CONOCO

Interoffice Communication

To Tom Huffman

From Tom Grumbles

Date October 22, 1981

Subject INDUSTRIAL HYGIENE AUDIT

The subject audit was conducted by myself, Steve Ashby, Safety Director, Lake Charles VCM Plant, and Louis LeGendre, Corporate Industrial Hygienist, Ponca City. Following are comments and recommendations resulting from the audit.

The Plant is to be commended for it's overall effort in establishing an industrial hygiene program. A tremendous effort has been made in the last 18 months to identify benzene emissions and exposure sources. Engineering control projects are underway for the major exposure sources and many of the smaller sources have been corrected by other means where possible. Although some revisions are recommended the administration of sampling and education programs is in good order. Housekeeping in the plant was generally good with few items noted during the walk-through survey. Although all applicable items on the audit criteria were considered only those requiring action are commented on.

1. WRITTEN PROGRAMS - Written programs at the plant need updating and revising in some cases. The Exposure Abatement program appears to have been neglected for several years. In several areas (i.e., sampling program) the program does not reflect current practices. This document is useful for program continuity and consistency and should be revised to reflect current practices with provisions made to review the program on a periodic basis.

   At the time of the audit the Health and Safety Manual was near completion and to be issued in the near future. This manual appeared complete and should serve as a useful tool in the plant when issued. However, as discussed the asbestos procedure contained in the manual should be reviewed as follows:

   a. Section VIII C on disposal should be reviewed for environmental regulation compliance.

   b. Section III A on identification should be clarified.

   c. It is recommended that this procedure include a step to insure notification of the safety department before removal of identified asbestos. This will allow compliance with established procedures and air sampling when warranted.

   A written respiratory protection should be finalized and issued. This will be discussed later in the report.

2. SAMPLING PROGRAMS - The personal sampling program for benzene is adequate for operations personnel. However, there has been little sampling of maintenance personnel in recent years. It is our understanding that the benzene sampling program is to be expanded this month to include maintenance personnel and several other job classifications on a routine basis. This change is recommended and should be implemented as soon as possible.

   No welding fume exposure data has been obtained in the shop area. An effort should be made to evaluate and document these exposures with personal sampling on welders.

   From a review of sampling data it appears there has been no sampling of chlorine exposures for several years. It is recognized that chlorine exposures are short-term, but an effort should be made to measure the exposures to assure compliance with the amended chlorine standard (ceiling of 1.0 ppm) and proper handling procedures.

   Asbestos exposures should be measured at least annually. This is an OSHA requirement.

3. RECORD KEEPING - The OSHA Records Access Standard requires that laboratory records applicable to the interpretation of sampling results must be maintained for at least one year. This includes such items as chromatographic tracings and laboratory calculation sheets. This currently is not being done by the laboratory. Steps should be taken to assure this is done.

4. RESPIRATORY PROTECTION PROGRAM - The plant currently has no written respiratory protection program to meet minimum OSHA requirements. Many of the elements of a program exist but a formal written program should be developed.

   In order to comply with regulated area requirements, routine use of negative pressure respirators is necessary. The use of these respirators is covered in the respiratory protection education program and designated areas described. However, the lack of respirator use where required is evident, and much of the time the respirators in use are worn improperly. Efforts are underway to deregulate areas of the plant, however until this is accomplished enforcement of respirator use should be improved.

   Numerous respirators were also seen to be improperly stored and used respirators are disposed of throughout the plant instead of in the receptacles provided for them. This results in unncessary replacement costs as well as non-compliance with OSHA regulations concerning storage and disposal of respirators.

   Numerous air-purifying respirator types are available in the plant, some of which have greatly overlapping capabilities. This variety of respirator types could easily lead to confusion in their use and adds unncessary problems to the administration of the program. It is recommended that the various types of respirators used in the plant be evaluated based on their capabilities and uses, and where possible eliminate devices with overlapping capabilities.

5. EDUCATION PROGRAMS - The revision of the benzene education program should be completed as soon as possible.

   In order to more efficiently train contract workers, the development of a specific contractor training program is encouraged. The programs currently used contain information specific to our employees, (i.e. medical testing information) which is unnecessary to show contractors.

6. MISCELLANEOUS ITEMS - The following are items of concern noted by the audit team.

   a. An eye wash/safety shower station should be located closer to the chlorine and muriatic acid rack.

   b. The caustic handling area should also have an eye wash station located closer.

   c. Sign-posting in general for required protective equipment other than respirators should be improved.

   d. A better demarcation of regulated areas is needed where possible.

   e. A chlorine respirator or other suitable respiratory protection device should be placed in the chlorine handling area by the cooling tower.

As mentioned the plant has accomplished a great deal in it's industrial hygiene program. Efforts to further deregulate areas of the plant are certainly encouraged. Please feel free to call if you have questions concerning the items contained in this report.

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