1-2-8
REV. 1-1-53

INTEROFFICE COMMUNICATION

Westlake, Louisiana
November 25, 1969

TO: Mr. R. L. Hyberger

SUBJECT: HCl-EDC Pipeline

Enclosed are the process description, equipment specifications, and P&I diagram for the EDC-HCl pipeline. As an HCl pipeline this line has a capacity of 30 tons per day. Changing the control valve and orifice run will increase the capacity to 100 tons per day. As an EDC line we will have a maximum rundown rate of 100 gallons per minute.

R. W. Churns

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Process Engineer
VCM Plant

RWC-MC
cc: LNV
RHG
JDM
DKP
WOM
WRB
RAJ
Each w/enclosure

Process Description HCl-EDC Line

VCM Plant

This pipeline is designed to carry HCl to Ancon at an initial flow rate of 1 to 10 tons per day. At 20 tons per day the orifice and control valve must be changed. To go to the maximum rate of 100 tons per day the control valve trim must be changed and the orifice run must be increased from 2 inches to 3 inches.

This pipeline can later be used to fill tank T-415 at the docks. Tie-ins will be made connecting the east end of this line with the cyclohexane rundown line and connecting the west end with the EDC tank car loading line. This line can transfer 100 gallons per minute of EDC from either the pure EDC storage tank or the sales EDC storage tank to the dock tank.

Temperature Recorder Specifications

EDC-HCl Pipeline

VCM Plant

Instrument No.	TR-1
Service	HCl vapor to Ancon
Inst. Type	Temperature Recorder
Location	Ancon control room (1)
Range, ^{o} F	-25 to +125
Element Type	Foxboro Model 12-A
Location	4" line upstream of FR
Temperature, ^{o} F	60
Pressure, psig	50-115

(1) On two pen recorder with PR-1

Pressure Recorder Specifications

HCl-EDC Pipeline

VCM Plant

Inst. No.	PR-1
Service	HCl vapor to Ancon
Inst. Type	Pressure Recorder
Location	Ancon Control Panel (1)
Range (psig)	0-150
Element Type	Foxboro Model 44
Location	Upstream of Orifice
Temperature	Ambient
Pressure	50-115 psig

(1) On two pen recorder with TR-1

Pressure Gauge Specifications

HCl-EDC Pipeline

VCM Plant

Instrument Number	PI-
Range, psig	0-160
Location	On strainer bypass
Operating pressure, psig	110
Service	Strainer differential
Type	Bourdon tube

Flow Controller and Recorder Specifications

HCl-EDC Pipeline

VCM Plant

Instrument No.	FRC-1	
Service	HCl Vapor to Ancon	
Instrument Type	Flow Recording Controller	
Location	Ancon Control Room	
Range, " H_2O	50	200
Max. chart, sq. rt.	10	10
Element Type	Orifice	Orifice
Orifice size, in.	0.778	1.289
Pipe size, in.	2.067	2.067
Valve Type	Microflute	(1)
Location	Ancon Battery Limit	
Valve body size	3/4"	2"
Valve Trim Size	1/2"	1-5/16" (2)
Maximum pressure drop	125 psi	125 psi
Air failure position	closed	closed
Steam through valve	HCl vapor	
Temperature	Ambient	
Pressure, psig	115	103
MW	36.5	
Wt. Percent Vapor In-Out	100-100	100-100
Rate, Maximum tons/day	10	60

(1) Fisher type 667 EC, equal percentage
(2) Can be changed to 2-5/16" trim for 100 T/D

Filter Specifications

HCl-EDC Pipeline

VCM Plant

Type	Armored Knight Bucket Strainer
Service	HCl vapor to Ancon
Size	4"
Material	Carbon Steel Body
Particle Size	100 micron
Screen material	304 SS

Remote Operated Valve Specifications

HCl-EDC Pipeline

VCM Plant

Operator Type	Tufline No. 7020
Action	Closes on air and/or electrical failure.
Control	Electrically operated pushbutton
Supply Air	More than 80 psig
Solenoid	110 VAC-60 cycle explosion proof
Valve	3" ball.

Work List

HCl-EDC Pipeline

VCM Plant

1. Run the 4" pipeline from the VCM Plant battery limits to the Methyl Chloride Plant battery limits.

2. Tie this line to the existing 3" vapor return line for the liquid HCl loading system.

3. Tie the 3" vapor return line to the high point bleed in 8" CVC-1208. (Make permanent tie-in on next oxy shutdown.)

4. Run lead wires to a pushbutton for the Tufline operator.

5. Tie the 2" line into the HCl feed line in the Methyl Chloride Plant.

6. Install PR-1 and TR-1 and FRC-1 in the Ancon control room.

7. Install a line from the cyclohexane line to the docks to the easternmost point on the HCl line. Blind both ends.

8. Install a line from the EDC tank car loading spot to the HCl ine at the VCM Plant battery limit.

On the next oxy shutdown:

9. Connect the western end of the HCl line to 8" CVC-1208.

To convert to EDC service:

1. Depressure the entire line and blow clear with nitrogen.

2. Blind the junction between the HCl vapor return line and the new EDC-HCl pipeline.

3. Connect the EDC line to the tank car loading line. Connect the EDC line to the HCl line.

4. Tie in the HCl lin to the cyclohexane line.

5. Connect the cyclohexane rundown line to the suction line of the EDC loading pump.