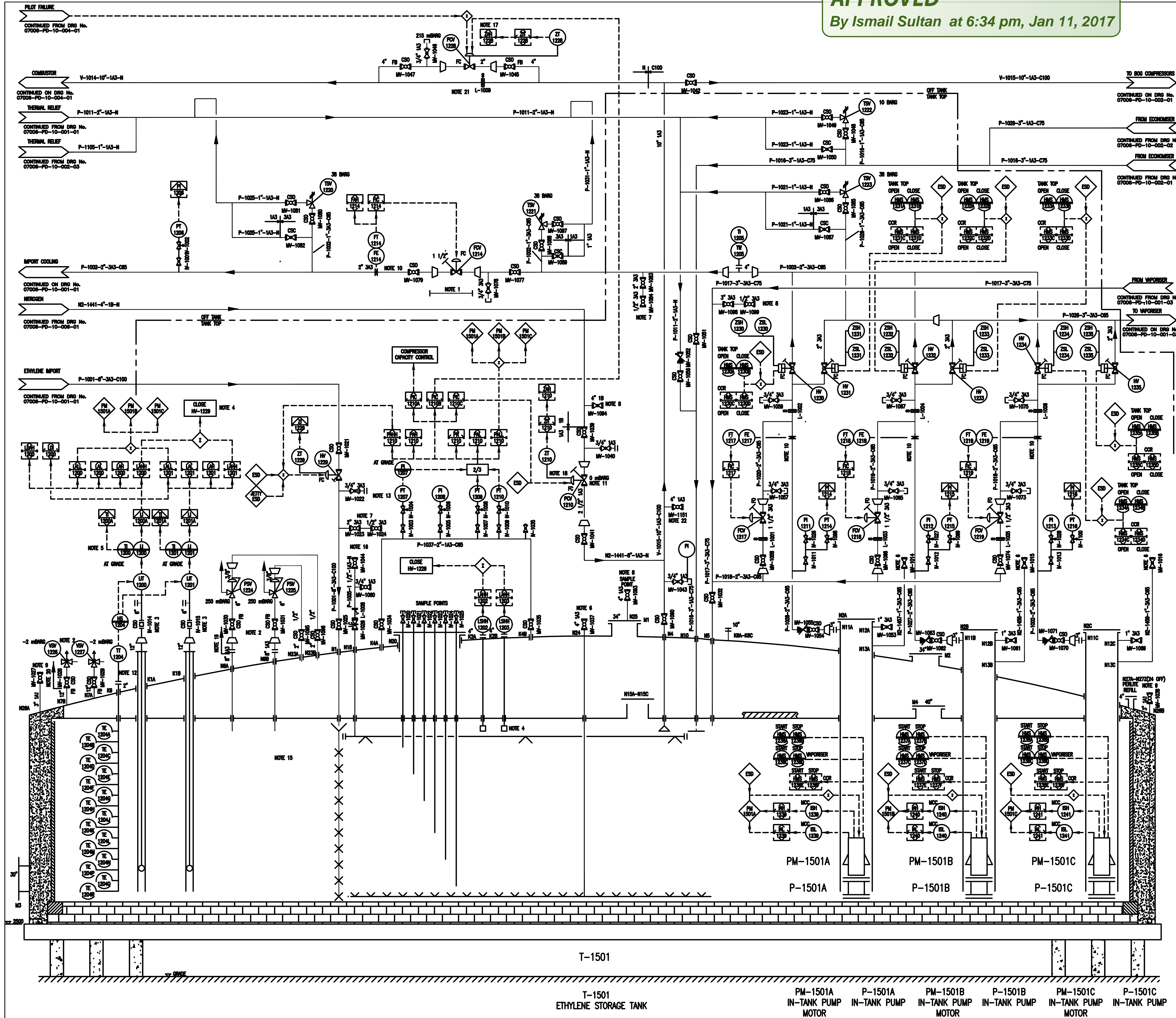


APPROVED

By Ismail Sultan at 6:34 pm, Jan 11, 2017



LEGEND

	PLC BASED INSTRUMENT		LOCAL, PANEL MOUNTED INSTRUMENT
	LOCAL, DIRECT MOUNTED INSTRUMENT		REMOTE MOUNTED INSTRUMENT
	CCR - CENTRAL CONTROL ROOM		MCC - MOTOR CONTROL CENTRE

PROCESS EQUIPMENT TRIP FUNCTION

LINE CLASSES

1A3 :ANSI 150# RATED SYSTEM, A312 Q-304 STAINLESS STEEL, MIN. TEMP. -104°C
3A3 :ANSI 300# RATED SYSTEM, A312 Q-304 STAINLESS STEEL, MIN. TEMP. -104°C
1B :ANSI 150# RATED SYSTEM, A106 Q-B CARBON STEEL, MIN. TEMP. -10°C

GENERAL NOTES

VENIS / TESTING DRAWING TO BE PLACED IN APPROPRIATE POSITIONS BY OTHERS
U/P'S AND REMOTE OPEN/CLOSE FACILITIES PROVIDED FOR ALL CONTROL VALVES
RUNNING AND FAULT INDICATION PROVIDED FOR ALL MOTORS
ALL PSV AND TSV OUTLETS TO CONNECT INTO TOP OF HEADER

NOTES

- TEMPORARY SPOOL PIECE FOR COMMISSIONING PURPOSES WHICH REPLACES PCV-1214.
- TO ENSURE ONE RELIEF VALVE IS ALWAYS IN SERVICE, ONE RELIEF VALVE IN SERVICE, ONE RELIEF ON STANDBY.
- LEVEL INDICATORS OPERATED BY SERVO ACTION.
- LSHM SET AS PER DOCUMENT NUMBER 07006-TM-20-008-00.
- LIQUID AVERAGE TEMPERATURE FROM KEYPAD DISPLAY ON EITHER LI-1200 OR LI-1201 VIA SELECTOR SWITCH.
- TEMPORARY CONNECTION FOR PURGING / GASSING UP. VENT TO SAFE PLACE.
- TEMPORARY CONNECTION FOR COOLDOWN.
- TEMPORARY LINE TO VENT FOR PURGING / GASSING UP WITH FACILITY FOR SAMPLING.
- PERLUKE PURGING VENT & RING.
- MINIMUM UPSTREAM STRAIGHT PIPING WITH NO FITTINGS OF 100, MINIMUM DOWNSTREAM PIPING WITH NO FITTINGS OF 50.
- PCV-1210 TO BE TIGHT SHUT-OFF.
- TEMPERATURE INDICATOR TO BE INSTALLED IN DRY STILLING WELL.
- MAINTENANCE SWITCH PROVIDED TO ALLOW REMOVAL OF PRESSURE TRANSMITTER.
- NOT USED.
- TANK DETENTION ALARM FOR RATE OF FILLING OF ETHYLENE TANK SUPPLIED AS PART OF PLC.
- TEMPORARY CONNECTION FOR COOLDOWN / COMMISSIONING.
- ALARM TO ACTIVATE IF PCV-1228 IS OPEN WHEN TANK PRESSURE LESS THAN 215 mBARG.
- ALARM TO ACTIVATE IF PCV-1210 IS OPEN WHEN TANK PRESSURE IS MORE THAN 0 mBARG.
- ENVIL TO CONFIRM SETUP & SIZE OF PSV-1224 & PSV-1225.
- ENVIL TO CONFIRM SETUP & SIZE OF VSM-1226 & VSM-1227.
- SPECTACLE BLIND 10" FOR COMMISSIONING PURPOSES WHICH BY-PASSES PCV-12.
- TEMPORARY HOSE CONNECTION FOR COMMISSIONING PURPOSES.

DESIGN DATA					
ITEM No	SERVICE	INNER D X OUTER D (mm)	DESIGN PRESSURE (mbar g)	DESIGN PRESSURE (mbar a)	OPER. TEMP. (mbar a) (°C)
T-1501	ETHYLENE STORAGE TANK	30,000 X 32,000	18,180 X 21,140	250	90 to 200 (-103 to 101)
ITEM No	SERVICE	RATED CAPACITY (m³/hr)	DIFFERENTIAL HEAD (m)	MAXIMUM DIFFERENTIAL HEAD (m)	OPERATING TEMPERATURE (°C)
P-1501 A/B/C	IN-TANK PUMP	20	434	460	-102

08	22/12/16	ADDED PI	MHS	SMM	IS
07		AS BUILT (CR-088)	JS		
06	04/11/08	UPDATED TO CLIENTS COMMENTS (CR-076)	JS	LUC	AGS
05	12/09/08	N2-1459 WAS N2-1468, ADD L-1008, NOTE 21 & MV-1151 AND ELECTRICAL CABLING MODIFIED (CR-069)	JS	JM	MH
04	26/06/08	APPROVED FOR CONSTRUCTION (CR-035 & CR-041)	JS	LUC	AGS
03	17/03/08	APPROVED FOR CONSTRUCTION (CR-027 AND CR-032)	JS	LUC	MH
02	20/12/07	PROCESS ECONOMISER LINES JOIN OFF TANK, THERMOWELL PIPE SECTION INCREASED AND UPDATED TO CLIENTS COMMENTS (CR-008 & 015)	JS	AGS	AGS
01	19/10/07	POST DESIGN REVIEW / HAZOP (CR-002)	JS	LUC	MH
00	20/07/07	FOR DESIGN REVIEW / HAZOP	JS	LC	AJS
REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPR.

CLIENT



ENGRO VOPAK TERMINAL LIMITED

PROJECT

ETHYLENE STORAGE AND HANDLING FACILITY
KARACHI, PAKISTAN

Excellent
Engineering
Solutions

WEIR LGE PROCESS



Young House
42 Discovery Terrace
Edinburgh EH14 4AP
Scotland U.K.
Tel. : +44(0)131 317 8787
Fax : +44(0)131 452 3333
E-mail : info@lgeprocess.com

TITLE

P&I Diagram
ETHYLENE STORAGE TANK

DRAWING No.	REV.	NEXT SHEET	SCALE	SIZE
07006-PD-10-001-02	08	03	NTS	A1

THIS DOCUMENT IS CONFIDENTIAL. ALL RIGHTS RESERVED. COPYRIGHT © LIQUID GAS EQUIPMENT LTD.
DISTRIBUTION, COPYING OR RETENTION OF THIS DRAWING, WHETHER IN WHOLE OR IN PART AND IRRESPECTIVE OF THE TYPE OF MEDIA ON WHICH IS HELD OR TRANSMITTED, IS PROHIBITED EXCEPT WITH OUR EXPRESS PRIOR WRITTEN CONSENT.