



# **OCCUPATIONAL RADIATION PROTECTION PROGRAM ANNUAL RAD. REVIEW**

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SCOTIA DEPOT  
Serial Number 39 (Ann. Review)  
ANNUAL RADIATION REVIEW Per 10 CFR 20.1101(c)  
FY 2020

December 30, 2019  
Revised Copy

Prepared by  
Dewey Blair, RSO  
/s/ Dewey Blair  
Radiation Safety Officer

# OCCUPATIONAL RADIATION PROTECTION PROGRAM SURVEY

## SCOTIA DEPOT

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### EXECUTIVE SUMMARY

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On Dec. 30, 2019, Dewey Blair, 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 June 2019 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. 39, issued April 13,, 2018, 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. 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.

## **II. DOSIMETRY**

Personal dosimetry & monitoring was Initiated at Scotia during the 1st quarter of FY20 .

## **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 is provided to the work force annually.

### **IV. EMERGENCY RESPONSE**

The depot has an Emergency Response Plan dated May 2019. 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. Dewey Blair on December 28, 2018. This survey was completed using the E-120 survey meter with HP270 probe (Ser.# 10044 last calibrated 27 March 2018). 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 7, row 2, sec.2, bay 12, row 1, sec 3, bay 21, row 4, sec 4, bay 26 and row3. In warehouse 506 readings also ranged from background to 0.06 mr/hr Sec. 1, bay 3, row 4, sec. 2, bay 14, row 5, sec. 3, bay 18, row 2, sec. 4, bay 27, 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 27 March 2019.

### **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 27 March 2019
- B. ASP-2 with probe calibrated 27 March 2019

### **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 will be stored in building 506 Sec 4.

## **POSTING**

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

## **XI. OTHER**

A Final Status Survey will be completed at this facility when the license is no longer needed. STC-133 Amendment #38 dated January 20 2017 states the Radiation Safety Officer for this License is Dewey Blair. 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.

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## **CONCLUSION**

The ORPP, at the DLA/SM Scotia Depot, was effective.

## **ANNUAL RADIATION TRAINING AT SCOTIA DEPOT**

Is conducted annually

## **MISCELLANEOUS**

The Facility Manager and his staff have prepared a section in warehouse 506 section 4 for the possibility of receiving licensable material in the Spring of 2020. The RSO Dewey Blair is working on revamping the Radiation Program at Scotia to include training, dosimetry and all other aspects of the program in the event of receiving such material.

