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NRC STAFF PROPOSES \$125,000 FINE AGAINST MALLINCKRODT, INC. FOR MULTIPLE RADIATION OVEREXPOSURES TO PLANT WORKERS

The Nuclear Regulatory Commission staff has proposed a \$125,000 fine against Mallinckrodt, Inc., of St. Louis, Missouri, for violations of NRC regulations associated with multiple radiation exposures to workers at the company's Maryland Heights, Missouri, facility.

On April 13 the company reported a March 31 radiation exposure above NRC limits to the hand of a worker. Subsequent reviews by the company and by a special NRC inspection team found additional workers had received radiation doses to their fingers and thumbs in excess of the NRC limit of 50 rems per year. (A rem is a standard measure of radiation dose.)

The NRC Augmented Inspection Team conducted an inspection of the radiation exposure incidents in May with subsequent inspections in July and August. The NRC staff issued a Confirmatory Order to Mallinckrodt in June requiring the company to review and improve its radiation protection program and its training for workers as a result of the radiation overexposures.

The company was cited for the March 31 incident in which an employee handled a device containing radioactive technetium and molybdenum during a manufacturing process. The device is used to produce radioactive materials used in diagnostic medical tests. The radiation dose to the individual's thumb and forefinger is calculated to be at least 510 rems. There were no observable medical effects associated with the overexposure.

Reviews by the company and NRC inspectors identified two other work areas of the plant where workers received radiation doses in excess of the NRC extremity limit. In these two areas, 14 individuals received radiation doses above NRC annual limits between 1996 and 2000. Some of the workers received doses above NRC limits in more than one year. No adverse medical effects were reported.

Three violations were associated with these overexposures: (1) failure to control work activities so that workers would not receive radiation doses above the 50 rem annual limit; (2) failure to use procedures and controls so that the workers' radiation doses would be as low as is reasonably achievable; and (3) failure to accurately measure the radiation doses to the worker's fingertips.

The proposed fine was increased because of the number of workers involved, the severity of the

overexposures, the number of years involved, and the company's failure to identify the potential for overexposures.

No additional fine was proposed for several other violations associated with the overexposures because the violations were found by the company and the company took comprehensive corrective actions.

Mallinckrodt has until January 22, 2001, to pay the fine or to protest it. If the fine is protested and subsequently imposed by the NRC staff, the company may request hearing.

The letter from the NRC staff to the licensee and related documents are available on the NRC web site at: <http://www.nrc.gov/OPA/reports>

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