VCM FYI

CONOCO

Lori - Please send to A Veldon Messick - Vista Aberdeen Miss. Walt

F C8.1.12

Interoffice Communication

To H. J. Neeld, EnvC, Houston

From W. R. Finch, PED, Ponca City

Date June 8, 1987

Subject EPA Inspection At Aberdeen PVC Plant; VCM Consent Decree

The EPA (Region IV) made an inspection of the Vista PVC Plant at Aberdeen, Mississippi on April 29 and 30. The purpose of the inspection was to verify the measures stated in the Conoco/Vista Compliance Plan. The EPA also used the opportunity to check for VCM leaks from several selected equipment items.

Dr. James Wu and Reggie Barrino represented the EPA. Jerry Banks and Bobby Whittaker from the Mississippi Bureau of Pollution Control came with them. Vista was represented by Veldon Messick, John Friend (part-time) and Frank Jeanson (part-time) and Conoco by Walt Finch. Banks and Whittaker did not actively participate in the meeting discussing the compliance plan action items and left the meeting shortly after lunch on the first day to conduct their annual inspection of the plant. Neither was present the second day.

The first day of the inspection was spent in the conference room going over plant project and training records. The second day was spent largely in the field. A wrap-up meeting was held at the end.

Dr. Wu stated his objectives were: (1) to verify that the physical measures given in the compliance plan were in operation; to verify that training as promised in the compliance plan had been done; and to review the status of slurry testing (since Vista had requested alternates to slurry testing and ROL measurement) and (2) to verify continued compliance with the VCM NESAPS by doing a field inspection.

This summary report of the inspection follows the above format.

COMPLIANCE PLAN PROJECTS

The compliance plan included three capital projects:

1. Install a temperature/pressure recorder for the batch water-strippers.
2. Install a board-mounted level indicator for the new module blow-down tank.
3. Replace limit switches on 70 selected valves with an improved design.

The EPA wanted proof that the projects were installed, that they were installed in time, and that they were actually in operation. The EPA requested and were shown the temperature/pressure recorder and the level indicator in the control room and were shown several valve limit switches in the field. They took photographs of the control room instruments, a

limit switch, and the level indicater field transmitter. They particularly noted that the instruments were functioning during their inspection. Later they asked for and were shown the strip chart from the batch water stripper recorder for December 23 (date given by Vista for "commencement of operation of equipment" for this item). The reactor interlock system was explained in some detail, especially noting that the valve limit must confirm valve position; i.e. valve limit switch operability is required for reactor operation. The EPA was given copies of work orders for the recorder and indicater projects (done by plant personnel) and a note from Jeanson stating that the valve limit switches had been installed. These are attached.

The EPA expressed satisfaction that these three projects had achieved compliance.

TRAINING

The EPA was shown the Compliance Plan Training Manual which had been compiled by the plant to document the specific training items called for by the compliance plan. The EPA was also shown training records which listed attendees for each training meeting. They examined these in some detail. Chris Turner, Vinyl Operation Superintendent, came in during his lunch hour (he was attending a class on statistical design) and explained plant operator training. Turner went over the training checklists which had been developed indicating that the shift foreman had to sign off each item.

The EPA expressed some concerns regarding operator training. Dr. Wu apparently would have liked to have had complete documentation of each operator's training in his personal file. He stated that failure to have done this (appeared) to demonstrate a lack of commitment to training by the plant.

The EPA also stated that they were concerned about the lack of demonstrable proof on the effectiveness of the training since tests were not given as part of the compliance plan training program and test "scores" were not available on the operator training in general. (Turner had said that if an operator could not answer a checklist item, it would be explained to him, etc. until he understood it; also that many of the checklist items were better answered in the field than in the classroom.)

The EPA did have several opportunities to ask the operators questions during their field inspections (especially when they were in the control room) but did not avail themselves.

SLURRY TESTING

Any specific concerns in this area were never made clear and my impression was that this area was covered for the sake of completeness and, perhaps, special interest on Dr. Wu's part. The EPA requested to see the laboratory where slurry testing was done. They discussed the procedure with the

laboratory technician in particular confirming that samples were refrigerated if a sampling delay was anticipated. Dr. Wu noted that Vista was the only PVC producer that had requested an alternate procedure allowing an extension to the specified analysis time.

The EPA requested access to the reactor batch charts and slurry stripping records. These consist of the individual reactor batch sheets and associated recorder strip charts which are stapled together and stored in boxes. The requested records (by date and reactor) were located and examined in some detail. I believe Dr. Wu was checking for anything on the strip charts which could indicate "venting" and also to confirm that steam stripping was carried out. He appeared to be satisfied with his findings, noting only that the strip charts were not aligned by time correctly, i.e., the time on the strip chart did not correspond to actual clock time, which could potentially make it difficult to trace an event among the several strip charts. However, this was not a problem in actual examination of the strip charts during the inspection.

QUARTERLY REPORTS

The EPA questioned whether all quarterly reports had been filed as required. Apparently they had misplaced one report. Vista gave them a copy while noting it had been sent by registered mail.

MISCELLANEOUS

The EPA requested to see the rupture disc test stand. They asked several questions concerning testing and changeout (apparently) to satisfy themselves that procedures given in previous documents given to the EPA were being followed.

The EPA also asked to examine the weekly checklist of the AMS emergency kill systems done by the safety department.

PLANT INSPECTION

The EPA requested a plant inspection using the plant portable hydrocarbon analyzer. In particular, Dr. Wu asked to witness the calibration of the analyzer. Apparently, Dr. Wu is quite concerned about proper calibration of the analyzer. He noted the following items:

1. The analyzer was zeroed with "instrument shop" air rather than zero grade air as required by the EPA procedures.

2. The certified sample cylinder did not have a expiration date attached. Messick stated that the supplier had not provided this, that Vista had noticed this themselves when preparing for the inspection (the EPA had said they wanted to witness a calibration), that Vista had checked with the supplier and found that their existing cylinder had gone past the recommended shelf life (which I believe was given at three months)

and that Vista had ordered and just received the new certified cylinder. Dr. Wu requested a copy of previous cylinder certification (attached).

3. The new cylinder contained 1.02% (10200 ppm) CH4 which was slightly greater than the analyzers maximum span of 10000 ppm. Dr. Wu later suggested using a calibration gas which was around 80-90% of instrument span although the standard appeared to specify a 10000 ppm calibration gas and said that he would send Vista the appropriate background information. In any case, he said that concentrations greater than 10000 ppm were not acceptable.

4. Dr. Wu stated that the portable hydrocarbon analyzer should be calibrated daily. The plant disagreed and said that the standard called for a weekly calibration. (My understanding is that the plant usually checks for VCM leaks using a more reliable and more sensitive, i.e., 3000 ppm max. portable analyzer and only calibrated the 10000 ppm analyzer specified in the new standards during the weeks it was used.)

Dr. Wu also had the instrument technician "vacuum out" the sample bag (to remove remnants of the previous calibration gas) when he found out that the calibration cylinder was new. He also noted that the sample probe was too long (the plant had a shorter probe on their spare analyzer which had been sent off for repairs.)

The plant inspection went much smoother. Several flanges and a pump seal (with the pump running) were checked in the vinyl unloading area and several flanges, including a reactor manway and a rupture disc flange, were checked in the vinyl unloading area and several flanges, including a reactor manway and a rupture disc flange, were checked in the old reactor module. No VCM was detected.

Dr. Wu said that he would prepare a report within the month and expected that the EPA would make any decisions within the same time period (based on his preliminary report). When asked, he said that Vista would need to request a copy of the report if they wanted it.

Walter R. Finch
Senior Consultant
Special Projects Section
Process Engineering Division

lk
att
cc: VHM:GJF

File A-130.83