

INDUSTRIAL HYGIENE AUDIT
ACTION PLAN

- ... The present exposure monitoring program needs improvements in its quality assurance/quality control program.

Even though the present program meets BFG requirements, the following improvements have been implemented.

We are now sending four (4) blank vinyl samples with each group of samples. Two of the four samples are blanks - they have never been opened. The other two are badge blanks. These have been in a badge but not in a vinyl area. This is to check for contamination which might occur from the badge itself.

For passive dosimeters, we are now sending two blank badges for every fifteen samples. One badge is opened and resealed but not exposed, the other is never opened.

We have also contacted several additional Labs and will be sending one out of every 10 samples for cross check analysis. ESA Labs (now doing most of our analysis) will begin to do the duplicate (cross check) samples for vinyl. Brecksville is still analyzing our vinyl samples. The facility is currently working out the details of this cross check on vinyl with Pauline Lambert of ESA Labs.

Our Lab will also, on a quarterly basis, spike samples of each of the chemicals we monitor for to check the accuracy of the labs we are using.

- ... A pattern of personnel exposures in exceedance of the 1 ppm standard for VCM is evident.

The facilities 1989 VCM personnel monitoring results clearly identify a reduction in personnel exposures in exceedance of the 1 ppm standard. This improvement can be attributed to an increased employee awareness stimulated by management's desire to provide a safe and healthful work environment. Constant emphasis on the elimination of VCM emissions, show cause meetings for every VCM reportable incident and improved employee education.

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A pattern of personnel exposures in exceedance of the September 1, 1989, 1 ppm EDC Standard is evident.

The facility is no different than many other EDC manufacturers in that it is presently in compliance with the 50 ppm standard but will require time and a significant amount of money to achieve the revised 1 ppm PEL.

Initially the facility will achieve compliance with the 1 ppm standard through the use of respiratory protection. Expanded VCM-EDC area monitoring/leak detection systems are being installed in East Cracking, The Vinyl Tank Farm and South EDC Synthesis. The facility has also purchased three portable analyzers specific for EDC to further assist employees in identifying areas which require respiratory protection. Respirators have been purchased for each employee and the plant breathing air system is being expanded.

Personnel monitoring results indicate that Maintenance workers most frequently experience exceedance of the 1 ppm standard. Investigation of these findings indicate that the majority of maintenance exposures occur during equipment opening. To reduce these exposures production plans to identify and replace each single seal pump and leaking valve in EDC service. The facility is also addressing leaking EDC service equipment in timely fashion rather than placing a water hose on the seal and letting it run for several more shifts. This attention to leaks in conjunction with reviewing the practice of opening equipment after the contents are below 2000 ppm organics will be a tremendous help in reducing background EDC levels.

Long term the facility will have to install a closed drainage system for EDC. Without this capability equipment cannot be properly prepared for opening, EDC exposures will continue as will stringent respiratory protection requirements for both the contractor and BFG workers.

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... Does the facility have a problem with compliance for any other chemical identified by the revised OSHA Air Contaminants Standard other than VCM or EDC.

Thus far, monitoring for different chemicals in the VCM/EDC areas has shown that when we are in compliance with the standard for VCM and EDC we have no problem with any of the other listed chemicals. As a matter of fact, we have not seen exceedances of these chemicals even on samples where EDC or VCM was high.

... OSHA citations issued against the facility in 1987 have not, with one exception, been resolved.

On March 11, 1987 the facility was issued two citations alleging serious and other than serious violations of the Kentucky Occupational Safety and Health Act. Total penalty was \$995.00. A review of the citations resulted in BFGoodrich agreeing to accept one citation, 29CFR 1910.1017 (d)(2)(1) and paying a fine of \$115.00. All other citations were formally contested before the Kentucky Department of Labor on April 13, 1987. Between April of 1987 and March of 1988 BFGoodrich and the Kentucky Labor Cabinet passed interrogatories. During March of 1988 representatives from BFGoodrich met with the Labor Department's attorney in an effort to settle the case. Both sides submitted a stipulation and settlement agreement and left the meeting without a final agreement. To this date BFGoodrich has not been contacted by the Kentucky Department of Labor.

Even though no action has occurred in this case for over seventeen months, no statute of limitation applies. The BFGoodrich Company could move to dismiss the case based on failure to prosecute, contact the Department of Labor and agree to their settlement offer or do nothing and wait. In any case, the remaining alleged violations are in accordance with the requirements established by the Kentucky Occupational safety and Health Act.

... Employees may have been exposed to asbestos and the 1987 asbestos survey was poorly planned and executed.

In the past three years, the Plant population's awareness on the subject of asbestos has been heightened. The asbestos procedure and notices to the plant had a lot to do with this. Also, asbestos identification and removal has been the subject of numerous safety meetings.

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