

BOX 10172 LAMBERT FIELD • ST. LOUIS, MISSOURI 63145 • 314 AX 1-0540

March 1, 1973

Mr. Glen W. Roy
Chief, Materials Inspection &
Enforcement Branch
Division of Compliance
U.S. Atomic Energy Commission
Washington, D.C. 20545

Reference: USAEC License
No. 24-04206-01

Gentlemen:

A Quality Control technician was found to have an elevated thyroid burden of Iodine -125 on January 29, 1973. Her highest average thyroid burden for seven consecutive days was 0.78 microcuries.

The activity in the gland has been diminishing with approximately a 47-day half life, to date. The calculated exposure to the gland was 84 percent of the permissible 8 Rems recommended by the ICRP, using 13 consecutive weeks.

The individual's uptake correlated with personal contamination and high air concentrations. The average air concentrations in the general area in which she worked were 5.04×10^{-9} uCi/ml I-125, 1.23×10^{-9} uCi/ml I-131 and 2.00×10^{-11} uCi/ml "other" during the period 1-25-73 to 1-30-73. No other individuals working in the area showed any appreciable increase in their thyroid burdens.

The operation which resulted in the exposure was the assaying of Sodium Iodide, I-125. The major cause of the uptake was determined to be poor personal technique on the part of the individual involved. The high air concentrations were caused by the manner in which waste materials were handled. The individual involved has received a written reprimand stating that she will be terminated if any safety practices or good manufacturing practices are ignored in the future. The

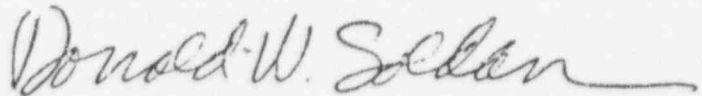
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waste handling procedure has been modified to preclude a recurrence of this situation.

Sincerely,

MALLINCKRODT CHEMICAL WORKS
MALLINCKRODT/NUCLEAR

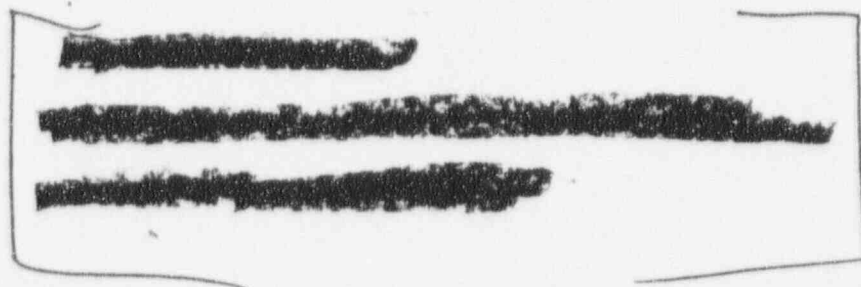
A handwritten signature in dark ink, appearing to read "Donald W. Soldan", with a long horizontal flourish extending to the right.

Donald W. Soldan, Chief
Radiological Protection Officer

DWS:ja

cc: Boyce H. Grier, Director

The individual referred to in this report is:



Ex 6