

Mallinckrodt

BOX 10172 LAMBERT FIELD • ST. LOUIS, MISSOURI 63146 • 314 AX 1-0540

NUCLEAR

February 3, 1970

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

Dear Mr. Roeder:

Routine thyroid burden measurements performed on Tuesday morning, December 30, 1969, disclosed the presence of approximately 0.04 microcuries of Iodine-131 in the thyroid gland of a production department worker. Another measurement performed in the afternoon disclosed the presence of approximately 0.14 microcuries in the thyroid gland of the same individual. The individual was immediately removed from further exposure to Iodine-131, until the average weekly thyroid burden had decreased below 0.07 microcuries of Iodine-131 in accordance with established company policy.

The uptake was completed by the following morning, December 31, 1969, at which time a maximum of approximately 0.70 microcuries was measured. The average of daily measurements performed was 0.27 microcuries during the initial week of exposure ending January 4, 1970. For the thirteen week period including the above week, the average was approximately 0.06 microcuries equivalent to 42 percent of the permissible average thyroid burden for the calendar quarter. This would result in a 3.4 rem exposure to the gland which compares favorably with the 8 rem per quarter recommended by the ICRP.

The individual informed us that he had rubbed his lips while wearing contaminated gloves and may have inadvertently exposed himself in this manner. He promptly reported for another thyroid burden measurement after realizing that he might have exposed

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 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Jack R. Roeder, Chief

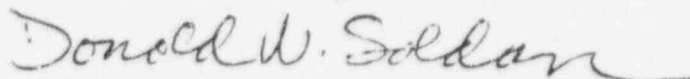
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February 3, 1970

himself. Investigation as to other possible causes tend to confirm that the elevated thyroid burden was due to ingestion of the material.

Very truly yours,

MALLINCKRODT CHEMICAL WORKS
MALLINCKRODT/NUCLEAR



Donald W. Soldan, Chief
Radiological Safety Officer

DWS:cm

The individual referred to in this report is:

[REDACTED]
Social Security Number [REDACTED]

Date of Birth [REDACTED]

Exemption
6