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Seven Workers Develop Choracne in Plant Using Aroclor.

Lesions of chloracne developed in seven workers employed in an organic acid manufacturing plant when Aroclor was used as a heat exchange material around a large jacketed reaction chamber. For some months, the company had used molten salt but changed to the chlorinated diphenyl because of danger of solidification, as well as the corrosion problem.

A slight leakage of vapors, particularly around the cover of a sump pump and from all gasketed connections in the system was soon observed. A field study by the Connecticut State Health Department showed the air concentration of chlorinated diphenyls to be 0.1 mg. per cubic meter in breathing zones. Recommended maximum allowable concentration is 1.0. No one worked regularly at leakage points; nevertheless, repeated attempts were made to control the leakage, but without complete success. This operation continued for 19 months with no manifestations of exposure to chlorinated diphenyls.

One of the workers then developed acute contact dermatitis; on examination, cysts and comedones on both cheeks and the forehead were noted. Chloracne was diagnosed. Examination of others in the same area uncovered six additional cases.

Following recognition of these cases, all but on of the gasketed joints in the heat exchange system, including the cover of the sump, were welded together. A hand hole was left with a gasketed cover so the system could be drained or filled. Since then no vapors have been visible, and the odour or chlorinated diphenyls is barely detectable in the immediate vicinity of the sump. Continued observation of workers in the vicinity has revealed no new cases of chloracne.

An unusual feature of this out break of dermatitis was the long period of exposure before any cases were recognised. Sudden recognition of seven cases after 19 months was a result of the especially careful examination of the exposed employees after discovery of the first case. Of 14 exposed or potentially exposed, seven developed chloracne.

The fact that air tests, even in the presence of vapors, showed only negligible amounts of chlorinated hydrocarbons indicates that this type of intermittent but fairly long continued mild exposure is not innocuous. The low concentration of the chlorinated diphenyl might account for development of lesion in only 50% of those involved.

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EXHIBIT 8

PLAINTIFF'S EXHIBIT 4901C

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