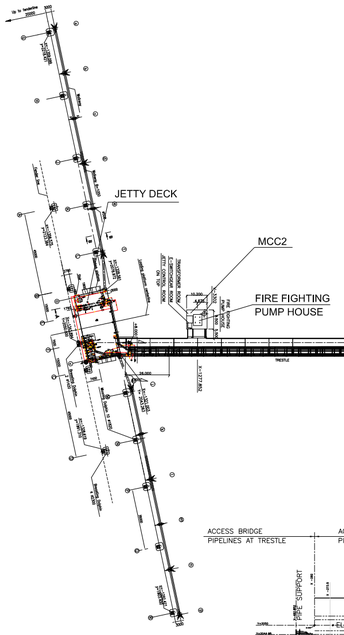
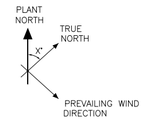
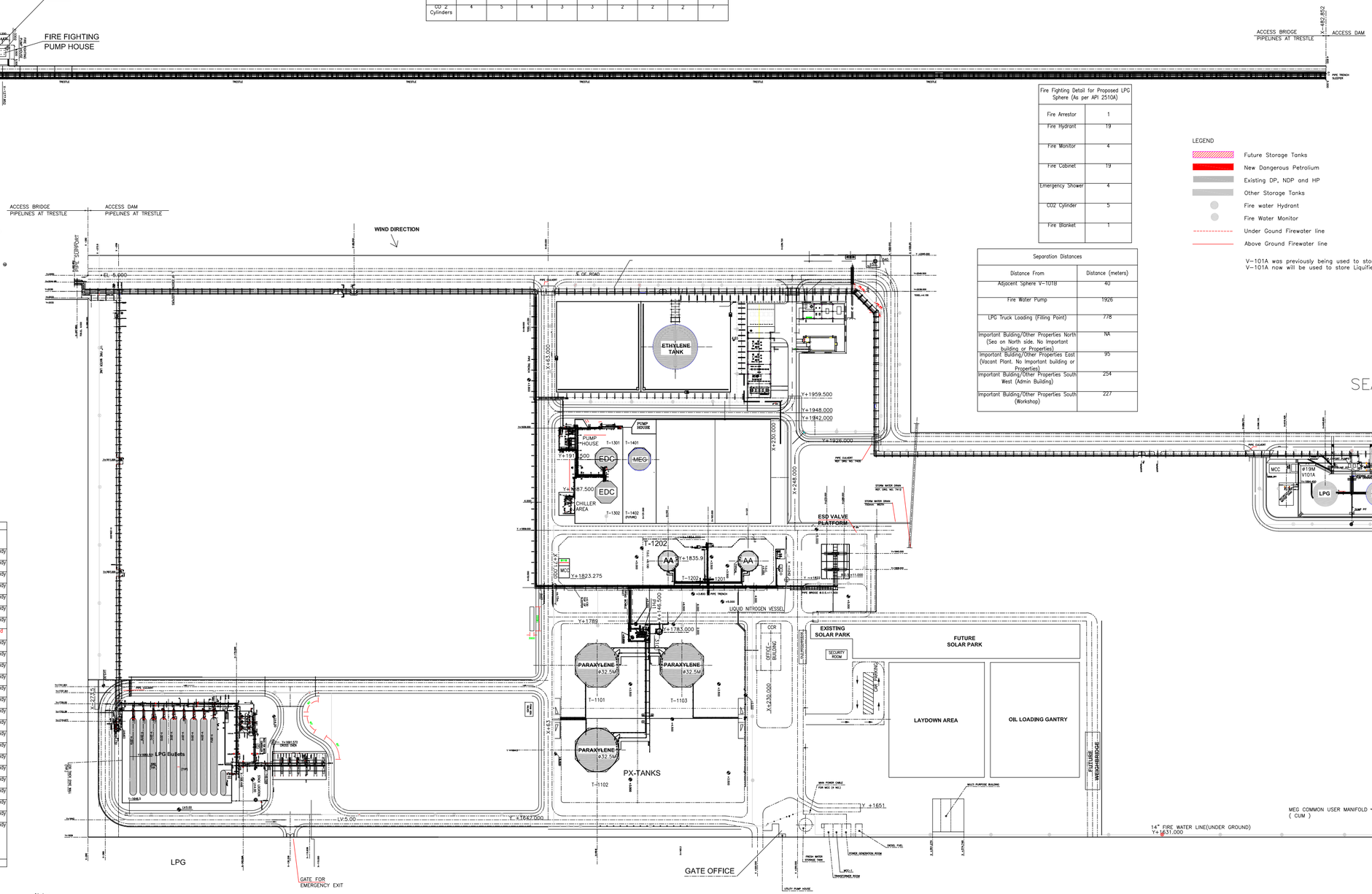
Fire Fighting Equipments List										
	Liquified Petrolium Gas	Vinyl Chloride Monomer	Paraxylene	Jetty Head/Trustle	Acetic Acid	Warehouse/ Workshop	Acrylnitrile	Mono Ethylene Glycol	Ethylene
Fire Arrestor	1	1	0	1	0	0	0	0	0
Fire Hydrant	11	19	16	16	2	3	6	0	12
Fire Monitor	8	4	6	2	2	3	3	3	3
Fire Cabinet	11	19	15	16	3	3	9	0	9
Fire Blanket	1	2	1	2	1	10	2	1	2
Emergency Shower	3	4	3	2	3	2	3	3	3
Foam Generator	0	0	6	0	2	0	0	1	0
Fire Truck	0	0	0	0	0	1	0	0	0
CO 2 Cylinders	4	5	4	3	3	2	2	2	7







Fire Fighting Detail for Proposed LPG Sphere (As per API 2510A)	
Fire Arrestor	1
Fire Hydrant	19
Fire Monitor	4
Fire Cabinet	19
Emergency Shower	4
CO2 Cylinder	5
Fire Blanket	1

LEGEND

- Future Storage Tanks
- New Dangerous Petrolium
- Existing DP, NDP and HP
- Other Storage Tanks
- Fire water Hydrant
- Fire Water Monitor
- Under Gound Firewater line
- Above Ground Firewater line

V-101A was previously being used to store Vinyl Chloride Monomer, quantity = 3,750,000 liters
V-101A now will be used to store Liquified Petrolium Gas, quantity = 3,750,000 liters

Separation Distances	
Distance From	Distance (meters)
Adjacent Sphere V-101B	40
Fire Water Pump	1926
LPG Truck Loading (Filling Point)	778
Important Building/Other Properties North (Sea on North side. No Important building or Properties)	NA
Important Building/Other Properties East (Vacant Plant. No Important building or Properties)	95
Important Building/Other Properties South West (Admin Building)	254
Important Building/Other Properties South (Workshop)	227

S No	Tank ID	Dimensions	Total Capacity (liters)	Product	Type	Material	Design Standard	REMARKS
1	T-1101	32.5m dia X 14.64m high	12,000,000	PARAXYLENE	Cylindrical	CS	API-650	License Already Issued
2	T-1102	32.5m dia X 14.6m high	12,000,000	PARAXYLENE	Cylindrical	CS	API-650	License Already Issued
3	T-1103	32.5m dia X 14.6m high	12,000,000	PARAXYLENE	Cylindrical	CS	API-650	License Already Issued
4	T-1010	2.5m Dia x 4.6m high	20,000	DIESEL	Cylindrical	CS	DIN 6600	License Already Issued
5	T-1011	2.5m Dia x 4.6m high	20,000	DIESEL	Cylindrical	CS	DIN 6600	License Already Issued
6	T-1012	2.5m Dia x 4.6m high	20,000	DIESEL	Cylindrical	CS	DIN 6600	License Already Issued
7	T-1013	2.5m Dia x 4.6m high	20,000	DIESEL	Cylindrical	CS	DIN 6600	License Already Issued
8	V-101A	20m dia	3,750,000	Liquefied Petrolium Gas	Above Ground Sphere	CS	AD-MARK BLATT	LPG Handled
9	V-101B	20m dia	3,750,000	Vinyl Chloride Monomer	Above Ground Sphere	CS	AD-MARK BLATT	License Already Issued
10	V-201A	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
11	V-201B	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
12	V-201C	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
13	V-201D	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
14	V-201E	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
15	V-201F	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
16	V-201G	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
17	V-201H	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
18	V-201J	5m dia x 58.2m long	1,100,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
19	V-202A	4m dia x 18.84m long	200,000	Liquefied Petrolium Gas	Mounded Pressure Vessel	CS	AD-MARK BLATT	License Already Issued
20	T-1201	15m dia X 14.6m	2,500,000	Acetic Acid	Cylindrical	SS	API-650	License Already Issued
21	T-1202	15m dia X 14.6m	2,500,000	Acetic Acid	Cylindrical	SS	API-650	License Already Issued
22	T-1301	16.5m dia x 15m	3,200,000	Acrylonitrile	Cylindrical	CS	API-620	License Already Issued
23	T-1302	16.5m dia x 15m	3,200,000	Acrylonitrile	Cylindrical	CS	API-620	License Already Issued
24	T-1401	16.5m dia x 18.8m	4,000,000	Mono Ethylene Glycol	Cylindrical	CS, Epoxy Coating	API-650	License Already Issued
25	T-1501	Inner Tank: 30.6m dia x 19.2m high, Outer tank: 32.6m dia x 26.4m high	13,412,000	Ethylene	Double Walled Cylindrical	Outer Tank CS, Inner Tank SS	API-620	License Already Issued

Notes
1. Typical distance between fire water hydrant/monitor on land is 50m while on trestle is 100m
2. Fixed FW monitors are provided in order to cover maximum area for potential hazard
3. Trolley mounted monitors have been provided in LPG and VCM aresas
4. Mobile fire truck and foam tender are kept within the terminal to deal with emergencies
5. Remotely monitored gas detectors with alarm are provided to monitor and leakage in various facilities
6. Remotely monitored fire detectors with alarm are provided to monitor and smoke in confined areas
7. Emergency shutdown system with switches in all strategic location is provided to deal with Emergencies
8. All above ground product tanks are provided with deluge spray and foam injection systems
9. Truck loading bays are provided with sprinkler system.
10. ALL DISTANCES COMPLY WITH NFPA 58 AND DEPARTMENT OF EXPLOSIVE'S REQUIREMENTS

NUMBER	REFERENCE DRAWINGS	REVISIONS NO.	REVISIONS A.F.E.	DATE (dd/mm/yy)	DESCRIPTION OF WORK DONE	DR. / CHK.	APPR.
		0	–	21/05/12	Addition of Fire Hydrants and Fire Monitors	MHS / ZMS	
		1	–	27/05/12	Addition of Fire fighting equipments	MHS / ZMS	
		2	–	10/05/18	Addition of Future Storage Tanks	MHS / MQ	

ENGRO VOPAK TERMINAL LTD

GENERAL LAYOUT

DATE	SCALE	DWG. NO.	REV.
10/05/18	NTS	GEN-P-LA-0000-000	2