

were not on the same ring at the Exton facility and the Leighton facility. At each facility, the inspector noted that the linear accelerator key was in the linear accelerator console and the HDR key was in the HDR console.

6. Item 4 of the letter dated August 2, 1990, requires, in part, that ancillary personnel will receive an orientation program and an annual review of the basic principles related to identifying, and proper procedures in working in, areas controlled under this license. Instructions for individuals will include the subjects listed on page A-1 of NRC Regulatory Guide 10.8, Rev. 2.

Regulatory Guide 10.8, Rev. 2, page A-1, requires instruction in potential hazards associated with radioactive material in each area where the employee will work.

Contrary to the above, as of December 4, 1992, ancillary personnel at the IRCC facility were not informed about radiation hazards associated with a 3.7 Curie iridium-192 source in a source container located in the HDR afterloader treatment room. Specifically, housekeeping personnel had access to the keys to the treatment room and offered to move the source container which measured approximately 80 millirem per hour at the surface.

E. 10 CFR 20.203(c)(1) requires that each high radiation area be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: "Caution High Radiation Area."

Contrary to the above, on December 8, 1992, the high radiation area in the HDR afterloader treatment room at the Exton facility was not posted as required with the required sign bearing the radiation caution symbol and the words: "Caution High Radiation Area."

F. 10 CFR 35.51(c) requires, in part, that a Licensee check each survey instrument for proper operation with the dedicated check source each day of use.

Contrary to the above, as of December 8, 1992, the Licensee at the Exton facility routinely did not check its survey meter with a dedicated check source on days when the instrument was used.

G. 10 CFR 35.25(a)(3) requires, in part, that a Licensee that permits the use of byproduct material by an individual under the supervision of an authorized user shall periodically review the supervised individual's use of byproduct material and the records kept to reflect this use.

Condition 17 of License No. 37-28540-01 requires, in part, that licensed material be possessed and used in accordance with statements,

representations, and procedures contained in an application dated June 1, 1990, and a letter dated August 16, 1991.

Item 10.15.A.4 of the application dated June 1, 1990, requires, in part, that daily checks of interlocks, safety systems, and alarms be performed and logged.

Contrary to the above, as of December 3, 1992, supervised individuals at the IRCC facility routinely did not perform daily interlock checks as required in conjunction with operating the HDR afterloader containing iridium-192, and the Licensee did not review their performance of this procedure.

H. 10 CFR 35.21(b)(2) requires, in part, that the RSO establish, collect in one binder or file, and implement written policy and procedures for:

(v) Using byproduct material safely,  
 (vi) Taking emergency action if control of byproduct material is lost,  
 (viii) Performing checks of survey instruments and other safety equipment, and  
 (x) Training personnel who work in or frequent areas where byproduct material is used or stored.

Contrary to the above, as of November 16, 1992:

1. The RSO did not establish and implement written policy and procedures for using byproduct material safely. Specifically, although iridium-192 was in use in HDR afterloader units at the Indiana, Exton, and Leighton facilities, written procedures entitled, "Oncology Services Corporation, Department of Physics, HDR Treatment Manual", existed only in draft form and the RSO had not distributed them to the staff.

2. The RSO did not establish and implement procedures for taking emergency action if control of byproduct material was lost. Specifically, the RSO had not established or implemented such procedures as of December 1, 1992, when the Licensee retrieved a 3.7 Curie iridium-192 source from a waste disposal facility and transported it back to the Licensee's facility.

3. The RSO did not implement procedures at the IRCC for performing checks of survey instruments and other safety equipment. Specifically, the RSO did not implement procedures for checking survey instruments for proper operation with a dedicated check source on days when the instrument was used, as required by 10 CFR 35.51(c); and for checking the treatment room door interlock in conjunction with operating the HDR afterloader, as required by License Condition 17, application dated June 1, 1990, Item 10.15.A.4.

4. The RSO did not establish and implement written policy and procedures for training personnel who work in or frequent areas where byproduct material is used or stored. For example, the RSO believed that it was the responsibility of the physicist at the Indiana, PA, facility to provide such training to the individuals there; however, the medical physicist stated that his contract did not indicate that he should provide training.

I. 10 CFR 35.13(e) requires that a Licensee apply for and must receive a license amendment before it adds to or changes the areas of use or address or addresses of use identified in the application or on the license.

Contrary to the above, on or about April 23, 1991, the Licensee's RSO changed the area of use of iridium-192 in a HDR afterloader for a shielding experiment from the shielded therapy room at the Greater Harrisburg Cancer Center, the area of use identified in the application, to an area outside of the building and, as of that date, the Licensee had not applied for or received a license amendment authorizing the change.

J. 10 CFR 71.5(a) requires that a Licensee who transports licensed material outside the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

1. 49 CFR 173.24(f)(ii) requires, in part, that closures on packagings shall be so designed and closed that under conditions normally incident to transportation, the closure is secure.

49 CFR 173.475(c) requires, in part, that before each shipment of any radioactive materials package, the shipper shall ensure by examination or appropriate tests that each closure device of the packaging is properly installed, secured, and free of defects.

Contrary to the above, on December 1, 1992, the Licensee transported a radioactive materials package containing 3.7 Curies of iridium-192 and there was no closure device on the packaging.

2. 49 CFR 177.817(a) requires that a carrier not transport a hazardous material unless it is accompanied by a shipping paper prepared in accordance with 49 CFR 172.200-203. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.

Contrary to the above, on December 1, 1992, the Licensee transported 3.7