August 11, 1992

TO: Steve Milligan
Carl Mercer
Dave Steele
Mitch Juneau
Christina LeBlanc
Wally Bounds
Buck Bailey
Tom Bradley
Gerald Wagener

RE: Just A Reminder
Phase II Review for T-8-2 Bottoms Surge Tank

The Phase II Review for the proposed T-8-2 Bottoms Surge Tank at 1:15 today at Glycol II's Large Conference Room.

Regards,

Steve Cook
Glycol II
LACSDC::SCOOK

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8/92

T-8-2 BOTTOMS SURGE TANK D-820

CONTROL PHILOSOPHY

The bottoms stream from the T-8-2 tower at Glycol-II contains mostly water with small percentages of EO, Acetaldehyde, and MEG. Under normal operations this stream is pumped to Central Waste Treatment. Should CWT be unable to take the stream or TOD go out of spec the stream must be stored in frac tanks.

D-820 is a surge drum designed to handle normal rates from T-8-2 bottoms for 4 days. The operating range for level in the tank is 10% to 80%. This would allow for upset conditions either in-block or at CWT, and would eliminate the need for the frac tanks.

The bottoms stream is currently pumped via P-157A/B and level controlled to CWT. The same bottoms pumps and level controller will be used to control the stream to D-820.

D-820 will have redundant level transmitters each sending a signal to he Foxboro. A hand switch will be used to select the higher of the level signals and forward this signal to the flow controller set point for D-820 bottoms. At some predetermined level the flow controller set point will be adjusted to turn the tank level.

D-820 bottoms will be flow controlled to the CWT header. The set point for this flow controller will be, as mentioned above, reset by the tank level transmitter signal.

A pad/depad system will be used to control the tank pressure. Nitrogen makeup will be used to pad the tank while tank vents back to T-8-2 will be used to depad. Dual pressure transmitters will signal a hand switch and split range pressure controller on Foxboro; the nitrogen pad control valve will be active below desired pressure set point, the vent depad control valve active above set point.

For monitoring purposes, 2 temperature elements will be installed in the liquid level and a pressure gauge in the vapor space. Also a ph probe will monitor the stream to CWT.

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Design Criteria
Glycol II Surge Tank Project
Christina LeBlanc

D-820: Stainless Steel Drum

Purpose: D-820 will serve as a surge tank for T-8-2 bottoms. The tank is designed for 4 days residence time at normal rates. This allows for upsets in TOD levels and CWT plant upsets. The operating level will be from 10% to 80%.

Design Basis:

Feed flow	:	7 gpm
Composition	:	H20 0.83 (mass fraction)
		Acetaldehyde 0.10
		Ethylene Oxide 0.01
		Mono-Ethylene Glycol 0.06
Operating Pressure	:	80 psig
Design Pressure	:	150 psig
Operating Temperature:		100 C
Design Temperature	:	500 F

Materials of Construction: Carbon Steel with Stainless Steel lining

Dimensions:

length: 51'

diameter: 13'-0"

volume: 50400 gal

Orientation: Horizontal

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PRESSURE SAFETY VALVE (PSV)

FORM: RELIEF_PSV_POSV — PILOT OPERATED SAFETY VALVE (POSV) — FORM REV: 10-SEP-91

R/E/V	DESCRIPTION	VALUE	UNITS	R/E/V	DESCRIPTION	VALUE	UNITS
ACCOUNTING DATA:							
|011|	SITE	: PLAQUEMINE, LOUISIANA		|015|	MANUFACTURER	: *
|012|	LOCATION	: BLOCK 53		|016|	MANUFACTURER MODEL	: *
|013|	CHARGE NUMBER	: 411556-01		|017|	NUMBER OF UNITS	: 2
|014|	B/M NO. (M/S NO.)	:		|%|018|	EQUIPMENT TYPE	: BELLOWS TYPE PSV
TAG TABLE:							
|040|	TAG NO.	P&ID NO.	OWNER I.D. NO.		TAG NO.	P&ID NO.	OWNER I.D. NO.
|041|	PSV-820A	B1-045-G55-001		|066|	PSV-820B	B1-045-G55-001	
OPERATING CONDITIONS:							
|100|	MATERIALS HANDLED	: PROCESS		|112|	OUTLET TEMPERATURE	: F
|101|	REQUIRED CAPACITY	:	: LB/HR	|%|113|	SET PRESSURE	: 150 : PSIG
|%|102|	VAPOR FRACTION	: 1		|%|114|	RELIEVING PRESSURE	: 181.5 : PSIG
|%|103|	VAPOR MOL. WEIGHT	: 42		|%|115|	NORMAL PRESSURE	: 55 : PSIG
|%|104|	SP. GR. (FLOWING)	: 2.16		|%|116|	PROTECT EQUIP DES PRES	: 150 : PSIG
|%|105|	DENSITY (FLOWING)	: 1.39	: LB/FT3	|%|117|	CONSTANT BACK PRESS	: 0 : PSIG
|%|106|	VISCOSITY (FLOWING)	: .012	: cP	|%|118|	BUILT-UP BACK PRESS	: 18.6 : PSIG
|107|	SPECIFIC HEAT RATIO	:	: Cp/Cv	|%|119|	OVERPRESSURE	: 21 : %
|108|	COMPRESSIBILITY FACTOR	:		|%|120|	INLET PIPING DELTA P	: 3.45 : PSI
|109|	FREEZING TEMPERATURE	:	: F	|%|121|	OUTLET PIPING DELTA P	: 18.6 : PSI
|%|110|	NORMAL TEMPERATURE	: 100	: C	|122|	COLD DIFF. SET PRESS	: * : PSI
|%|111|	RELIEVING TEMPERATURE	: 285	: C				
DESIGN BASIS:							
|%|140|	FAILURE CASE	: FIRE EXPOSURE		|144|	BLOW-DOWN (POSV)	:
|141|	AREA CALCULATED	:	: IN2	|%|145|	DISCHARGE COEF (K)	: 0.95
|%|142|	AREA SELECTED	: 3.317	: IN2	|%|146|	MOUNTED WITH PRD	: NO
|%|143|	SELECTED AREA CAPACITY	: 34810	: LB/HR				
APPLICABLE INDUSTRY/GOVERNMENT CODES & STANDARDS:							
|200|	APPLICABLE CODES & STD:			|201|	HAZARD CATEGORY	:
CONSTRUCTION DETAILS - GENERAL:							
|%|220|	ORIFICE DESIGNATION	: L		|%|226|	OUTLET CONNECT. RATING	: 150 : PSIG
|%|221|	SEAT TYPE	: METAL/METAL		|%|227|	TYPE FLANGE FACING IN	: RF
|%|222|	SIZE - INLET	: 3	: INCH	|%|228|	TYPE FLANGE FACING OUT	: RF
|%|223|	SIZE - OUTLET	: 4	: INCH	|%|229|	GASKET FACE TOLERANCE	: 125/250 RMS
|%|224|	TYPE CONNECTIONS	: FLANGED		|230|	ABRASIVE BLAST/PRIME	:
|%|225|	INLET CONNECT. RATING	: 150	: PSIG	|231|	FINISH COATS SPEC.	:

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FILE/JOB NO.	:	TAG NUMBERS	: PSV-820A,B
P.O. NO.	:	TAG NUMBERS	:
LATEST REVISION MARK	:	SPEC/DATA NO.	: A4-PSV820-G55-001
LAST MODIFIED DATE	: 7-AUG-92, 15:04:32	SHEET NO.	: 1 OF 2

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PRESSURE SAFETY VALVE (PSV)
PILOT OPERATED SAFETY VALVE (POSV)

CONSTRUCTION DETAILS - PSV SPECIFIC:

%	250	BONNET TYPE	: CLOSED	%	253	LEVER TYPE	: N/A
%	251	CAP	: YES		254	GAG	: NO
%	252	LEVER	: NO				

MATERIALS:

	320	ITEM	: CLASS/SPECIFICATION			ITEM	: CLASS/SPECIFICATION
%	321	BODY	: CS	%	330	GUIDE	: 316SS
%	322	BONNET	: CS	%	331	SPRING	: CS
%	323	PILOT	: N/A	%	332	SPRING CORR. RESIST.	: YES
%	324	WETTED PARTS	: 316SS	%	333	BELLOWS (PSV)	: 316SS
%	325	NOZZLE	: 316SS		334	PISTON/DIAPHRAGM POSV	:
%	326	SEAT	: 316SS		335	TRIM (POSV)	:
	327	SEAT HARDNESS	: : BRINNELL		336	GASKETS	:
%	328	SOFT SEAT	:		337	BOLTS/STUDS	:
%	329	DISK	: 316SS		338	NUTS	:

TESTS AND INSPECTIONS:

	900	ITEM	: REQUIRED OR AMOUNT	:WITNESS			ITEM	: REQUIRED OR AMOUNT	:WITNESS
	901	TEST SPECIFICATION NO.	: *			904	INSPECTION BY	:	
	902	MATERIAL CERTIFICATES	:			905	SPRING ADJUST. SEAL	:	
	903	CERTIFIED TEST REPORTS:							

MANUFACTURER FURNISHED DOCUMENTS & MISCELLANEOUS:

	920	TEST REPORTS	: *		923	PART & MAT'L SPEC LIST	: *	
	921	CAPACITY CURVES	: *		924	TOTAL SHIPPING WEIGHT	: *	: LB
	922	DIMENSIONAL DRAWING	: *		925	RECOMMEND SPARE PARTS	: *	

ADDITIONAL REQUIREMENTS TO MANUFACTURER:

% 1. SUPPLIER SHALL COMPLETE ALL INFORMATION MARKED WITH AN ASTERISK (*).
% 2. N/A = NOT APPLICABLE.
% 3. DOW TAG NUMBER SHALL BE ATTACHED TO THE RELIEF DEVICE.
% 4. ALUMINUM PARTS ARE NOT ALLOWED.
% 5. CONTACT PROCESS ENGINEERING ON ANY CHANGES TO ABOVE SPECIFICATION

ADDITIONAL REQUIREMENTS TO DESIGN ENGINEERING:

% 1. SEND FINAL INSTALLATION DRAWINGS TO PROCESS ENGINEERING FOR RE-CHECK OF ACTUAL PRESSURE DROP VERSUS ESTIMATED.

DESIGNED BY, APPROVAL & REVISION:

	975	PROCESS ENGR DES. BY	: LEBLANC, CL : 7-JUL-92		978	LATEST REV. BY	: :
	976	DESIGN ENGR DES. BY	: :		979	REV. APPROVED BY	: :
	977	APPROVED BY	: :				

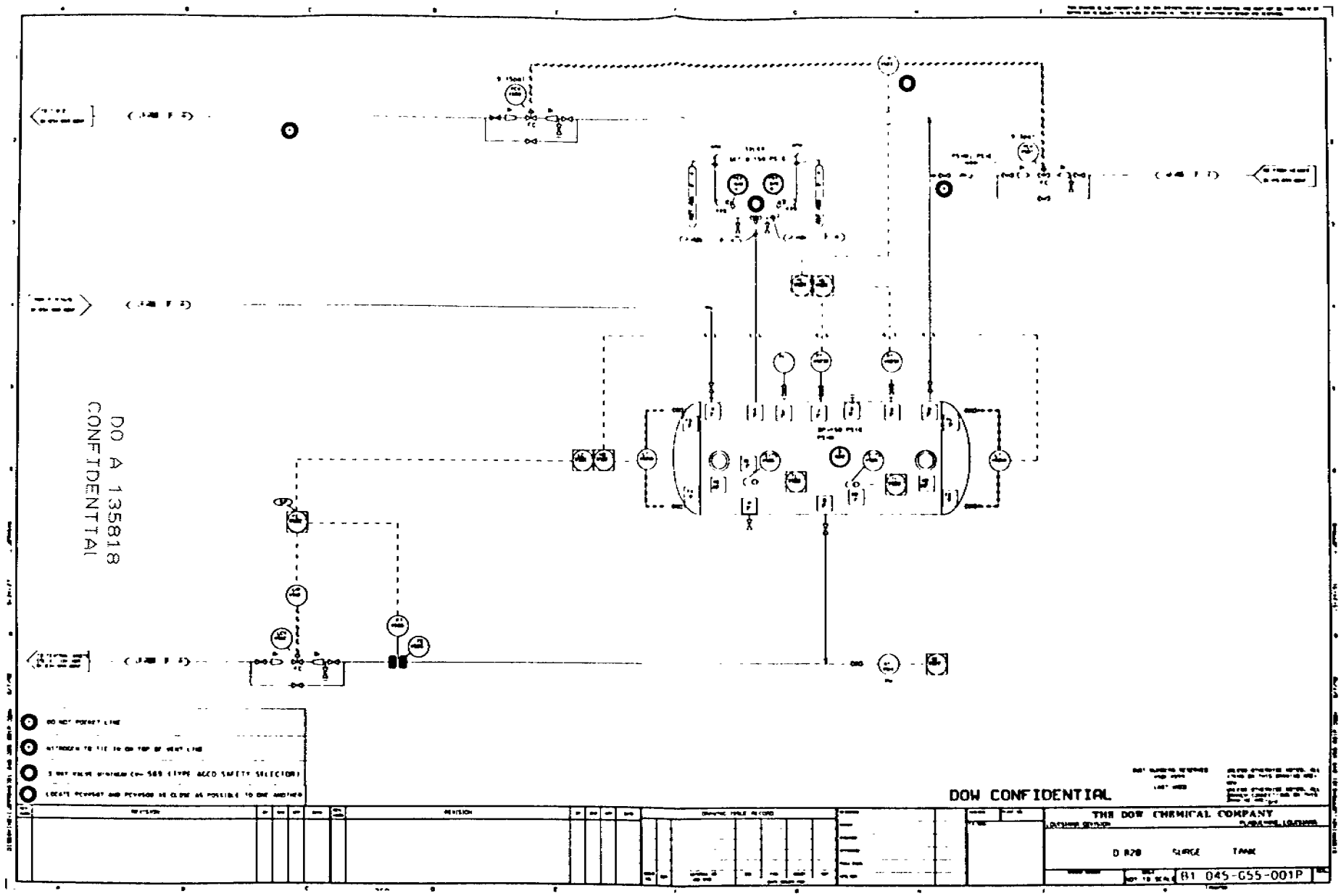
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FILE/JOB NO.	:	TAG NUMBERS	: PSV-820A,B
P.O. NO.	:	TAG NUMBERS	:
LATEST REVISION MARK	:	SPEC/DATA NO.	: A4-PSV820-G55-001
LAST MODIFIED DATE	: 7-AUG-92, 15:04:32	SHEET NO.	: 2 OF 2

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Node: LACSD4 Project name: GLYCOL SURGE TAN Project owner: U099546 Print date: 7-AUG-92

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