

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

July 22, 2015

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 40-3392/2015-003

Dear Mr. Pritchett:

This letter refers to the inspections conducted during the second quarter from April 1 through June 30, 2015, at the Honeywell Metropolis Works facility in Metropolis, Illinois. The enclosed report presents the results of the inspections. At the conclusion of the inspections, the preliminary results were discussed with members of your staff at exit meetings held on April 16 and May 13, 2015.

The purpose of the inspections was to review implementation of programs and procedures for operational safety, effluent controls and environmental protection, transportation of radioactive materials, and emergency preparedness exercises and drills. The reviews were conducted to determine whether licensed activities were conducted safely and in accordance with NRC requirements. The enclosed report presents the results of these inspections.

During the inspections, the staff examined activities conducted under your license as they relate to safety and 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 inspection, observations were discussed with your managers and staff. Based on the results of these inspections, no violations of NRC requirements were identified.

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) 2.390, of NRC's "Rules of Practice and Procedure," a copy of this letter and the enclosure will be made available electronically for public inspection in the NRC Public Document Room, or from the NRC's Agencywide Documents Access and Management System (ADAMS); accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. Thank you for your cooperation. If you have any questions, please call me at (404) 997-4629.

Sincerely,

/**RA**/

Marvin D. Sykes, Chief Projects Branch 1 Division of Fuel Facility Inspection

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

Enclosure: NRC Inspection Report No. 40-3392/2015-003 w/Attachment: Supplemental Information

cc: (See page 3)

Thank you for your cooperation. If you have any questions, please call me at (404) 997-4629.

Sincerely,

/RA/ Marvin D. Sykes, Chief **Projects Branch 1 Division of Fuel Facility Inspection** 

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

Enclosure:

NRC Inspection Report No. 40-3392/2015-003 w/Attachment: Supplemental Information

cc: (See page 3)

## **DISTRIBUTION:**

T. Grice, NMSS M. Sykes, RII T. Liu, NMSS B. Reilly, NMSS D. Hartland, RII

☑ PUBLICLY AVAILABLE

□ NON-PUBLICLY AVAILABLE

□ SENSITIVE

☑ NON-SENSITIVE

ADAMS: Xes ACCESSION NUMBER: ML15204A004

SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE RII:DFFI RII:DFFI RII:DFFI RII:DFFI RII:DFFI SIGNATURE /RA/ /RA/ /RA/ /RA/ /RA/ NAME DHartland PStartz JDíaz-Vélez KKirchbaum NPitoniak DATE 7/15/2015 7/13/2015 7/13/2015 7/15/2015 7/13/2015 /2015 /2015 7/ 7/ E-MAIL COPY? YES NO YES NO YES NO YES NO YES NO YES NO YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DFFI\REPORTS\DRAFT INSPECTION REPORT FOLDER\HONEYWELL\2015\HONEYWELL 2015-003 DRAFT 6-17-15.DOCX

cc: Jonathan Monken, Director Emergency Management Agency Division of Nuclear Safety 2200 South Dirksen Parkway Springfield, IL 62704

Brigadier General John W. Heltzel, Director Kentucky Emergency Management Agency EOC Building 100 Minuteman Parkway Building 100 Frankfort, KY 40601-6188

Jerome Mansfield, Director McCracken County Emergency Management Agency 3700 Coleman Road Paducah, KY 42001

Keith E. Davis, Director Metropolis Emergency Management Agency 213 West Seven Street Metropolis, IL 62960

Matthew McKinley, Manager Kentucky Department of Health and Family Services Radiation Health Branch 275 East Main Street Mail Stop HS-1CA Frankfort, KY 40601-0001

Peter Dessaules, Director Office of Nuclear Materials Integration NA-73-GTN U. S. Department of Energy 1000 Independence Avenue, SW Washington, DC 20585-1290

Gary Bodenstein Department of Energy Regulatory Management Branch, NS-52 Paducah Gaseous Diffusion Plant Site Mail Stop 103 P.O. Box 1410 Paducah, KY 42002

Joe Miller, Jr., Director Massac County Emergency Management Agency 1 Superman Square, Room 1B P.O. Box 716 Metropolis, IL 62960-0716

# U.S. NUCLEAR REGULATORY COMMISSION REGION II

Docket No.:	40-3392
License No.:	SUB-526
Report No.:	40-3392/2015-003
Licensee:	Honeywell International, Inc.
Facility:	Metropolis Works (MTW)
Location:	Metropolis, IL 62960
Dates:	April 1 through June 30, 2015
Inspectors:	<ul> <li>D. Hartland, Senior Fuel Facility Inspector</li> <li>J. Díaz-Vélez, Senior Fuel Facility Inspector</li> <li>K. Kirchbaum, Fuel Facility Inspector</li> <li>N. Pitoniak, Fuel Facility Inspector</li> <li>P. Startz, Fuel Facility Inspector</li> </ul>
Approved by:	M. Sykes, Chief Projects Branch 1 Division of Fuel Facility Inspection

Enclosure

## EXECUTIVE SUMMARY

## Honeywell Metropolis Works NRC Integrated Inspection Report 40-3392/2015-003

Routine, announced inspections were conducted by regional inspectors during normal shifts and backshifts in the areas described below. Inspectors evaluated safety significant activities, conducted tours of the facility, interviewed personnel, evaluated a biennial emergency drill, and reviewed facility documents. The inspections addressed the following aspects of the program as outlined below.

## Safety Controls

 The safety controls referred to as Plant Features and Procedures (PFAPs) reviewed were properly implemented and maintained in order to perform their intended safety function. (Paragraph A.1)

## **Radiological Controls**

- The Effluent Control and Environmental Protection program was implemented in accordance with the license application and regulatory requirements. (Paragraph B.1)
- Shipments of radioactive materials were prepared and shipped in accordance with applicable regulations and plant procedures. Certificates of compliance were maintained current. Shipping records were properly completed and maintained in accordance with applicable regulations. (Paragraph B.2)

## Facility Support

- The biennial emergency drill was implemented in accordance with the Emergency Plan and regulatory requirements. (Paragraph C.1)
- The inspectors performed review of training activities and observation of ongoing operations at the facility to verify implementation of the licensee's shift turnover plan and the reintegration of the returning operators following the end of the extended labor dispute. The inspectors noted that operators demonstrated adequate knowledge of plant equipment and status, and control room activities were properly performed. (Paragraph C.2)

## **Attachment**

Key Persons Contacted Inspection Procedures Used List of Items Opened, Closed, and Discussed Figures

## **REPORT DETAILS**

## Plant Description

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).

## A. <u>Safety Controls</u>

- 1. Plant Operations (Inspection Procedure (IP 88020)
  - a. Inspection Scope and Observations

The inspectors interviewed staff and reviewed records associated with the FMB and supporting equipment areas. The inspectors determined that safety controls were being adequately implemented and properly communicated as described in the Integrated Safety Analysis (ISA) and facility operating procedures. The inspectors determined that the licensee was operating the facility safely and in compliance with the requirements in the areas that were inspected.

The inspectors confirmed that engineered controls reviewed were available and capable of performing the intended safety functions. To complete the review, the inspectors verified the physical presence of passive and active engineered safety controls, evaluated the safety controls to determine their capability and operability, and verified that potential accident scenarios were adequately addressed. In-depth evaluations were conducted on seven safety-related controls referred to as Plant Features and Procedures (PFAPs): 1, 2, 3, 76, 77, 78, and 79. These PFAPs were established for the safe transfer of bulk quantities of hydrofluoric acid and liquid uranium hexafluoride, representing some of the most safety significant controls in the facility.

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

The inspectors interviewed operators and operator trainees to evaluate their knowledge of the facility safety controls. It was determined that operators were knowledgeable of and were adequately implementing the required safety controls. The inspectors observed operators and operator trainee's performance and determined they were adhering to applicable safety procedures.

Through document reviews, the inspectors verified that the licensee conducted preventive maintenance, calibration, and periodic surveillance as required by the ISA Summary for the selected safety controls.

## b. Conclusion

No findings of safety significance were identified.

## B. <u>Radiological Controls</u>

## 1. Effluent Control and Environmental Protection (IP 88045)

#### a. Inspection Scope and Observations

The inspectors reviewed procedures related to the conduct and implementation of the effluent and environmental monitoring program. The inspectors interviewed personnel regarding processes utilized by the licensee to evaluate, review, and track and trend data associated with effluent and environmental monitoring program. The inspectors determined that adequate controls were in place to identify adverse trends and that appropriate action levels had been established to provide early indication of adverse trends. The action levels were established to maintain off-site doses at a small fraction of regulatory dose limits. 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.

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 reviewed a selection of CAP entries since the last inspection and determined the deviations and issues affecting environmental safety were adequately documented and investigated.

The inspectors evaluated the implementation of the effluent control and environmental monitoring program through a review of data and discussions with the licensee management and technical personnel. The inspectors walked-down a selection of the sampling points and monitoring stations with licensee 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 activities were in accordance with license requirements.

The inspectors reviewed the 2014 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 inspectors evaluated records of airborne effluent discharges and liquid effluent discharges and determined the average annual effluent concentrations did not exceed the values specified in Appendix B of 10 CFR 20.

#### b. Conclusion

No findings of safety significance were identified.

## 2. Transportation of Radioactive Material (IP 86740)

### a. Inspection Scope and Observations

The inspectors evaluated whether the licensee had established and was maintaining an effective program to ensure radiological and nuclear safety during the receipt, packaging, delivery, and private carriage of licensed radioactive materials. The inspector also evaluated whether transportation activities were conducted in compliance with the applicable transport regulations.

The inspectors reviewed records involving the shipment and receipt of special nuclear material products and waste disposal. The licensee ensured that the appropriate documentation accompanied the packages being shipped. The licensee recorded the required information on the packaging and shipping orders including the transportation index, package activity, labeling, and placards.

The inspectors reviewed the training records to ensure that the licensee had administered Title 49 of the Code of Federal Regulations Part 172.704 (49 CFR 172.704) hazardous materials transportation training to affected personnel as required by the Department of Transportation and their license. The inspectors observed the loading of UF6 cylinders on trailers for shipments YSP RNED 1919, YSP RNED 1921, YSP RNED 1922, and YSP RNED 1923. The inspectors also observed the loading of radioactive waste into a railcar bulk container. The inspectors verified that licensee employees followed loading procedures and performed adequate trailer inspections prior to shipment. The inspectors observed the licensee's health physics staff performing surveys of the trailers, verifying packages markings/labeling, and completing shipping documents for shipments.

The inspectors verified that the licensee met the 10 CFR 71.21 conditions required to use the general license provision for transport of licensed material. The inspectors reviewed audits of the transportation program and determined the licensee was performing periodic audits of the program as required. The results of the audits were appropriately addressed in the CAP.

b. Conclusion

No findings of safety significance were identified.

## C. Facility Support

## 1. Evaluation of Exercises and Drills (IP 88051)

#### a. Inspection Scope and Observations

The inspectors observed and evaluated the licensee graded biennial exercise conducted on May 13, 2015. The drill scenario was based on a failed weld on the laboratory sample point located on the Distillation Low Boiler Column allowing UF6 to escape to the atmosphere. Mitigating systems worked initially and then fail as the scenario progressed. The scenario also included an injured person on the 1<sup>st</sup> floor that was rendered unconscious due to a fall.

The inspectors reviewed the emergency drill scenario and discussed the exercise objectives with licensee personnel before the exercise. The inspectors walked down the plant to assess the effectiveness of visual aids used during the drill and verified that the licensee had not pre-staged equipment in anticipation of the exercise. The inspectors reviewed the Emergency Plan and emergency procedures prior to drill implementation.

At the initiation of the emergency drill, the inspectors verified that the licensee assessed the accident scenario, analyzed the plant conditions, and adequately classified the event. Control Room actions were observed to verify the proper operating procedures were in use and procedural actions were taken to mitigate the event. The event was classified as an Alert and later as a Site Area Emergency in accordance with the Emergency Plan. The inspectors observed the activation of the Emergency Operations Center (EOC), the Incident Command (IC) station and the remainder of the Emergency Organization. Inspectors noted that all required positions were fully staffed and the necessary personnel were dispatched in accordance with the Emergency Plan. The inspectors verified that the Protective Action Recommendations (PARs) implemented by the EOC and Emergency Organization were appropriate for the accident scenario and in accordance with the Emergency Plan.

The inspectors verified that the initial offsite notifications were within the time period specified in the Emergency Plan. The licensee adequately discussed the PARs in the EOC and effectively communicated the PARs to the offsite agencies as part of the drill.

The inspectors determined that the Crisis Manager maintained adequate command and control of the EOC. The inspectors observed the offsite dose assessment conducted by the dose assessor using the Radiological Assessment System for Consequence Analysis (RASCAL) software.

The inspectors observed members of the licensee's emergency response team assemble at the designated assembly area and the arrival of the off-site emergency responders. The inspectors observed the verification of personnel on site through the plant accountability process. The inspectors observed the emergency response team's search and rescue activities for the injured victim. The IC maintained adequate command and control of the emergency response team and coordinated action with the off-site emergency responses and the Crisis Manager. The inspectors verified that the emergency response team activities were appropriate for the exercise scenario and were adequate in meeting the drill objectives.

The inspectors observed the staff critiques of the emergency exercise. The inspectors determined that the critiques were effective at identifying lessons learned and areas of improvement. The inspectors verified that licensee initiated documentation of items discussed after the emergency exercise were entered into the CAP.

b. Conclusion

No findings of safety significance were identified.

## 2. Resumption of Normal Operations After a Strike (IP 92712)

### a. Inspection Scope and Observations

The inspectors reviewed training documents, attended classroom training, observed facility field walk downs (on-the-job training), oral examinations, and task performance evaluations (TPE) in the FMB of newly hired operators and those returning from the labor dispute. Training materials consisted of flow charts of the specific operating areas, equipment drawings, pictures of equipment, and operating procedures. The inspectors determined that training classes, training materials and task performance evaluations were consistent with licensee's certification requirements. The inspectors observed returning operators perform activities in the facility and determined that they were knowledgeable of their responsibilities and were adequately trained and qualified to perform their assigned duties. The inspectors observed that the licensee's implementation of its shift turnover plan and transition to the returning operators was being effectively implemented.

b. Conclusion

No findings of safety significance were identified.

## D. Other Areas

#### 1. Follow-up on Previously Identified Issues

## a. (CLOSED) Event Notification (EN) 50614, 40-3392/2014-412-0, Medical Treatment of a Contaminated Individual

On November 13, 2014, an employee with a chemical burn on his wrist reported to the onsite dispensary and first aid was administered. The licensee performed a whole body survey of the injured worker and found contamination on the lower legs of the employee's coveralls. 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 50591, 40-3392/2014-410-0, Unplanned Medical Treatment of a Contaminated Individual

On November 3, 2014, an employee with an injured hand and knee reported to the onsite 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 coveralls in the upper back area. No additional contamination was found on the employee. Upon completion of first aid the employee routinely excited from the facility and reported to an off-site medical facility for further evaluation. 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 49437, 40-3392/2013-006-0, Unplanned Medical Treatment of a Contaminated Individual

On October 14, 2013, an employee reported to the on-site dispensary due to chemical exposure to his face. The plant nurse administered treatment. The licensee performed a whole body survey of the injured worker and identified contamination on the worker's left boot. The employee removed all plant clothing and was verified free of contamination prior to being sent to an offsite medical facility for treatment. 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.

## E. <u>Exit Meeting</u>

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 April 16 and May 13, 2015, to Jim Pritchett and staff. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in the report.

## SUPPLEMENTAL INFORMATION

## 1. LIST OF PERSONS CONTACTED

<u>Name</u>

Title

J. Benard	Site Services Manager
D. Bilski	Security Manager
D. Craig	Operation Manager
R. Lindberg	Health Physics Supervisor
S. Patterson	Regulatory Affairs Manager
J. Pritchett	Plant Manager
J. Smith	Maintenance Manager
T. Watson	Training and Procedures Supervisor
M. Wolf	Nuclear Compliance Director

Other licensee employees contacted included engineers, technicians, production staff, and office personnel.

#### 2. <u>LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED</u>

#### Opened/Closed

Event Notification	50614	Medical Treatment of a Contaminated Individual.
Event Notification	50591	Medical Treatment of a Contaminated Individual.
Event Notification	49437	Medical Treatment of a Contaminated Individual.

## 3. INSPECTION PROCEDURES USED

IP 86740 Transportation of Radioactive Material
IP 88020 Operational Safety
IP 88045 Effluent Control and Environmental Protection
IP 88051 Evaluation of Emergency Exercise
IP 92712 Resumption of Normal Operations After a Strike

#### 4. DOCUMENTS REVIEWED

#### Records:

Self-Assessment Report, Tennelec Daily Source Checks Documentation, dated December 12, 2014

Self-Assessment Report, Monitoring Radioactive Material Shipments, Empty Freight Containers and UF6 Cylinders, dated August 25, 2014

Self-Assessment, Calibration of Portable Radiation Detection Instruments, dated November 24, 2014

- MTW-SOP-HP-0221, Monitoring Radioactive Material shipments, Empty Freight Containers, and UF<sub>6</sub> Cylinders, Revision (Rev.) 8, dated August 7, 2012, associated with shipments YSP-RNED-1919, YSP-RNED-1921, YSP-RNED-1922, and YSP-RNED-1923
- Honeywell, Radioactive Materials by Ground & Air Transportation Training Certificate for J. Cybulski, dated October 9, 2012
- Dangerous Goods International, 2014 US DOT HazMat Security Awareness Training Certificate for S. Hansen, dated July 17, 2014
- Dangerous Goods International, Recurrent IATA/49 CFR Dangerous Goods Training Certificate for S. Hansen, dated July 21, 2014
- Dangerous Goods International, 49 CFR/IATA/IMDG Radioactive Materials Training Certificate for S. Hansen, dated July 21, 2014
- US DOT, Hazardous Materials Certificate of Registration for Registration Year(s) 2012-2015, for TAM International (US) INC.
- Honeywell Letter to Jim Hancock, US Ecology Idaho, Inc, Subject: Survey for unimportant quantities of source material (pursuant to 10 CFR 40.13(a)) in processed waste stream 23155-1 (Debris), dated June 26, 2012

Honeywell Letter to Jim Hancock, US Ecology Idaho, Inc, Subject: Survey for unimportant quantities of source material (pursuant to 10 CFR 40.13(a)) in processed waste stream 23155-2 (Pallets), dated September 20, 2013

Honeywell Letter to Jim Hancock, US Ecology Idaho, Inc, Subject: Survey for unimportant quantities of source material (pursuant to 10 CFR 40.13(a)) in processed waste stream 23155-3 (Debris), dated November 19, 2013

Tricord, Certificate of Calibration for Ludlum 78, sn: 282455, dated November 21, 2014

- MTW-CHK-HP-0207A, Rev. 3, Calibration of Flowmeters, Checklist A Monthly Checklist (Oct ober2014 March 2015)
- MTW-FRM-HP-0207A, Rev. 3, Calibration of Flowmeters, Form A Rotameter Calibration (December 2014, and March 2015)
- MTW-FRM-HP-0214A, Stack Flow Rate Measurements (Various)
- IR-15-0525, Liquid Effluent Sample Deviation

IR-14-2889, QA Audit AUD-2014-0011, A-67 Decommissioning Plan

- IR-14-2526, QU Audit AUD-2014-0010, A-60 Licenses, Permits, and Other Approvals
- Honeywell Metropolis Works 30 Day Written Follow Up Report Event No. 50591, dated December 2, 2014
- Honeywell Metropolis Works 30 Day Written Follow Up Report Event No. 50614, dated December 10, 2014
- Honeywell Metropolis Works 30 Day Written Follow Up Report Event No. 49437, dated November 7, 2013
- Environmental Sample Analysis Results and Chain of Custody Records (Various) First Quarter 2015 RCRA Ponds Groundwater Monitoring Results, dated April 14, 2015 Facility Effluent Report representing the period of January 1, 2014, through June 30,

2014

- Facility Effluent Report representing the period of July 1, 2014,through December 31, 2014
- Accountability Report, February 2015

Accountability Report, March 2015

Procedures:

- MTW-ADM-HP-0106, Rev. 3, Control of Liquid Effluent
- MTW-ADM-POR-0108, Rev. 10, Records Management
- MTW-SOP-HP-0209, Rev. 7, Collecting Environmental Samples
- MTW-SOP-HP-0104, Rev. 11, Control of Gaseous Effluents
- MTW-SOP-HP-0207, Rev. 4, Calibration of Flowmeters
- MTW-SOP-HP-0214, Revision 3, Determination of Isokinetic Sampling Rate and Uranium Loss Factors
- MTW-SOP-HP-0213, Rev. 10, Kinetic Phosphormetric Determination of Uranium
- MTW-SOP-HP-0201, Rev. 7, Determination of Airborne Radioactivity
- MTW-SOP-HP-0112, Release of Personnel, Materials, Equipment, and Transportation Vehicles from the Restricted Area, Rev. 6, dated February 26, 2015
- MTW-SOP-HP-0221, Monitoring Radioactive Material shipments, Empty Freight Containers, and UF<sub>6</sub> Cylinders, Rev. 9, dated October 22, 2013
- MTW-SOP-RADW-0201, Documentation and Compliance of Bulk Radioactive Waste Shipments, Rev. 2, dated October 15, 2014

Condition Report (Action Item) Written as a Result of the Inspection:

Action Item-31953, Wrong Survey Form Revision Number Used during NRC Inspection IP86740 inspection April 16, 2015

Condition Report Review:

Incident Report IR-14-0450 (Closed), Roll-off containing waste which was not cleared for release by HP was picked up for shipment, dated February 26, 2014

#### Other Documents Reviewed:

Generator Site Access Permit No. 0501003155, State of Utah, dated April 10, 2015 Radioactive Waste License-for-delivery No. T-IL014-L15, State of Tennessee, dated February 3, 2015

Incident Reports System query – "Honeywell Chemicals \ Metropolis, IL" AND Full Description "transp," system accessed on April 14, 2015

Metropolis Works UF6 Cylinders Database (Version 7.07.77) report (UF6 cylinder shipments sorted by RIS), accessed on April 13, 2015

## Shipment Records (Bill of Lading, MTW-SOP-UF6C-0217 applicable checklist, and NRC/DOE Form 741 (Electronic data)):

UF6 Cylinders: YSP-RGSC-0813, YSP-RGSC-0814, YSP-RGSC-0842, YSP-RGSC-0862, YSP-RGSC-0892, YSP-RGSC-0893, YSP-RGSC-0925, YSP-RGSC-0934, YSP-RGSC-972, YSP-RGSC-1067, YSP-RGSC-1083, YSP-RGSC-1119, YSP-RGSC-1126, YSP-RNED-1561, YSP-RNED-1581, YSP-RNED-1586, YSP-RNED-1676, YSP-RNED-1685, YSP-RNED-1686, YSP-RNED-1687, YSP-RNED-1827, YSP-RNED-1838, YSP-RNED-1845, YSP-RNED-1846, YSP-RUDL-2727, YSP-RUDL-2728, YSP-RUDL-2729, YSP-RUDL-2730, YSP-RUDL-2752, YSP-RUDL-2768, YSP-RUDL-2769, YSP-RUDL-2841, YSP-RUDL-2842, YSP-RUDL-2843, YSP-RUDL-2769, YSP-RUDL-2997, YSP-RUDL-2842, YSP-RUDL-2999, YSP-YKO-547, YSP-YKO-548, YSP-YKO-0584, YSP-YKO-0585, YSP-YKO-0619, YSP-YKO-0649, YSP-YKO-0714, YSP-YKO-0766, YSP-YKO-0768, YSP-YKO-0883, YSP-YKO-0884, YSP-YKO-1005, YSP-YKO-1006, YSP-YKO-1072, YSP-YKO-1073, YSP-YKO-1101, YSP-YKO-1102, YSP-YK1-0017, YSP-YK1-0022, YSP-YLM-0064, YSP-YLM-0065, YSP-YLM-0066, YSP-YLM-0067, YSP-YLM-0068, YSP-RNED-1919, YSP-RNED-1921, YSP-RNED-1922, YSP-RNED-1923.

Radioactive Waste Shipping Records (Shipping Papers, Radwaste Classification Worksheets, MTW-SOP-HP-0222, Packaging and Surveying Bulk Radioactive Waste Shipments, and MTW-FRM-RADW-0200B, Radioactive Waste Shipment Survey Record) for shipments:

USE-15-005, USE-15-005, USE-15-006, USE-15-008, USE-15-009, USE-14-021, USE-14-026, USE-14-032, USE-14-034, 0716-04-0176, 0716-19-0001, USE-14-044, USE-14-048, 0716-04-0179, and 0716-04-017