

OCT 27 378

Advance Mechanical Construction
c/o Appleton Wastewater Treatment
Plant

License No. 48-18213-01

ATTN: Robert Horner
59 Weimar Court
Appleton, Wisconsin 54911

Gentlemen:

The enclosed Nuclear Regulatory Commission (NRC) IE Bulletin No. 78-13 requires action by you with respect to certain gauging devices in your possession. Records show that you have received one or more of these gauges which are manufactured by Kay-Ray, Incorporated. These gauges contain radioactive material regulated by the NRC. The possession and use of the radioactive material contained in the gauges is governed by either a specific NRC license issued to you or under the general license provisions of NRC regulation 10 CFR Part 31, Section 31.5. A copy of 10 CFR 31.5 is provided for your information. If you possess gauges under a general license, you should have received a copy of this regulation from the gauge vendor when you received the gauges.

Should you have any questions regarding this Bulletin or the actions required of you, please contact this office.

Sincerely,

James C. Keppler
Director

Enclosures:

1. IE Bulletin No. 78-13
2. List of IE Bulletins
Issued in 1978

cc w/encls, w/o Attachments
to Bulletin:
Central Files
Reproduction Unit NRC 20b
PDR
NSIC

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OFFICE ▶	RIII <i>HE</i>	RIII <i>WSE</i>			
SURNAME ▶	Davis/ls	Keppler			
DATE ▶	10/27/78				

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

October 27, 1978

IE Bulletin No. 78-13

FAILURE IN SOURCE HEADS OF KAY-RAY, INC., GAUGES MODELS 7050, 7050B, 7051, 7051B, 7060, 7060B, 7061, AND 7061B

Description of Circumstances:

The U.S. Nuclear Regulatory Commission (NRC) has received information that on three occasions in the past year fractures have occurred at the weld between the dome and the box of source heads used in the subject gauges manufactured by Kay-Ray, Inc. These gauges contain radioactive material regulated by the NRC. The possession and use of the radioactive material in the gauges is governed by either a specific NRC license or under the general license provisions of NRC regulation 10 CFR 31, Section 31.5. A copy of 10 CFR 31.5 is enclosed.

These incidents of weld fractures in the gauges have caused the dome to separate from the box, exposing the 500 millicurie cesium-137 sealed source. In one case, the radioactive source itself fell loose from the dome and was completely exposed. The separation of the dome from the box could result in a radiation overexposure if an individual actually handled the radioactive source or worked in close proximity to a gauge where the lead dome had separated from the box.

In order to correct this potential radiation hazard, Kay-Ray has developed a support bracket which they will supply free of charge to prevent the dome separation if a fracture does occur. In a June 30, 1978 letter (copy enclosed) Kay-Ray advised you of the availability of the support bracket and requested you to return a card confirming the specific source heads in your possession. A number of companies have not returned a card to Kay-Ray, Inc.

In order to assure correction of this potential hazard, you should complete the following actions.

Actions to be taken by you as a licensee of the NRC:

1. On the enclosed form, enter your company's name, address and telephone number, complete the other actions according to the instructions, and sign the preaddressed form and return it to the NRC after completing all the required actions.

October 27, 1978

If you have transferred or otherwise disposed of any Kay-Ray gauges, take the action in item number 2, following:

2. Complete item 1 of the enclosed form, and (a) if you possessed the gauge under a general license of 10 CFR 31.5 include with the form a statement of how you have complied, or information which does comply, with the requirements of 10 CFR 31.5(c)(8) or (9) and provide the name and address of the persons or organizations to whom the gauge was transferred, or (b) if you possessed the gauge under a specific license include with the form a statement of how you complied with the requirements of 10 CFR 30.41 and provide the name and address of the persons or organizations to whom the gauge was transferred.

If you have any of the specified Kay-Ray gauges in your possession, take the actions in item numbers 3 through 5, following:

3. Within two (2) days of receipt of this Bulletin, visually inspect the source head on models 7050, 7050B, 7051, 7051B, 7060, 7060B, 7061, and 7061B of Kay-Ray gauges in your possession for evidence of weld cracks between the dome and box. If cracks are found, take the following actions: (a) contact Kay-Ray immediately at (312) 259-9244 and inform them, and (b) file a report with this office as required by 10 CFR 31.5(a)(5). (A copy of 10 CFR 31.5 is enclosed.)
4. Within ten (10) days after receiving the support bracket(s) from Kay-Ray, install a support bracket on each Kay-Ray gauge model (identified in item 3 above) in your possession.
5. Within twelve (12) days after receiving the support bracket(s) from Kay-Ray, report the completion of the above actions to this office. The report should be submitted by completing and returning the enclosed preprinted, preaddressed form to the NRC.

In addition to the above specific actions, we recommend that you read and become thoroughly familiar with the conditions of either the specific NRC license or the general license of 10 CFR 31.5 whichever authorizes your use and possession of the gauge devices.

Approved by GAO, B180225 (R0072); clearance expires 7-31-80. Approval was given under a blanket clearance specifically for identified generic problems.

Attachments:

1. Report Form
2. 10 CFR 31 (extract)
3. Kay-Ray Letter dated 6/30/78
4. Kay-Ray Card

LISTING OF IE BULLETINS
ISSUED IN 1978

Bulletin No.	Subject	Date Issued	Issued To
78-01	Flammable Contact - Arm Retainers in G.E. CR120A Relays	1/16/78	All Power Reactor Facilities with an OL or CP
78-02	Terminal Block Qualification	1/30/78	All Power Reactor Facilities with an OL or CP
78-03	Potential Explosive Gas Mixture Accumula- tions Associated with BWR Offgas System Operations	2/8/78	All BWR Power Reactor Facilities with an OL or CP
78-04	Environmental Quali- fication of Certain Stem Mounted Limit Switches Inside Reactor Containment	2/21/78	All Power Reactor Facilities with an OL or CP
78-05	Malfunctioning of Circuit Breaker Auxiliary Contact Mechanism-General Model CR105X	4/14/78	All Power Reactor Facilities with an OL or CP
78-06	Defective Cutler- Hammer, Type M Relays With DC Coils	5/31/78	All Power Reactor Facilities with an OL or CP
78-07	Protection afforded by Air-Line Respirators and Supplied-Air Hoods	6/12/78	All Power Reactor Facilities with an OL, all class E and F Research Reactors with an OL, all Fuel Cycle Facilities with an OL, and all Priority 1 Material Licensees

LISTING OF IE BULLETINS
ISSUED IN 1978

Bulletin No.	Subject	Date Issued	Issued To
78-08	Radiation Levels from Fuel Element Transfer Tubes	6/12/78	All Power and Research Reactor Facilities with a Fuel Element transfer tube and an OL.
78-09	BWR Drywell Leakage Paths Associated with Inadequate Drywell Closures	6/14/78	All BWR Power Reactor Facilities with an OL or CP
78-10	Bergen-Paterson Hydraulic Shock Suppressor Accumulator Spring Coils	6/27/78	All BWR Power Reactor Facilities with an OL or CP
78-11	Examination of Mark I Containment Torus Welds	7/21/78	BWR Power Reactor Facilities for action: Peach Bottom 2 and 3, Quad Cities 1 and 2, Hatch 1, Monticello and Vermont Yankee
78-12	Atypical Weld Material in Reactor Pressure Vessel Welds	9/29/78	All Power Reactor Facilities with an OL or CP