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NRC NOTIFIES USERS OF AMERSHAM MODEL 660
OF POTENTIAL PROBLEMS, COMPENSATORY MEASURES

The Nuclear Regulatory Commission has notified users of Amersham Corporation's Model 660 radiography devices of problems found during transportation safety testing of the devices.

The advisory -- known as an Information Notice -- outlines compensatory measures that should be taken, until the devices are re-designed and re-tested, to ensure that they will be resistant to transportation accidents and fires.

Radiography devices are used in industrial applications to detect flaws in dense metal objects, such as pipes. The devices, which contain nuclear material, serve as their own transportation packages. They must meet NRC testing requirements designed to show the packages' ability to withstand hypothetical accident conditions.

Amersham, which is located in Burlington, Massachusetts, holds several NRC certificates of compliance for radioactive material transportation packages.

An NRC inspection in June identified problems regarding Amersham's performance of the required tests. Later that month the NRC issued a Confirmatory Action Letter to Amersham, documenting the company's agreement to suspend fabrication of all NRC-certified transportation packages; to notify all users of questions raised by NRC regarding the packages; to conduct retesting; and to advise users of any administrative controls needed for packages already in use, pending completion of Amersham's retesting.

In October, Amersham performed the required retests of the Model 660 packaging. The test sequence consisted of a 30-foot free drop, a 40-inch drop onto a puncture bar and a fire test. Because of damage sustained in the drop and puncture tests, the radiation shielding in one test unit was partially exposed during the subsequent fire test. As a result, the test unit no longer provided sufficient shielding to meet the post-accident limits specified in NRC regulations for the amount of radiation detectable on the exterior of the package.

The Information Notice sets out the following additional controls for Model 660 series packages:

-- The package may be transported in a private vehicle if it is properly secured within a box attached to the vehicle. The package must be properly blocked, braced and supported to prevent shifting of the device within the box during transport.

-- The package may be transported in a private vehicle or by a common carrier in a container that is not attached to the vehicle. In this case the container must be a steel box of welded construction or a steel drum. The package must be properly blocked, braced and supported to prevent the device from shifting within the steel box or steel drum during transport. In addition, the steel box or drum must be blocked, braced and secured against movement within the vehicle.

Amersham's certificate of compliance has been revised to reflect these additional controls, which are temporary measures pending the development and testing of more permanent package design modifications.

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