

## Memorandum

TO: Plant File

DATE: July 18, 1949

FROM: Paul D. Halley, Industrial Hygienist  
Acting Director

RE: Conference with plant officials of Monsanto Chemical Company, Nitro, West Virginia concerning complaint of Union in connection with exposure to materials producing chloracne.

On July 11, 1949, Mr. Salazar and I visited the Monsanto Chemical Company and conferred with Mr. J. R. Durland, Plant Manager and Mr. Ed Vols regarding the accident which occurred at the plant on March 8, 1949.

As explained by Mr. Durland this process was one in a series of processes involved in the manufacture of trichlorophenoxyacetic acid or the weed killer, "2-4-5-T". The particular process involved was the manufacture of trichlorophenol. In this process tetrachlorobenzene, <sup>Caustic</sup> soda and methyl alcohol are introduced into the autoclave which is then heated by gas fires to approximately 155°C. This process had been in operation for approximately six months and had worked satisfactorily until this day at which time the temperature continued to rise and they were unable to check the rising temperature which consequently blew the safety valve on the autoclave.

The safety valve on the autoclave was extended above and directed back toward the Transite roof consequently the material discharging through the safety valve pipe blew back against the roof with such force that it was caved in and the entire working area was contaminated. In realizing the possible dangers involved, the company immediately set about cleaning up the area to some extent and eight days after exposure the chloracne became evident. Only recently did they begin a thorough cleaning up of the area and the equipment and building which is pretty much out in the open was sprayed with aluminum paint. This operation has not been resumed since the trouble and the company has been purchasing their trichlorophenol.

Mr. Durland advised that they had sent samples of the material to their research laboratory for identification but that the laboratory had not been able to definitely identify the material which was produced at the unusually high temperature. The material produced, incidentally, was a black, granular substance which apparently contained some greasy property in that when worked with a spatula it had a tendency to cake.

Mr. Durland advised that their research department had been able to identify only the presence of chlorine and phenol which was expected. It was suggested to Mr. Durland that possibly this Bureau could obtain the services of a Dermatologist from the U. S. P. H. S., Division of Industrial Hygiene for further examination of the workers and consultation of the probable nature of the material. Mr. Durland was in agreement with this move and indicated that they wished to take every step possible to assure that their workers were not further exposed. He, however, expressed the opinion that they had decontaminated the area and that the cases of chloracne resulted from the initial exposure during the week preceding the onset of the chloracne.

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Samples of the material which they had collected both from the inside of the autoclave and from the material which had sprayed on the building were given to us for use by ourselves and the Public Health Service for future work.

Upon inquiry of Mr. Durland it was explained that some of the workers had been examined by Dr. Boggs and Dr. Nelson for any signs of possible liver damage, but that all results, to the best of his knowledge, were negative.

We also discussed with him the reported cases by the Union of two men who were so exposed that are now in a hospital with pains in the legs. Mr. Durland again advised that these specific cases had not been attributed to the exposure by the physicians but that it was their belief that the two cases were purely coincidental.

Dr. Nelson, the plant physician, was away on vacation at the time of our visit and will be contacted upon his return. It was pointed out to Mr. Durland that the procedure they should have followed was to contact this Bureau for help on such a problem.

By



Paul D. Halley  
Industrial Hygienist  
Acting Director

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