

INTER-OFFICE MEMO

to W.C. Champion

At Burlington

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File

The preliminary copy of the subject standard gives rise to the following comments related to sampling and analyses of stack emission samples as well as slurry and resin sampling and analyses:

1. Stack Sampling

EPA proposes similar requirements for stack procedures as used for particulate emission determinations. This would require installation of permanent gas sampling tubes together with reverse ("S") type pitot tubes in all stacks used for venting of VCM from processing areas into the atmosphere. Sample tube locations, as proposed, would require the same considerations as needed for particulates, e.g., at least two stack diameters down-stream and one half diameter up-stream from any flow disturbance such as a bend, expansion or contraction. This type of requirement becomes very impractical for the majority of stacks installed in Burlington. Furthermore, since only VCM is to be measured a uniformity of the exhaust gas should be given in any area, perhaps with the exception of areas near exhaust fans. The pitot tube could be used as indication of the consistency of the flow rates. If the above requirements will have to be met, inaccessible sampling points would have to be fitted with permanent umbilical cords.

While the proposed gas sample train is relatively simple and easy to operate (Figure 1), it would require explosion proofing of the vacuum pump and electrical supply at the sampling locations. As an alternative, umbilical cords could be used and the sample train located in a centralized safe area.

2. Stack VCM Analysis

Analytical procedures used in the Burlington and Flemington Plants should be satisfactory to accomplish the analyses required. The standard, however, proposes the use of a different column packing - Chromosorb 102 - as currently used in Burlington and Flemington. In addition, accurate monitoring equipment for atmospheric pressure and temperatures are required.

The frequency for sampling and analysis, as proposed, would be once/month since a monthly material balance report is required.

3. Slurry and Resin Sampling

The proposed standard requires that each fifth batch of each resin type be analyzed with three samples each. While the sampling procedures established already are very similar, the standard requires an intensive sampling program.

4. Slurry and Resin Analysis

The analytical method suggests the use of a Perkin-Elmer F-40 headspace analyzer for residual VCM analyses of slurries and resins. This type of instrumentation is presently not available in Burlington or Flemington. Only equivalent methods seem to be acceptable, rendering solvent extraction techniques, currently used, invalid.

Results, as proposed, must be reported once every ninety days.

In addition, analyses are to be performed to determine the amount of VCM in reactors and effluent water. These methods are currently developed by EPA.

Please advise which preparation should be made to be prepared for the additional test requirements.

Fred W. Kanzler

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Attachment

FWK/jst

Fig. 1

