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Davison Chemical Company
Division of W. R. Grace & Company
101 N. Charles Street
Baltimore 3, Maryland

Attention: Mr. David F. Barrett, Sales Manager

Gentlemen:

This refers to the inspection conducted on November 25, 1959 of your activities at Pompton Plains, New Jersey, authorized under AEC Source Material License Nos. B-196 and C-3623.

There were no items of noncompliance noted for License No. C-3623. With regard to License B-196, it appears that certain of your activities were not conducted in full compliance with the requirements of the AEC's "Standards for Protection Against Radiation," Part 20, Title 10, Code of Federal Regulations, in that:

1. Surveys to determine the concentrations of airborne radioactivity were not made as required by Section 20.201(b), "Surveys."

2. Surveys to determine the concentration of radioactivity in the plant liquid effluent were not made as required by Section 20.201(b), "Surveys."

3. Surveys to determine the external radiation levels in and around the plant were not complete as required by Section 20.201(b), "Surveys." Although surveys had been made, they did not include all areas where source material is stored and used.

4. Records of external radiation survey results were not maintained in the units required by Section 20.401(c), "Records of surveys, radiation monitoring, and disposal."

5. Source material waste was disposed by incineration without prior approval by the Commission. This is in violation of Section 20.305, "Treatment or disposal by incineration."

REGISTERED MAIL
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6. Source material waste was disposed by release to a storm sewer. This is in violation of Section 20.301, "Waste disposal."

7. Areas in which source material was stored and used were not posted as required by Section 20.203(a)(2), "Caution signs, labels and signals."

8. Areas in which source material was stored and used were not posted as required by Section 20.203(b), "Caution signs, labels and signals."

9. Radiation levels in and around the storage and dump areas were such that an individual could receive an exposure in excess of 2 mrem in any one hour or an exposure in excess of 100 mrem in any seven consecutive days. This is in violation of Section 20.102(b)(1)(2), "Permissible levels of radiation in unrestricted areas."

10. Source material in the storage area was not secured against unauthorized removal as required by Section 20.207, "Storage of licensed material."

Pursuant to the provisions of Section 2.201(a), "Notice of violation," of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, you are requested to notify this office, within thirty days of your receipt of this notice, of the steps taken or to be instituted to achieve correction of the alleged violations, and the date when such correction has been or will be achieved.

In addition, you are requested to submit the following information in order to continue the review of your renewal application:

1. A detailed description of your organization, including authority and responsibility of each level of management and/or supervision in regard to development, approval, and adherence to operating procedures.

2. The qualifications and experience of the personnel in your organization assigned the responsibility for developing, conducting, and administering the radiation safety program for the mill.

3. A description of the area in which the mill is located including distances to inhabited areas, locations of rivers and source of water supply for the mill. A topographical map with the above identifications is preferred.

4. The ultimate control or disposition of mill tailings, i.e., discharge into a pond, river, etc. A statement as to whether or not the tailings will reach a water supply; and if so, where the tailings enter such supplies in relation to points of public utilization of the water, and expected dilution factors.

5. A flow diagram of the mill production operation and a diagram of plant layout indicating areas and points in the process where dust is generated.

6. A description of dust collection and ventilation equipment that are utilized during mill operations, including the type capacity and locations of such equipment, e.g., ore transfer points, crushing, grinding, etc..

7. A description of the method for restricting both the mill and the tailings pond from unauthorized entry.

8. A description of mill discharge stacks including the height of the stacks and types of gas to be discharged, and method for controlling release of radioactive material.

9. A description of the equipment used to remove solid radioactive material and soluble radium if tailings are discharged directly into a ground or surface water supply.

10. A description of the survey program which is followed to determine concentrations of airborne radioactivity within the mill, including the make, model number and capacity of sampling devices, and the step-by-step procedures for sample analysis. This description should also include:

    (a) The number of sampling locations in each area.

    (b) A reference description of the sampling location to operating personnel.

(c) A reference description of the sampling location to the process operation.

(d) The number of air samples taken in each area per month.

(e) The number of air samples taken in each location per month.

11. A description of the method for determining exposure of employees to external radiation. For film badge studies, indicate number and category of personnel involved in the program.

12. A description of the liquid effluent survey program, including the number, location and frequency of check samples and a step-by-step procedure for analysis of the radioactive material.

13. A copy of the written operating instructions dealing with radiological safety which are supplied to employees. These instructions should include provisions for personal hygiene including washing prior to eating or leaving the plant.

14. If respirators are utilized, a description of your program for their use and control including the type, method for fitting, procedures for cleaning, areas and times of use, and management enforcement of the program.

Very truly yours,

CC: Division of Inspection, Wash.
Division of Inspection, NYOO
Public Document Room

Lyall Johnson, Chief
Licensing Branch
Division of Licensing
and Regulation

Enclosures:
10 CFR Part 20
10 CFR Part 2

DLR:RSB DLR:RSB DLR:LB

JJLane:hkm LRRogers LJohnson

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