

APPENDIX E

INDUSTRIAL/ACADEMIC INSPECTION FIELD NOTES*
Region I

Inspection Report No. 92-001

License No. 44-28698-01

Licensee (name and address)

Docket No. 030-32526

Health Physics Services
83 Pine Street
Brattleboro, Vermont 05301

Licensee Contact Bob Leach

Telephone No. (802) 257-7711

Last Amendment No. N/A

Date of Amendment N/A

Priority: 7

Program Code(s): 3220

Date of Last Inspection N/A

Date of This Inspection 11/20/92

Type of Inspection: Announced Unannounced
 Routine Special
 Initial Reinspection

Next Inspection Date _____ Normal Reduced Extended

Summary of Findings and Action:

- No violations, Clear 591 or letter issued
- Violations, 591 or letter issued
- Action on Previous Violations

Inspector: A. Kirlwood
(Signature)

Date 11/25/92

Approved: Francis Cottrell
(Signature)

Date 11/27/92

* All areas indicated in field notes are not required to be addressed during each inspection.

1. ORGANIZATION

a. Briefly describe the organizational structure:

Owner / Operator

b. Organizational structure meets license requirements. [L/C]

Y N

Remarks.

c. Licensee is required to have a Radiation Safety Committee

Y N

(1) If so, does RSC fulfill license requirements [L/C]

Y N

(2) Records maintained

Y N

Remarks.

d. Radiation Safety Officer

(1) Authorized on license [L/C]

Y N

(2) Fulfills duties as RSO

Y N

Remarks.

2. INSPECTION HISTORY

N/A - Initial inspection

a. Last inspection conducted on _____

b. Violations or deviations were identified

Y N

c. Response letter or 591 dated _____

d. Violations from Previous Inspection

<u>Requirement</u>	<u>Violation</u>	<u>Corrective Action Taken (Y/N)</u>	<u>Status</u>

e. Any previous violations not corrected () Y () N

Explain.

3. SCOPE OF PROGRAM

a. License has multiple authorized locations of use () Y () N

b. If so, list location(s) inspected () Y () N

c. List those individuals contacted during inspection

*Bob Leach

*Indicates presence at exit meeting

d. Briefly describe scope, including types of use involving byproduct material, frequency of use, staff size, etc.

One man operation analyzing leak test samples sent to him from one factory trained individual, not his employee. All samples from beta emitting gauges. Set of beta sources with NBS $\pm 5\%$ accuracy used to calibrate. Ludlum^{GM} counter with 2 shielded separate counting chambers used. Private residence used. Approximately 600 leak tests done annually.

4. INTERNAL AUDITS OR INSPECTIONS

a. Audits are required by license condition () Y () N

b. Audits or inspections are conducted () Y () N

(1) Audits conducted by _____

(2) Frequency _____

c. Records maintained. () Y () N

Remarks.

5. TRAINING, RETRAINING, AND INSTRUCTIONS TO WORKERS

a. Instructions to workers per [10 CFR 19.12] () Y () N

Remarks.

N/A - Counting room unrestricted area

b. Training program required [L/C] () Y () N

(1) If so, briefly describe training program:

- (2) Training program implemented () Y () N
- (3) Retraining program required () Y () N
- (4) Retraining program implemented () Y () N
- (5) Records maintained () Y () N

Remarks.

6. FACILITIES AND EQUIPMENT

a. Facilities as described in license application [L/C] () Y () N

Remarks.

Counting room upstairs in private residence.

b. Areas for storage and use of RAM

- (1) Adequate method used to prevent an unauthorized individual from entering restricted area () Y () N N/A
- (2) RAM is secured to prevent unauthorized removal from an unrestricted area [20.207] () Y () N N/A

Remarks.

c. Survey instruments () N/A

- (1) Appropriate operable survey instruments possessed () Y () N
- (2) Calibration performed as required () Y () N

Remarks.

7. RADIOLOGICAL PROTECTION PROCEDURES

- a. Radioactive materials used in accordance with current procedures [L/C] Y () N
- b. Individuals understanding of current procedures is adequate [L/C]
 - (1) in general rules for safe use of RAM () Y () N
 - (2) in emergency procedures () Y () N

Remarks.

8. MATERIALS

- a. Isotope, chemical form, quantity and use as authorized [L/C] Y () N

Remarks.

b. Leak tests and Inventory

- (1) Leak tests of sealed sources performed as required [L/C] Y () N
- (2) Inventory of RAM performed as required [L/C] () Y () N N/A
- (3) Records maintained Y () N

Remarks.

Sensitivity appears acceptable for determining a leaking source down to low beta energies. C-14 sensitivity at 0.005 uCi, is the least sensitive (higher MPA). Does daily use bkg. check. Advised to perform a standard source check prior to counting to verify stability of previous calibration and calculated efficiencies. Licensee agreed. Last annual calibration 10/91. Licensee ready to perform another now. Stated prior to any more leak tests.

9. RECEIPT AND TRANSFER OF RADIOACTIVE MATERIAL

- a. Describe how packages are received and by whom: N/A
Received in mail. Surveyed before shipment.
- b. Opening procedures established and followed [20.205(d)] Y N *N/A*
- c. Incoming packages wiped per [20.205(b)] Y N
- d. Incoming packages surveyed per [20.205(c)] Y N
- e. Transfer(s) performed per [30.41] Y N
- f. Records of surveys and receipt/transfer maintained per [20.401(b) and 30.51] Y N

Remarks.

Records of receipt only in form of source leak test certificates filed chronologically. Or if leaking source, in a log book also by date.

10. AREA SURVEYS

N/A

Briefly describe area survey requirements and licensee's implementation [L/C]:

11. PERSONNEL RADIATION PROTECTION - EXTERNAL

N/A

- a. Film or TLD supplier _____ Frequency _____
- b. Supplier is NVLAP - approved Y N
- c. Reports reviewed by _____ Frequency _____
- d. NRC inspector reviewed personnel monitoring records for period _____ to _____
- e. NRC forms or equivalent
- | | | | |
|------------|---|-----------|--|
| (1) NRC-4: | <input type="checkbox"/> Y <input type="checkbox"/> N | Complete: | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (2) NRC-5: | <input type="checkbox"/> Y <input type="checkbox"/> N | Complete: | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| | [20.401(a)] | | |
- f. List maximum exposures (millirem):

Remarks.

12. PERSONNEL RADIATION PROTECTION - INTERNAL

N/A

- a. Potential for exposure of individuals to airborne RAM exists Y N
- b. Monitoring for airborne radioactivity conducted [20.201(b) to meet 20.103] Y N
- c. Records maintained [20.401 and L/C] Y N
- d. Briefly describe licensee's monitoring system for airborne radioactivity [L\C]

- e. Bioassay program implemented as described in correspondence with NRC Y N

Remarks.

13. RADIOACTIVE EFFLUENT AND WASTE DISPOSAL

- a. RAM in effluents to unrestricted areas Y N
- b. Release in accordance with regulatory limits [20.106(a)] Y N

Remarks.

c. Describe waste disposal method(s) - solid and liquid:

Only filter papers disposed of. If contaminated, a calculation is performed to ensure volume of liquid is sufficient to allow appropriate dilution below allowed MPC for nuclide. Filters are soluble.

- N/A
- d. If LLW is stored because access to a burial site has been denied, answer (1), (2), and (3) below:
- (1) Adequate control of waste in storage is maintained () Y () N
 - (2) Package is labeled and package integrity is adequately maintained () Y () N
 - (3) Adequate records of surveys and material accountability are maintained () Y () N
- e. Disposal of waste in accordance with regulatory requirements [20.301] () Y () N
- f. Records maintained [20.401(b)] () Y () N

Remarks.

14. NOTIFICATION AND REPORTS

- a. Licensee in compliance with [19.13] (reports to individuals) () Y () N () N/A
- b. Licensee in compliance with [20.402] (theft or loss) () Y () N () None
- c. Licensee in compliance with [20.403] (incidents) () Y () N () None
- d. Licensee in compliance with [20.405] (overexposures) () Y () N () None

Remarks.

15. POSTING AND LABELING

- a. NRC-3 "Notice to Workers" is posted [19.11] () Y () N
- b. Parts 19 and 20 and license are posted or a notice indicating where documents can be examined is posted [19.11] () Y () N
- c. Other posting and labeling per [20.203] () Y () N

Remarks.

16. ENVIRONMENTAL MONITORING PROGRAM

N/A

- a. Licensee has implemented an environmental monitoring program [L/C]
- b. Records maintained

() Y () N
 () Y () N

Remarks.

- c. Briefly describe the licensee's environmental monitoring program:

17. TRANSPORTATION (10 CFR 71.5(a) and 49 CFR 171-189)

- a. Licensee makes shipments of RAM

() Y () N

- b. Shipments are:

- () delivered to common carriers
- () transported in licensee's own private vehicle
- () both
- () no shipments since last inspection

Remarks.

Complete only if shipments made since last inspection:

- c. Shipments

- (1) Authorized packages used [173.415,416]

() Y () N () N/A

- (2) Package type used _____

- (3) For DOT-7A packages, performance test record on file [173.415(a)]

() Y () N () N/A

- (4) For DOT-55 packages, use is approved by NRC [173.416(a)] () Y () N () N/A
- (5) Other Type B packages used are approved [173.416(a)] () Y () N () N/A
- (6) Licensee has COCs on file with NRC [71.12(c)(1)] () Y () N () N/A
- (7) Licensee has a QA program approved by NRC [71.12(b)] () Y () N () N/A
- (8) For special form sources, performance test record on file [173.476(a)] () Y () N () N/A
- (9) Packages properly labeled [172.403, 173.441] () Y () N () N/A
- (10) Packages properly marked [173.200] () Y () N () N/A
- (11) Proper shipping papers prepared and used [172.200-204] () Y () N () N/A
- (12) Shipping papers readily accessible during transport [177.817(e)] () Y () N () N/A
- (13) Vehicles placarded as necessary [172.500, 504] () Y () N () N/A
- (14) Cargo blocked and braced [177.842(d)] () Y () N () N/A
- (15) Any incidents reported to DOT [171.15-16] () Y () N () None

Remarks.

18. RECORDKEEPING FOR DECOMMISSIONING

N/A

- a. Records of information important to the safe and effective decommissioning of the facility maintained in an independent and identifiable location until license termination [30.35(g)]. () Y () N
- b. Records include all information outlined in [30.35(g)] () Y () N

Remarks.

19. INDEPENDENT MEASUREMENTS

- a. Survey instrument used _____
- b. NRC Serial No. _____
- c. Last date of calibration _____
- d. Inspector's measurements were compared to licensee's Y N
- e. Describe the type and results of measurements:

N/A

20. BULLETINS AND INFORMATION NOTICES

- a. Bulletins, Information Notices, etc., received by the licensee Y N
- b. Licensee took appropriate action in response to Bulletins, INs, etc. Y N

N/A

Remarks.

21. CONTINUATION OF REPORT ITEMS - USE BACK OF PAGE IF NECESSARY

22. LIST OF VIOLATIONS

Clear