

Possible Questions and Answers - Osborne Letter 2/6/74

1. Question. Did all the deaths mentioned in your letter and in recent news releases occur at your Louisville plant?

Answer. Yes, all deaths occurred at our Louisville plant.

2. Question. What are epidemiological studies?

Answer. Epidemiological studies involve analysis of work histories and state of health of the individuals exposed to a possibly hazardous work situation.

3. Question. What is the role of the Federal Occupational Safety and Health Administration (OSHA) in the investigation resulting from these deaths?

The role of the National Institute of Occupational Safety and Health (NIOSH)?

Answer. Responsibilities of NIOSH include analysis, research and recommendations for corrective action.

Responsibilities of OSHA include administration and enforcement of the Occupational Safety and Health Administration Act of 1972 ... this is the group that makes regulations and sets standards.

- Question.
4. What kind of toxicological studies are being sponsored by the Manufacturing Chemists Association (MCA)? Who should I contact at MCA to find out more about this?

Answer. The MCA is sponsoring epidemiological studies as well as toxicological studies dealing with animal exposure to VCM. Nothing would be accomplished by a contact with MCA on this subject because no one within this organization

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is empowered to release information on this subject. In addition, any available information would be premature because the epidemiological work will not be completed until this coming spring and the toxicological studies will not be complete until the latter part of 1975.

5. Question. Your letter refers to "50 chemicals which may have been used in polymerization of PVC or its compounds". What do you mean by this ... what are the chemicals that might have been involved?

Answer. The 50 chemicals referred to which might have been used in polymerization of PVC or its compounds would include various monomers, solvents, sopes, catalysts, etc.

- Question.
6. How can I find out whether there is a problem in my manufacturing operations ... are there specialists in these problems ... is there a state or federal agency I can call upon for counsel?

Answer. If you suspect that there might be a problem in your operations because you do not have local exhaust at the hot end of your process, we would suggest that you get in touch with an industrial hygienist in your area. If none is available, we would suggest calling your state or federal health and safety office who should have names of consultants. This may be in the Department of Labor for an industrial hygiene question.

7. Question. How can I determine whether there are detectable levels of VCM in specific products ... how can concentrations in suspected process areas be detected ... is special equipment required?

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Answer. Both portable and stationary instruments - vapor - hydrocarbon analyzers - are available for determining whether there are detectable concentrations of VCM present. These range in price from \$2500 to \$7500.

It should be noted that, for definitive readings on the presence of VCM, these instruments must always be backed up by gas chromatography analysis which can be conducted by any competent laboratory. If you do not maintain your own laboratory, we would suggest that you go to an industrial analytical laboratory, university, institute or private laboratory in your area.

8. Question. Do you have a recommendation as to how possible vapor concentrations can be eliminated?

Answer. The best method of eliminating vapor concentrations is ventilation using localized exhaust systems.

9. Question. Are there any other materials, substances or vapor sources - aside from VCM - that I should be concerned about?

Answer. Other substances aside from VCM - that might be sources of concern are HCl (TLV 5ppm) and, for flexible compound users, plasticizers and stabilizers.

10. Question. What do you mean by 50ppm?

Answer. 50ppm is the equivalent of 0.0005 weight per cent in the air.

11. Question. Can you give me a definitive answer as to a safe limit for concentrations of VCM?

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Answer. The present OSHA safe limit for concentrations of VCM is 500ppm and a reduction to 200ppm has been recommended. BFGCC plants are operating with a goal of 50ppm and below.

12. Question. Do you have Material Safety Data sheets for the product I'm buying?

Answer. Yes, we do have Material Safety Data sheets for the product you are buying.

13. Question. When will we be hearing from you next?

Answer. As stated in E.B. Osborne's letter, we will do our best to keep you informed on this subject as investigations proceed.

14. Question. How much VCM is in the product you sell me?

Answer. Ppm of VCM in product we sell:

- | | |
|------------------------------------|---|
| a) Flexible compounds | -- virtually undetectable |
| b) Rigid compounds | -- less than 50ppm |
| c) Dispersion resins | -- virtually undetectable |
| d) General purpose PVC resin) | |
| 90 series PVC) | -- less than 50ppm |
| 80X series PVC) | |
| e) 202, 222 and solvent | -- possibly greater than 50ppm resulting in |
| grade resins | detectable concentrations in heated |
| Pipe grade resins | mixers or at hot end of the process. |
| f) Vinyl latex | -- see Bulletin L-13 |
| | Handling & Storing Latex |
| | read P.7 - Safety Precaution |
| | Our vinyl latexes are stripped of |
| | residual monomer to less than 0.08%. |

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We recommended Teflon-coated stainless steel plug-cock and ball valves, stainless steel gate valves, and glass-lined diaphragm valves. Globe valves usually require more maintenance than other types of valves. Other materials should be avoided because of possible reaction with the latex itself.

safety precautions

While all synthetic latexes are water-based materials and relatively safe to handle, residual monomers may accumulate in confined vessels and become explosive. Our latexes are tested for residual monomers by means of gas chromatography to insure that they are safe to handle.

However, explosion-proof motors and other equipment are recommended for best safety in bulk-handling equipment.

vessel entry

Explicit procedures for vessel entry are necessary for cleaning and maintaining storage tanks. Because of the possible danger from harmful agitating equipment, or insufficient oxygen for sustaining life, we recommend certain fundamental precautions and procedures for positive accident prevention. Our own vessel entry procedure is based on Safety Guide SG-10, entitled, "Entering Tanks and Other Enclosed Spaces" written by the Manufacturing Chemists' Association, Washington, D.C. We recommend that a copy of SG-10 be obtained. The highlights of the procedure are:

1. A vessel entry permit must be obtained and certified by the proper personnel.
2. Mechanical agitation equipment must be locked out, and wiring disconnected. Sharp blades or any blunt projections must be covered with a heavy canvas or equivalent.
3. The equipment and that portion of the piping involved must be drained and isolated by a line blank or by disconnecting the lines.
4. Fresh air must be blown into the vessel until a check by an explosion meter indicates a reading of zero. Ventilation must then be maintained.
5. When a man enters the vessel, another man should always be easily available.

Types of latexes available from B. F. Goodrich Chemical Company:

Geon Latex

Vinyl chloride homopolymer
Vinyl chloride copolymer
Vinylidene chloride
Vinyl chloride-acrylic

Hycar Latex

Nitrile
Acrylic

Good-rite Latex

Specialty styrene-butadiene
Vinyl pyridine

The procedures for handling and storing latex suggested in this bulletin are offered in good faith and are believed to be suitable for the purpose. They are offered for information only, since B. F. Goodrich Chemical Company cannot guarantee the results of operations not under its direct control.