FILE: E.M. air monitoring

Copy to: Hayden Head

CELANESE CHEMICAL COMPANY
Chemcel Plant
Bishop, Texas

PLAINTIFF'S EXHIBIT
CEL-1030

To: Mr. Ron Wile

From: J. M. Sawyer JMS-183 September 23, 1970

Review of Air Monitoring Program and Plans

The following is a review of the air monitoring program that we discussed on Friday, September 11, 1970. It is divided into plans for compliance with each of the Texas Air Control Board existing regulations, anticipated regulations, and provisions of the Walsh-Healey Act.

I. Texas Air Control Board Existing Regulations:

A. Regulation I: Control of Air Pollution from Smoke and Suspended Particle Matter:

1. Smoke: We need to take no action, since smoke is no longer a problem after the installation of the solid and liquid waste smokeless incinerators.

2. Suspended Particulate Matter: We can stop our routine particulate sampling on the National Air Surveillance dates. (See RHM-1278-70). However, when the hydrocarbon instrument and power supply is available, we should make measurements upwind and downwind of the solid waste incinerator to insure that we are in compliance at that facility.

B. Regulation II: Control of Air Pollution from Outdoor Burning:

We are in compliance with this regulation, and need to take no action. However, for your information, we are currently conducting some open burning as allowed under Exception M to the order, due to construction wastes associated with PE and MO III expansions.

C. Regulation III: Control of Air Pollution from Sulfur Compounds:

We need to determine sulfur emissions from the Girdler Unit sulfur guard regeneration. This is the only location in the plant where sulfur emissions could be a problem. We should monitor the vent from the regeneration step at least four times, preferably once a week. At the end of that time Process Engineering will use the data to calculate property line levels. If we are in compliance (and we certainly expect the results to show this) then no further action need be taken.

D. Regulation IV: Control of Air Pollution from Motor Vehicles:

Compliance with this regulation is a maintenance function. For this reason, we need to take no action on this regulation.

E. Regulation V: Control of Air Pollution from beryllium and fluorides:

We do not have beryllium in the plant, so we need take no action. Fluorides are used in Celcon; however, the amount is quite small and is insignificant. For this reason, we need not monitor fluorine either.

II. Anticipated Regulations:

A. Hydrocarbons:

We are currently waiting receipt of the Union Carbide hydrocarbon analyzer. As soon as it is received, it will be checked out and installed in the trailer along with its power supply, gas bottles, etc. The actual sampling program is so complex that it will be completely outlined in a later report. This analysis is considered to be the first priority in our air monitoring program.

B. Oxidants:

Oxidant levels are keyed quite closely to hydrocarbon levels. As a result, the program for monitoring oxidants will be dependent upon the hydrocarbon sampling and analysis results.

C. Carbon Monoxide:

We have completed CO analyses at several points. From the data, it seems that we have no problems either with ambient air or plant boundary levels. However, some of the values are quite close to the anticipated maximum, so we probably need to continue the program. I would recommend that the in-plant and property line measurements

II. C. (Continued)

be conducted once per quarter, and continued until we show that we are in compliance with the expected regulation. As soon as the hydrocarbon instrument is received, it will measure CO data at the same time time as hydrocarbons.

D. Nitrogen Oxides: Bay City personnel have agreed to develop a method for oxides of nitrogen that we can use to measure levels of <1 ppm. Most existing methods have a minimum sensitivity above that level.

III. Walsh-Healey Act - Formaldehyde.

Until the Union Carbide hydrocarbon analyzer is received, our major emphasis should be in the development of a method of analyzing for formaldehyde in low concentrations (<3 ppm). The method received from Bill Flook in Edmonton is sensitive enough but is not specific for formaldehyde. After this method is developed, we should analyze ambient air and stack vents in most areas of the plant where formaldehyde is known to be present.

J. M. Sawyer

jam

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