PLAINTIFF'S EXHIBIT

UC-1800

1974 SAFETY AUDIT
BROWNSVILLE PLANT

INTRODUCTION

The annual safety audit of the Brownsville plant was conducted February 8 and 9 by J. L. DeRoo and R. J. Taylor of the Chemicals and Plastics Safety Department. The major objective of the audit was to determine the effectiveness of the plant safety programs through personal interviews with employees. Interviews were conducted with eighteen hourly and eight supervisory personnel representing operations, maintenance, distribution, and the plant laboratory. In addition, discussions were held with the safety director and other key plant personnel.

The plant sustained one 1973 disabling injury in May after 23 injury-free months and has achieved 259,000 injury-free manhours since that injury. Brown and Root, the maintenance contractor, having a normal work force of 180 people in the plant has had only one disabling injury during the past year. One major fire loss of $7900 occurred in 1973.

A renovation program now underway has created a dramatic improvement in plant appearance and morale and has aided in improving housekeeping.

A major reorganization of the safety program in which a full-time safety director was appointed should prove instrumental in maintaining the good safety performance.

SUMMARY

The Brownsville plant safety procedures have been well communicated in general and all personnel interviewed are trained in the procedures and accept them. Procedures are being reviewed and updated on a periodic basis. The Vapor Release Procedure is new and not fully implemented. The audit team recommends speedy completion of training on this procedure.

Done

Since the foreman is ultimately responsible for the safety of those working for him, it is recommended that his involvement in the safety training of the operator be strengthened.

The compliance of Brown and Root personnel with plant safety procedures is good generally but there appear to be areas where this is not completely true due to turnover. A recommendation to increase monitoring of the B/R safety indoctrination and communication program is made.

It is recommended to update deficient unit operating and emergency procedures by the techniques used in the Oxygen Unit.

Other observations are listed in the Discussion section under appropriate headings.

DISCUSSION

Training

The plant's safety program and procedures are generally well known, accepted, and utilized by the work force. Based on this observation, the existing

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training program, which utilizes classroom work in the training department combined with extended on-the-job training supervised by a fellow operator, appears to be quite effective. However, greater involvement of the foreman in training is recommended. The foremen follow the on-the-job training until satisfied the man is knowledgeable but indicate they are not always aware of what other training has been accomplished or the status of refresher training. In order to be completely accountable for the safe actions of his man, this information is necessary.

There were indications that some of the workers felt the need for retraining in first aid, fire, and emergency breathing equipment, and would like to see more on home safety. This thought varied with the area but apparently some action is indicated in those units not now conducting periodic training.

A final recommendation on training is to include technical personnel into the safety training programs. We are finding that many feel inadequate in safety knowledge and are uneasy about accepting responsibility for following proper procedures.

Brown and Root

The utilization of Brown and Root maintenance support in the plant continues to require close attention to safety concerns by all levels of plant personnel. Apparently a good working relationship has been developed with this contractor and a major improvement in safety performance has been noted but problems appear to exist in regard to degree of safety training and to stability of the B & R work force; particularly in the Energy Systems Area. Since these people have a great potential to affect the safety of the plant, as indicated by the number of hazardous incident reports, a more stringent monitoring of the B & R safety program for indoctrination in and communication of the UCC safety rules is recommended.

In other areas the Brown and Root personnel received praise in regard to following safety procedures with the exception that "they trust us too much" on the Master Tag system. Both the operators and the craftsman should be trained that to follow the complete procedure the craftsman must determine for himself that lines have been blanked and starters have been locked.

Another concern expressed was whether B & R was sufficiently aware of the hazards involved in handling MEK in the fiber glass pipe shop. Apparently, some of these workers are still failing to use hand protection and proper ventilation.

Fire Protection Facilities

The team feels that the fire protection facilities will be in good shape with the planned addition of a new fire truck and the acquisition of the new Universal foam and foam dispensing equipment. We would recommend refresher first-aid training for the fire squad.

Noise Areas

1. The problem of noise reduction is common to all locations. To prevent problems with OSHA regulations, these areas must be surveyed and a recorded

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action plan developed. In those cases where correction is not now possible due to technology limitations, temporary measures such as audiometric examination, ear protection, and administrative procedures must be implemented and recorded and an abatement plan based on technological advances developed.

2. Communication in the high noise areas is a recognized problem. Existing radios have deficiencies when used in outside noise areas. A recently advertised device, the Lear-Siegler Ear-Com transceiver might be a solution to this problem. A copy of the literature is attached.

Operating Procedures

Operating and emergency procedures were found to be out of date in several places. We recommend following what is judged a very good system, used in the Oxygen Unit, for updating. The operators were recruited to rewrite the manual, a small section at a time, from a detailed outline. The manual was broken down into an equipment section and a procedure and instruction section. Permanent notes and changes are inserted into the procedures section once a month.

Plant Safety Procedures

Most plant safety procedures are appropriate and current. Those that aren't are being reviewed and updated by the Safety Procedures Committee. The major need at this point is to implement the Flammable Vapor Cloud policy throughout the plant including the barge dock area. All personnel should be thoroughly trained and drilled as to what action to take in the event of a major release.

O K O K

Laboratory and Office Recommendations

✓ 1. Develop an evacuation plan for this area.

✓ 2. Develop a plan to assure frequent contact with laboratory personnel who are working alone on weekends or after hours.

Recovery Facilities

1. Investigate the possibility that some safety checkout procedures may be overlooked during frequent startups, reputedly because of work load.

Utilities Area

1. There appears to be a communications problem in that people on shift claim not to receive full benefit of instructions. We recommend that the department investigate the problem.

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Barge Dock Area

1. The visual guaging of acetic anhydride through a 2-inch pipe should be eliminated. The suggestions in regard to floats are the only possible solutions we have to offer at present.

2. The barge access was a subject of concern to those working in that area. Special caution must be exerted to avoid accidents until the dock revisions are made.

RJTaylor/ero

3/15/74
Attachment

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BFB

UNION CARBIDE INTERNAL CORRESPONDENCE

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To (Name) Mr. W. W. McManus
Division Mr. R. C. Glock
Location BROWNSVILLE PLANT

Date March 15, 1974

Originating Dept. Chemicals & Plastics Safety

Copy to Mr. B. F. Brown
Mr. T. W. Carmody
Mr. W. A. Gay
Mr. D. L. Wiley
Mr. L. T. Windel
Messrs. R. J. Taylor/J. L. DeRoo

Subject 1974 Safety Audit
Brownsville Plant

Attached are the results of the Brownsville Safety Audit. We appreciate the cooperation of the personnel at the plant in making arrangements for the audit.

The Brownsville Plant is recognized for having maintained good safety performance and it is hoped that the results of this audit will aid in improving that performance.

We would be glad to consider any suggestions you or your staff may have toward improving this audit format.

R. E. Graebert

REG/ero

Attachment

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