

DATE January 31, 1977

COPY TO P.M. Reed

P.R. Scarito

E. V. Schenke

A.C. Siegel

File

Reference: Memo to P.R. Scarito from E. Schwartz,
Subject: "EPA Projects - ESR 509",
dated January 12, 1977

COLORITE 018125

2. Install C-1 to Replace B/V-1 and Use B/V-1 for the Carbon Adsorption Unit Stack and Area Monitoring

This alternative would require relocation of the ten-stream C-1 unit to replace the B/V-1 gas chromatograph in the tank farm analyzer house. The B/V-1 control section located in the foreman's office is easily converted to a ten-stream control. Interface control to the Arcas computer system is readily made by simple program changes.

The location of the five-stream B/V-1 unit components would be similar as listed under 1..

Alternative 1. may be considered the least costly, however, also the least practical for it would use a ten-stream gas chromatograph in both potentially high VCM level EPA stack monitoring service and relatively low VCM level OSHA and EPA leak detection service. Past experience has shown that if VCM levels exceed 2000 to 3000 in a sample stream, a carryover to the next two to three streams may result. If alternate 1. is chosen, the most practical way to overcome high VCM carryover in the manifold system is to split the two five-point manifold systems by providing separate bypass and sample pumps for points in the stack monitoring service.

Fred W. Kanzler

F.W. Kanzler

FWK/jst

BURLINGTON FORMULATION SHEET

Feb. 1, 1977

Date

Formulation # H-3125M-30

Series # 2700000

PVC 250 -- TO MEET EPA STD.

1-3/4 hour space charge.

3-5 lb. pressure drop

3-batch cleaning

WASH OUT REACTORS WELL. Strip to 190°F.

Material	Type	Parts	Pounds	Gallons
MVC	No more than 2,000 lbs./ batch recovered monomer		11,000	
Vinyl Acetate				
TCE				
(Initial)				1,233 (hot)
Water: (				400 (cold)
(Final				400 (cold)
TOTAL			16,800	2,033
Catalyst	LUPERSOL 223M L.P.	(2-EHP)	8 1/2 1	
Suspending Agents				
5.2 lbs. dry 1.	Meth. MC-15		173 lbs.	
2.				
3.				
Others	NaHCO ₃		1-1/4	

Reaction Temp. 129 degrees F. for all hrs. degrees F.

Agitator Speed 120 RPM for all hrs. RPM hrs.

Special Instructions: 1. Set maximum jacket temp. 150° and reaction temp. at 112°.

2. Charge initial water (1,233 gals) and slow agitator speed (check water sample).

3. Charge Meth. 15 soln. and follow with 400 gals. of cold flush water.

4. Charge L.P. and sodium bicarbonate through manhole.

5. Seal reactor and pull max. vacuum for 1/4 hr. (min. vac. 22").

6. Set batch temp. setting below 100°F after evacuation is completed and set RPM at 120.

7. When jacket temp. drops below 75° and batch temp. is 105°-110°F, suck Lupersol 223M

directly into reactor thru catalyst valve followed by sucking in a Lupersol bottle full of DM water.

8. Start charging MVC immediately after Lupersol 223M is charged to the reactor.

9. Set batch temp. to reaction temp.

10. Finish charging MVC and follow with 400 gals. final flush water.

11. Bring to reaction temp. Turn steamoff. (300 gals. heat kick on 5° temp. rise).

12. Prior to dumping, suck in 1 lb. dry Ionol to empty stripper.

13. Transfer to stripper at 3-5 psig pressure drop (set absolute pressure controller at 0mm).

Recover batch to 300mm before steam stripping. Heat to 190°F. (full recovery).
Add 200 gallons of water, then transfer to blend tank.

Approvals:

Rach - 2-1-77
Dec 2-1-77

COLORITE 018127

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO **Mr. R. Fuster** AT **Flemington** DATE **February 2, 1977**
FROM **J. P. Sandstakt** AT **Piscataway** COPY TO **Mr. D. C. Caldiroa**
Mr. E. V. Schenke
SUBJECT **E.P.A./V.C.M. COMPLIANCE: FLEMINGTON**
K.S.R. NO. 1013

Confirming our phone conversation of Monday, January 31, 1977, you will provide me with a schedule for completion of process studies required for project design or procedural development as required by the E.P.A. Standard on Vinyl Chloride. I would appreciate this schedule by February 9, 1977. The following list summarizes the current areas of concern:

1. Stripper Dump Trials

Use of vent gas to break vacuum after completion of stripping cycle.

- a. Determine effect of vent gas, pressure, etc. on residual monomer levels in slurry in plant trials.
- b. Document pumping cycles.
- c. Evaluate potential problems of blockage.

2. Water Stripper Data Requirements

Complete corrosion studies.

3. Development of vessel entry procedures, particularly with regard to build-up of polymer in recovered monomer and master mix tanks.

4. Water Spray - Reactor Opening Procedure

- a. Status of installation
- b. Development of sufficient data to verify effectiveness of procedure - necessary to support equivalency request.

J. P. Sandstakt
J. P. Sandstakt

JPS/bjl

Process Engineering

3 FEB 77

PROCESS TECHNICAL SERVICE PROJECTS

I BURLINGTON PLANT SUPPORT

A. DISPERSION

1. DHW₈₀ OPTIMIZATION

WORK WITH R&D, HENKEL & PLANT TO SMOOTH
OUT VARIATIONS IN BATCH TO BATCH DHW₈₀ QUANT

2. COLLECTOR DISTRIBUTION

USING AIR NOZZLES OR OTHER MEANS TO SCAN
& OPTIMIZE DISTRIBUTION IN COLLECTORS

3. ATOMIZER OPERATION & ESR 1075

RECOMMEND WAY TO OPTIMIZE ATOMIZER
PRODUCTIVITY

4. 1755 PRODUCTION

a) PARTICLE SIZE CHARACTERIZATION

b) RHEOLOGY OF PASTE

c) ~~FEED~~ CLOTH BLINDING

5. ESR 1017 PLASTISOL PRODUCTIVITY

B. SUSPENSION

1. BR 501 PROCESS CONTROL LDP 1118

OPTIMIZE RHEOLOGY WITH PROCESS TUNING

2. NPI'S FOR BR 501 FOAM RESIN M-70 & M-50
TYPE

3. DIST MONITORING ESR 1080

MAKE PROPOSAL TO PLANT FOR SYSTEM

4. BFG CLEAN REACTOR TECHNOLOGY, ESR

DEMONSTRATE CAPABILITY IN COPOLYMER
HOMOPOLYMER & DISPERSION

5. T/175 LOW FISHERY/LDP 1112

6. DOW CLEAN REACTOR TECHNOLOGY

C. COMPOUND

SEE SCHEDULE DTD 10 JAN 77

NWF

PROJECT REVIEW w/ W LABEL, P. SCARITO, P. REED
P. GOWANSON, P. THOMAS, T. BERKOVICH

SUMMARY OF PROCESS ENGINEERING PROJECTS

Quality

— Monitor record compound runs

- ① { Metal detectors
- ① { Magnetic systems

Record compound transfer velocity — Dust & Fines

- ① Pellet transfer system (serrated tubing) NEARLY FINISHED
- ③ Small pellets
- ① Pellet dusting

UPDATE AMP'S FOR ALL COMPOUND —
ESR 1044 RECORD SCRATCH PROBLEM

- ② FINDING NEW AMP'S NPI'S ETC
- OSHA TILTON PROCESS CONTROL WORK W/ Q.C.

- ① Noise control, dicers
- ② Noise control, general
- ① Dust control system
- ② Lead bag disposal
- ① Diverter system — PLANT OR PROJECT ENGR
- Brakes on dicers.

EPA

- ③ Waste water treatment

Productivity

- ⑤ Scrap recycle
- ② Water system
- ① Rail car unloading system
- ③ Flow improvers
- ③ Camelwite in #7 silo
- ③ Pellet Cooler
- ① RAIL CAR BULK LOADING SYSTEM — 168 CARS/YR.

January 10, 1977
T. Berkovich

II EPA COMPLIANCE ACTIVITIES

A. DISPERSION

COMPL BY 18 FEB

1. TOWER STEAMING

a.) EFFECTS OF CONDENSATE ON QUALITY

b.) TESTING OF RECOVERY PROCEDURE

2. STRIPPING

REPORT
COMPL BY 18 FEB

a. FINALIZE N_2 SPARGE PROCESS & OPTIMIZE

TESTING TO RESUME 7 FEB, INTERIM REPORT BY 18 MAR

b. CONTINUOUS TESTING COLUMN

B. SUSPENSION

IN PROGRESS COMPL BY 31 MAR

1. HIGH PRESSURE CLEANING OF COPOLYMER
REACTORS

CAN BE COMPL BY 11 MAR

2. AR 901 STRIPPING STUDIES - TO BE COMPLETED

3. WATER STRIPPER DESIGN

4. CORROSION TESTING

5. FILTRATION STUDIES

4.