



INDUSTRIES

INTER-OFFICE CORRESPONDENCE

To: L. S. Bryant
19 East, G#1

*Bill
Samuelson
J. R. Farst*

Date: July 28, 1978

From: I. C. Klimas

Location: 19 North, G#1

Subject: VDCM Control

Your memos of July 6 and July 24 relative to VDCM control indicate progress is being made in complying with the VDCM Work Practice Guidelines. It is a disappointment that we are so far behind on the performance of the MCA reactor. Please continue to follow up on the items enumerated in your memo. We should have the posting of the Respiratory Protection Policy by August 1, as indicated; and the emergency procedure is to be completed by August 10.

In the work on the MCA reactor, emphasis must be placed on the plant to expedite the pilot testing of the VDCM absorption unit. The releases from the MCA reactor are extremely high. Coolant flow to the condenser should be an easily-solved problem, and Operations should correct this as early as practicable.

Please keep following up with the plant on the correction of this problem. I would like to be kept posted on the progress being made.

ICK
I. C. Klimas

ICK:kf

cc: F. C. Dehn, w/att. ✓
J. R. Farst, w/att.
W. R. Harris, w/att.

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Environmental Affairs



INTER-OFFICE CORRESPONDENCE

To: I. C. Klimas

Date: July 24, 1978

From: L. S. Bryant

Location: 19 East

Subject: Lake Charles VDCM Control

The following comments regarding Lake Charles' efforts toward VDCM work practice compliance and emission control are provided as an addendum to my memo dated July 6.

The closed sampling device which has been installed on the VDCM product line on a test basis appears to be satisfactory. Installation of this device in the rest of the MC/VDC unit is being done. This should significantly reduce operator exposure during sampling.

*Bill
Bryant
Lake Charles* ✓
A formal policy regarding areas where respiratory protection is required has been prepared by the environmental group at Lake Charles. This policy is based on personnel and area monitoring data gathered over the past few months. A meeting is scheduled this week to solicit final operations and maintenance comments and allow preparation of a policy paper suitable for bulletin board posting in operating areas by August 1. Enforcement of respiratory protection use in known high-exposure areas is occurring now.

✓
The emergency procedures for VDCM has been prepared in draft form and received operations management critiquing. A final draft is being prepared and should be ready for release in about two weeks.

Personnel monitoring for VDCM exposure in 1978 shows the following:

- 1) 7 overexposures out of 20 samples to the OSHA ceiling standard of 10 PPM.
- 2) 7 overexposures out of 101 samples to the OSHA TWA standard of 10 PPM.
- 3) 14 overexposures out of 101 samples to the PPG TWA standard of 2.5 PPM.

✓
A program to monitor former employees will not be instituted, since this requirement has been dropped by the corporate VDCM control guidelines. *see memo 7/24/78*

The MCA reactor, which was designed to substantially reduce VDCM emissions from the DH still, continues to underperform design parameters from both an on-stream factor basis and on-stream performance basis.

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The unit was not operating for 179 days in 1978; and while on-stream factors have improved in 1978, they remain substandard. The unit is shut down now for installation of a spare reactor circulating pump which should improve on-stream factors in the future.

While in operation, the primary problem in controlling VDCM emissions from the MCA reactor has been the underperformance of the chilled (brine-cooled) reactor vent condenser. This underperformance is due to two factors:

- 1) Inert load prevents adequate VDCM condensation. Pilot testing of a refrigerated VDCM absorption unit is underway, and lab testing of a refrigerated TCE absorption unit will get underway shortly as lab vacation load subsides. If successful the TCE/VDCM absorption combination would be installed in the MCA reactor condenser vent to scrub VDCM vapors.
- 2) Inadequate coolant flow to the condenser. Although the refrigeration unit is a 50 ton unit and total demand is only 15-17 tons (10-12 tons for TCE and 5 tons for MCA condenser), there was inadequate performance of the refrigeration unit, with TCE plant obtaining its requirements and the vent condenser receiving the inadequate balance. Freon leaks and heavy scaling are the apparent causes of poor performance, which in turn are due to inadequate operator attention and maintenance. Operations responsibility for this unit will be re-assigned and enforced.

The Louisiana Air Control Commission (LACC) permit allows VDCM emission of 1-1/4 lb./day from the MCA vent, and requires reporting twice per year. The two reports forwarded to LACC to date have shown an emission of 26 lbs./day and 109 lbs./day (the latter reported earlier this month). There has been no response yet from LACC.

The environmental and operating groups are working together to resolve this problem, and I will keep you informed on progress.


L. S. Bryant

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INTER-OFFICE CORRESPONDENCE

To: I. C. Klimas

Date: July 6, 1978

From: L. S. Bryant

Location: 19 East

Subject: Lake Charles VDCM
control efforts

The Lake Charles VDCM emission control program is progressing along two lines. The first is the engineering project being handled by Ben Evans in Central Engineering (you received a copy of his project status report on 7/5/78). The second program is being pursued by Lake Charles plant personnel, and is designed to identify areas where the plant does not comply with guidelines for VDCM established by Fred Dehn's group and institute corrective action where necessary.

Four basic areas of non-compliance have been identified.

- (1) no identification of high exposure areas.
- (2) no enforced respiratory protection program in high exposure areas.
- (3) no formal or written emergency procedures.
- (4) no program existing to monitor former employees.

Efforts to eliminate non-compliance are discussed below.

1. Identification of Exposure Areas

There are currently four wage operator jobs in the VDCM/MC production area. Since February of this year, each job has been monitored once per month to establish 8-hour TWA exposure levels. In addition, several 15-minute ceiling exposure tests have been run in areas where risk of high exposure is suspected. Maintenance and salaried personnel have not been monitored, but there are plans to initiate monitoring of maintenance personnel who work in the area on a regular basis.

Several high exposure areas have been identified, such as sampling and HQMME tank filling and cleaning. No mechanical control changes have been initiated to date, as these needs are still being identified and engineered through Ben Evans' project.

The Lake Charles Laboratory has devised a closed sampling device which has been installed on a limited test basis and is undergoing evaluation at this time.

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2. Establishment of Respiratory Protection Program

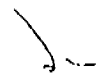
Use of Respiratory protection devices is now required and enforced in areas which have been identified as high exposure risk areas. As identification of exposure areas progresses through the program outlined in item (1) above, the respiratory protection program will be expanded. Feedback of information to Ben Evans is occurring so that engineering solutions can be applied, where practical, to reduce the long-term dependence for personnel respiratory protection devices as a primary control technique.

3. Establishment of Written Emergency Procedures

The EDC/MC General Foreman (Dick Miller) has been given the responsibility of preparing written emergency procedures. This has not been completed, and I have not been able to determine if a deadline has been established. I will follow-up on this next week when some people are back from vacation and business trips and advise you accordingly.

4. Program to Monitor Former Employees

No information is currently available as to status or area of responsibility due to vacations and business trips. As in (3) above, I will follow-up next week.


L. S. Bryant

LSB/ei