

LOUISIANA DIVISION INDUSTRIAL HYGIENE REPORT

AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

<u>DEPARTMENT</u>	<u>FILE NUMBER</u>	<u>DATE</u>
GRAND BAYOU PROMIX PLANT	LAD-PROMIX 86.01	2-2-87

TITLE

INDUSTRIAL HYGIENE SUMMARY REPORT - 1986

AUTHOR(S) SIGNATURE(S)*Milton Rudolf*REVIEWER'S SIGNATURE*William E. Leeland* 2/6/87SUMMARY/RECOMMENDATIONS

To monitor the exposure of personnel to harmful elements at the Grand Bayou Plant, a noise survey and a laboratory hood inspection was completed. The noise survey revealed five areas in the workplace which were found to be in excess of 85 dB. Signs are posted to warn personnel of the danger. The hood inspection for the laboratory was given a marginal "B" Classification (Normal Lab Use, Toxic Flammable). Maintenance has been done on the hood and a reinspection will be scheduled. Due to the expected decrease of the OSHA Permissible Exposure Limit for benzene from 10 ppm to 1 ppm, personnel benzene exposure will be monitored in 1987.

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Conclusion and Recommendations:

1. With the TLV limit for benzene dropping from 10 ppm to 1 ppm in 1987, more workplace activities will need to be monitored on a more frequent basis at the Grand Bayou Plant. Small quantities of benzene are contained in the plant feed and the gasoline product.
2. Noise levels in the plant are remaining constant. Hearing protection is available to all personnel and the high noise area in the plant have signs posted. Little can be done to reduce noise level since all areas in excess of 85 dB are created by pumps, heaters and compressors.

Exposure Evaluation:

Noise Exposure Survey:

The noise survey (see Appendix A) results are obtained on a B & K Sound Level Meter Type 2205 (SN 395509). The results are obtained on an A-weighted scale with a slow response setting. Areas which have noise levels in excess of 85 dB are:

1. Heating Oil Heaters
2. E/P Compressor Building
3. Cooling Tower Fan Motors
4. Product Pipeline Pumps
5. Amine Circulation Pumps

Benzene Exposure:

No monitoring for benzene exposure was done in 1986. The last monitoring was done in 1984 with the highest exposure of benzene to a truck loader at 0.11 ppm. Hydrocarbon monitor (3M Model 3500 Organic Vapor Monitor Badges) have been purchased for monitoring personnel.

Laboratory Hood Inspection:

A hood inspection (See Appendix B) performed by Bill Ledford from the Industrial Hygiene Group on December 30, 1986 resulted in a "B" Classification (Normal Lab Use for Toxic or Flammables). Concerns were expressed in the inspection report that the hood was not performing as it should. The fan motor belts were tightened which increased the air flow. Reinspection of the hood will be scheduled.

Goals:

Workplace activities which have the highest exposure of benzene will be identified and reviewed to determine if equipment or job procedures can reduce exposure of personnel to benzene.

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