

Mallinckrodt

BOX 6172 LAMBERT FIELD • ST. LOUIS, MISSOURI 63145 • 314 AX 1 0540

NUCLEAR

RADIOPHARMACEUTICALS

December 18, 1967

Director, Division of Compliance
U. S. Atomic Energy Commission
1717 "H" Street
Washington, D.C. 20545

Dear Sir:

On July 17 and 18, 1967 routine thyroid measurements disclosed excessive amounts of ^{131}I in the vicinity of the thyroid gland of an individual. A small area on the back of the individual's head showed a high level of contamination with lower levels of contamination distributed over adjacent areas. The high level spot was removed from the view of the detector by presenting a side view of the thyroid gland. This procedure yielded values of 0.86 and 0.99 times the permissible quantity of ^{131}I for the 17th and 18th. These values included the lower levels of external contamination not removed from view of the detector. This individual did not report for additional measurements during the week. He reported only once each week during the next two weeks.

Total values of 1.73 and 1.48 times the permissible quantity of ^{131}I were recorded on July 24 and August 4, 1967. Extensive external contamination was also measured on these occasions. The external contamination was estimated to contribute about 50% to 75% of these values. These estimates were not recorded with the total values.

In the past, an individual was restricted from work with ^{131}I if it was demonstrated that he had a high thyroid burden. The following actions are currently being taken if an individual has a high thyroid burden or is contaminated in a manner which would contribute to the thyroid burden measurement:

1. 0.50 times the permissible burden -- total removal of the individual from all ^{131}I production areas.
2. 1.00 times the permissible burden -- total removal of the individual from all laboratory restricted areas.

Any high thyroid burdens or external contamination as a result of poor working habits or conditions will receive the immediate attention of management and shall be corrected by whatever means are necessary.

Information in this record was deleted
in accordance with the Freedom of Information

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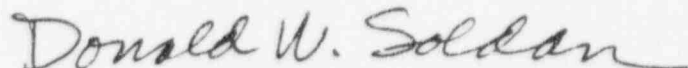
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The person on whom this report is being made was not in our findings cooperating properly in our radiation protection program. This was a major factor in our dismissing the employee on October 30, 1967.

Sincerely yours,

MALLINCKRODT/NUCLEAR



Donald W. Soldan, Manager
Health Physics Department

DWS:cd

encl.

cc: Manager, Region III
Division of Compliance
U. S. Atomic Energy Commission
Suite 410 Oakbrook Professional Bldg.
Oak Brook, Illinois 60523

December 18, 1967

The individual referred to in this report is [REDACTED]

Ex 6

MALLINCKRODT/NUCLEAR

1967 FRACTIONAL PERMISSIBLE IODINE-131 THYROID BURDEN*

<u>NAME</u>	<u>SOCIAL SECURITY NUMBER</u>		<u>IDENTIFICATION NUMBER</u>	
Omitted	Omitted			
<u>Period of Exposure</u>	<u>1/2/67-4/3/67</u>	<u>4/3/67-7/3/67</u>	<u>7/3/67-10/2/67</u>	<u>10/2/67-1/1/68</u>
<u>Week Starting</u>	<u>1 st. quarter</u>	<u>W. S. 2nd quarter</u>	<u>W. S. 3rd quarter</u>	<u>W. S. 4th quarter</u>
1/2		4/3 --	7/3 -	10/2 0.63
1/9		4/10 .15	7/10 -	10/9 0.32
1/16		4/17 .32	7/17 0.92	10/16
1/23		4/24 .40	7/24 1.73*	10/23
1/30		5/1 .22	7/31 1.48*	10/30
2/6		5/8 .29	8/7 0.88	11/6
2/13		5/15 .30	8/14 0.75	11/13
2/20		5/22 .51	8/21 0.37 (Cal)	11/20
2/27		5/29 ---	8/28 0.21	11/27
3/6		6/5 ---	9/4 -	12/4
3/13	.12	6/12 ---	9/11 0.41	12/11
3/20	.53	6/19 .38	9/18 1.59*	12/18
3/27	0	6/26 ---	9/25 1.21*	12/25
Quarterly Average	.32	.32	0.95	

* Fractional Permissible Thyroid Burden based on a permissible quarterly average thyroid burden of 0.14 microcuries of Iodine-131.