

**F-602**  
GLYCOL PARTICULATE FILTER

**P-500/P501**  
GLYCOL PUMPS

**V-500**  
ABSORBER

**E-500**  
GAS/GLYCOL EXCHANGER

**V-503**  
FUEL GAS SCRUBBER

**H-600/TK-500**  
GLYCOL REBOILER/ACCUMULATOR

**E-601**  
AIR/GLYCOL EXCHANGER

SIZE: 610mm (24") O.D. X 7925mm (312") S/S  
DESIGN PRESSURE: 984 kPa (142.5 psig) @ 54C (130F)  
# OF INCHES: 6

TYPE: DOUBLE PIPE  
SIZE: 152mm (6") NPS OUTER PIPE  
AND 76.2mm (3") NPS INNER PIPE  
DESIGN PRESSURE: 984 kPa (142.5 psig) @ 54C (130F)

TYPE: DOUBLE PIPE  
SIZE: 254mm (10") X 990mm (39") LONG  
DESIGN PRESSURE: 1034 kPa (150 psig) @ 65C (150F)

TYPE: FIN TUBE  
SIZE: 254mm (10") NPS X 3048mm (100') LONG  
REBOILER DUTY: 73 MW (24,000 Btu/Hr)

TYPE: FIN TUBE  
SIZE: 254mm (10") NPS X 3048mm (100') LONG  
REBOILER DUTY: 73 MW (24,000 Btu/Hr)

EXHAUST FANS  
MOTOR: 0.19 kW (1/4hp)  
288V/3Ph/60Hz

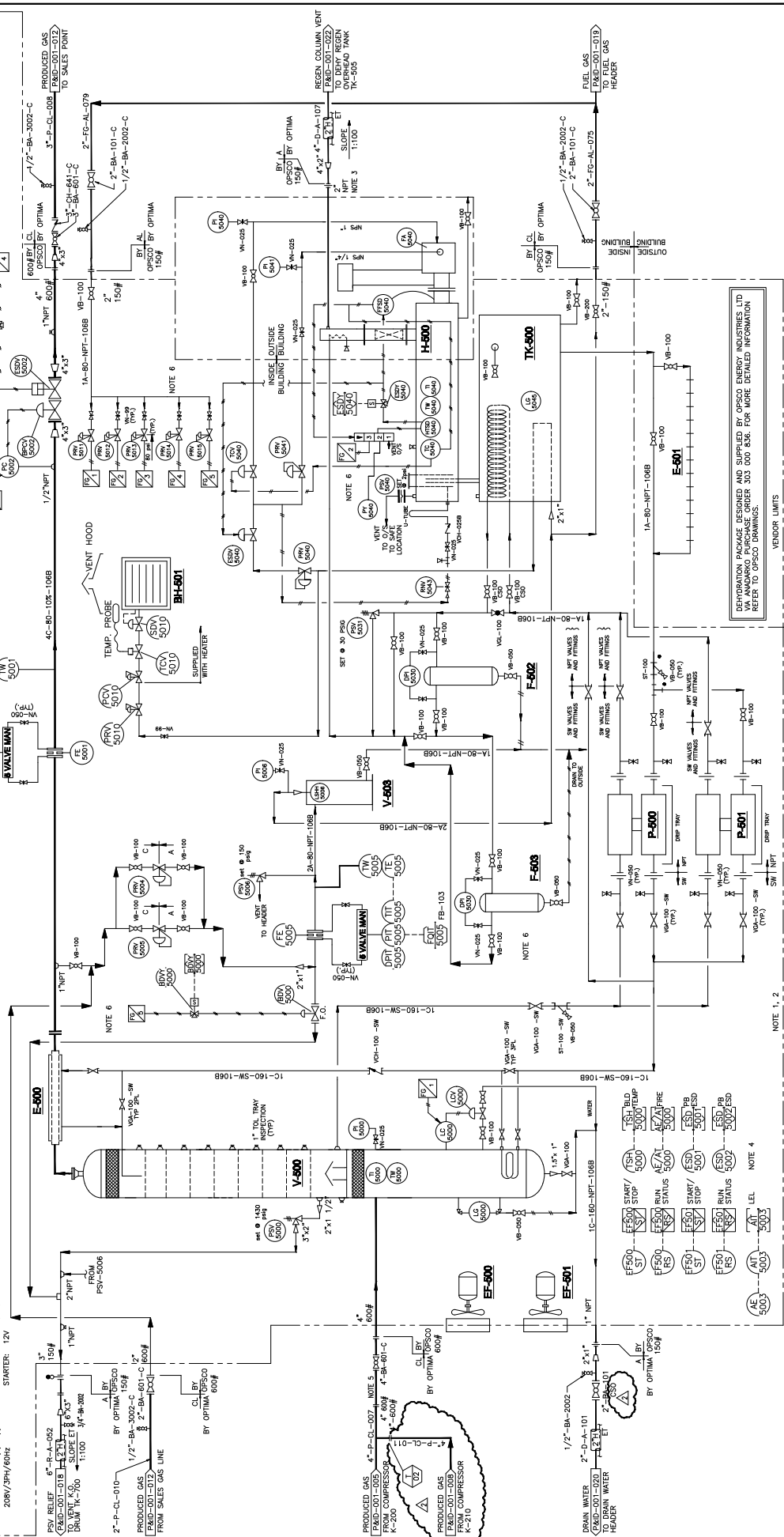
GLYCOL CHARCOAL FILTER

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TO DEHY REGEN  
TK-500

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REVISIONS

NO.	DESCRIPTION	DATE	CHKD	APP'D
0	ISSUED FOR CONSTRUCTION (OPTIMA PROJECT #24220)	JAN 05.01.14	PP	RT
1	AS RECORDED (OPTIMA PROJECT #24220)	MAR 05.04.04		
2	ISSUED FOR CONSTRUCTION (OPTIMA PROJECT #25155)	RSP 06.01.17		

NOTES:

- OPTIMA STAMP/PERMIT APPLIES TO EQUIPMENT OUTSIDE OF VENDOR LIMITS.
- ANDARKO TO CONFIRM THAT ALL INSTRUMENTATION IS WENT TO OUTSIDE OF BUILDING TO A SAFE LOCATION.
- ANDARKO TO CONFIRM SIZE OF REGENERATOR OVERHEAD CONNECTION.
- INSTRUMENTATION AND CONTROL BY ANDARKO.
- REMOVABLE SPOOL PIECE FOR POSSIBLE FUTURE CYCLONE SEPARATOR.
- MODIFICATIONS AND INSTRUMENTATION, SHOWN IN CLOUDS, TO BE DESIGNED AND FIELD INSTALLED BY ANDARKO.

ENGINEERING STAMP AND PERMIT

SCALE	NTS	DATE	04.10.05
DRAWN BY	JAH	CHECKED	
APPROVED			

INSIDE OUTSIDE BUILDING BUILDING INSIDE BUILDING INSIDE

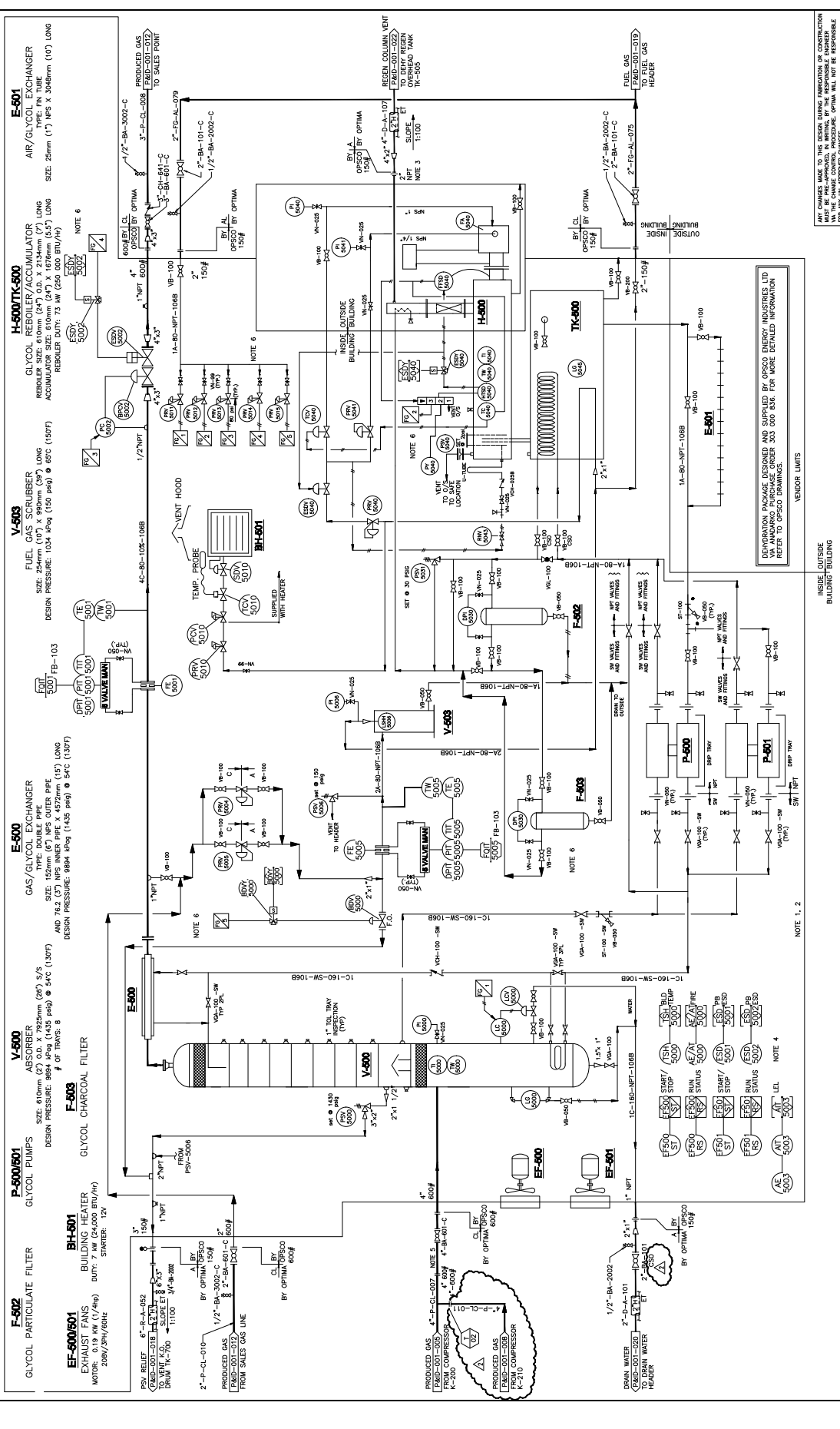
REGENERATION PACKAGE DESIGNED AND SUPPLIED BY OPSCO ENERGY INDUSTRIES LTD VIA ANDARKO PURCHASE ORDER 203 000 836. FOR MORE DETAILED INFORMATION REFER TO OPSCO DRAWINGS.

VENDOR LIMITS

ANY CHANGES MADE TO THIS DESIGN DURING FABRICATION OR CONSTRUCTION MUST BE PRE-APPROVED IN WRITING BY THE RESPONSIBLE ENGINEER. UNLESS OTHERWISE SPECIFIED, ANDARKO WILL NOT BE RESPONSIBLE FOR ANY UN-APPROVED CHANGES.

CRANE LAKE NORTH  
LSD 09-05-15-23 W3M  
DEHYDRATION  
P&ID

FRF0905-220-0008



**F-502**  
GLYCOL PARTICULATE FILTER  
GLYCOL PUMPS  
P-500/501

**E-500**  
GAS/GLYCOL EXCHANGER  
TYPE: DOUBLE PIPE  
SIZE: 152mm (6") I.D. X 152mm (6") O.D. X 1.52m (5') LONG  
DESIGN PRESSURE: 894 kPa (14.5 psig) @ 54°C (130°F)  
# OF TRAYS: 6

**V-500**  
ABSORBER  
SIZE: 610mm (24") O.D. X 7925mm (260') S/S  
DESIGN PRESSURE: 894 kPa (14.5 psig) @ 54°C (130°F)  
# OF TRAYS: 6

**F-503**  
GLYCOL CHARCOAL FILTER  
EXHAUST FANS  
EF-500/501  
MOTOR: 208V/3PH/60Hz  
STARTER: 12V

**BH-501**  
BUILDING HEATERS  
DUTY: 1.0 (100%)  
STARTER: 12V

**V-503**  
FUEL GAS SCRUBBER  
SIZE: 244mm (10") X 990mm (39") LONG  
DESIGN PRESSURE: 1034 kPa (150 psig) @ 65°C (150°F)  
REBOILER: 75 kW (205,000 BTU/H)

**H-500/TK-500**  
GLYCOL REBOILER/ACCUMULATOR  
REBOILER SIZE: 610mm (24") O.D. X 2134mm (7') LONG  
ACCUMULATOR SIZE: 610mm (24") O.D. X 1676mm (5.5') LONG  
REBOILER: 75 kW (205,000 BTU/H)

**E-501**  
AIR/GLYCOL EXCHANGER  
TYPE: FM TUBE  
SIZE: 254mm (10") I.D. X 3048mm (100') LONG

ANY CHANGES MADE TO THIS DESIGN DURING FABRICATION OR CONSTRUCTION MUST BE PRE-APPROVED IN WRITING BY THE RESPONSIBLE ENGINEER FOR ANY UN-APPROVED CHANGES.

DEHYDRATION PACKAGE DESIGNED AND SUPPLIED BY OPSCO ENERGY INDUSTRIES LTD. REFER TO OPSCO DRAWINGS.

INSIDE OUTSIDE BUILDING BUILDING

ENGINEERING STAMP AND PERMIT

DESIGNED BY: JAH  
DATE: 04.10.06  
SCALE: NTS  
CHECKED: APPROVED: FRF0805-220-0008

CRANE LAKE NORTH  
LSD 09-05-15-23 W3M  
DEHYDRATION  
P&ID

FRF0805-220-0008

02-04-P&ID-001-011

REVISIONS

NO.	DATE	DESCRIPTION
0	JAH 08.01.14	ISSUED FOR CONSTRUCTION (OPTIMA PROJECT #24220)
1	MW 06.04.04	AS RECORDED (OPTIMA PROJECT #24220)
2	RSP 06.01.17	ISSUED FOR CONSTRUCTION (OPTIMA PROJECT #25195)

NOTES:

- OPTIMA STAMP/PERMIT APPLIES TO EQUIPMENT OUTSIDE OF VENDOR LIMITS.
- AMARKO TO CONFIRM THAT ALL INSTRUMENTATION IS VENTED TO OUTSIDE OF BUILDING TO A SAFE LOCATION.
- AMARKO TO CONFIRM SIZE OF REGENERATOR OVERHEAD CONNECTION.
- INSTRUMENTATION AND CONTROL BY AMARKO.
- REMOVABLE SPOOL PIECE FOR POSSIBLE FUTURE CYCLOSEPARATOR.
- MODIFICATIONS AND INSTRUMENTATION, SHOWN IN CLOUDS, TO BE DESIGNED AND FIELD INSTALLED BY AMARKO.