



# OCCUPATIONAL RADIATION PROTECTION PROGRAM ANNUAL RAD. REVIEW

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SCOTIA DEPOT

Serial Number 36 (Ann. Review)

ANNUAL RADIATION REVIEW Per 10 CFR 20.1101(c)

With assistance from Dewey Blair, Environmental Protection Spec. at Scotia  
FY 2017

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Revised Copy

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/s/Robert L. Skruck

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DLA/SM-H8-ME

# OCCUPATIONAL RADIATION PROTECTION PROGRAM SURVEY

## SCOTIA DEPOT

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### EXECUTIVE SUMMARY

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On Dec. 1, 2016, Robert L. Skruck, Radiological Safety Officer performed the annual radiation review of the radiological operations at the DLA Strategic Materials Scotia Depot in Scotia, NY. The Depot no longer holds any licensed radioactive material; the last licensed material (tungsten concentrates) was shipped to a buyer on March 23, 2007 and three (3) drums of UN2910 Radioactive Materials Waste disposal on 19Jun08 on Manifest No. DLA2007-009-TOXCO. Results of the Review indicated that the depot has an effective Occupational Radiation Program. There were no health and safety concerns identified as a result of the storage and handling of radioactive material at Scotia. SM has maintained it's policy of limiting personnel exposure to "as low as reasonably achievable" (ALARA). The Occupational Radiation Protection Program dated November 2013 was reviewed and no problems were noted.

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### DISCUSSION

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#### I. ADMINISTRATION

Mr. Dewey Blair is designated as the Radiological Protection Officer (RPO) at the Scotia Depot. Dewey's training was completed at the ORAU Radiological Training Center at Oak Ridge, TN.

#### LICENSE

Radiological operations were authorized under NRC license STC-133, Amendment No. 37, issued June 23, 2015, expiring on February 29, 2020. The license authorizes the storage, sampling, repackaging, transfer and site cleanup activities for natural uranium and thorium ores, concentrates and solids. Also the Final Status Survey for Scotia will be completed by the above date. This Possession and Storage only Amendment is in effect until the Decommissioning Final Status Survey can be completed and submitted to the U.S. Nuclear Regulatory Commission for their review.

#### INVENTORY

The license authorizes DLA/SM to possess a total of 2,000,000 kg of radioactive material in the form of uranium and thorium contained in ores, concentrates, and solids. Inventories at specific locations were not limited. We no longer have any licensed material at Scotia or any other DLA/SM depot/facility.

## **II. DOSIMETRY**

Personal dosimetry & monitoring was terminated at Scotia on 30 September 2004 and TLD's are no longer utilized at this facility.

## **PUBLIC DOSE COMPLIANCE**

Due to the absence of licensed radioactive materials, there are no public dose issues at this facility. Outside the warehouses the dose rate is at background (0.02 mr/hr).

## **III. TRAINING**

Training of the guard force and general worker training were discontinued due to the absence of licensed materials.

## **IV. EMERGENCY RESPONSE**

The depot has an Emergency Response Plan dated 16 May 2016. Emergency response personnel from Scotia Fire Department is the primary emergency response team. Safety data sheets are maintained at the security office for an emergency.

## **V. RADIATION SURVEYS**

The last annual review conducted at this site was completed by Mr. Robert L. Skruck on June 15, 2016. This survey was completed using the E-120 survey meter with HP270 probe (Ser.# 10044 last calibrated 18 March 2016). The depot now stores tungsten ores and concentrates. These lots contain unlicensed material (Less than 0.05% combined) of naturally occurring U & Th. A survey was conducted which involved measuring for gamma dose rate. Background was measured at 0.02 mr/hr. Dose rates at the outer face of the exterior wall of each warehouse was also at background. Interior dose rates at approximately 1.0 feet from the block-stacks of material (unlicensed tungsten ores & concentrates containing small amounts of NORM ) ranged from background to 0.06 mr/hr. in warehouse 505 sec.1, bay 1, row 2, sec.2, bay 10, row 1, sec 3, bay 20, row 4, sec 4, bay 25 and row3. In warehouse 506 readings also ranged from background to 0.06 mr/hr Sec. 1, bay 5, row 4, sec. 2, bay 12, row 5, sec. 3, bay 16, row 2, sec. 4, bay 24, and row 3. NORM is "Naturally Occurring Radioactive Materials".

Instrumentation used to perform this survey was an Eberline E-120 Geiger Counter survey meter S/N 10044 with a probe S/N 713720 both calibrated 18 March 2016.

## **VI. RECEIPTS, SHIPMENTS, AND DISPOSAL**

Last shipment of licensed material was made on June 19, 2008. All shipping documents are in order and are maintained at the installation.

## **VII. INSTRUMENTATION**

- The depot has two instruments that are calibrated at all times.
- A. Eberline E-120 Geiger Counter with probe calibrated 18 March 2016
  - B. ASP-2 with probe calibrated 18 March 2016

## **VIII. INCIDENTS**

No incidents were reported since the last review.  
The warehouses are locked with all areas and egress controlled by the Facility Manager.

## **IX. STORAGE AREAS**

Radioactive materials are no longer stored at the depot. Licensed material was formerly stored in warehouses 505 and 506.

## **POSTING**

Both NRC Form 3 (5-2012) and Section 206, Public Law 93-438 are posted on bulletin boards located in the main office and in building #14.

## **XI. OTHER**

A Final Status Survey will be completed at this facility when the commodities are moved from this location and warehouse sections in 505 and 506 sections are emptied. This will be completed before 2020. STC-133 Amendment #36 dated 11Sep13 states the Radiation Safety Officer for this License is Robert L. Skruck. A Notice Of Violation (NOV) dated 17Sep13 was issued to Strategic Materials for violation of 10 CFR 20.1101© for failure to perform an Annual Radiation Review at Scotia. Also a violation of 10 CFR 40.42(d) (3) for failure to notify the NRC of no principal activities under the license for a period of 24 months. Letter to NRC written on 17Sep13 and response by Judith Joustra on 18Oct13 notifying DLA/SM-H8-ME this letter was received and actions will be examined during a future inspection by NRC of our licensed program at Scotia. On 30Nov16 Mark Roberts of the NRC, Region 1 and Tom Papura of NYDEC came to Scotia to inspect the warehouse sections with their Gamma Meters. Mark Roberts also inspected the Rad. Documentation to include the Annual Rad. Review Report. During the exit meeting both men stated there were no problems noted as a result of their visit/inspection. Now waiting for an inspection report from Mark Roberts for this visit.

## **CONCLUSION**

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The ORPP, at the DLA/SM Scotia Depot, was effective but basically dormant due to the absence of licensed radioactive materials.

## **ANNUAL RADIATION TRAINING AT SCOTIA DEPOT FY 2017 (Annual Review)**

No longer required as all radioactive material has been shipped from this location on 19June08.

## **MISCELLANEOUS**

The Facility Manager and his staff are now consolidating the commodities in warehouses 505 & 506 into one warehouse thus emptying sections so that a final status survey could be conducted in the empty warehouse sections in the near future. This will be accomplished section by section until the Final Status Survey can be completed. ORAU has been contracted by DLA/SM to complete this assignment and the Final Status Survey. Jason Lee, Tim Vitkus and Erika Bailey will probably perform this work for ORAU. ORAU traveled to Scotia June 20 – July 1, 2016 to begin sampling

(Outside). Whse. 505, Sec. 1 and Whse. 506, Sec. 4 are now empty from the consolidating of the tungsten and ready for ORAU.