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 Manager  
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**Continental Oil Company**  
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 405-762-3456

September 20, 1978

Mr. Howard G. Bergman  
 Director, Enforcement Division  
 United States Environmental Protection Agency  
 First International Building  
 1201 Elm Street  
 Dallas, Texas 75270

Dear Mr. Bergman:

This letter is submitted as part of the record for the PVC pilot plant of Continental Oil Company at Oklahoma City, Oklahoma, and will confirm the discussion of August 30, 1978, between Mr. Martin Brittain of your staff and Mr. Gregory J. Husen of Continental Oil Company.

We request approval to average slurry residual VCM and reactor opening emissions on a ten (10) batch basis for each resin grade rather than on a daily basis. The ten (10) batch average would be transmitted in the semi-annual report and compared to the standard requirements of 61.64(e)(1)(ii) and 61.64(a)(2) of 40 CFR Part 61 Subpart F.

The nature of the research and development work performed at the pilot plant necessitates experimental batches that are occasionally difficult to steam strip. The grade of resin may be identical to the standard resin grade, but experimental conditions employed in the batch will produce an unusual resin. Therefore, it is very likely that in certain instances the combined slurry residual VCM and reactor opening would be greater than the standard requirement defined in 61.64(e)(1)(ii) and 61.64(a)(2) of 40 CFR Part 61 Subpart F for the usual batch. To further illustrate the problem, an example of one (1) weeks production at the pilot plant could show the following residual VCM values:

| <u>Experimental<br/>Number</u> | <u>Day<br/>Produced</u> | <u>Residual VCM<sup>1</sup><br/>ppmw (Dry Resin)</u> | <u>Daily Average<br/>Residual VCM ppmw</u> |
|--------------------------------|-------------------------|------------------------------------------------------|--------------------------------------------|
| 1                              | Monday                  | 110                                                  | 110                                        |
| 2                              | Tuesday                 | 134                                                  | 134                                        |
| 3                              | Wednesday               | 100                                                  | 272                                        |
| 4                              | Wednesday               | 443                                                  |                                            |
| 5                              | Thursday                | 1653                                                 | 1653                                       |
| 6                              | Friday                  | 122                                                  | 159                                        |
| 7                              | Friday                  | 196                                                  |                                            |
|                                | Average                 | 394                                                  |                                            |

<sup>1</sup>Residual VCM analyzed by Conoco test method.

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Two runs, 4 and 5, exceed the 400 ppmw residual VCM standard. These runs were made employing agitation conditions that would not normally be used in a production facility but were investigated for research purposes. The problem of a high slurry residual VCM and reactor opening emissions for unusual batches is compounded by the pilot plant limited number of batches per day. The pilot plant has one (1) 1500-gallon reactor with a production design capacity of 2.0 million pounds per year of PVC resin. In general the pilot plant will produce only one (1) or two (2) batches per day. This is approximately one-tenth (1/10) the number of batches produced each day in our commercial facilities. Due to the limited number of batches per day the pilot plant average can be above the standard in certain instances for a given day, but well within the emission limit on a comparable basis (i.e., number of batches) with commercial facilities.

During August, steam stripping procedures have been revised which have greatly reduced slurry residual VCM and reactor opening emissions. However, the improved steam stripping procedures in conjunction with approved EPA test methods have just recently been implemented in the pilot plant. We are currently correlating operating procedures to VCM emission particularly for resins that are difficult to steam strip. Therefore, additional data should be available by early October 1978. It is our intent to submit the operating procedure correlations for determination of reactor opening and slurry residual VCM emission for your approval in October 1978. (Reference: Flynt Kennedy's letter to Mr. Howard Bergman, dated August 29, 1978.)

Please direct any questions you may have concerning this request to Gregory J. Husen at 405-762-3456, extension 4429.

Yours very truly,



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