

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

April 25, 1973

Mr. F. E. Kruesi, Director
Regulatory Operations
U. S. Atomic Energy Commission
Washington, D. C. 20545

Reference: USAEC License
No. 24-04206-01

Gentlemen:

A janitorial maintenance man was found to have an elevated thyroid burden of Iodine -131 on 3-27-73. His average thyroid burden for seven consecutive days was 0.146 micro-curies.

The calculated exposure to the gland is 8 percent of the permissible 8 Rems recommended by the ICRP, for thirteen consecutive weeks.

The individual's uptake correlated with high air concentrations. The average air concentrations in the area in which he worked were 4.47×10^{-8} uCi/ml I-131 and 2.10×10^{-9} uCi/ml I-125 with no other detectable Isotope during the period 3-22-73 to 3-27-73. No other individuals showed any appreciable increase in their thyroid burdens from this high concentration.

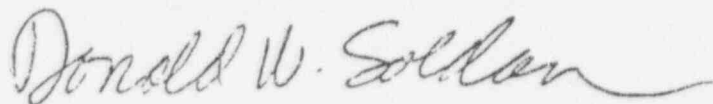
The operation which resulted in the high air concentration and subsequent exposure was the compaction of solid radioactive waste. A bottle containing a volatile liquid source of Iodine -131 was inadvertently placed in the solid waste and was smashed during compaction. A ventilated enclosure has been

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placed around the compactor to prevent a recurrence of the
high air concentrations.

Sincerely yours,

MALLINCKRODT NUCLEAR
MALLINCKRODT CHEMICAL WORKS

A handwritten signature in cursive script, reading "Donald W. Soldan". The signature is written in dark ink and has a fluid, connected style.

Donald W. Soldan
Chief, Radiological
Protection Officer

DWS: ja

cc: Mr. Boyce H. Grier, Director

NAME:

DATE OF BIRTH:

SOCIAL SECURITY NUMBER:

[REDACTED]

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[REDACTED]

* Birth date unavailable at this time, will forward information as soon as possible.