



PPG Industries, Inc. Chemicals P.O. Box 1000 Lake Charles, Louisiana 70602

October 23, 1991

Mr. John R. Newton
Surveillance Program Manager
Air Quality Division
Department of Environmental Quality
P O Box 82135
Baton Rouge, LA 70884 -2135

Dear Mr. Newton:

PPG Industries has received your letter dated September 25, 1991 regarding an inspection performed at our facility on August 5 through 8, 1991. Item No. 3 of that letter listed numerous incinerator bypasses during 1990 - 91 as a deficiency noted during the inspection.

PPG has recognized this as a problem and many tasks are on-going and planned to improve this performance including upgrading the PLC systems on the incinerators. As requested, a proposed tentative schedule for PLC replacement is included as Attachment I to this letter. We feel it is important to point out that the number of incinerator bypasses actually caused by PLC failures is very small when looking at all causes of incinerator bypasses. Because PPG is concerned with reducing the total number of incinerator bypasses, many activities are also in progress to improve performance. A listing of those activities is included as Attachment II for your information.

We believe the work outlined above has already produced results as evidenced by our improved performance in the latter portion of this year. If you have any further questions regarding this response, please call me at (318)-491-4326.

Sincerely,

Esther S. Liggio
Esther S. Liggio
Environmental Engineer

SL 025623

ATTACHMENT I

Schedule and Work Plan for Replacement of Programmable Logic Controllers October 9, 1991

As directed by a letter from the Department of Environmental Quality dated September 25, 1991, a tentative schedule and work plan for an upgrade of the Programmable Logic controllers that impact on the vent control system is listed below. It should be noted, however that the PLC's are not the primary cause for the majority of incinerator bypass s. Most are due to equipment or actions external to the PLC's and replacement of the PLC will probably not make a significant impact on the reduction of incinerator bypass s.

The following PLC's are being considered for replacement.

1. The VCM-2 area.

There are four PLC's in the control room, which are PLC I, PLC II, PLC III, and PLC IV. These PLC's control the Liquid Phase EDC Reactor, two OHC-EDC Reactors, Incinerator Vent Logic for VCM-2, Fire Water Deluge System, and some other minor systems. We are planning on installing one PLC with all of the systems except the reactors during the January outage at VCM-2, if programming and testing can be completed. Programming has not begun as of this date.

The other PLC's will be done one at a time, to allow for testing and installation, on about six month intervals, the last being installed in June of 1993.

The Vinyl Cracking Furnace PLC's could be replaced after these by January of 1994.

2. The WTU Incinerator Area.

There is a PLC on each WTU incinerator. These PLC's could be changed on a six month interval beginning in January 1993. The last one could be installed in January 1994.

3. The Liquid Phase EDC Area.

There is a PLC for each of the two Liquid Phase EDC Reactors. These could be changed out at six month intervals beginning in April of 1993, with completion in October of 1993.

4. The Tri-Ethane II Area.

The two PLC's in the control room control the OHC-EDC reactor and some of the shutdown logic on the vinyl cracking furnace. These PLC's could be changed at six month intervals beginning in April 1994 and being complete in October of 1994.

ATTACHMENT II, PAGE 1

SPILL & RELEASE PREVENTION
ACTION ITEMS

EMPLOYEE INVOLVEMENT

VENT TRIP COMMITTEE

Membership: Representatives from all operating units in Derivatives, Technical, Maintenance and Environmental.

Objective: Reduce the number of incinerator and vent trips.

Activities: Have looked at root causes of vent trips, brainstormed solutions, made recommendations and assignments and followed up on progress. Began meeting in 12/90 with most recent meeting 9/12/91.

Accomplishments: Established procedures for burning combinations of vents successfully; a number of engineering work orders have been written to improve incinerator operation; documentation of near misses was started to track causes; communications have improved between control rooms; and, new radios have been purchased with multiple control room frequencies.

AIR TEAM

Membership: Representatives from incinerator operations, environmental and technical departments.

Objective: To keep participants informed, coordinate activities, and eliminate churn in carrying out the Lake Charles Air Compliance Program.

Activities: Meet approximately monthly to discuss incinerator operation and performance, upcoming regulations and their impact, discuss the schedule and status of jobs in engineering that impact incinerator performance.

Accomplishments: Kept all parties equally informed on developments of concern, improved communication and working relations among the group.

CORRECTIVE ACTION REVIEW COMMITTEE

Membership: Representatives from all Derivatives operating units, environmental and Chlor/Alkali operations.

Objective: To review corrective action on all spills and releases of the previous quarter, including releases due to incinerator bypasses.

Activities: Meet quarterly to review corrective action by the appropriate Area Supervisor. Successes are shared and the Committee acts as a peer review to determine if the root cause was actually addressed by the action or if additional action is warranted.

Accomplishments: Some corrective actions have been recommended that otherwise might have been overlooked. In addition, knowledge of preventative measures has been shared.

PLC GROUP

Membership: Representatives from process control, maintenance, incinerator operations and technical.

Objective: To solve some recurring problems associated with PLC's that have led to incinerator trips.

Activities: Met once to address incinerator trips related to PLC problems. Suggested measures to be taken and made assignments.

Accomplishments: Initiated the monthly replacement of two alkaline batteries that have failed in the past; wrote engineering work order to install UPS system to the incinerator PLC's; initiated monthly pm's of the PLC's; working with engineering to determine a more reliable, durable, and smarter PLC to use.

IMPROVEMENTS

UPS SYSTEM FOR PLC'S - This job was completed in October. It will give the PLC's on #'s 1,2, and 3 incinerators a much greater reliability, particularly in thunderstorms and other power interruptions.

LEVEL INDICATION ON KNOCK-OUT POTS - These are being installed on all vent header knock-out pots in WTU and will give a signal to the control room when a particular level is reached to give the operators time to react and empty it before it causes a problem.

NEW TRI II VENT HEADER - The entire vent header from the Tri-Ethane plant to the incinerators was replaced with the new header being put into service 1/91. The new header offers several advantages over the old header including; a thicker internal corrosion veil, significant anchoring at strategic locations, a new support system that will stay in place and not leave sections of the line unsupported.

ON GOING-ACTIVITIES

SOP'S (Standard Operating Procedures) - These are reviewed at least annually by supervision and all of the operators concerned.

WEEKLY STROKING OF FCV-6016 - The control valve separating the vents from VCM II and the WTU incinerators is stroked weekly to insure that it will operate smoothly and accurately if called upon.

BI-ANNUAL TESTING OF EMPLOYEES - This is testing of employees in all phases of spill and release prevention and includes questions about the vcm vent system.

PROOFTESTING - A total of 96 instrument loops are prooftested in the incinerator area anywhere from monthly to every other year. In one year, a total of 517 tests are conducted on either priority one loops (those required by an outside agency or legal reason) or priority two loops (required by a reliability study or ORC). In reviewing the last 18 months, no loops were out of date on the testing. Of the 96 loops, 73 are priority one, and 34 of those are done monthly. Records are maintained on the last ten tests of the loops and the performance on the priority one loops was 98.9% pass, in other words the instruments performed as they should have almost 99% of the time.