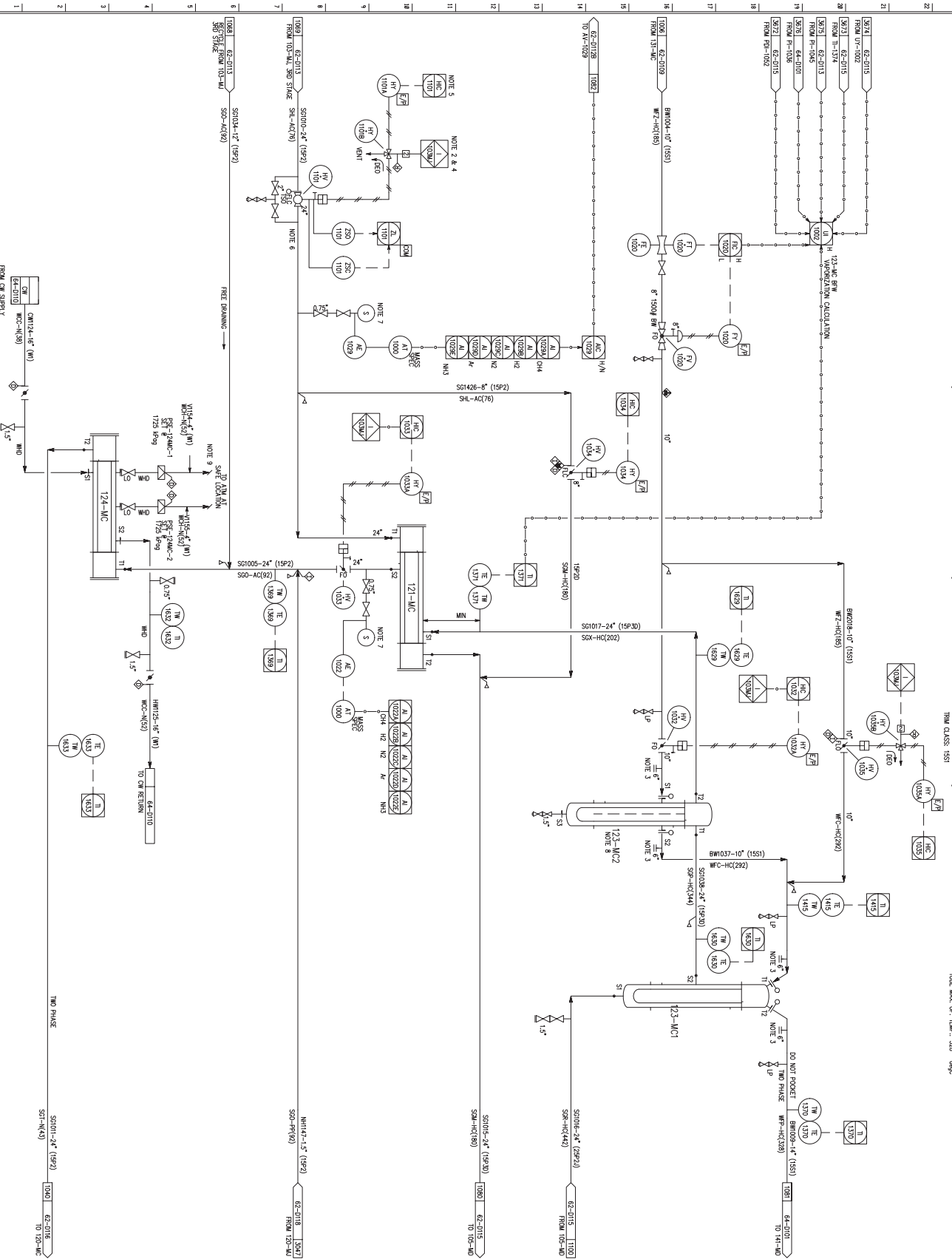


124-MC
AMMONIA CONV. EFF. COOLER
SHELL DES. PRES.: 1725 PSIG
SHELL MAX. OP. TEMP.: 1650 F/904 degC
TUBE DES. PRES.: 1650 PSIG
TUBE MAX. OP. TEMP.: 92 degC

121-MC
AMMONIA CONV./EFF. EXCHANGER
SHELL DES. PRES.: 1650 PSIG
SHELL MAX. OP. TEMP.: 1650 F/904 degC
TUBE DES. PRES.: 1650 PSIG
TUBE MAX. OP. TEMP.: 240 degC

123-MC2
AMMONIA CONV. EFF. BW PREHEAT EXCH.
SHELL DES. PRES.: 1650 PSIG
SHELL MAX. OP. TEMP.: 1650 F/904 degC
TUBE DES. PRES.: 1650 PSIG
TUBE MAX. OP. TEMP.: 344 degC

123-MC1
AMMONIA CONV. EFF./ST/RAW GENERATOR
SHELL DES. PRES.: 1650 PSIG
SHELL MAX. OP. TEMP.: 1650 F/904 degC
TUBE DES. PRES.: 1650 PSIG
TUBE MAX. OP. TEMP.: 328 degC

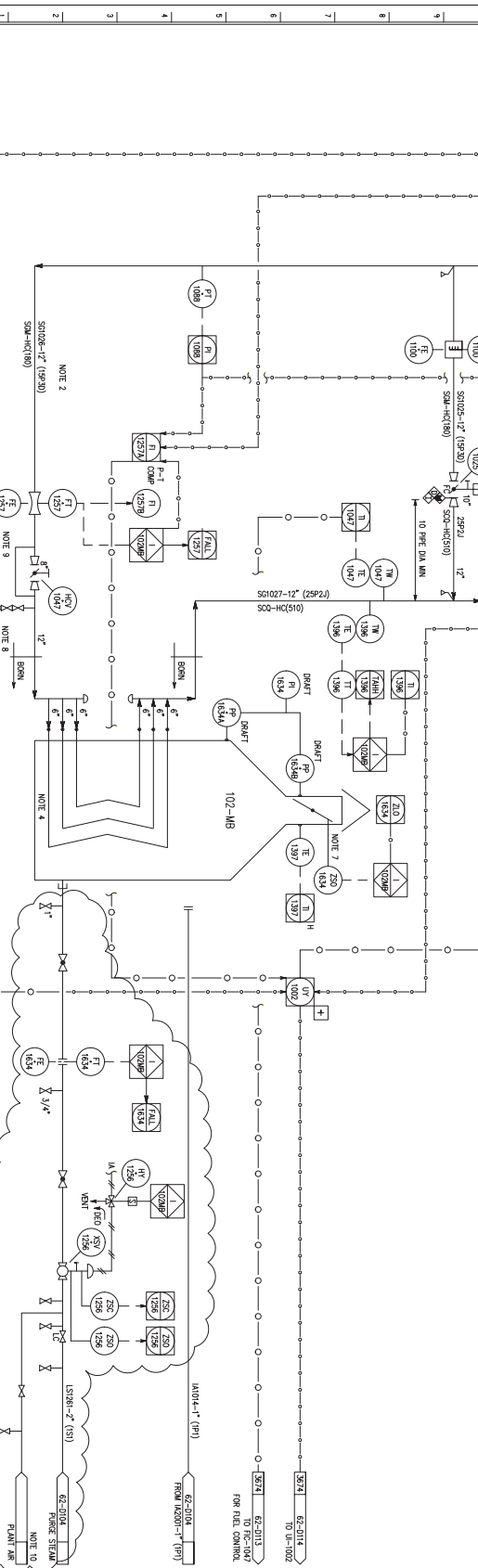
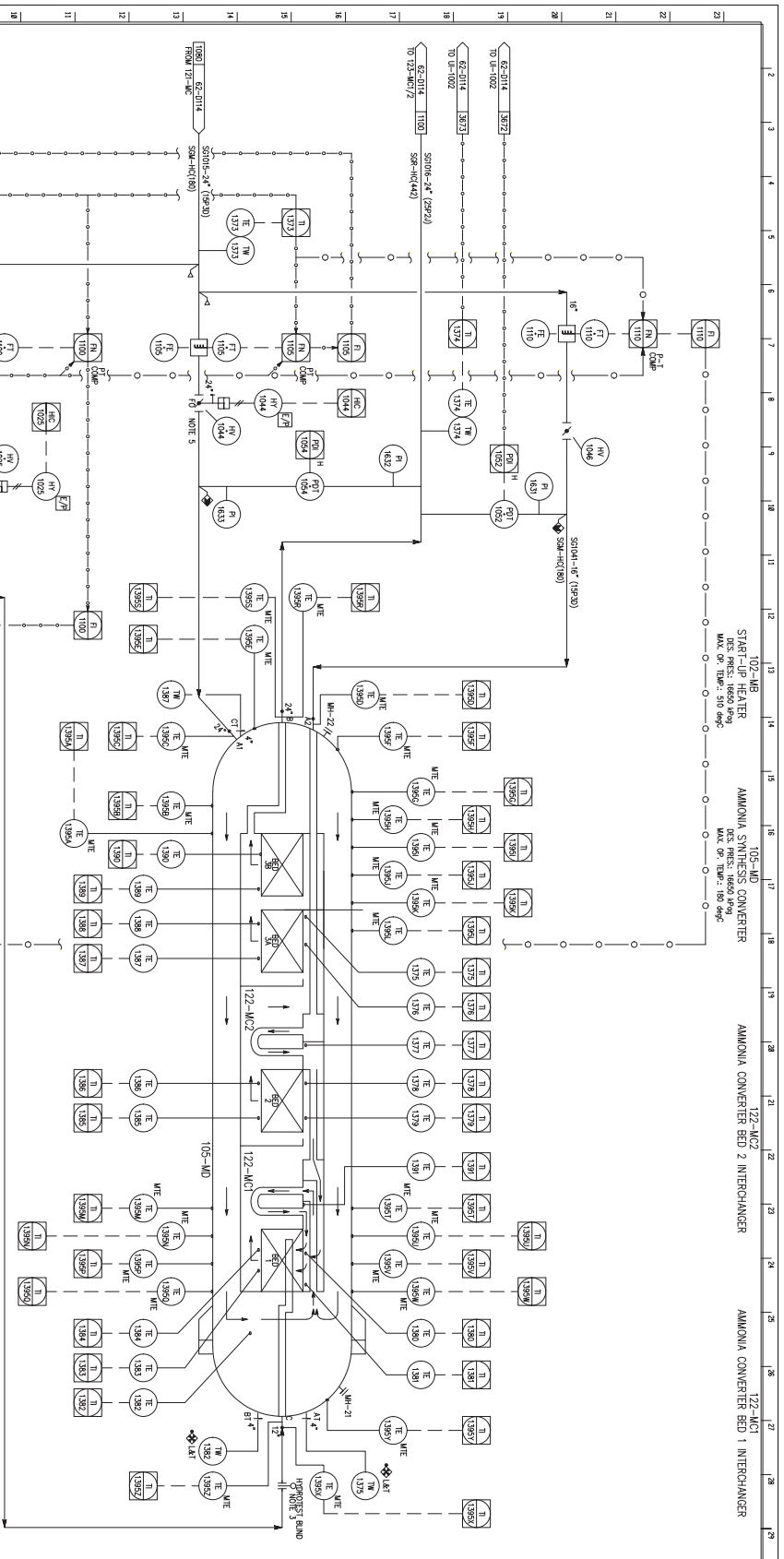


NOTES:

- For General Notes and Symbols see Drawing 62-D1001, 62-D2002, 62-D2003, 62-D3004 & 62-D3004.
- Refer to Cause and Effect Diagrams 62-D118 & 62-D119 for details.
- Chemical cleaning connection. Locate minimum distance from blind or flange.
- HV-1101 to close in high level in ammonia separator 148-MD.
- HV-1101 DCS position input to be reset to zero after trip of 103-MV.
- HV-1101 normally to be fully open.
- For sample cooler details see P&ID 62-D103.
- See 30103.1
- No final fluid welds are to be done after chemical cleaning of 123-MC2.
- To be worked at SH above the nearest platform at stated location.

NO.	REVISION	DATE	BY	CHKD.	DESCRIPTION
1	AS SHOWN	10/1/80	WJ	WJ	Initial Issue
2	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
3	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
4	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
5	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
6	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
7	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
8	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
9	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
10	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
11	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101
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100	REVISED	10/1/80	WJ	WJ	Revised Notes to include HV-1101

Ammonia Converter Feed / Effluent Exchangers Piping & Instrumentation Diagram



Notes:

- For General Notes and Symbols see Drawing 62-D001, 62-D002, 62-D003, 62-D003A & 62-D004.
- Refer to Cause and Effect Diagrams 62-D118 & 62-D119 for details.
- Locate blind so that 105-MD head can be removed.
- For Fuel drawing see 62-D113. For fuel gas piping & controls see drawing 62-D113.
- HV-1004 to have disc cut to allow a flow of 45,000 lb/hr to pass through HV-1004 @ a differential pressure of 500 PSI.
- Devised
- Provide mechanical stop on start-up heater dumper.
- Hose connection is a provision for N2 purging as and when required.
- Normally closed, open for start-up only.
- Plant air used as purge medium.

Ammonia Synthesis Converter Piping & Instrumentation Diagram

NO.	REVISION	DATE	BY	CHKD.	APP'D.	DESCRIPTION
1	AS SHOWN	10-1-02