs:

This letter is Honeywell Metropolis Works response to the NRC Inspection Report 40-3392/2010-005 and Notice of Violation Dated November 15, 2010.

During the NRC inspection conducted on September 13-17, 2010, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

License Condition 18 of NRC License No. SUB-526 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 change and/or configuration management processes as described therein) in the License Application dated May 12, 2006, as supplemented by letters dated March 20, 2007, and May 12, 2008.

Section 2.6.1, "Operating Procedures," 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.

Standard Operating Procedure MTW-SOP-F2N-0100, "Fluorination Startup," Checklist 'X', Step 5.24.3 requires operators to "SET TRC (Temperature Controller) to MANUAL 0% OUTPUT for 'A' and 'B' Fluorinators." Step 5.24.11 requires operators, in part, to "MANUALLY RESET (OPEN) valves: 'B' Fluorinator Furnace Maxon Safety Valve, MSV-1 and 'B' Fluorinator Furnace Maxon Safety Valve, MSV-2."

Contrary to the above, on September 16, 2010, the licensee failed to set TRC to Manual 0% output for the 'B' Fluorinator prior to manually opening 'B' Fluorinator Furnace Maxon Safety Valves MSV-1 and MSV-2 as required by Procedure MTW-

IED7

SOP-F2N-0100 which, consequently, led to an explosion in the 'B' Fluorinator Furnace.

This is a Severity Level IV violation (Supplement 6.2).

Reason for the Violation:

The Root Cause Analysis conducted for energy discharge from 'B' Fluorinator furnace incident revealed the following reasons for the unexpected pressure transient in the 'B' Fluorinator Heating System which resulted in the violation:

- Spontaneous closure of the Maxon valves. It was impossible to determine the exact reason at the time of the incident, but the most possible reasons are a weakening of the coil in one of the valves, excessive vibration in the area, or a momentary power drop-off from the flame relay to the coil.
- Delayed ignition in the furnace (roughly 1-1.5 minutes after the shutoff valves were re-opened). Since there was a flame present in the furnace at all times, the ignition appears to have been caused by a natural gas mixture that was too rich initially.
- Failure of the burner system hardware and temperature controls which would have contributed to a rich gas mixture. When the burner was removed, the sensing tube for the main gas and pilot gas regulators was found to be blocked by mortar. This would have impaired both regulators and led to potentially rich gas mixtures reaching the burner. When the dampers were tested, the recycle damper was stuck in a wide-open position and would not operate.
- Temperature controller operation in manual mode because the temperature could not be stabilized in automatic mode. However, the poor control in automatic mode was an indication of the equipment issues, which could have been identified sooner.
- Procedural deficiency, which contributed to the gas build-up and delayed ignition event. There was failure to recognize the need to completely restart the burner system prior to re-opening the Maxon valves. The existing procedures did not cover the situation of a closed Maxon valve, and this requirement was not clear.

Corrective Steps that Have Been Taken and the Results Achieved:

1. Extent of Condition study for possible burner failure modes was conducted. The design of other Natural Gas fired furnaces in MTW nuclear service was reviewed for similar failure modes. Completed: 09/17/2010.
2. Root Cause Analysis on unexpected pressure transient in the 'B' Fluorinator heating system was performed to determine the reason for this incident, identify causes and recommend corrective actions. Completed: 12/09/2010.
3. Replacement of the Flame Relays and modules in the case there was a defect in these systems. Flame relays and modules were replaced by 10/22/2010.

4. The dampers that controlled the heating system needed to be reset to work properly. The burner cone was badly degraded and needed to be re-lined. The pressure control system was not indicating correctly. The fire-box was damaged by the transient. All the noted deficiencies were repaired and the system put back in good working condition by 10/29/2010.
5. A PM plan to ensure that this system is inspected on an annual basis, including the burner cone and dampers, was established in SAP. Completed: 10/29/2010.
6. Review the SCWE principles with all operators and stress the importance of always trying to return to the start of an established procedure if there is an issue with the process. The Operations Manager reviewed the Fluorinator incident with all operators, and stressed the importance of following procedures, always asking questions and getting support for executing tasks and not putting production ahead of safety. Completed: 09/24/2010.
7. It was determined that the incident could have been prevented if the operator had followed the STOP process, re-set the burner and followed the normal startup procedure. This needed to be spelled out in the Abnormal Operation Procedure for Fluorination, as well as any other areas that could have a similar failure. The Fluorination Abnormal Operation procedure (MTW-SOP-F2N-0500) was modified with a specific set of steps to prevent this from happening again. The same change was adopted in Ore Prep (MTW-SOP-ORE-0500), Green Salt (MTW-SOP-GSO-0500) and Wet Process (MTW-SOP-PMC-0500) procedures. Completed: 09/24/2010.

Corrective Steps that Will Be Taken to Avoid Further Violations:

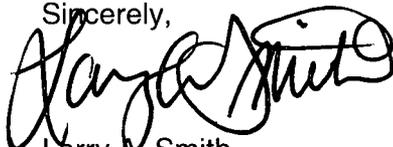
The Maxon valves for the 'B' Fluorinator heating system will be replaced. Target date: 01/28/2011.

Date When Full Compliance Will Be Achieved:

Full compliance with License Condition 18 of NRC License No. SUB-526, Section 2.6.1, "Operating Procedures," of the license application, and Standard Operating Procedure MTW-SOP-F2N-0100, "Fluorination Startup," will be achieved on 01/28/2011.

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
Region II, US Nuclear Regulatory Commission
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, GA 30303-1257

Region II, US Nuclear Regulatory Commission
Attention: Mr. Joselito O. Calle
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, GA 30303-1257