

INDUSTRIAL/ACADEMIC INSPECTION FIELD NOTES\*  
Region I

Inspection Report No. 92-001

License No. 20-15285-01

Licensee (name and address)

Docket No. 20-15285-03E

K-Idde - Fenwal Incorporated

030-08864  
030-34498

400 Main Street

Ashland, Massachusetts 01721

Licensee Contact Mark Benvenuti

Telephone No. \_\_\_\_\_

Last Amendment No. \_\_\_\_\_

Date of Amendment \_\_\_\_\_

Priority: 3E

4E

Program Code(s): 03214

03255

Date of Last Inspection 5/30/90

Date of This Inspection 6/25/92

Type of Inspection:  Announced  
 Routine  
 Initial

Unannounced  
 Special  
 Reinspection

Next Inspection Date June 1995 ( 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: Reta Ullrich  
(Signature)

Date 7/2/92

Approved: Dennis Costello  
(Signature)

Date 7/3/92

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

*B-65*

1. ORGANIZATION

a. Briefly describe the organizational structure:

Robert Mac Nutt, Quality Manager  
 H. Benvenuti, RSO

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 5/30/90

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>
L/C RSO	RSO left, no amendment to name replacement	Y	Closed
Training	No training provided to 2 rad workers	Y	Closed

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 ( ) N/A

c. List those individuals contacted during inspection

\* Robert MacNutt

2 workers fabricating  
smoke detectors

\* Mark Berwenko

\*Indicates presence at exit meeting

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

6 persons may handle source holder during various stages of smoke detector assembly; and including receipt of new sources and disposal of returned sources.

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. *Workforce is steady - training is provided individually to new hires, if any.*

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. *last training 12/90  
Next training planned for 7/92*

6. FACILITIES AND EQUIPMENT

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

Remarks.

b. Areas for storage and use of RAM

(1) Adequate method used to prevent an unauthorized individual from entering restricted area  Y ( ) N

(2) RAM is secured to prevent unauthorized removal from an unrestricted area [20.207]  Y ( ) N

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 *NI*

Remarks.

8. MATERIALS

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

Remarks.

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

Remarks.

*99,476 smoke detectors distributed in 1990 to date.*

9. RECEIPT AND TRANSFER OF RADIOACTIVE MATERIAL

a. Describe how packages are received and by whom: ( ) N/A

*RSO receives packages - brings to storage room after rad level survey: Performs wipe of box*

b. Opening procedures established and followed [20.205(d)] ( ) Y ( ) N

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.

10. AREA SURVEYS

( ) N/A

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

*Dec 1990 → Jan 1992*  
*Performs weekly wipe and weekly rad level survey. Wipes done in areas where Am-241 sources handled. Results 0.7 → 1.5 dpm/cm<sup>2</sup>*  
*Rad level survey done in areas where X-ray units are in use*

11. PERSONNEL RADIATION PROTECTION - EXTERNAL

a. Film or TLD supplier Landauer Frequency monthly

b. Supplier is NVLAP - approved ( ) Y ( ) N

c. Reports reviewed by RSO Frequency on receipt

d. NRC inspector reviewed personnel monitoring records for period Dec 1991 to April 1992

e. NRC forms or equivalent

(1) NRC-4: ( ) Y ( ) N Complete: ( ) Y ( ) N ( ) N/A  
(2) NRC-5: ( ) Y ( ) N Complete: ( ) Y ( ) N ( ) N/A  
[20.401(a)]

f. List maximum exposures (millirem): M

*27 persons dosed - all who request dosimeters receive them.*

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 *NA*

Remarks.

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

- return Am-241 sources to vendor (NRD)
- sent radium sources via USECology for disposal

- d. If LLW is stored because access to a burial site has been denied, answer (1), (2), and (3) below: NA
- (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 NA

- 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) NA

- 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)]               | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (5) Other Type B packages used are approved [173.416(a)]                   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (6) Licensee has COCs on file with NRC [71.12(c)(1)]                       | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (7) Licensee has a QA program approved by NRC [71.12(b)]                   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (8) For special form sources, performance test record on file [173.476(a)] | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (9) Packages properly labeled [172.403, 173.441]                           | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (10) Packages properly marked [173.200]                                    | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (11) Proper shipping papers prepared and used [172.200-204]                | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (12) Shipping papers readily accessible during transport [177.817(e)]      | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (13) Vehicles placarded as necessary [172.500, 504]                        | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (14) Cargo blocked and braced [177.842(d)]                                 | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A  |
| (15) Any incidents reported to DOT [171.15-16]                             | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 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)] | <input type="checkbox"/> Y <input type="checkbox"/> N |
| b. Records include all information outlined in [30.35(g)]   | <input type="checkbox"/> Y <input type="checkbox"/> 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:

20. BULLETINS AND INFORMATION NOTICES

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

Remarks. *None required*

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

Observed employees assembly detectors and  
labelling furnace detectors. Labels correct  
and a described

22. LIST OF VIOLATIONS

23. PERFORMANCE EVALUATION FACTORS

Licensee (name & location) Widde-Tenover  
Ashland, MS

Inspector WCC/CC#  
Inspection Date 02/25/92

- a. Lack of senior management involvement with the radiation safety program and/or Radiation Safety Officer (RSO) oversight ( ) Y (  ) N
- b. RSO too busy with other assignments ( ) Y (  ) N
- c. Insufficient staffing ( ) Y (  ) N
- d. Radiation Safety Committee fails to meet or functions inadequately ( ) Y ( ) N (  ) N/A
- e. Inadequate consulting services or inadequate audits ( ) Y ( ) N (  ) N/A

Remarks (consider above assessment and/or other pertinent PEFs):

Regional follow-up on above PEFs citations: