



Preparation Control, Inc.

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May 13, 1980

United States Nuclear Regulatory Commission  
Attn: Paul R. Guinn  
Material Licensing Branch  
Division of Fuel, Cycle and Material Safety  
Washington, D.C. 20555  
Mail Control 02629

U.S. NUCLEAR REG.  
COMMISSION  
SECTION

Gentlemen:

In reference to your correspondence dated March 28, 1980, requesting more information to further explain our application dated January 16, 1980, for by-product material license.

The purpose of our application is to allow the person named in Item 6, (George W. Robertson, Jr.), to perform the following functions:

- Installation and Relocation
- Radiation Survey
- Leak Test
- Package for shipment; Return to Manufacturer

The above functions are to be performed on the following devices: Kay-Ray Models 7062, 7063 and 7051B source housings. Please note the further certification on the 7063, source housing, enclosed. This application does not request the authorization to perform any function on the device which requires removal of the sealed source capsule. This application does not request authorization to possess radioactive material. We request this license to perform the services following on Kay-Ray devices for holders of specific and/or general licenses to possess and use Kay-Ray equipment only. The following procedures have been attached:

- A. Procedure for relocation of Source Head
- B. Procedure for performing Radiation Survey-Installation Procedure
- C. Procedure for wiping Source Holder
- D. Emergency Procedure
- E. Return Procedure

Most applications of Kay-Ray equipment that we deal with will involve measuring the density of a process material flowing through a pipe. The following procedures are explained in terms of this application.

A. PROCEDURE FOR RELOCATION OF SOURCE HEAD

The following procedure should be used whenever the Kay-Ray Source Housing is to be removed for relocation.

1. Lock Source Housing in the "STORE" position.
2. Check the radiation around the Source Housing to assure that the source shutter is properly locked in the "STORE" position.
3. Remove the Source Housing (Licensed Personnel Only).
4. After transfer to new location, mount Source Housing at new location.
5. Source can now be unlocked for proper operation.
6. Perform a new radiation survey on the Source Head following the procedure for performing radiation survey and source wipe.

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#### B. PROCEDURE FOR PERFORMING RADIATION SURVEY INSTALLATION PROCEDURE

This procedure must be followed before the gauge can be put in operation.

1. Immediately after mounting the Source Head with the pipe saddle, perform a radiation survey of the Source Head and its pipe saddle configuration to the detector. These readings should be performed with an empty pipe with the source in the "MEASURE" position.
  - a. This survey consists of recording all of the surface radiation points and the corresponding points 12" from the surface as noted on the attached radiation survey form. These readings are not to exceed 5 mR/hr.
  - b. These readings are to be used to verify the fact that no individual will receive an exposure in excess of 500 mR/hr. per year. If there is a possibility that an individual will receive amounts greater than that above, Kay-Ray will be notified immediately before the gauge is put into operation where a verification of readings and suggested shielding measure will be discussed.
2. Submit a copy of this survey to Kay-Ray, keeping the original on Plant Site with leak test certificates necessary to keep the device in operation.

#### C. PROCEDURE FOR WIPING SOURCE HOLDERS

Model A Kit (for Cesium Sources)

1. Following the instructions of the Model A Source Wipe Kit, prepare the cotton swab for testing.
2. Take cotton swab and wipe around all weldments of the source holder, source shutter, position handle and all other corners and edges of the device.
3. Record the information requested on the back of the source wipe kit.
4. Return source wipe kit to Kay-Ray, Inc.
5. Kay-Ray will process the source wipe kit upon receipt and forward wipe test certificates to the customer for his records.

#### D. EMERGENCY PROCEDURE TO BE FOLLOWED AFTER DAMAGED TO KAY-RAY SOURCE HOLDERS

1. This procedure applies to all instances where damage is incurred by the source holder due to such action as fire, etc.
2. Immediately rope off the area around the source holder to a distance of 30 feet in diameter.
3. Inform plant radiation safety Officer or person responsible for use of the source, as to the situation.
4. Inform by phone or telegram the proper Regional NRC Office of the accident.
5. Notify Kay-Ray, Inc. if their assistance is desired.
6. Limit access to source head until a radiation survey and source wipe can be performed by qualified personnel (us), or a representative of Kay-Ray, Inc.

#### E. CUSTOMER RETURN PROCEDURE

1. The following procedure is to be used by Customer to return material to Kay-Ray, Inc.
  - A. No material is to be returned without prior authorization from Kay-Ray, Inc.
  - . Material is to be shipped UPS or common carrier. Bus transportation will not be accepted.
  - C. Material must be packed properly to insure against damage.
  - D. All material returned must have a Packing Slip stating original purchase order number and reason for return.
  - E. Material is to be shipped prepaid to the following address:  
Kay-Ray, Inc.  
17 East University  
Arlington Heights, Il. 60004  
Attn: Customer Service Department

INDUSTRIAL PROCESS CONTROL EQUIPMENT

516 West Campus Drive • Arlington Heights, Illinois 60004 • (312) 259-5600 • TELEX: 281-085 • CABLE: KAYRAY

CERTIFICATION OF TRAINING

Name: GEORGE W. ROBERTSON, JR.

Company: Preparation Control

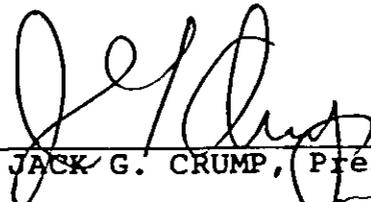
The above named individual has successfully completed the INSTALLATION AND NUCLEAR RADIATION SAFETY course offered by Kay-Ray, Inc., consisting of the following curriculum:

- Principles and practices of radiation protection
- Monitoring radiation levels using Geiger counters
- Radiation exposure limits
- Radiation areas defined
- Calculating radiation levels from known gamma source size and distances
- Calculating dose rates of typical installation
- Leak testing Kay-Ray source housings
- Safety practices required for the use and handling of Kay-Ray source housings
- Installation of source housings demonstration and Hands-On installation

This training course consists of formal discussions, practical applications, leak testing, specific installation discussions, and hands-on installation completion with related forms for record keeping.

Certified on equipment  
model 7051B, 7062, 7063

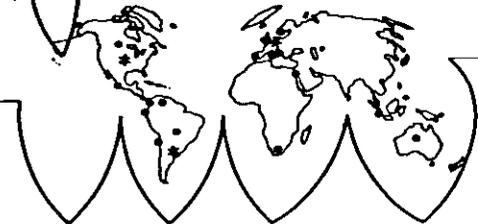
Instructor: Michael O'Brien  
Date: November 30, 1979

  
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JACK G. CRUMP, President

SERVICE TELEPHONE NUMBER: (312) 259-9244

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