



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

October 28, 2014

Mr. Jim Pritchett
Plant Manager
Honeywell Metropolis Works
P.O. Box 430
Metropolis, IL 62960

**SUBJECT: HONEYWELL METROPOLIS WORKS – NUCLEAR REGULATORY
COMMISSION INTEGRATED INSPECTION REPORT 40-3392/2014-004 AND
NOTICE OF VIOLATION**

Dear Mr. Pritchett:

This letter refers to the inspections conducted during the third quarter from July 1 through September 30, 2014, at the Honeywell Metropolis Works facility in Metropolis, Illinois. The purpose of the inspections was to determine whether activities authorized under the license were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. The enclosed report presents the results of the inspections. At the conclusion of the inspections, the results were discussed with members of your staff at exit meetings held on August 14, August 22, August 28, September 11, and October 23, 2014, for this integrated inspection report.

During the inspections, the staff examined activities conducted under your license, as they relate to public health and safety, in order to confirm compliance with the Commission's rules and regulations and with the conditions of your license. The inspections consisted of facility walk-downs; selective examinations of relevant procedures and records; interviews with plant personnel; and plant observations. Throughout the inspections, observations were discussed with your managers and staff. The inspections covered the following areas: operational safety; licensee strike contingency plan and operations; radiation protection; radioactive waste processing, handling, storage, and transportation; and, effluent control and environmental protection.

Based on the results of these inspections, the NRC has determined that one Severity Level IV violation of NRC requirements occurred related to unqualified operators performing licensed activities. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at (<http://www.nrc.gov/aboutnrc/regulatory/enforcement/enforce-pol.html>).

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation is being cited in the Notice because it was NRC-identified. You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

Thank you for your cooperation. If you have any questions, please call me at (404) 997-4628.

Sincerely,

/RA/

James A. Hickey, Chief
Projects Branch 1
Division of Fuel Facility Inspection

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

Enclosures:

1. Notice of Violation
2. NRC Inspection Report No. 40-3392/2014-004
w/Attachment: Supplemental Information

cc: (See page 3)

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DISTRIBUTION:

- B. Smith, NMSS
- J. Hickey, RII
- T. Liu, NMSS
- B. Reilly, NMSS
- D. Hartland, RII
- R. Russell, RII

X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE X NON-SENSITIVE
 ADAMS: X Yes ACCESSION NUMBER ML14301A004 X SUNSI REVIEW COMPLETE X FORM 665 ATTACHED

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI
SIGNATURE	/RA/	/RA/	/RA/	/RA/	/RA/	/RA/
NAME	R. Russell	R. Gibson	G. Goff	M. Thomas	T. Vukovinsky	D. Hartland
DATE	10/27/2014	10/23/2014	10/22/2014	10/17/2014	10/27/2014	10/27/2014
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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cc:

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Emergency Management Agency
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NOTICE OF VIOLATION

Honeywell Metropolis Works
Metropolis, Illinois

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

During NRC inspections conducted from July 1, through September 30, 2014, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is described below:

License Condition 18 of NRC License No. SUB-526, Amendment No. 11, states, in part, that the licensee shall conduct authorized activities at the Honeywell Metropolis Works Facility in accordance with the statements, representations, and conditions in the license application and in the Safety Demonstration Report.

Section 2.5.3 of the license application and Section 3.5.3 of the Safety Demonstration Report states, in part, plant operators will be trained and qualified in accordance with established plant policies and procedures in the requirements specified in an appropriate qualification description document in all areas to which they are assigned.

Licensee procedure MTW-ADM-TRN-0701, Conduct of Training, in paragraph 4.14, defines qualification as achievement of requirements necessary to independently perform specific task(s) and requires the training and qualification requirements for the job category be specified in a Training Qualification Description (TQD) document. The TQD for the assistant green salt operator specifies green salt drumming operations as an activity that requires training and qualification.

Contrary to the above, on January 1, 2014, two operators conducted licensed material activities and were not trained and qualified as specified in the TQD for an assistant green salt operator. Specifically, an ore preparation operator and an assistant operator conducted green salt drumming operations and were not trained and qualified as assistant green salt operators.

This is a Severity Level IV violation. (Section 6.3)

Pursuant to the provisions of 10 CFR 2.201, Honeywell Metropolis Works is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 28th day of October, 2014

U.S. NUCLEAR REGULATORY COMMISSION
REGION II

INSPECTION REPORT

Docket No.: 40-3392

License No.: SUB-526

Report No.: 40-3392/2014-004

Licensee: Honeywell International, Inc.

Facility: Metropolis Works (MTW)

Location: Metropolis, IL 62960

Dates: July 1 through September 30, 2014

Inspectors: R. Gibson, Senior Fuel Facility Inspector
G. Goff, Fuel Facility Inspector
D. Hartland, Senior Fuel Facility Inspector
R. Russell, Fuel Facility Inspector
P. Startz, Fuel Facility Inspector
M. Thomas, Senior Fuel Facility Inspector
T. Vukovinsky, Fuel Facility Inspector

Approved by: James A. Hickey, Chief
Projects Branch 1
Division of Fuel Facility Inspection

Executive Summary

Honeywell Metropolis Works NRC Integrated Inspection Report 40-3392/2014-004

Routine, announced inspections were conducted by regional inspectors during normal shifts and backshifts in the areas of effluent control and environmental protection; radiation protection; radioactive waste processing, handling, storage, and transportation; and operational safety. The inspectors also performed a selective examination of the licensee's activities regarding the preparation of strike contingency plans, plan implementation, and observation of plant operations performed by temporary workers. The inspectors evaluated safety significant activities, conducted tours of the facility, interviewed personnel, and reviewed facility documents. The inspections addressed the following aspects of the program as outlined below.

Safety Operations

- The safety-related Plant Features and Procedures that were reviewed were properly implemented and maintained in order to perform their intended safety function. (Paragraph A.1)
- One Severity Level IV violation was identified for the failure to ensure plant operators were trained and qualified. (Paragraph A.1)
- The licensee developed and implemented a strike contingency plan to ensure continued safe operation of the plant after the lock-out was initiated. Temporary workers were knowledgeable of their responsibilities and were adequately trained and qualified to perform their assigned duties. (Paragraph A.2)

Radiological Controls

- The Radiation Protection program was implemented in accordance with the license application and regulatory requirements. (Paragraph B.1)
- Personnel responsible for the handling, packaging, preparation, and transportation of radioactive waste materials were knowledgeable of their responsibilities and regulatory requirements associated with these activities. Radioactive material shipping manifests correctly reflected the classification, quantity, and labeling requirements for the respective shipment. Training and qualification records for individuals authorized to approve radioactive material shipments were current. (Paragraph B.2)
- The inspectors reviewed the programs and procedures in place for the release of radioactive effluents (liquid and airborne) and the environmental program. The inspectors determined the licensee has adequate management controls and were in compliance with the regulations and the license application. (Paragraph B.3)

Other Areas

- A previously identified violation was closed. (Paragraph C.1)
- Event notifications were closed. (Paragraph C.2)

Attachment

Key Persons Contacted

Inspection Procedures Used

List of Items Opened, Closed, and Discussed

List of Documents Reviewed

REPORT DETAILS

Summary of Plant Status

The Honeywell Metropolis Works (licensee) uranium conversion facility is located on a 1,100 acre site (60 acres within the fence line) near Metropolis, IL. The licensee is authorized to possess 150 million pounds of natural uranium ore and to convert this material to uranium hexafluoride (UF₆). The uranium conversion process occurs in the Feed Materials Building (FMB). During the quarter and as a result of the failure to reach a negotiated contract settlement, the licensee elected to lock out hourly personnel at 12:00 a.m. on August 2, 2014. The facility was operated throughout the period without major incident.

A. Safety Operations

1. Operational Safety (IP 88020)

a. Inspection Scope and Observations

The inspectors interviewed staff, evaluated operating equipment, and review records associated with operation of the FMB and the personnel who have operated the facility since a labor dispute began. The inspectors determined that operations and safety controls reviewed were being adequately implemented and properly communicated as described in the Integrated Safety Analysis (ISA) and operating procedures. The inspectors determined that the licensee was operating safely and in compliance with requirements.

The inspectors confirmed that engineered safety related controls that were reviewed were present and capable of performing their intended safety functions. To complete this confirmation, the inspectors verified that a sample of the controls was physically present, that the controls were adequately maintained through testing and calibration, and that potential accident scenarios were adequately addressed.

The inspectors determined that administrative controls were implemented and communicated. The inspectors reviewed samples of procedures and determined that required actions identified in the ISA Summary have been correctly transcribed into written operating procedures. The inspectors evaluated the procedures' contents with respect to operating limits and operator responses for upset conditions and verified that limits needed to assure safety were adequately described in the procedures.

The inspectors interviewed operators and determined that they were adequately implementing the required safety controls. The inspectors observed operators' performance and determined that they were adhering to applicable safety and operating procedures. Through interviews and reviews of samples of documents, the inspectors verified that the licensee conducted preventive maintenance, calibration, and periodic surveillance as required by the ISA Summary for the selected safety controls.

The inspectors reviewed the circumstances and effects from a facility-wide power interruption that occurred August 11, 2014, at 3:00 am. A thunderstorm caused the brief power interruption that tripped all plant production operations. Operations personnel have responded in accordance with procedures. Emergency generators, the diesel fire

water pump, safety systems in the FMB, and uninterruptable power supplies were reported to have functioned as expected. Electrical power to the facility was promptly restored and facility operations were eventually brought back online.

The inspectors reviewed samples of the licensee's corrective action program (CAP) entries for the past 12 months and determined that issues affecting chemical and radiological safety related systems were adequately addressed. The magnitude of effort to investigate and generate comprehensive corrective actions, and follow-up corrective actions on priority issues were determined to be adequate.

The inspectors reviewed procedures, operator and supervisor logs, Respirator Health Physics Log Book (red light tracking record), and training records. The inspectors conducted interviews with an operations superintendent and green salt and ore preparation operators and walked down the green salt and ore preparation drumming areas.

b. Findings

Introduction: The NRC-identified a violation of very low safety significance of License Condition 18 for the failure to ensure plant operators were trained and qualified in accordance with the requirements specified in an appropriate qualification description document in the area to which they were assigned. Specifically, two ore preparation operators performed green salt drumming operations without the required qualification and training for a green salt operator.

Description: On the night shift beginning on December 31, 2013, through January 1, 2014, the supervisor assigned the ore preparation operator and assistant operator the task to drum-off green salt from the process. The ore preparation operator and assistant operator drummed off approximately 26 drums of green salt.

The inspectors reviewed the training and qualification records of the ore preparation operator and assistant ore preparation operator and determined the operators were not trained in green salt operations. The operators were trained and qualified in their assigned area of ore preparation.

The inspectors reviewed Honeywell's procedure MTW-SOP-GSO-0200, Green Salt Operations, and determined the procedure required in-hand use and the activation of the red lights for the first floor of the FMB during drumming operations. The flashing red lights were used to ensure workers in the area wore respirators as a precaution because the drumming operations have the potential to release airborne contamination. The inspectors determined as a result of the operators not being trained and qualified in green salt operations, the operators were unaware of the requirements to have the procedure in-hand and to activate the red lights to alert others in the area of a potential airborne hazard.

Analysis: The inspectors determined the failure to ensure operators were trained and qualified to perform green salt drumming operations is a violation of License Condition 18. As a result of not being trained in the green salt operations and procedures, the ore preparation operators failed to have the procedure in hand and failed to ensure the red warning lights were activated.

The violation was determined to be more than minor and similar to the example in the *NRC Enforcement Policy*, paragraph 6.3.c.5, for an unqualified person conducting licensed activities, characterized by lack of adequate qualification or training to safely conduct activities. However, the *NRC Enforcement Manual*, paragraph 3.5.1, discussed, in part, an individual that may be technically qualified to perform the activities in question but did not have the appropriate certification to perform these activities. In that case, the violation would be categorized as a Severity Level IV.

The inspectors determined the drumming of the green salt was a similar task as the drumming of prepared feed (ore), and the ore preparation operators were trained and qualified in ore drumming operations. Therefore, the inspectors determined that the individuals were technically qualified to perform the activity. Therefore, the violation is being categorized as a Severity Level (SL) IV.

Enforcement: License Condition 18 of NRC License No. SUB-526, Amendment No. 11, stated, in part, that the licensee shall conduct authorized activities at the Honeywell Metropolis Works Facility in accordance with the statements, representations, and conditions in the license application and in the safety demonstration report. Section 2.5.3 of the license application and Section 3.5.3 of the Safety Demonstration Report stated, in part, plant operators will be trained and qualified in accordance with established plant policies and procedures in the requirements specified in an appropriate qualification description document in all areas to which they are assigned. The licensee procedure MTW-ADM-TRN-0701, Conduct of Training, in paragraph 4.14, defined qualification as achievement of requirements necessary to independently perform specific task(s) and requires the training and qualification requirements for the job category be specified in a Training Qualification Description (TQD) document. The TQD for an assistant green salt operator specified green salt drumming operations as a task requiring training and qualification. Contrary to the above, on January 1, 2014, two operators conducted licensed material activities and were not trained and qualified as specified in the appropriate TQD documents. Specifically, an ore preparation operator and an assistant operator conducted green salt drumming operations and were not trained and qualified as assistant green salt operators. (VIO 40-3392/2014-004-01, Unqualified Licensed Material Operators)

c. Conclusion

One SL IV violation was identified for the failure to use qualified plant operators for green salt during activities.

2. Review of Licensee Strike Contingency Plan and Implementation (92709 and 92711)

a. Inspection Scope and Observations

The inspection consisted of a review of the status of the licensee's contingency planning, a review of supporting documentation, interviews and discussions with responsible personnel, and field observations.

The inspectors reviewed the licensee's strike contingency plan and discussed the implementation with licensee management. The inspectors also reviewed details associated with actions in progress necessary to implement the plan. Licensee plans adequately addressed staffing requirements and necessary actions to ensure continued safe operation of the plant in the event of a strike.

In meetings with the senior licensee management before the August 1, 2014, contract expiration date, the inspectors discussed the anticipated impact of a potential work stoppage and compensatory measures that the licensee had developed for coping with the safety impacts of such a stoppage. Specifically, the inspectors reviewed the licensee's assumptions in developing these compensatory measures including:

- the number and job classifications of potential strikers;
- the readiness of the contingency plan submitted to the NRC for its review; and,
- processes for training and qualifying sufficient staff for safety-critical positions.

The inspectors interviewed plant management personnel and reviewed the licensee's provisions for ensuring that overtime and duty hours were appropriately managed to minimize the impact of fatigue on plant personnel during the course of a potentially extended labor dispute. The licensee had implemented plans to ensure that safety critical plant staff were adequately rested and that there were a sufficient number of operations personnel available to staff three shifts. The inspectors verified that the licensee's plans provided for a sufficient number of personnel to staff the following functional areas:

- operations;
- maintenance;
- health physics & industrial hygiene;
- emergency response;
- quality assurance; and,
- security.

During the period prior to the expiration of the contract, the inspectors reviewed a representative sample of records documenting the various aspects of the licensee's training program including classroom training, on-the-job training, practical examination, and oral qualification interviews. The inspectors also observed portions of practical examinations and oral qualification interviews. The inspectors verified that content and curriculum of training for salaried and other temporary operations personnel, including conduct of the practical exams and interviews, satisfied the requirements specified in the license.

Interviews of plant personnel indicated that the licensee had also contacted and made arrangements for continued support from:

- the Illinois state police;
- the Massac County Sheriff's Office; and,
- city and county fire departments.

The inspectors interviewed plant managers and determined that the arrangements described in the offsite support matrix in the licensee's contingency plan had been verified and updated to ensure the continued receipt of supplies. The licensee had verified that suppliers would cross picket lines if they were to be established.

The inspectors met with representatives of Local 7-669 of the United Steel Workers, the union that represented the licensee's hourly operations employees. The inspectors discussed the role of the NRC and its inspectors in the event of a work stoppage along with the need to ensure unfettered site access for inspectors in the event a picket line was established. The union leadership committed to continued cooperation with the NRC if a work stoppage were to occur to ensure that NRC inspectors could continue to have unfettered access to the licensee's facility. Arrangements were made to ensure that the union leadership and NRC staff could readily communicate with each other. During the course of the inspections, individuals on the picket line were cordial and professional in their interaction with NRC inspectors.

The inspectors met with a representative of the Massac County Sheriff's Office to discuss the NRC's neutral position in any potential labor dispute and made contingency arrangements to ensure continued and unfettered access to the licensee's facility. Local law enforcement officials provided the inspectors with information and guidance to follow in the event that inspectors experienced interference or difficulty gaining access to the facility.

The bargaining unit contract between the union representing hourly operations personnel and the licensee expired on August 1. As a result of the failure to reach a negotiated contract settlement, the licensee elected to lock out hourly personnel at 12:00 a.m. on August 2. Salaried and replacement control room personnel placed the plant in standby and conducted walk downs of the facility to verify it was adequately secured. No issues of safety significance were identified, and production resumed without incident.

The inspectors observed routine operational and maintenance activities conducted in the field and the coordination of these activities with control room operators. Field activities observed by the inspectors included routine tours conducted by assistant operators, the operation of the ore feed dump station, cylinder handling at the fill station, and miscellaneous minor maintenance activities. Communications among operators, assistant operators, and maintenance personnel were performed in a timely and effective manner. Field activities were conducted in accordance with approved procedures.

The inspectors observed control room operations to determine whether proper control room staffing was maintained, access to the control room was properly controlled, and operations conducted in a manner commensurate with the plant configuration and plant activities in progress. The inspectors examined the status of selected control room instrumentation and computer controllers used to identify abnormalities and determine plant status. The inspectors reviewed health physics and control room log books, daily operating instructions, and corrective action program entries to obtain information concerning operating trends and activities. No significant issues were identified.

b. Conclusion

The licensee developed and implemented a strike contingency plan to ensure continued safe operation of the plant after the lock-out was initiated. Temporary workers were knowledgeable of their responsibilities and were adequately trained and qualified to perform their assigned duties.

B. Radiological Controls1. Radiation Protection (IP 88030)a. Inspection Scope and Observations

The inspectors reviewed the Radiological Protection Program and determined if the program performance was being reviewed, at least annually, to comply with 10 CFR 20.1101. The inspectors reviewed documents and interviewed licensee personnel and verified that the radiation protection program's functions and responsibilities were independent from operations. The inspectors reviewed administrative and standard operating procedures and confirmed that changes to any radiological protection procedures made since the last inspection were consistent with regulations and license requirements.

In addition, the inspectors reviewed the Radiological Protection Program to determine that the performance of radiation protection instruments and equipment was in accordance with license requirements and procedures and if selected survey instruments and detection equipment were properly functioning and calibrated within the required timeframe.

Inspectors reviewed the Total Effective Dose Equivalent results and determined that they were less than the regulatory limit of five (5) rem/year. The inspectors also reviewed the 2013 personnel dosimeter results as submitted to the licensee by its contractor and determined that the Lens Dose Equivalent and Shallow Dose Equivalent results were less than the regulatory limit of 15 rem and 50 rem/year, respectively. Inspectors verified these records were maintained in accordance with 10 CFR 20.2106.

The inspectors toured the radiological controlled areas and verified that radiological signs and postings accurately reflected radiological conditions within the posted areas. Furthermore, the inspectors checked the inner fence line for required radiation postings and found all signs posted in accordance with licensee procedures and 10 CFR Part 20. The inspectors verified that the Notice to Employees, NRC Form 3, was posted in a high traffic area in accordance with 10 CFR 19.11.

The inspectors observed activities such as dose rate surveys on outgoing UF₆ cylinders, contamination surveys on UF₆ cylinders in storage, fixed air monitor sample change-outs, and uranium ore sampling. For the dose rate and contamination surveys, inspectors reviewed the results and determined that the surveys adequately evaluated the magnitude and extent of radiation levels/activity in accordance with 10 CFR 20.1501. Inspectors performed random contamination and dose surveys within the FMB and the Sampling Plant. All dose and contamination levels were well below licensee and regulatory limits. Also, the inspectors walked down the Bed Material Filter Fines Building and cylinder storage yards. All required radiological signs and warning lights were posted in accordance with procedures.

In addition, the inspectors reviewed training records for licensee and contractor health physics (HP) technicians. Required training for the licensee HP technicians was adequate and performed in accordance within the required frequency. The contractor health physics technicians had training provided by Honeywell, both on-line and on-the-job. Inspectors noted that some of these contractor HPs were certified as a technician or possessed extensive radiological experience from previous nuclear work.

b. Conclusion

No violations of NRC requirements were identified.

2. Radioactive Waste Processing, Handling, Storage, and Transportation (IP 88035)

a. Inspection Scope and Observations

The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations of activities.

The inspectors observed radioactive waste storage and staging areas. Through discussions with licensee personnel and plant observations, the inspectors noted that the licensee has continued efforts to reduce the quantity of miscellaneous radioactive waste materials presently stored in onsite radioactive material storage areas. These items included materials such as used equipment and components, scrap metal, and discarded drums. The inspectors observed responsible personnel preparing a rail car for shipment loaded with various materials.

The inspectors reviewed organizational changes made since the last inspection relating to radioactive waste management program activities. The inspectors reviewed the qualifications of personnel with radioactive waste management program responsibilities. Procedures adequately described the responsibilities and roles of personnel responsible for the handling, preparation, packaging, and transport of radioactive waste materials.

Personnel responsible for the handling, packaging, preparation, and transportation of radioactive waste materials were knowledgeable of their responsibilities and regulatory requirements associated with these activities. Radioactive material shipping manifests correctly reflected the classification, quantity, and labeling requirements for the respective shipment. Training and qualification records for individuals authorized to approve radioactive material shipments were current.

b. Conclusion

No violations of NRC requirements were identified.

3. Effluent Control and Environmental Protection (IP 88045)

a. Inspection Scope and Observations

The inspectors reviewed the effluent control and environmental protection program changes since the last inspection and verified that these changes were being implemented in accordance with license requirements. The inspectors determined the licensee maintained provisions for an on-going review of effluent control and environmental monitoring data and results. The inspectors evaluated a sample of the records of internal audits and assessments and determined corrective actions had been taken for deficiencies identified during the efforts. For example, the environmental procedure was revised to reflect the current procedure for analyzing environmental samples.

The inspectors reviewed the procedures for quality control of laboratory equipment and the analytical methods used for the measurements of radioactivity in the effluent and environmental samples. Based on this review, the inspectors determined the licensee had adequately maintained the equipment and conducted the analytical methods in accordance with current procedures. The inspectors determined the licensee had criteria and limits for acceptable quality control test results. Test results found outside the limits were identified for correction.

The inspectors evaluated the implementation of the effluent control and environmental monitoring program through a review of data and discussions with the licensee and its contracted personnel. The inspectors walked-down a selection of the sampling points and monitoring stations with the licensee and its contractor personnel as they procured samples. The inspectors observed collecting of samples and the material condition of the sampling points, monitoring stations, and outfall liquid effluent equipment and determined sample collecting was in accordance with the license requirements.

The inspectors reviewed the 2013 semi-annual facility effluent reports submitted pursuant to 10 CFR 40.65, the dose assessment reports for the public, and the dose assessment for the nearest resident most likely to receive the highest dose from licensed operations. The inspectors determined the licensee was in compliance with 10 CFR 20.1101 and 20.1302. The effluent report for the first half of 2014 was drafted by the licensee, but had not been issued prior to the close of this inspection.

The inspectors evaluated the records of airborne and liquid effluent discharges and determined the average annual effluent concentrations did not exceed the values specified in Appendix B of 10 CFR 20. However, the licensee identified a slight increase in the airborne effluent samples for the public and the nearest resident stations because of several incidents involving elevated air emissions from the filter enclosures and the dust collector stacks. The increase in airborne effluent samples did not exceed the licensee's administrative limits or regulatory limits. In response, the licensee submitted a capital request to corporate management to repair and/or replace all effected enclosures and dust collectors over a five year period.

The inspectors reviewed a selection of corrective action program entries since the last inspection and determined the deviations and issues affecting environmental safety were adequately documented and investigated.

b. Conclusion

No violations of NRC requirements were identified.

C Other Areas

1. Follow-up on Previously Identified Issues

a. (CLOSED) Violation (VIO) 40-3392/2014-002-01, Combustible Fire Loading Near Building 33

The licensee took corrective actions to dispose of the pallets as low-level radioactive waste. This item is closed.

2. Event Follow-up

a. (CLOSED) Event Notification (EN) 49785, 40-3392/2014-001-0, Unplanned Medical Treatment of a Contaminated Individual

On February 1, 2014, an employee with a laceration on his ear reported to the on-site dispensary. The plant nurse administered first aid. The licensee performed a whole body survey of the injured worker and identified contamination on the worker's boots. The plant nurse allowed the employee to return to work. The worker remained inside the restricted area over the course of the event. The inspectors reviewed the survey records of the worker, the on-site dispensary, and the licensee's 30-day written follow-up report and determined the corrective actions were adequate. This item is closed.

b. (CLOSED) EN 49913, 40-3392/2014-002-0, Unplanned Medical Treatment of a Contaminated Individual

On March 13, 2014, an employee with a wooden splinter in his right hand reported to the on-site dispensary. The plant nurse administered first aid. The licensee performed a whole body survey of the injured worker and identified contamination on the worker's right pant leg. The plant nurse allowed the employee to return to work. The worker remained inside the restricted area over the course of the event. The inspectors reviewed the survey records of the worker, the on-site dispensary, and the licensee's 30-day written follow-up report and determined the corrective actions were adequate. This item is closed.

c. (CLOSED) EN 49916, 40-3392/2014-003-0, Unplanned Medical Treatment of a Contaminated Individual

On March 14, 2014, an employee with a wooden splinter in his right hand reported to the on-site dispensary. The plant nurse administered first aid. The licensee performed a whole body survey of the injured worker and identified contamination on the worker's right boot. The plant nurse allowed the employee to return to work. The worker remained inside the restricted area over the course of the event. The inspectors reviewed the survey records of the worker, the on-site dispensary, and the licensee's 30-day written follow-up report and determined the corrective actions were adequate. This item is closed.

D. Exit Meeting

The inspection scope and results were presented to members of the licensee's staff at various meetings throughout the inspection period and were summarized on August 14, August 22, August 28, September 11, and October 23, 2014, with J. Pritchett, Plant Manager, and other members of the licensee's staff. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in the report.

SUPPLEMENTAL INFORMATION

1. KEY PERSONS CONTACTED

D. Bilski, Security Manager
S. Chisek, Environmental Engineer
D. Craig, Operation Manager
J. Cybulski, Site Service Manager
J. Everhart, Senior Human Resources Manager
M. French, Safety Leader
R. Lindberg, Health Physics Specialist
L. Litinski, Regulatory Affairs
R. Osborne, Environmental Leader
S. Patterson, Regulatory Affairs Manager
J. Price, Lead Engineer
J. Snellings, Quality Assurance Auditor
J. Pritchett, Plant Manager
Y. Reed, Environmental Engineer
E. Robinson, Operations Specialist
R. Robertson, Regulatory Affairs
J. Smith, Maintenance Manager
M. Wolf, Nuclear Compliance Director

2. INSPECTION PROCEDURES USED

88020	Operational Safety
88030	Radiation Protection
88035	Radioactive Waste Processing, Handling, Storage, and Transportation
88045	Effluent Control and Environmental Protection
92709	Contingency Plans for Licensee Strikes or Lockouts
92711	Implementation of Licensee Contingency Plans During a Strike/Lockout

3. ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

40-3392/2014-004-01	VIO	Unqualified Material Operators used for Green Salt Drumming
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Closed

40-3392/2014-002-01	VIO	Combustible Fire Loading Near Building 33
40-3392/2014-001-0	LER	EN 49785 – Unplanned Medical Treatment
40-3392/2014-002-0	LER	EN 49913 – Unplanned Medical Treatment
40-3392/2014-003-0	LER	EN 49916 – Unplanned Medical Treatment

4. LIST OF DOCUMENTS REVIEWED

Records:

Integrated Safety Analysis Summary Revision (Rev.) 6, dated October 28, 2013
 Honeywell Organization Chart
 Honeywell Source Material Licensee Application, SUB-526, dated October 8, 2013
 Work Order (WO) 70631579, EXV-E605 Check Operator Arms PM (UF₆ cylinder valve closer mechanism), completed April 24, 2014
 WO 70654289, FSL-827, U-HF Scrubber Flow Switch PM, (HF Unload scrubber recirculation) completed July 29, 2014
 WO 70640141, E-604 Load Cell Calibration (UF₆ cylinder) Fill Station #2, 6 month calibration, completed May 11, 2014
 WO 70637837, CS-1, HF Mitigation Control Station, south/tank farm, completed April 28, 2014
 WO 70655461, CR-400 bridge crane/ UF₆ cylinder crane, weekly PM, completed July 30, 2014
 WO 70625127, AE-U61321 HF monitors, tank farm, 6 month calibration, completed February 20, 2014
 WO 70631909, FV-E42104, E-412 UF₆ Product Condenser product flow/totalizer, 12 month calibration, completed May 29, 2014
 2014 radiological survey records
 Health physics training records
 Calibration records: 100263, 227992, 257664, 204102, 291486
 Calibration certificates with NIST traceability
 Survey Meter Calibration Information, dated September 2, 2014
 Blue Cards (Safety Work Permits) 30107 and 30446
 Listing of external and internal exposure investigations since January 1, 2013
 UF₆ Chemical Operator Qualification Records, Ore Preparation Operator and Assistant Operator

Reports:

HP internal audits - 2014
 Quality assurance audits: AUD-2013-0027, AUD-2014-0004, AUD-2013-0032
 2014 Cumulative Exposure Report for Monitored Individuals, dated September 2, 2014
 Historical Exposure Report for Monitored Individuals, 1994-2013
 Sample Report, Smears, 20409091437, dated September 9, 2014

Procedures:

MTW-ADM-TRN-0701, Conduct of Training, Rev. 10
 MTW-SOP-DIS-0200, Distillation Operating Procedure, Rev. 26
 MTW-SOP-GSO-0200, Green Salt Operation, Revision 22
 MTW-SOP-ORE-0210, Drum Shack and North Pad Operations, Rev. 5
 MTW-SAF-EQP-0001, PPE Program, Rev. 4
 MTW-SOP-GSO-0200, Green Salt Operation, Rev. 23
 MTW-SOP-GSO-0160, Hydrofluorination Startup, Rev. 29
 MTW-SOP-DIS-0100, Distillation Startup, Rev. 18
 MTW-EOP-DIS-0600, Distillation Emergency Operation, Rev. 6.
 MTW-ADM-EPIP-0010, Loss of Electrical Power and Standby Power Action Plan, Rev. 5.
 MTW-ADM-OPS-0121, Management of Plant Features and Procedures, Rev.14
 MTW-ADM-HP-0100, Radiological Protection Program, Rev. 12, dated May 15, 2014

MTW-ADM-HP-0118, External Radiation Exposure Control, Rev. 2, dated April 4, 2013
MTW-POL-PD-001, Feed Materials Building Control Room Staffing, Rev. 3, dated June 19, 2001
MTW-SOP-HP-0120, Sealed Sources Leak Testing and Analysis, Rev. 3, dated March 6, 2014
MTW-SOP-HP-0207, Calibration of Flowmeters, Rev. 3, dated December 20, 2011
MTW-SOP-HP-0220, Calibration of the Tennelec XLB Series 4 & 5, Rev. 4, 04/10/2014
MTW-SOP-HP-0230, Calibration and Test of Portable Radiation Detection Instruments, Rev. 7, 10/31/2013
MTW-SOP-HP-0231, Operation and Test of the Ludlum Model 4901P Hand and Shoe Monitor, Rev. 1, dated May 3, 2011
MTW-SOP-HP-0232, Smear and Radiation Dose Surveys, Rev. 8, dated August 9, 2012
MTW-SOP-HP-0104, Control of Gaseous Effluents, Rev. 11, dated May 5, 2014
MTW-SOP-HP-0213, Kinetic Phosphometric Determination of Uranium, Rev. 8, dated July 2, 2014
MTW-SOP-HP-0209, Collecting Environmental Samples, Rev. 6, dated May 5, 2014
MTW-SOP-HP-0210, Determination of Fluoride in Environmental Materials, Rev. 2, dated March 9, 2011
MTW-ADM- HP-0106, Control of Liquid Effluent, Rev. 2, dated October 24, 2013
MTW-ADM-REG-0110, Corrective Action Program, Rev. 3, dated June 20, 2014
MTW-ADM-QA-0160, Performance of Internal Audits, Self-Assessments, and Inspections, Rev. 4, dated April 17, 2014

Incident Reports (IRs):

IR 14-1934
IR 14-1822
IR 13-2290
IR 14-0866
IR 14-1839
IR-14-2275
IR-14-2298
IR-14-2299
IR-13-1476
IR-13-1484
IR-13-1702
IR-13-1704
IR-13-1705
IR-14-0030
IR-14-0764
IR-14-0999
IR-14-1673
IR-14-1721