

JUL 25 1967

CO:LBD
24-04206-01

Mallinckrodt Chemical Works
Mallinckrodt/Nuclear Division
Box 6172, Lambert Field
St. Louis, Missouri 63145

Attention: Dr. W. R. Kannecker
Vice President

Gentlemen:

This refers to the inspection conducted during April 1967, of your activities authorized under AEC Byproduct Material License No. 24-04206-01.

It appears that certain of your activities were not conducted in full compliance with the requirements of AEC's "Standards for Protection Against Radiation," Part 20, Title 10, Code of Federal Regulations, in that:

1. Contrary to 10 CFR 20.101(a), "Exposure of individuals to radiation in restricted areas," an individual received a whole body exposure of about 1.9 rems during the first calendar quarter of 1967. Since no Form AEC-4 had been completed for this individual, his whole body exposure should have been limited to 1.25 rems each calendar quarter.
2. The radiation exposure referred to in Item 1 above, was not reported to the Commission as required by 10 CFR 20.405(a), "Reports of overexposures and excessive levels and concentrations." Also, the exposed individual was not furnished a written report of his exposure as required by 10 CFR 20.405(b).

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3. Contrary to 10 CFR 20.201(b), "Surveys," no surveys were made from December 8, 1966, to March 31, 1967, to determine compliance with 10 CFR 20.103 with respect to the airborne concentrations of radioactive materials to which employees were exposed in restricted areas in the plant and to determine compliance with 10 CFR 20.106, with respect to the concentrations of radioactive materials released to unrestricted areas outside the plant.
4. Contrary to 10 CFR 20.201(b), "Surveys," no surveys were made of laboratory uniforms potentially contaminated with radioactive material prior to their release to a commercial laundry during the week of April 24, 1967.
5. Contrary to 10 CFR 20.201(b), "Surveys," no surveys were conducted of articles contained in wastebaskets in the production area to establish that they were not contaminated with measurable amounts of radioactive material at the time of their disposal through normal refuse channels or by incineration.
6. On numerous occasions during March and April 1967, concentrations of radioactive materials, including iodine 125 and iodine 131, discharged to the sanitary sewerage system when diluted by the average daily quantity of sewage released by the company exceeded the limits specified in Appendix B, Table I, Column 2 of 10 CFR 20, contrary to 10 CFR 20.303(b)(1), "Disposal by release into sanitary sewerage systems."
7. Contrary to 10 CFR 20.401(b), "Records of surveys, radiation monitoring, and disposal," records were not maintained of surveys which had been conducted subsequent to the week of April 24, 1967, to assure that laboratory coats were not contaminated with radioactive material prior to being sent to a commercial laundry.

This notice is sent to you pursuant to the provisions of Section 2.201 of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within twenty (20) days of your receipt of this notice, a written statement or explanation in reply including

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(1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken; and (3) the date when full compliance will be achieved.

Very truly yours,

Original signed by
L. D. Low

Lawrence B. Low, Director
Division of Compliance

bcc: CO:HQ
CO:III
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