

Mallinckrodt

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

NUCLEAR

November 18, 1969

Mr. Jack R. Roeder, Chief
Materials Inspection and
Enforcement Branch
Division of Compliance
U.S. Atomic Energy Commission
Washington, D.C. 20545

Reference: U.S. AEC License Number 10-11743-01

Dear Mr. Roeder:

Routine thyroid burden measurements performed on Tuesday, October 14, 1969 at our Atlanta Branch Laboratory disclosed the presence of approximately 0.18 microcuries of Iodine-131 in the thyroid gland of a dispensing technician. This individual was restricted from dispensing Iodine-131 products until the burden of Iodine-131 had decreased below 0.07 microcuries. The average of all values measured was 0.19 microcuries during the initial week of exposure ending October 19, 1969. The average for the following week ending October 26, 1969 was 0.15 microcuries. All other weekly averages were below 0.14 microcuries.

We are unable to report this individual's average quarterly exposure at this time since the current calendar quarter has not yet ended. However, values measured prior to and since the exposure of the weeks previously mentioned indicate that the average quarterly thyroid burden will be considerably lower than 0.14 microcuries of Iodine-131 resulting in an equivalent exposure considerably less than the 8 rem permitted quarterly exposure recommended by the ICRP.

We have concluded through investigation that the elevated thyroid burden was probably caused by concentrations of Iodine-131 in the air.

A new air exhaust and filtration system ordered several months ago to minimize the possibility of elevated air concentrations had been received before the exposure period but had not yet been made operational. This unit

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is now installed and in operation. We are confident that the improved air flow pattern established throughout the building by this system will minimize a recurrence of the above conditions.

Sincerely yours,
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Donald W. Soldan

Donald W. Soldan, Manager
Health Physics Department

DWS/lj

cc: Director of USAEC Region II
Mr. Claude Tatro

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Atlanta Branch Laboratory

The individual referred to in this report is, [REDACTED]
[REDACTED] whose Social Security Number is [REDACTED] and
whose birth date is, [REDACTED]

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