Johns-Manville

Internal Correspondence

To: W. G. Burnett - Denison

Date: 12/13/82

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PLAINTIFF'S EXHIBIT
JMMC-93

Subject: ANNUAL INDUSTRIAL HYGIENE SURVEY REPORT - DENISON PLANT PIPE DIVISION - WEEK OF OCTOBER 18, 1982

The annual industrial hygiene survey results of the Denison plant are enclosed. The survey was conducted during the week of October 18, 1982 and included monitoring and analysis for the following hazards:

DUST - Asbestos fiber, respirable and total quartz, and nuisance dust
NOISE
FUME/VAPOR
RADIATION - Ionizing and non-ionizing

DUST

There are presently 68 dust stations established at Denison. Of that total, 59 stations were sampled and 9 stations are listed as DNO (Did Not Operate). Only one of the sampled dust stations, the Injection Molder Mixer Operator, exceeded ther TLV for total quartz.

Industrial hygiene dust stations indicating a "greater than" (>) TLV have been analyzed for the presence of crystalline silica and found to have a small but unquantifiable amount present. Establishment of a precise TLV requires knowledge relative to the percentage of crystalline silica present in the sample. Due to the unquantifiable nature of the data being generated a precise TLV cannot be calculated; however, use of the smallest quantifiable amount for the methods does enable calculation of the lowest TLV that could exist given the sample conditions.

The remainder of the dust section will include a discussion of each station listed on the summary page.

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D-2IM Personal - Mixer Operator
The sample result for the mixer operator exceeded the TLV for total quartz. This was unexpected since both ventilation and housekeeping have been improved over the past six months, according to plant personnel. We recommend that the operator's work practices be reviewed by his supervisor and that the use of respiratory protection be continued.

D-16F Personal - #2 UCL Operator
D-26F Personal - #1 UCL Operator
Both stations are listed to emphasize a positive environmental control measure taken by the plant that was initiated by the two operators. The overhead fans used to be positioned in such a way that the operators were getting the dust from the machining operation blown into their work areas. The fans have now been repositioned so the dust is not blown into their areas.

D-17F Personal - Boring Mill Operator
During the exit meeting, it was mentioned that this piece of equipment will be taken out of the building and replaced with a dual purpose piece of equipment from the Stockton plant. As we have done in the past, stations will continue to be listed on the permanent stations list until the equipment is physically removed.

D7WE Personal - Willow Feed Operator
This operator was sampled to determine his occupational exposure to asbestos and respirable quartz. The sample results were below their respective TLVs. However, the first sample result for asbestos fiber was 1.2 f/cc. This is twice as high as the 0.6 f/cc reading from September of 1981; a significant increase and a basis to examine the operator's work practices.

At times during the week it was noted that the carousel where the fiber is stored prior to dumping had varying amounts of loose fiber from an occasional torn or broken bag. The spills should be vacuumed up and the bags repaired as quickly as possible to prevent further contamination of the area involved.

Although the operator was wearing a respirator, he was observed several times wearing it incorrectly, with only one strap in place. This operator must be instructed in the correct way to wear a respirator and the supervisor must provide the necessary enforcement of the policy.

D-11WE - Area - 13' Line Flow Trough
D-12WE - Area - 10' Line Flow Trough
Both of the above area stations were monitored for asbestos fiber. The individual sample results seen this survey are lower than the 1981 levels and about the same as the semi-annual survey of this year. The improvements to the feed system noted in J. A. Lawrence's letter of December 2, 1981 have been completed. The subsequent fiber counts show a reduction from previous levels, but are still high when compared to other levels in the plant.

The catwalks where the samples are taken are not normally operator stations, but when an individual is required to work on the flow troughs we recommend that he or she wear approved respiratory protection.

D-10S Personal - Dempster Dumpster Driver
This station is listed because the job has been expanded to include feeding scrap pipe and pipe pieces into the crusher located outside the wet-end section.

The fiber levels seen this survey are a little higher than on the two previous surveys and are probably attributable to the expanded duties. The operator was observed wearing respiratory protection while feeding the crusher. This practice should be continued.

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ASBESTOS COLLECTORS

All asbestos baghouses were checked for visible emissions and found to be clear. The baghouse stations are included with the area dust stations in the summary and are found in the all stations report at the beginning of the dust section.

NOISE

Forty-two of 47 noise stations were monitored at Denison this survey. Of that total, 32 stations exceeded the noise standard of 90 dBA. The noise at these stations remains fairly constant from survey to survey. Therefore, we have not listed them on the summary as requiring your attention. The continued enforcement of your hearing conservation program is satisfactory until engineering controls are implemented that will effectively reduce the present noise levels.

The results are listed as equivalent noise levels (Leq). This figure is expressed in dBA and respresents a time-weighted average (TWA) sound pressure level over an eight hour period. Operators that exceed the 90 dBA standard are required to wear hearing protection.

Because hearing protection is required at the Denison operation you are also in compliance with the new Hearing Conservation Amendment which states that hearing protectors must be made available to all employees exposed to a TWA sound level of 85 dBA or greater. However, the amendment does not make their use mandatory until a TWA noise exposure of 90 dBA is exceeded.

FUME/VAPOR

The number of stations required to adequately evaluate vinyl chloride monomer exposures in the plastic pipe department has been reassessed. This was done in light of the historically low concentrations found at all stations and the minimal amount of residual VCM present in the resin being received. As a result we have reduced the VCM stations to six, and the total number of fume/vapor stations to 40.

Of the 40 established fume/vapor stations, 34 were sampled and none exceeded the allowable TLV for the particular fume sampled. Six stations are listed as DNOs on the report and two stations, discussed below, have been listed on the summary sheet.

V-1F Personal - Solvent Welding

This station was sampled for 7 different organics and all were below applicable limits. The fabrication of the Perma-Loc sewer fittings has been moved to the solvent welding area from the back building. Though the survey results are below allowable limits, we feel that the existing ventilation system is not adequate to cover the expanded operation. The strong odors which have led to several employee complaints best illustrate the need for improvement. If this is to be the permanent location for this operation, adequate ventilation must be provided. Until such time, we recommend that all personnel working in the solvent welding area wear approved organic vapor respirators.

T.A. sent

V-1PS Personal - Filament Winder Operator
This station was also sampled for seven different organics and all were below allowable standards. The concern here is the methylene chloride used by the operators to clean gloves and tools. The methylkene chloride is contained in two open five-gallon pails that sit on either side of the machine. The TWA for both samples is below the 500 ppm TLV, but the first sample was 873.6 ppm.

Our latest information from plant personnel indicates that a job order was submitted to install a hood over each bucket. As of this survey, the pails remain unventilated. Every effort should be made to expedite the installation of the ventilation hoods.

RADIATION (NON-IONIZING)

All of the microwaves in the plant were tested during the course of the survey. Minimal emissions were observed at each oven, with none approaching the 10 mw/cm TLV.

RADIATION (IONIZING)

The medical department's x-ray unit and the nurse's exposure record were audited and found to be in order.

As a reminder, the all stations report is to be posted alongside the plant layout of station locations.

Please respond within 30 days upon receipt of this report and indicate what actions have been taken regarding the stations that were discussed throughout this report. We are particularly interested in your comments relative to stations D-7WE, D-11WE, D-WE, V-1F, and V-2PS.