

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, DC 20555

June 18, 1997

NRC INFORMATION NOTICE 97-35: RETROFIT TO INDUSTRIAL NUCLEAR COMPANY (INC) IR100 RADIOGRAPHY CAMERA TO CORRECT INCONSISTENCY IN 10 CFR PART 34 COMPATIBILITY

Addressees

All industrial radiography licensees.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to make licensees aware of a scenario where the Industrial Nuclear Company (INC) Model IR100 Radiography Camera would not pass the horizontal shock test, as required by 10 CFR Part 34, and of a retrofit to the INC Model IR100 radiography camera, to correct that problem. It is expected that recipients will review the information for applicability to their licensed activities, and consider actions, as appropriate, to avoid problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action nor written response is required.

Description of Circumstances

Recently, NRC became aware of a scenario where the INC Model IR100 radiography camera would not pass the horizontal shock test, as required by 10 CFR Part 34.20, "Performance Requirements for Radiography Equipment." INC and the State of California evaluated the problem, and INC took action to correct the situation.

Discussion

INC recently identified the "Safety Latch Plate" on the IR100 radiography camera as a potentially more "fragile area" (as specified in ANSI N432-1980, Paragraph 8.3.2) than the area previously tested. It appeared that if the Safety Latch Plate were struck directly on the front surface of the plate (with the source in the safe locked position), the plate could be deformed and deemed inoperable. It also appeared that the plate might be susceptible to damage if struck from the top and side. To ensure that this type of potential damage was not possible, a bumper that would prevent deformation was welded to the back of the Safety Latch Plate, and the outer top edge of the plate was angled at a 45 to 50 degree angle to a depth of approximately 3 mm (0.12 inch). The modified device was tested to ensure compliance with ANSI N432-1980, paragraph 8.2.

When the source is in the locked, stored position, there appeared to be no significant safety issues, since bending of the Safety Latch Plate prevents source crank out. However, the State of California has stated that if the source was in the exposed position at the time of impact, the source would not be able to be returned to the shielded and secured position.

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updated in
8/25/97

PDR I+E NOTICE 97-035 970618

INC has indicated that it will contact all owners of potentially affected cameras, on record with it, to notify them of the retrofit. INC has recommended that users return the cameras to INC for retrofits. INC has indicated that it can also send retrofit kits and instructions to users that wish to perform their own retrofits. Attachment 1 contains a copy of the retrofit kit letter and replacement instructions. The retrofit can be differentiated from the original design by verifying that the top part of the plate has a bumper, that is welded on the backside of the Safety Latch Plate and which fills a good portion of the space between the Safety Latch Plate and the body of the projector.

To allow licensees sufficient opportunity to request and install the retrofit, units not containing the retrofit will continue to be approved for use through December 31, 1997. Effective January 1, 1998, units not containing the retrofit will no longer be approved for use. Affected cameras may be checked for completed retrofit during any inspection. Cameras with the retrofit will be deemed to meet the requirements of 10 CFR Part 34.

All affected cameras should be retrofitted as soon as possible. Licensees should contact INC, or the State of California, to obtain retrofit kits or assistance with retrofit procedures, or to report that they have not received their kit. Affected cameras may be checked for completed retrofits during any inspection.

This information notice does not require any specific action or written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below or the appropriate regional office.

signed by

Donald A. Cool, Director
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Technical contacts: David Wesley
Dept. of Health Services
State of California
(916) 445-1884

Michele Burgess, NMSS
301-415-5868
E-mail: mlb@nrc.gov

Attachments:

1. INC Retrofit Kit Letter and Replacement Instructions
2. List of Recently Issued NMSS Information Notices
3. List of Recently Issued NRC Information Notices

*Attachment filed in
Jacket*

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LIST OF RECENTLY ISSUED
NMSS INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
97-30	Control of Licensed Material During Reorganizations, Employee-Management Disagreements, and Financial Crises	06/03/97	All material and fuel cycle licensees
97-24	Failure of Packing Nuts on One-Inch Uranium Hexafluoride Cylinder Valves	05/08/97	All U.S. Nuclear Regulatory Commission licensees and certificates authorized to handle uranium hexafluoride in 30- and 48-inch diameter cylinders
97-23	Evaluation and Reporting of Fires and Unplanned Chemical Reaction Events at Fuel Cycle Facilities	05/07/97	All fuel cycle conversion, enrichment, and fabrication facilities
97-20	Identification of Certain Uranium Hexafluoride Cylinders that do not Comply with ANSI N14.1 Fabrication Standards	04/17/97	Registered users of transportation packages for uranium hexafluoride
97-04	Implementation of a New Constraint on Radioactive Air Effluents	02/24/97	All materials, fuel cycle, and non-power reactor licensees
97-03	Defacing of Labels to Comply with 10 CFR 20.1904(b)	02/20/97	All material licensees involved with disposal of medical waste
96-72	Undetected Failures that May Occur During Patient Treatments with Teletherapy Devices	12/24/96	All teletherapy licensees

LIST OF RECENTLY ISSUED
NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
97-34	Deficiencies in Licensee Submittals Regarding Terminology for Radiological Emergency Action Levels in Accordance With the New Part 20	06/12/97	All holders of OLs or CPs for test and research reactors
97-33	Unanticipated Effect of Ventilation System on Tank Level Indications and Engineering Safety Features Actuation System Setpoint	06/11/97	All holders of OLs or CPs for nuclear power reactors
95-36, Supp. 1	Potential Problems with Post-Fire Emergency Lighting	06/10/97	All holders of OLs or CPs for nuclear power reactors
97-32	Defective Worm Shaft Clutch Gears in Limatorque Motor-Operated Valve Actuators	06/10/97	All holders of OLs or CPs for nuclear power reactors
97-31	Failures of Reactor Coolant Pump Thermal Barriers and Check Valves in Foreign Plants	06/03/97	All holders of OLs or CPs for pressurized-water reactor plants
97-30	Control of Licensed Material During Reorganizations, Employee-Management Disagreements, and Financial Crises	06/03/97	All material and fuel cycle licensees

OL = Operating License
CP = Construction Permit