

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 070-00168/87-01

Docket No. 070-00168

License No. SNM-188

Priority 3

Category E

Licensee: Nuclide Corporation
Nuclide Analysis Associates
642 East College Avenue
State College, Pennsylvania 16801

Facility Name: Nuclide Corporation

Inspection At: 642 East College Avenue, State College, Pennsylvania
1155 Zion Road, Bellefonte, Pennsylvania

Inspection Conducted: March 11, 1987

Inspector: Laurence F. Friedman
for Marlene J. Taylor
Health Physicist

5/14/87
date

Approved by: Laurence F. Friedman
for John R. White, Chief
Nuclear Materials Safety Section C

5/14/87
date

Inspection Summary: Inspection on March 11, 1987, (Report No. (070-00168/87-01))

Areas Inspected: Special, announced closeout inspection including interviews with personnel and independent measurements.

Results: No violations were identified. The facility meets NRC guidelines for release for unrestricted use.

DETAILS

1. Persons Contacted

Michael Michlik, Production Manager
Karl Farringer, Automation Engineer
*Dr. Leonard Herzog, President
*Charles Heyman, President, M.A.A.S., Inc.

*Present at exit interview

2. Background

Nuclide Corporation was authorized by NRC License No. SNM-188 to possess uranium (enriched) in any form for the testing and calibration of mass spectrometers. License No. SNM-188 expired on September 30, 1984. The licensee is in the process of applying for a new license and is moving their operation from 642 East College Avenue, State College, Pennsylvania, to 1155 Zion Road, Bellefonte, Pennsylvania. The licensee is also changing its name to M.A.A.S. Inc.

3. Observations and Measurements

The inspector toured the licensee's facility and surveyed for loose surface contamination and direct radiation. Contamination wipes were counted using a Tennelec Model LB 5100 gas flow proportional counter at Region I. The results and locations of the wipes are shown in Table 1. Radiation surveys were performed using an Ludlum Model 14C survey meter with a thin end window probe (s/n 44066) sensitive to beta and gamma radiation, and was calibrated November 24, 1986. No radiation levels above instrument background were detected at the State College facility. The results of all the measurements for the State College Facility indicate that the facility meets NRC guidelines for release of a facility for unrestricted use.

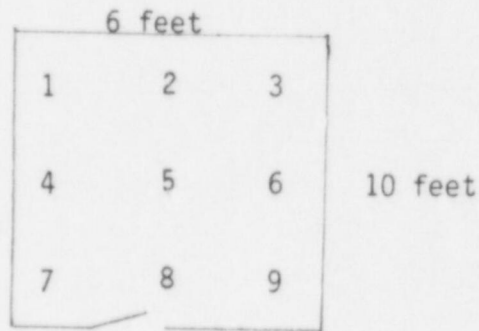
The inspector found the licensed material located at the Bellefonte facility to be properly posted and secured. Radiation surveys were conducted at the Bellefonte facility, the results of which appear in Table 2.

4. Exit Interview

The results of the survey were reviewed with licensee representatives identified in Paragraph 1. Licensee representatives indicated that a license application covering the material licensed under License No. SNM-188 would be submitted by March 31, 1986.

Table 1

Wipe tests at 642 East College Avenue, State College, Pennsylvania



	gross alpha	gross beta
1.	< LLD	< LLD
2.	< LLD	< LLD
3.	< LLD	< LLD
4.	< LLD	< LLD
5.	< LLD	< LLD
6.	< LLD	< LLD
7.	< LLD	< LLD
8.	< LLD	< LLD
9.	< LLD	< LLD

The results in this table are in units of disintegrations per minute (dpm) measured on the wipes which covered 100 square centimeters each. At the time of the measurement, the background count was 0.18 cpm for the gross alpha and 1.19 cpm for the gross beta and the efficiency of the detector was 0.229 for gross alpha and 0.260 for gross beta. The LLD (Lower Limit of Detection) is 9 dpm for gross alpha and the LLD is 20 dpm for gross beta. The LLD was calculated using the following formula.

$$LLD = 4.66 \frac{\sqrt{B/t}}{e}$$

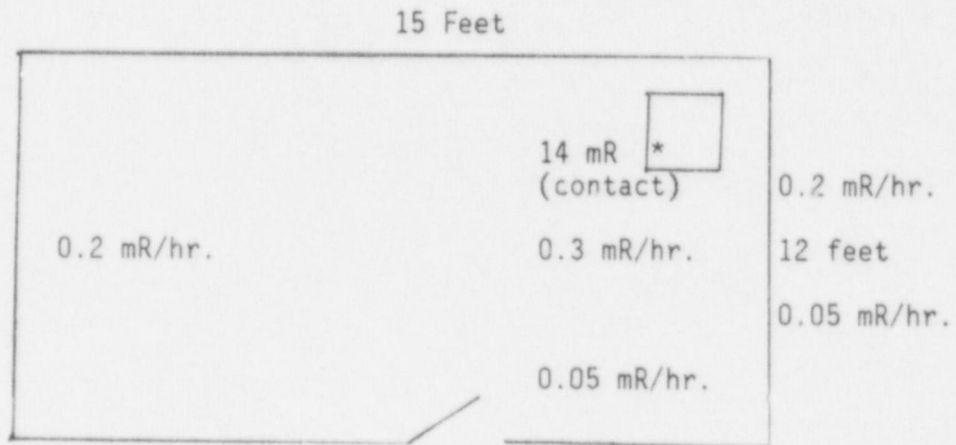
B=Background count rate
t=Counting time
e=Efficiency

Conclusion:

No removable radioactive contamination, in excess of NRC guidelines for release of a facility for unrestricted use, was detected in this facility.

Report No. 070-00168/87-01

Table 2



*box containing sealed sources