

FROM Henry T. Miller AT Harmarville DATE October 29, 1976
TO Dr. F. D. Gassaway AT Harmarville REFERENCE *AK80-09*
SUBJECT Occupational Health Support
China Gulf Plastics Corporation

China Gulf Plastics Corporation (CGPC) is a joint venture between Gulf Oil Chemicals Company and Chinese partners located on the Island of Taiwan, Republic of China. To date, the Industrial Hygiene and Radiation Health Physics Department has made at least two surveys of the operation--one in 1974 and one in August, 1976. Dr. R. L. Gibson has also made two visits to CGPC to set up and evaluate occupational medical programs. Copies of the industrial hygiene survey reports and occupational medical visits can be made available for your review.

Based upon Dr. R. T. Cheng's last survey, the situation at CGPC, with respect to exposure to vinyl chloride, mercury, MEK, toluene, benzene, DOP, lead, barium, cadmium, and heat, is unacceptable when compared to U.S. standards. For example, employees at Toufen's polymer plant, Monomer's plant, and the R&D pilot plant are frequently exposed to vinyl chloride at concentrations over 2,000 ppm. The TWA vinyl chloride exposure to polymer plant workers was estimated to have exceeded 50 ppm. The U.S. exposure limit is one ppm.

The most recent experimental data reported by Professor Maltoni proved carcinogenic effects of vinyl chloride at ten to 25 ppm. Even one ppm of vinyl chloride showed some indication of carcinogenic potential. Exposure to benzene, MEK, toluene, and other organics is similarly above the U.S. exposure limit.

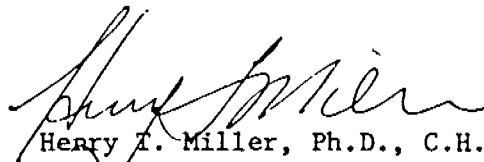
Community air pollution problems also exist in the plant with respect to chlorine releases from the chloralkali unit and DOP from the exhaust of the calendaring machines. CGPC has been cited by the Republic of China's Air Pollution Agency for failure to provide effective control.

Admittedly, the Medical and Health Resources Division recognizes that the CGPC's industrial hygiene and environmental control programs are probably the best in the Republic of China. It is also recognized that Gulf cannot raise the occupational health standards of China by its boot straps; yet, the problems at this plant indicate that we have the potential for another Minnemato incident where both employees and residents surrounding the plant suffer the dire consequences of inadequate control of materials released into the environment.

I suggest that the situation at CGPC and the potential for damage to the health of the workers and to the reputation of Gulf be brought to the

October 29, 1976

attention of management and that management endorse the program of corrective action recommended in Dr. Cheng's report.



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HTM:slr

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