February 25, 2000

Mr. J. William Lessig
Honeywell
Specialty Chemicals
P.O. Box 430
Metropolis, IL 62690

SUBJECT: NRC INSPECTION REPORT 040-03392/2000001(DNMS)

Dear Mr. Lessig:

On February 17, 2000, the NRC concluded a routine inspection at your Metropolis, Illinois, facility. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the preliminary findings were discussed with you and members of your staff identified in the enclosed report. On February 24, 2000, our inspection findings and conclusions were discussed with Messrs. Shepherd and Roberts of your staff.

The inspection included a review of your operations, maintenance activities, selected areas of your training programs and follow up to an event involving a general licensed (10 CFR 31.5) nuclear gauge. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with personnel, and observations of activities in progress.

In addition to the above areas, the inspector examined the actions described in your letters dated March 29, 1999, and June 14, 1999, regarding apparent violations found during our February 19, 1999 inspection. We have no further questions regarding these matters.

Licensed activities involving source materials at your plant were performed in accordance with approved procedures and appeared to be effective in ensuring safe operations. One non-cited violation of NRC requirements was identified during the course of the inspection involving unauthorized removal and installation of a general licensed device. However, under the Interim Enforcement Policy for Generally Licensed Devices, 63 FR 66492, enforcement action normally will not be taken for violations of 10 CFR 31.5 if they are identified by the general licensee using byproduct material, and reported to the NRC if reporting is required, provided (among other things) that the general licensee takes appropriate corrective action to address the specific violation and prevent recurrence of similar problems. This approach is intended to encourage general licensees to determine if applicable requirements have been met and to develop appropriate corrective action when deficiencies are found. The NRC recognizes your cooperation in this regard.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

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

Sincerely,

/s/ P. L. Hiland

Patrick Hiland, Chief
Fuel Cycle Branch

Docket No. 040-03392
License No. SUB-526

Enclosure: Inspection Report
040-03392/2000001(DNMS)

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REGION III

Docket No:	040-03392
License No:	SUB-526
Report No:	040-03392/2000001(DNMS)
Licensee:	Honeywell
Facility:	Metropolis Works
Location:	P. O. Box 430 Metropolis, IL 62960
Dates:	February 14 through 17, 2000
Inspector:	D. G. Wiedeman, Senior Health Physicist
Approved By:	Patrick Hiland, Chief Fuel Cycle Branch Division of Nuclear Materials Safety

EXECUTIVE SUMMARY
Honeywell
NRC Inspection Report 040-03392/2000001(DNMS)

Operations

- Operations were conducted in accordance with the applicable procedures for the specific tasks being performed. A recent plant change to reduce the target fill limit for 48G cylinders continues to be appropriately implemented by the operations staff. (Section O1.1)

Training

- The plant staff performed training for selected recent plant changes impacting operations and the Radiological Contingency Plan implementation. Responsible plant staff were knowledgeable of the changes. (Section I1.1)

- The licensee provided a total of 2,817 hours of emergency response training to its staff during 1999. A random sample of the1999 training records indicated that the members of the emergency response team received the required 24-hours of training per year per team member. The training was comprehensive and covered a variety of duties. (Section I1.1)

Maintenance and Surveillance

- The licensee adequately implemented a preventive maintenance program for safety-related and critical equipment onsite. Although maintenance procedures were not required by the license to be reviewed and updated on a periodic frequency, the maintenance manager continues to review the need to conduct periodic reviews and updates of the maintenance procedures. (Section M1.1)

- On February 2, 2000, a general licensed (10 CFR 31.5) nuclear gauge containing approximately 100 millicuries (3.7 gegabequerels (GBq)) of cesium-137 was removed from a vessel and relocated by two maintenance mechanics. It was subsequently determined by the licensee that the gauge shutter was not closed during the relocation process. The licensee identified the procedural violation and performed a dose evaluation which subsequently indicated that the workers did not receive a dose in excess of the limits in 10 CFR Part 20. (Section M1.1)

Waste Management

- During the period from December 29, 1999 to February 14, 2000, the licensee transferred 1,120,440 pounds of wood chips (shredded wood pallets) that were slightly cross contaminated with unprocessed uranium ore to Waste Control Specialists in Texas.

- During this inspection the inspector observed the truck loading of approximately 75 cubic yards of contaminated wood chips to be transferred as 11(e) {byproduct material as defined in 10 CFR 40} to Quivira Mines, an NRC licensee located in New Mexico. No regulatory issues were identified. (Section W1.1)

Report Details

I. Operations

01.1 Conduct of Operations

a. Inspection Scope (88020)

The inspector observed general operations in the Feed Materials Building (FMB), ore sampling facility, and other areas onsite. In particular, the inspector observed the following activities:

- cylinder disconnect, weighing, and storage;
- FMB and control room operations; and
- routine rounds of the FMB.

b. Observations and Findings

The inspector noted that these activities were conducted in accordance with applicable procedures and postings, and that operators used appropriate protective clothing and equipment. The FMB units (ore preparation, hydrofluorination, fluorination, and distillation) operated without any abnormal conditions during the inspection. Control room operations were conducted with attention focused on equipment important to safety. Turnover briefings for the oncoming shift were noted to be brief, but adequately covered the status of equipment and the significant operational issues for the shift.

Prior to the previous NRC inspection in December 1999, the licensee had recently processed a plant change to lower the target fill weight for 48G cylinders from 26,500 pounds to 25,600 pounds as a result of a customer request. (The Department of Transportation shipping limit was 26,840 pounds for natural uranium hexafluoride.) During this inspection and the previous inspection the inspectors reviewed the cylinder fill logs and had discussions with distillation operators to ascertain how well the new requirement was understood and implemented. The review indicated that responsible operations staff were aware of the new fill limit and had appropriately implemented the guidance for the 48G cylinders filled since the plant change was approved.

During facility tours, the inspector observed housekeeping practices. The inspector noted that housekeeping continues to improve in the FMB and other facilities. The floors of the FMB were clear of obstructions and appeared generally clean. During this inspection steam condensate leaks were not readily identified. The licensee indicated that they continue a concerted effort to improve the housekeeping practices for the plant. In addition, the licensee continues to made progress in shipping contaminated wastes, in particular wood chips and used ore concentrates drums, for disposal.

c. Conclusion

Operations were conducted in accordance with the applicable procedures for the specific tasks being performed. A recent plant change to reduce the target fill limit for 48G cylinders continues to be appropriately implemented by the operations staff.

II. Training

I1.1 Review of Certain Training Activities

a. Inspection Scope (88010)

The inspector reviewed selected training records for employees qualified to perform various cylinder recertification activities, and also observed videotaped classroom training for the Fluorination Standard Operating Procedures.

b. Observations and Findings

The inspector reviewed documentation and interviewed the responsible production engineer regarding on-the-job training for activities associated with the tasks in the UF_6 Cylinder Quality Assurance Manual. On-the-job training was provided by previously qualified UF_6 cylinder inspectors. The responsible engineer indicated that training continued until the previously qualified inspectors deemed the trainee was proficient in all aspects of the applicable inspection procedure. No concerns were noted with the qualification of staff for activities associated with the UF_6 Cylinder Quality Assurance Manual.

The inspector observed the videotaped classroom training program for procedural changes to the Fluorination Manual, dated July 1998. The inspector noted that the classroom training covered the recent revisions to the operations and radiation protection procedures. In addition, the inspector noted that the classroom training specifically covered the proper operation of the cold trap system and the operations associated with that system. Operations staff indicated that the classroom and associated on-the-job training emphasized the importance of operating in strict accordance with procedures and covered all the revisions made to the associated operating procedure.

The inspector reviewed the 1999 training records provided to the members of the five (5) emergency response (ER) teams and determined that all team members received the required 24-hours of emergency response training for the year.

c. Conclusion

A selected review of training records for individuals qualified for activities associated with the UF_6 Cylinder Quality Assurance Manual and the Fluorination Manual revealed that both on-the-job and classroom training were adequate. Operations staff noted that ongoing training emphasized the importance of procedural adherence and standardized operations. The licensee provided the required 24-hours of emergency response training to all ER team members.

III. Maintenance and Surveillance

M1.0 Maintenance and Surveillance Activities

M1.1 Preventive Maintenance Program

a. Inspection Scope (88025)

The inspector observed selected maintenance activities in the FMB and reviewed randomly selected records for various plant safety systems incorporated in the plant preventive maintenance program. The inspector reviewed records and interviewed individual workers that were involved in the removal and relocation of a TN Technologies general licensed (10 CFR 31.5) nuclear gauge containing approximately 100 millicuries (3.7 GBq) of cesium-137.

b. Observations and Findings

The inspector reviewed the following preventive maintenance activities: monthly FMB control room alarm panel (Panalarm) surveillances,13 week cylinder valve closer surveillances, 13 week UF_6 cylinder scale surveillances, monthly cylinder wash crane surveillances, biweekly cylinder hauler surveillances, and various lube oil surveillances. The inspector reviewed selected records for these activities from (January to December of 1999), including completed worksheets and checklists. The inspector also reviewed the preventive maintenance tracking system for these items. The inspector also discussed various aspects of the preventive maintenance activities with the responsible maintenance staff and observed surveillances in progress. The various surveillances reviewed were thorough and checked various aspects essential to the operability of the equipment inspected.

Monthly UF_6 cylinder crane surveillances were reviewed with no issues regarding the frequency or adequacy of surveillances for the cranes identified. The inspector also reviewed the monthly UF_6 cylinder pigtail assembly surveillances and reviewed Maintenance Procedure No. 152 with maintenance staff in the field. The inspector determined that the procedure was adequate for the various functional tests performed monthly on cylinder pigtails. In addition the monthly surveillances were performed at the required frequencies.

The inspector reviewed various FMB logs and discussed the probability of operations staff inadvertently utilizing an out-of-service pigtail and determined that in recent years, no incident involving the use of an out-of-service pigtail had been recorded. During tours of the cylinder fill area in the FMB the inspector did not identify any out-of-service pigtails available for inadvertent use.

The inspector also reviewed various maintenance procedures during the inspection. The inspector noted that although some maintenance procedures had been updated in recent years, the vast majority of maintenance procedures (85%) were last revised five to ten years ago. The facility license did not require a periodic review frequency for maintenance procedures.

On February 2, 2000, a general licensed (10 CFR 31.5) nuclear gauge containing approximately 100 millicuries (3.7 gegabequerels (GBq)) of cesium-137 was removed from a vessel and relocated by two maintenance mechanics. It was subsequently determined by the licensee that the gauge shutter was not closed during the relocation process. The

licensee identified the procedural violation in 10 CFR 31.5 that requires the general licensee to follow the instructions on the device label regarding installation and relocation of the device. After the event was identified, the licensee performed a dose evaluation to the workers, which subsequently indicated that the workers did not receive a dose in excess of the limits in 10 CFR Part 20. The licensee's exposure evaluation indicated that the workers received a dose less than 125 millirems.

This event was reported to the NRC on February 3, 2000, and the licensee took appropriate corrective actions by issuing a directive that no worker is allowed to perform installation, relocation or removal of any gauging device, further this work can only be performed by the gauge manufacturer.

c. Conclusion

The licensee adequately implemented a preventive maintenance program for safety-related and critical equipment onsite. Although maintenance procedures were not required by the license to be reviewed and updated on a periodic frequency, the maintenance manager continues to review the need to conduct periodic reviews and updates of maintenance procedures.

The licensee's actions to identify a violation of 10 CFR 31.5 involving the removal and re-installation of a general licensed device, and take immediate corrective actions and report the event to the NRC meets the criteria for a non-cited violation as stated in the NRC Interim Enforcement Policy.

IV. Plant Support

W1.1 Radiological Protection and Controls

a. Inspection Scope (83822)

The inspector reviewed selected shipping records for the period from December 29, 1999 to February 14, 2000 involving the transfer of 1,120,440 pounds of contaminated wood chips(shredded wood pallets) and observed the loading of approximately 75 cubic yards of contaminated wood chips onto a transport vehicle.

b. Observations and Findings

During the period from December 29, 1999 to February 14, 2000, the licensee transferred 1,120,440 pounds of wood chips (shredded wood pallets) that were slightly cross contaminated with unprocessed uranium ore to Waste Control Specialists in Texas. The licensee maintained appropriate documentation and shipping papers for these transfers. During this inspection the inspector observed the loading of a transport truck with approximately 75 cubic yards of contaminated wood chips to be transferred as 11(e) (byproduct material as defined in 10 CFR 40) to Quivira Mines, an NRC licensee located in New Mexico. No regulatory issues were identified.

c. Conclusion

The licensee adequately implemented its waste control procedures and transferred its contaminated wood chips in accordance with the requirements in 10 CFR Part 20, 40 and 49 CFR.

R8.0 Radiation Protection Controls Miscellaneous Items

R8.1 (Closed) Inspector follow-up Item 040-03392/99-001-01:

Licensee failed to provide and require protective clothing to railroad workers. The licensee failed to perform radiation monitoring on railcars prior to exiting the site, this item is considered closed.

V. Management Meeting

X. Exit Meeting Summary

The inspector presented the inspection results to members of the plant staff and management at the conclusion of the inspection on February 17, 2000. The plant staff acknowledged the findings presented. The inspector asked the plant staff whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified. On February 24, 2000, the inspector contacted the licensee by telephone and discussed the inspection findings associated with the unauthorized removal and re-installation of their general licensed nuclear gauge.

PARTIAL LIST OF PERSONS CONTACTED

Honeywell Specialty Chemicals

M. Davis, Health Physics Supervisor
W. Lessig, Plant Manager
* H. Roberts, Health Physics Manager
* M. Shepherd, Manager Environmental and Regulatory Affairs

Other members of the licensees' staff were also contacted during the inspection.
*Contacted by telephone on February 24, 2000.

INSPECTION PROCEDURES USED

IP 88010: Operator Training
IP 88020: Operations Review
IP 88025: Maintenance and Surveillance
IP 83822: Radiological Protection and Controls

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened: none

Closed:

040-03392/99001-01	IFI	Failure to require railroad workers to wear protective clothing and monitor railcars as they exit the facility.

Discussed**:**

None

LIST OF ACRONYMS USED

ALARA	As-Low-As-Reasonably-Achievable
CFR	Code of Federal Regulations
DNMS	Division of Nuclear Material Safety
FMB	Feed Materials Building
HP	Heath Physics
IP	Inspection Procedure
NRC	Nuclear Regulatory Commission
UF_6	Uranium Hexafluoride