SLR:RH
37-611-3

OCT - 6 1966

The Budd Company
Instruments Division
Box 245
Phoenixville, Pennsylvania 19460

Attention: Dr. John H. Buck
Vice President and
General Manager

Gentlemen:

Thank you for your letter of September 26, 1966, informing us of the exposure of one of your employees to radioactive material.

Your cooperation with us is appreciated.

Very truly yours,

bcc: Compliance Div., HQ)
Compliance Div., I
Public Document Room) w/cpy ltr 9-26-66
Isotopes Branch, DML)
Incident File,SLR:EB)

Eber R. Price, Director
Division of State and
Licensee Relations

228

September 26, 1966

CERTIFIED MAIL

Director
Division of State & Licensee Relations
U. S. Atomic Energy Commission
Washington, D. C. 20545

Reference: License 37-611-3

Gentlemen:

An inspection was made of our facilities on May 19, 20, 26 and June 30, 1966, by Mr. E. Epstein of your New York Compliance Office. During this inspection a review of our records on personnel contamination was made.

A report dated March 15, 1966, showed that one of our personnel had ingested an amount of radioactivity while working in or near the entrance to our hot cell. Immediately after leaving the work area, this man and others were checked by taking sputum and nasal discharge samples. This one man had an original nasal discharge count of approximately 125,000 dpm and a sputum count of 120,000 dpm. The nasal discharge count was taken twice more with some counts and then no contamination was recorded from repeated tests. Five sputum counts were taken before background was reached. This was admittedly more contamination than was desirable. Our evaluation of the case did not indicate an overexposure however, and since the continuous air monitor, located approximately 8 feet from where the man was working, indicated a maximum concentration of 1×10^{-10} microcuries per milliliter (well below the allowable), we did not feel that the limits set by 10CFR20.103 were exceeded. Therefore no report was made of a possible exposure.

On July 14, 1966, this man and others were checked in the whole body counter at New York University Medical Center. The whole body count on this man showed a body burden of 0.094 microcuries of Co 60. A previous body count on the same man on July 21, 1965, showed a burden of 0.130 microcuries.

A reanalysis of the incident, based on discussions with your inspector, now indicates the possibility of overexposures to airborne contamination for a short period of time above the limits

set in Appendix B of 10CFR20.

Since June 2, 1966, air samples, using a portable air monitor, have been taken in the hot cell entrance prior to entry. Sputum and nasal discharge samples are also taken of all personnel working in the entrance.

All of the above information has been reported to the New York Compliance Office and by our letter of August 1, 1966, in reply to items mentioned in their Form AEC-592 dated July 25, 1966.

We believe the steps taken should prevent future incidents of this type. Also, if nasal and sputum samples are taken which show contamination of the same order of magnitude, proper notification will be made in accordance with 10CFR20.405.

As soon as the written report of the body burdens of all personnel is received from N.Y.U., we will forward copy to your office.

If you have any questions concerning this occurence, please contact Mr. C. F. Thompson or the writer.

The man involved has been notified today of this occurence as required by 10CFR20.405b.

Very truly yours,

THE BUDD COMPANY

John H. Buck

John H. Buck
Vice President & Gen. Mgr.
INSTRUMENTS DIVISION

JHB/CFT/jmr

cc: Director
Region I Div. of Compliance
U.S. Atomic Energy Commission
376 Hudson Street
New York, N. Y. 10014

INSTRUMENTS ELECTRONICS DIVISION

Reference: License 37-311-3
Exposure of March 15, 1966

Individual involved: [redacted]

DIRECTOR OF REGULATION
AND DIVISIONS' ROUTING SLIP

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R. Price
F. Eason
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F. Western
J. J. DiNunno
R. Bryan
A. Holt
R. J. Catlin
R. F. Barker

L. E. Johnson
~~R. E. Cunningham~~
D. A. Nussbaumer
A. E. Aikens
C. D. Luke

R. L. Doan
E. G. Case
R. H. Jones
S. Levine
R. Boyd
J. Newell
D. Skovholt

OGC (BETHESDA)
MAIL & FILES FOR: Dispatch
Central Files
Isotopes F.

MARKS: ~~Brinkman~~ file - Budd

FROM: [signature]
DATE:

SEP 2 9 1965

SLR:RCP
37-611-3

The Budd Company
Instruments Division
P. O. Box 245
Phoenixville, Pennsylvania 19460

Attention: Dr. John E. Buck
Vice President and
General Manager

Gentlemen:

Thank you for your letter of August 26, in reply to our notice of August 11, 1965.

With respect to your comments on Item 1 of our notice, your evaluation of airborne concentrations of cobalt 60 to which employees were exposed appeared inadequate, in that no correction factor had been applied to the readings of your continuous chart recorder so as to ascertain actual airborne concentrations. The correction factor to be applied to the recorder readings is discussed in the literature distributed with your MAP-1-A instrument. Please inform us of the steps which will be taken by you with respect to this matter.

Regarding Item 2 of our notice, our inspector was told during his inspection that the stack monitor had not been operated at any time from January 29, 1965 to April 21, 1965 and there had been no switchover to the alternate system. We will appreciate your clarifying this matter.

In regard to Item 3, our inspector was informed by individuals directly involved in the hot cell entries that they had not routinely performed direct radiation surveys to check on possible contamination of employees as they exited from the hot cell. Your letter implies that the hand and foot monitor has been placed near the entrance to the

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hot cell. We will appreciate clarification of this as the instrument, at the time of the inspection, was noted to be located in the receptionist's office at the entrance to the building. As such, the instrument was used to monitor personnel as they exited from the building rather than from the hot cell.

Concerning your question on the use of a whole body counter in the New York area, we suggest that you contact Dr. Roy Albert, Institute of Environmental Medicine, New York University, as to possible use of the whole body counter at that location.

The effectiveness of your contamination control procedures should determine whether an air lock is needed at the entrance to your hot cell. We note that the adequacy of your present procedures is being re-evaluated by Mr. Thompson.

As you know, the Commission has not adopted generally applicable contamination limits for licensee operations. Such limits have, however, been imposed on a case-by-case basis as deemed necessary. Set forth in the enclosure are limits which have been applied on a case-by-case basis to licensee operations.

Very truly yours,

bcc: Compliance Div., HQ
Compliance Div., I
Public Document Room
DML:IE

Eber R. Price, Director
Division of State and
Licensee Relations

Enclosure:
Surface Contamination Limits

SURFACE CONTAMINATION LIMITS

A. The licensee shall decontaminate any restricted or unrestricted areas in which radioactive contamination exceeding the limits of this Condition is detected.

B. Radioactive contamination limits in unrestricted areas: No readily removable contamination emitting beta-gamma radiation and fixed contamination emitting beta-gamma radiation of 1.0 mr per hour and an average of 0.2 mr per hour when measured at a distance of 1 cm from the surface.

C. Beta Gamma emitting radioactive contamination shall be considered readily removable if the amount of radioactive material deposited on a filter or soft absorbent paper wiped over any 100 square centimeter area is greater than 200 disintegrations per minute, except for carbon 14 or hydrogen 3, where radioactive contamination shall be considered readily removable if the amount of radioactive material so deposited is greater than 1,000 dpm of carbon 14 or 5,000 dpm of hydrogen 3.

D. Radioactive contamination limits in restricted areas: Removable contamination, other than hydrogen 3, emitting beta-gamma radiation of 10,000 dpm per $100_2 cm^2$ and removable hydrogen 3 contamination of 50,000 dpm per 100 cm^2.

E. Surveys sufficient to detect any radioactive contamination levels exceeding the limits of this condition shall be taken such that each restricted and unrestricted area will be surveyed each week and records of such surveys shall be maintained.