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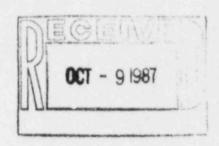
ELECTRONIC CONTROL MFR. PNEUTRONIC

MERRIAM

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KANSAS

913-722-0343



U.S. Nuclear Regulatory Commission, Region IV
Material Radiation Protection Section
611 Ryan Plaza Drive Suite 1000
Arlington, Tex s 76011

Attn: Jack Whitten

Subject: Changes to Application for Material License

Dear Jack:

The following are the changes you requested on our application:

Item 6 Purpose for which licensed material will be used should read: For possession necessary to install, remove, relocate, package, conduct leak-testing, radiation surveys, and training customer personnel on use and operation for Kay-ray Inc. Models 7060SD, 7062B, 7062BP, 7063, 7064, and 7100.

Item 8 Training for individuals working in or frequenting restricted areas. The outline for training the customer's personnel is as follows:

Training instructor - Jack Schulze
The training shall consist of the following instruction and hands-on demostrations:

a. Basic radiation safety practices applicable to
the safe use of the gauging and measuring devices. (90 minutes)
b. Review of manufacturer's Instruction Operation
and Maintenance Manual. (120 minutes)

1. use of shutter mechanism, shutter locking procedures during maintenance in device areas, control of access, barriers, warning signs, etc.

2. maintenance permitted under and prohibited under customer's license.

c. Use of leak-test kits. (30 minutes)

d. Perfor ance for periodic shutter on-off

inspections.(15 minutes)

e. NRC regulations pertinent to the safe use of the devices.(30 minutes)

1. maintenance of reco ls by customer for inspection purposes.

2. records of receipt (shipment invoices, bills of lading etc.)

3. radiation surveys

4. wipe tests

5. shutter on-off operational checks

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f. Required notices and signs such as "Notice to Employees" (Form NRC-3) and posting "Caution Radiation Area" signs for defining radiation areas. (30 minutes)

g. Emergency procedures to be followed in case of damage resulting from fire, explosion, malfunction of the shutter etc. (30 minutes)

1. procedures for limiting access to area.

2. persons to call.

3. requesting professional help.

- h. A written test shall be given with a minimum of 75 percent correct answers to pass. An example of the test is as follows:
- 1. What is the allowable limits of radiation permitted by the NRC regulations per calendar quarter?
- 2. What is the maximum allowed field intensity 12 inches from any surface of the seal source?
 - 3. What is the half life of Cesium 137?
- 4. What are the three types of radiation we most concerned with?

Which is the most dangerous?

Which is the least dangerous?

- 5. What is the half value thickness of
 - a. lead?
 - b. water?
 - c. steel?
 - d. aluminum?
 - e. copper?
- 6. What is inverse square law?

How does it apply to radiation exposure?

- 7. When does a radiation area need to be posted with a Radiation Caution sign?
 - 8. What is a "rem"?
- 9. What NRC form must be posted for employees working in radiation areas?

Where shall the form be posted?

- 10. When shall leak-tests be performed?
- 11. What procedures do you use in case of emergency such as damage to source head?

at jobsite?

- 12. What NRC regulations should be kept on file
- 13. What is NRC regulation 10 CFR Part 19?

Part 20?

Part 31?

- 14. What does the shutter block to?
- 15. How often does the shutter need to be checked?

Item 10 Radiation Safety Program should include the following: Personnel performing services on the seal sources shall wear TLD badges while working in the radiation areas. the badges shall be supplied by TMA/Eberline, P.O. Box 3874, Albuquerque N.M. 87190. These badges are to be exchanged quarterly and analysis of personal exposure kept on permanent file per NRC regulations paragraphs 20.202 and 20.401 of 10 CFR Part 20.

Under OPERATING PROCEDURES part 3 should read: The licensed personnel shall follow written procedures provided by Kay-Ray, Inc. for each service operation and each device.

The instructions for locking source housing in the "store" or "off" position is as follows:

1. approach source housing from the rear

(opposite the detector housing).

2. place the shutter arm in the closed position (ie refer to sample Kay-Ray drawing 951-706306).

3. place padlock in position as shown on drawing.

The procedure for determining when a device can be safely unlocked and checked for proper operation after servicing is completed.

1. service source head per manufacturer's

instructions and drawings.

2. insure source head is mounted and secured on the pipe per manufacturer's instructions and drawings.

3. check detector circuits for proper calibration and operation.

4. perform radiation survey of source housing.

5. unlock source head.

The procedure for the final survey of the source head during "on" and "off" modes are following installation.

1. With the shutter in the closed position. a. measure with the survey meter 12 inches

away from all surfaces of source head.

b. record these measurements on Radiation Survey Form in the square boxes as shown.

c. measure with the survey meter all surfaces of the source head.

d. record these measurements on the Radiation Survey Form in the circles as shown.

e. record user name, location, source head model number, source head serial number, date, and sign.

2. With the shutter in the open position.

a. measure with the survey meter 12 inches away from all surfaces of source head.

b. record these measurements on Radiation

Survey Form in the square boxes as shown.

c. measure with the survey meter all surfaces of the source head.

d. record these measurements on the Radiation Survey Form in the circles as shown.

e. record user name, location, source head model number, source head serial number, date, and sign.

Any questions and/or comments, please advise.

Sincerely,

Jack Schulze

Radiation Safety Officer

	NRC Lic. No. Ale Person Called Organization Telephone No. Person Calling	RECORD OF TELEPHONE CONV REGION IV DOCKET NO JACK Schulze TI+ Custom Centrum Manufactures 913 - 722 - 0343 TI+ 5601 Merriem Dr. Merriem JKS 66263	030-30222 10 RSO 52 OF KS, Tive	Date: 10/87 Time: 10/8/87	735-18				
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