

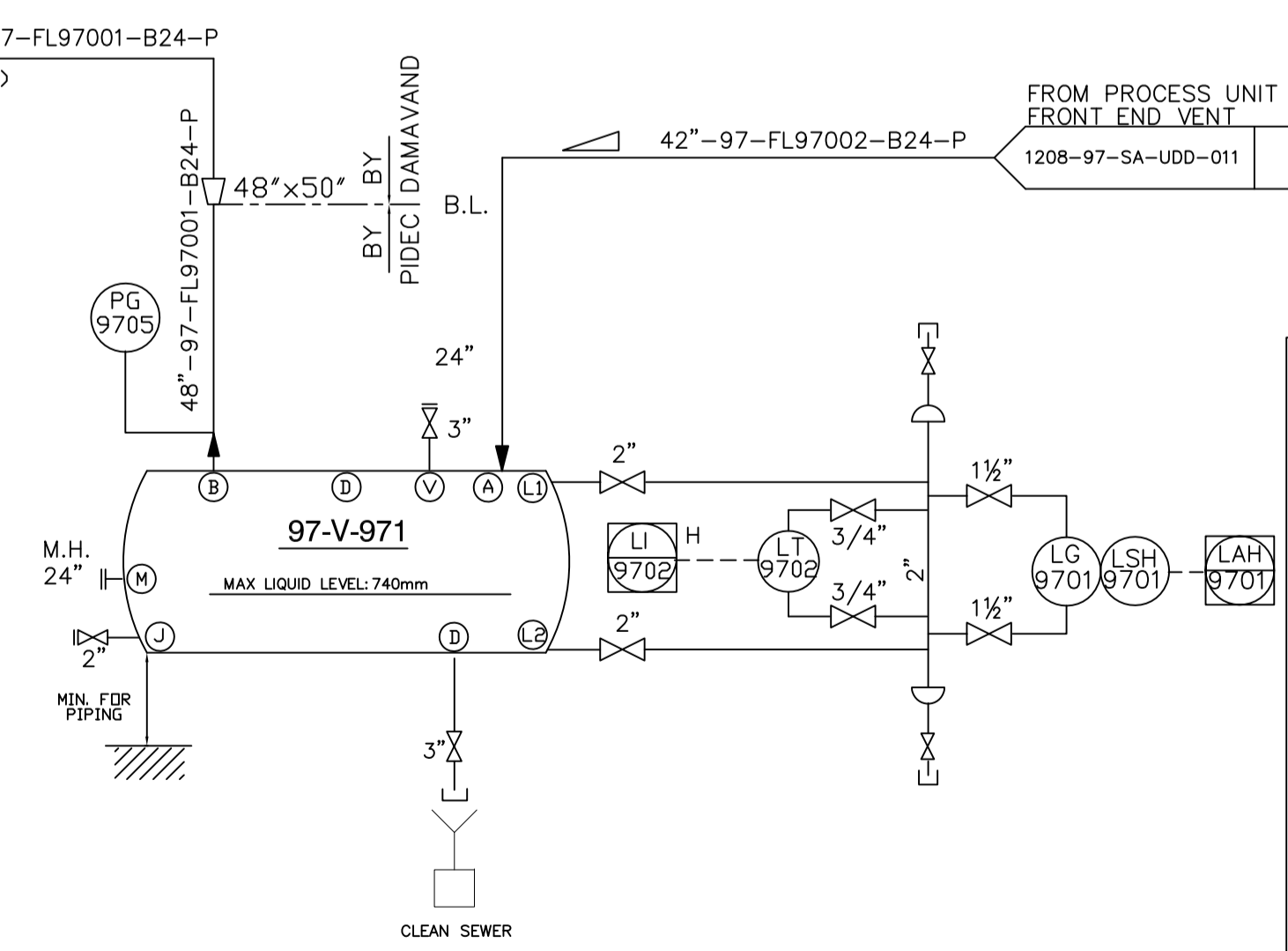
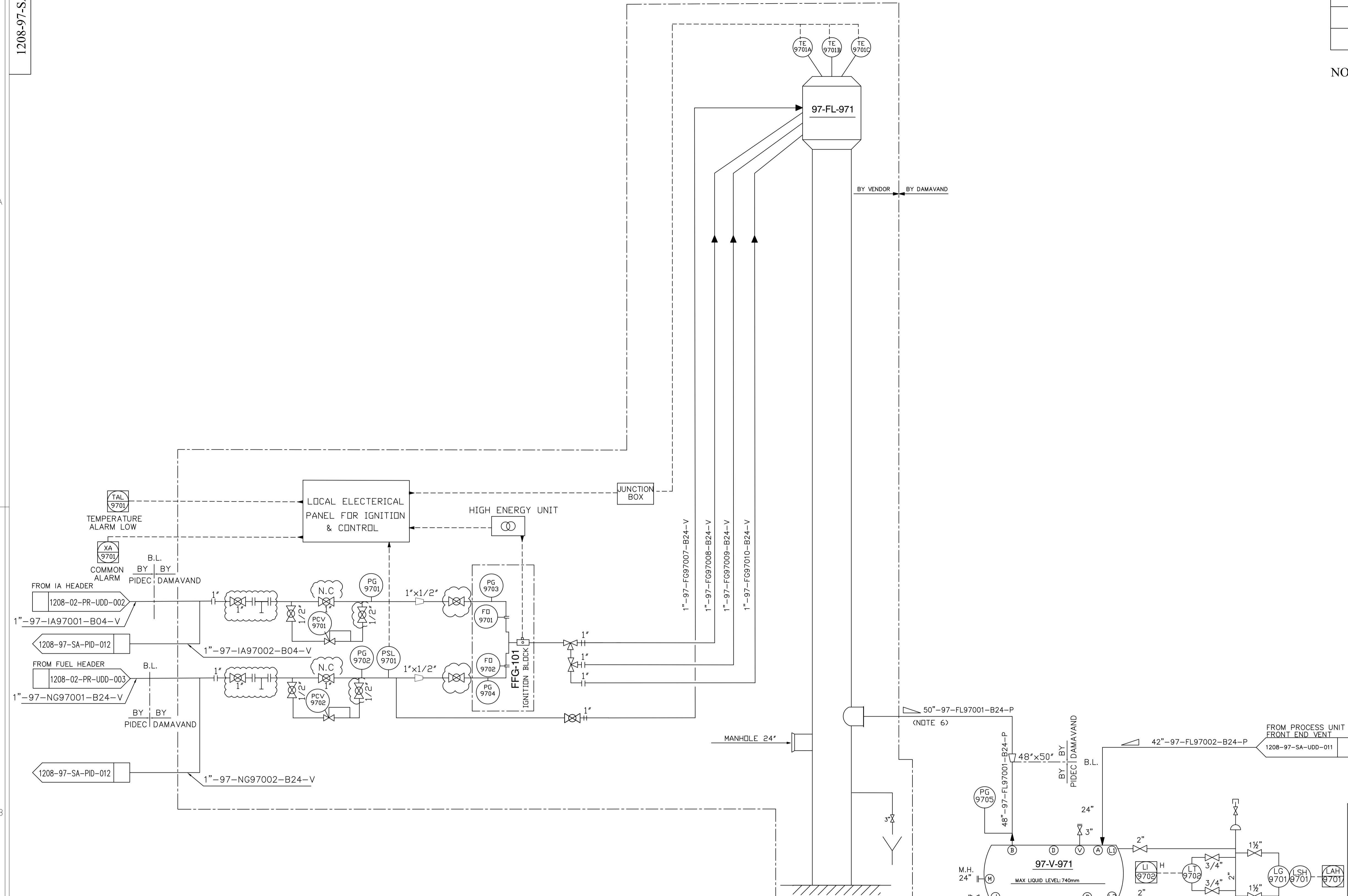
REFERENCE DRAWING	DWG. NO.

97-V-971
FRONT END VENT
KNOCK-OUT DRUM

97-FL-971
FLARE STACK
FRONT END VENT

NOTES:

- 1- FLARE STACK IS LOCATED OUTSIDE B.L.
- 2- NUMBER & SIZE BY VENDOR.
- 3- KNOCK OUT DRUM IS LOCATED IN AMMONIA PLANT AREA.
- 4- PIPING AROUND THE KNOCK OUT DRUM SHALL HAVE PERSONNEL PROTECTION INSULATION.
- 5- DELETED.
- 6- SIZED OF FLARE GAS HEADER LINE TO THE STACK IN 48" WITHIN PLANT B/L, AND FOR OSBL IS 50".



ITEM NO.	97-V-971	97-FL-971
DESCRIPTION	FRONT END VENT KNOCK-OUT DRUM	FLARE STACK FRONT END VENT
TECHNICAL DATA	ID = 3000 mm	DESIGN FLOW:583093 Kg/hr
	TL-TL : 9000 mm	OVERAL HEIGHT:BY VENDOR
	TYPE = HORIZONTAL	RISER DIAMETER:BY VENDOR
		TIP DIAMETER:BY VENDOR
DESIGN TEMPRATURE °C	375 / 0	345 / 0
DESIGN PRESSURE barg	3.5	3.5
MATERIAL	K.C.S(A516GR70N)	C.S
TRIM LINES	97-FL-97128-B24-P	

DE	EXT	AFC	A
Eng. Phase	Purpose of Distribution (POD)	Purpose of Issue (POI)	Owner's Action
05	27.11.2017	APPROVED FOR CONSTRUCTION	F.Sadeghian M.Setooni M.Zia M.Saremi
04	28.12.2015	ISSUED FOR ENGINEERING	F.Sadeghian M.Setooni M.Zia S.Roostapour
03	08.04.2014	ISSUED FOR ENGINEERING	F.Sadeghian M.Setooni M.Zia S.Roostapour
02	30.12.2013	ISSUED FOR ENGINEERING	F.Sadeghian M.Zia M.Zia S.Roostapour
01	24.02.2013	ISSUED FOR ENGINEERING	M.Setooni M.Zia M.Zia S.Roostapour
00	08.10.2012	ISSUED FOR ENGINEERING	M.Setooni M.Zia M.Zia S.Roostapour
REV.	ISSUE DATE	DESCRIPTION	PREPARED BY CHECKED BY APPROVED BY PROJECT

OWNER:

EPCC CONTRACTOR:

PROJECT: HENGAM FERTILIZER PROJECT

TITLE: PIPING & INSTRUMENTATION DIAGRAM HOT FLARE

SCALE: N.T.S OWNER PROJECT NO.: NA DWG. NO.: 1208-97-SA-PID-011 REV. 05 SIZE: A1

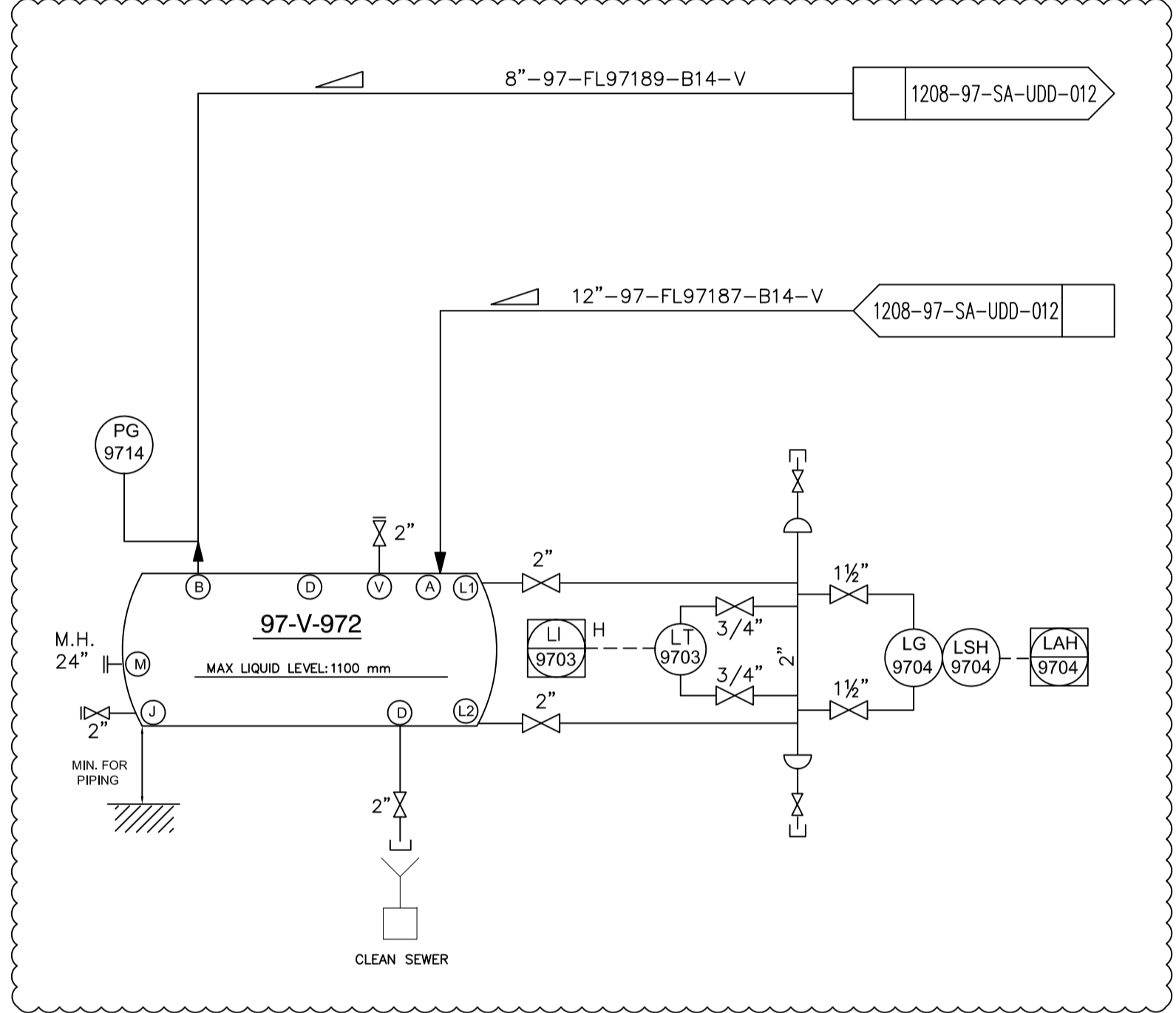
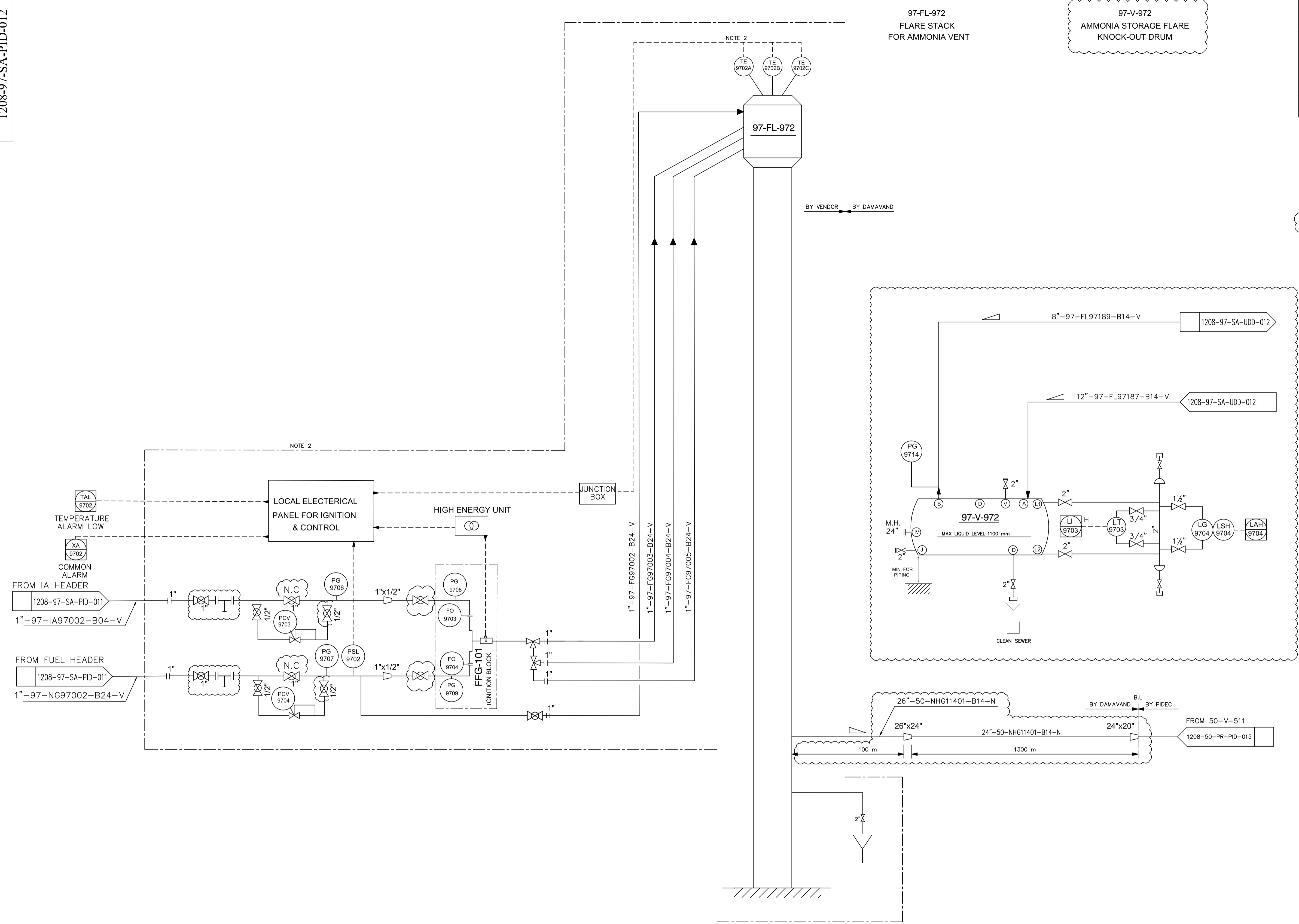
DATE: 16.02.2014

3A

1208-97-SA-PID-012

REFERENCE DRAWING	DWG. NO.

- NOTES:
- 1- FLARE STACK IS LOCATED OUTSIDE B.L.
 - 2- NUMBER & SIZE BY VENDOR
 - 3- DELETED
 - 4- LONG RADIUS ELBOW TO BE USED; PIPING IS NOT ALLOWED TO USE MITER.



ITEM NO.	97-FL-972	97-V-972
DESCRIPTION	FLARE STACK FOR AMMONIA VENT	AMMONIA STORAGE FLARE KNOCK-OUT DRUM
TECHNICAL DATA	DESIGN FLOW : 39000 Kg/hr	I.D : 1300 mm
	OVERAL HEIGHT : BY VENDOR	TL. TL. : 2600 mm
	TIP DIAMETER : BY VENDOR	TYPE : HORIZONTAL
	RISER DIAMETER : BY VENDOR	
DESIGN TEMPRATURE °C	85/-19	-38/85
DESIGN PRESSURE barg	3.5	3.5
MATERIAL	KCS	LT CS

DE	EXT	AFC	A
Eng. Phase	Purpose of Distribution (POD)	Purpose of Issue (POI)	Owner's Action
06	27.11.2017	APPROVED FOR CONSTRUCTION	F.Sadeghian M.Setooni M.Zia M.Saremli
05	28.10.2017	ISSUED FOR ENGINEERING	F.Sadeghian M.Setooni M.Zia M.Saremli
04	28.12.2015	ISSUED FOR ENGINEERING	F.Sadeghian M.Setooni M.Zia S.Roostapour
03	08.04.2014	ISSUED FOR ENGINEERING	F.Sadeghian M.Setooni M.Zia S.Roostapour
02	01.01.2014	ISSUED FOR ENGINEERING	F.Sadeghian M.Zia M.Zia S.Roostapour
01	24.02.2013	ISSUED FOR ENGINEERING	M.Setooni M.Zia M.Zia S.Roostapour
00	08.10.2012	ISSUED FOR ENGINEERING	M.Setooni M.Zia M.Zia S.Roostapour

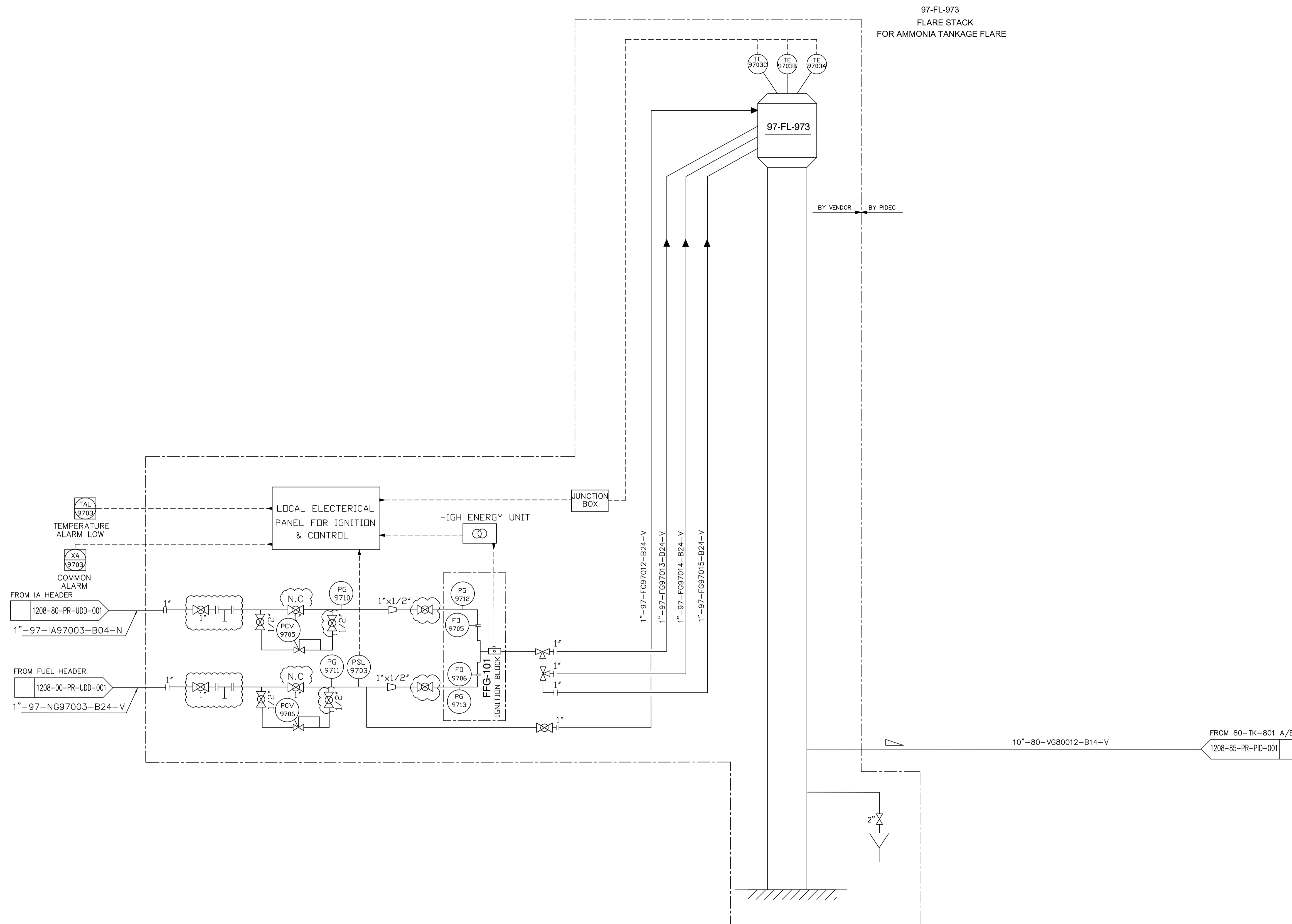
OWNER :	EPCC CONTRACTOR :			
PROJECT : HENGAM FERTILIZER PROJECT				
TITLE : PIPING & INSTRUMENTATION DIAGRAM COLD FLARE				
SCALE : N.T.S	OWNER PROJECT NO. : NA	DWG. NO. : 1208-97-SA-PID-012	REV. : 06	SIZE : A1
DATE : 29.08.2017	PIDE PROJECT NO. : 1208			

5A
29.08.2017

REFERENCE DRAWING	DWG. NO.

NOTES:

- 1- DELETED
- 2- DELETED



ITEM NO.	97-FL-973
DESCRIPTION	FLARE STACK FOR AMMONIA TANKAGE FLARE
TECHNICAL DATA	DESIGN FLOW : 2000 Kg/hr
	OVERAL HEIGHT : BY VENDOR
	TIP DIAMETER : BY VENDOR
	RISER DIAMETER : BY VENDOR
DESIGN TEMPRATURE °C	-38/85
DESIGN PRESSURE barg	3.5
MATERIAL	KCS

DE	EXT	AFC	A
Eng. Phase	Purpose of Distribution (POD)	Purpose of Issue (POI)	Owner's Action
06	27.11.2017	APPROVED FOR CONSTRUCTION	F.Sadeghian, M.Sotooni, M.Zia, M.R.Saremi
05	24.07.2016	APPROVED FOR CONSTRUCTION	F.Sadeghian, M.Sotooni, M.Zia, M.R.Saremi
04	28.12.2015	ISSUED FOR ENGINEERING	F.Sadeghian, M.Sotooni, M.Zia, S.Roostapour
03	08.04.2014	ISSUED FOR ENGINEERING	F.Sadeghian, M.Sotooni, M.Zia, S.Roostapour
02	30.12.2013	ISSUED FOR ENGINEERING	F.Sadeghian, M.Zia, M.Zia, S.Roostapour
01	24.02.2013	ISSUED FOR ENGINEERING	M.Sotooni, M.Zia, M.Zia, S.Roostapour
00	28.10.2012	ISSUED FOR ENGINEERING	M.Sotooni, M.Zia, M.Zia, S.Roostapour

OWNER: EPCC CONTRACTOR:

PROJECT: **HENGAM FERTILIZER PROJECT**
 TITLE: **PIPING & INSTRUMENTATION DIAGRAM AMMONIA TANKAGE FLARE**

SCALE: N.T.S	OWNER PROJECT NO.: NA	DWG. NO.: 1208-97-SA-PID-013	REV: 06	SIZE: A1
DATE: 1 OF 1	PIDECC PROJECT NO.: 1208			

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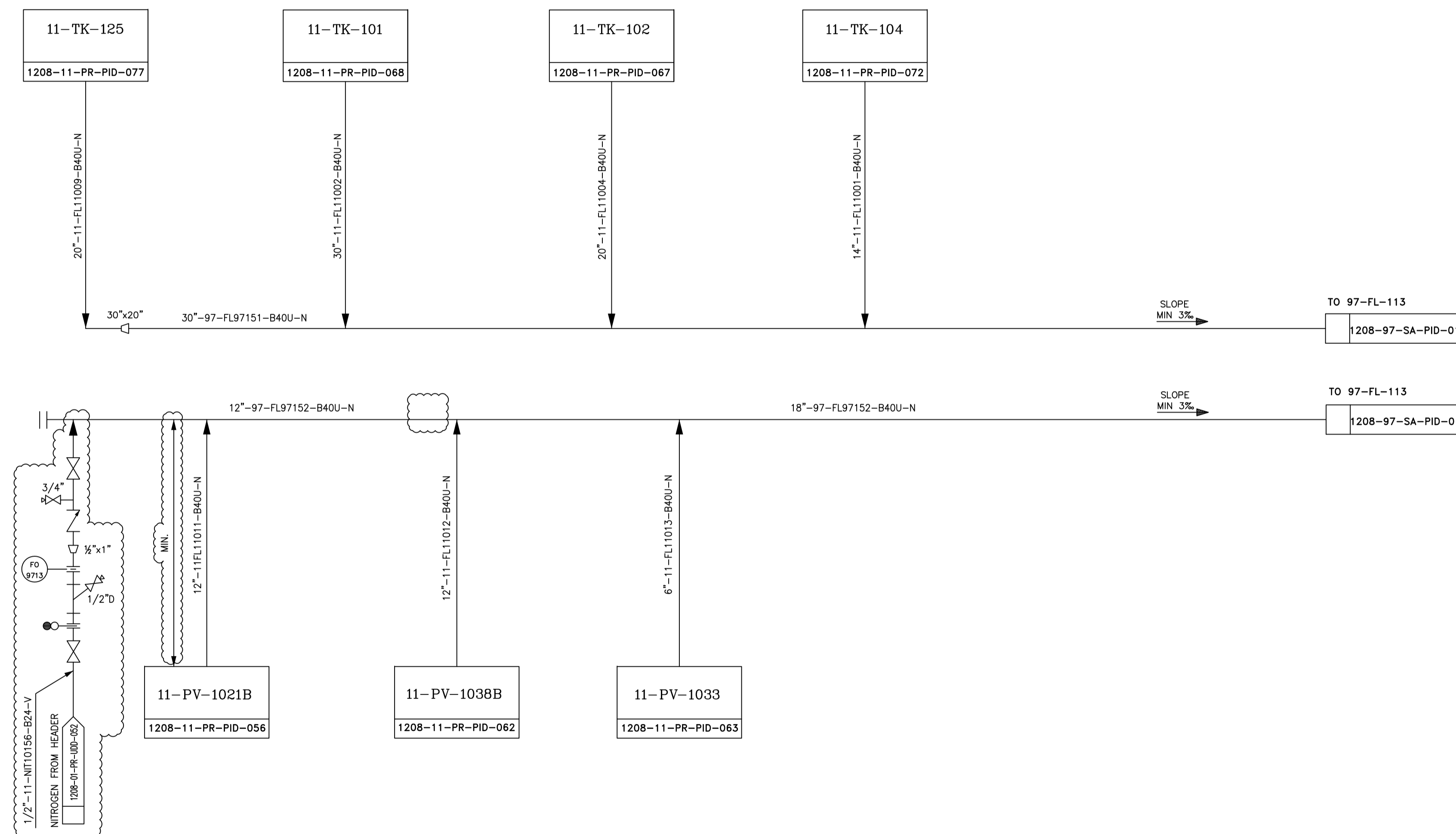
REFERENCE DRAWING	DWG. NO.
PIPING AND INSTRUMENTATION DIAGRAM SYMBOLS AND IDENTIFICATION FOR UREA PLANT	1208-01-PR-PID-051

NOTES:

- 1) PIPING LENGTH AND ELBOW NO. SHALL BE MINIMUM.

GENERAL NOTES:

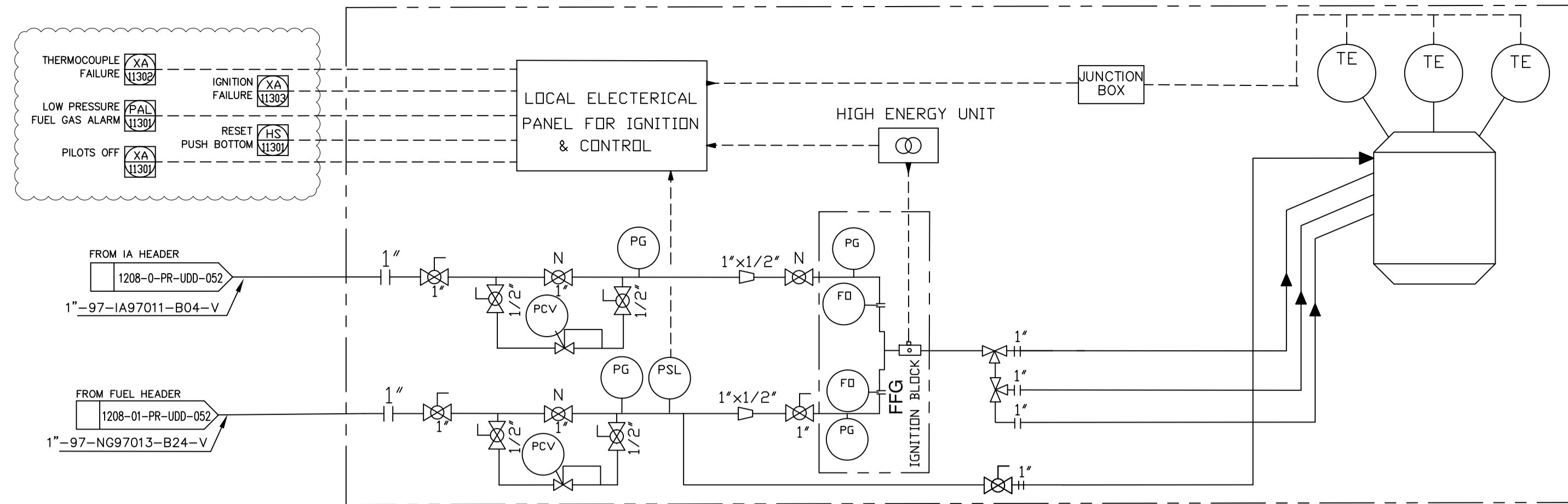
- 1) FOR SYMBOLS AND OTHER DETAILS PLEASE REFER TO PID 1208-01-PR-PID-051 .
- 2) FOR THE DESCRIPTION OF ATTRIBUTES OF HYDRAULIC CONSTRAINTS OF LINES (SELF DRAINING, SLOPE, GRAVITY FLOW, ETC.) REFER TO DOC. "GENERAL REQUIREMENTS FOR PIPING" WHERE SPECIFIC REQUIREMENTS ARE INDICATED THAT PIPING SHALL FOLLOW.NO EXCEPTIONS ARE ALLOWED.



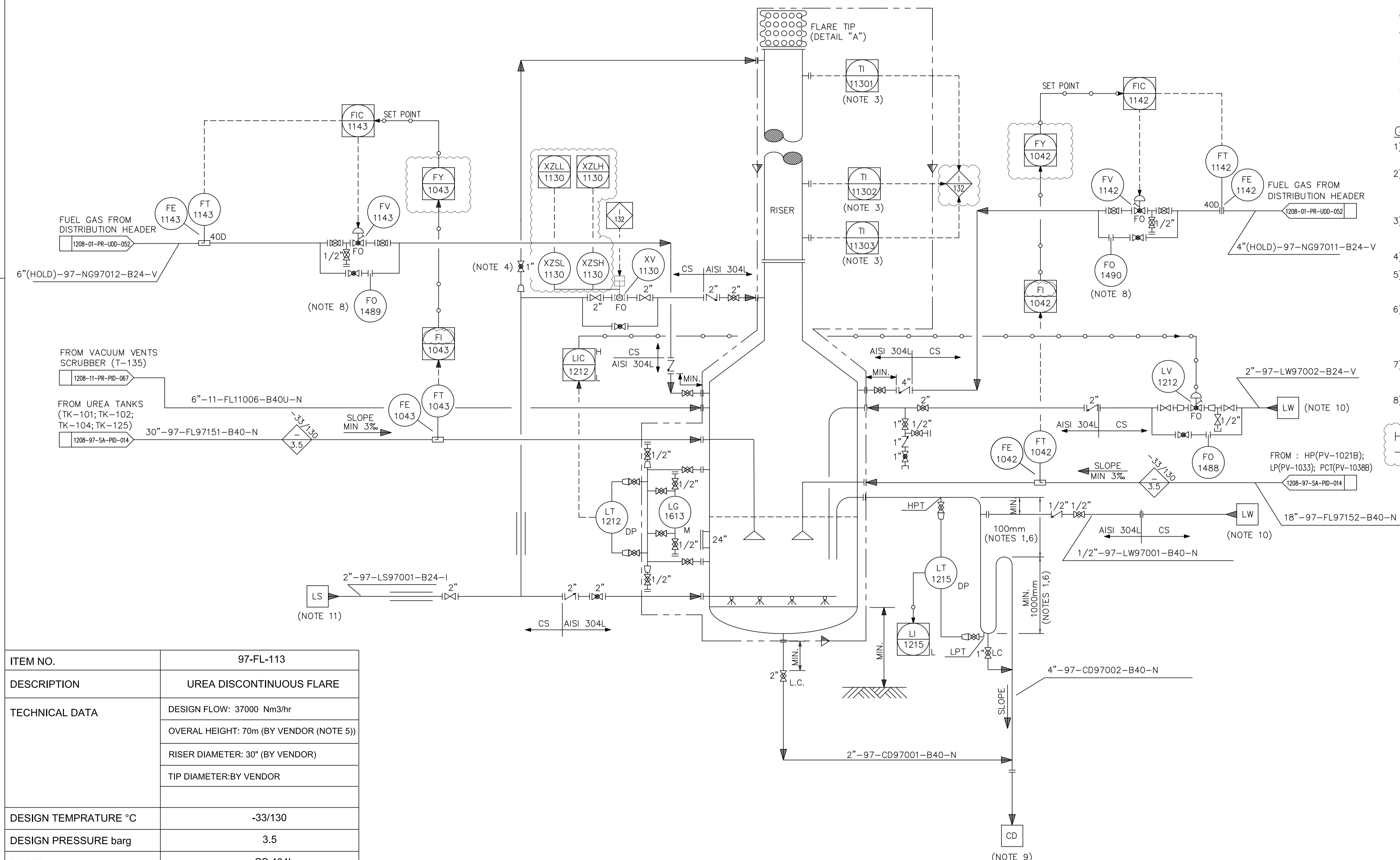
DE	EXT	AFC	A			
Eng. Phase	Purpose of Distribution (POD)	Purpose of Issue (POI)	Owner's Action			
03	10.03.2019	APPROVED FOR CONSTRUCTION	M.Satooni, M.Zab, M.Saremi			
02	20.06.2018	ISSUED FOR ENGINEERING	M.Satooni, M.Zab, M.Saremi			
01	26.04.2017	ISSUED FOR ENGINEERING	M.Kadiri, M.Zab, M.Saremi			
00	26.05.2013	ISSUED FOR ENGINEERING	M.Khadem, M.Zab, M.Saremi			
REV.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY	PROJECT
OWNER :		MC :	EPC CONTRACTOR :			
PROJECT : HENGAM FERTILIZER PROJECT						
TITLE : PIPING AND INSTRUMENTATION DIAGRAM UREA VENT NETWORK						
SCALE : N.T.S	OWNER PROJECT NO. : NA	DWG. NO. : 1208-97-SA-PID-014	REV. : 03	SIZE : A1	SHT. : 1 OF 1	
PIDE PROJECT NO. : 1208						

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DETAIL "A"



97-FL-113
UREA DISCONTINUOUS FLARE
PACKAGE
(NOTE 1)



ITEM NO.	97-FL-113
DESCRIPTION	UREA DISCONTINUOUS FLARE
TECHNICAL DATA	DESIGN FLOW: 37000 Nm3/hr OVERALL HEIGHT: 70m (BY VENDOR (NOTE 5)) RISER DIAMETER: 30" (BY VENDOR) TIP DIAMETER: BY VENDOR
DESIGN TEMPRATURE °C	-33/130
DESIGN PRESSURE barg	3.5
MATERIAL	SS 404L
TRIM LINES	

REFERENCE DRAWING	DWG. NO.

- NOTES:
- 1) FL-113 IS A PACKAGE, DETAILS WILL BE FINALIZED AFTER MFR. DATA SUBMISSION.
 - 2) FLARE SEAL DRUM IS A PART OF FL-113 PACKAGE AND ALL DETAILS SHALL BE SUPPLIED BY FLARE MFR.
 - 3) BURN-BACK THERMOCOUPLE TO BE SUPPLIED BY FLARE MFR.
 - 4) VALVE TO BE OPERABLE FROM GRADE LEVEL.
 - 5) MENTIONED ELEVATION IS ESTIMATED AND SHALL BE VERIFIED BY MFR.
 - 6) MINIMUM DISTANCE BETWEEN PIPE BOTTOM.
 - 7) SEAL DRUM V-113 ELEVATION FROM GROUND LEVEL AT MINIMUM CONSIDERING SEAL PIPE ARRANGEMENT HEIGHT.
 - 8) FOR PURGING.
 - 9) FOR CLOSE DRAINAGE CONTINUATION REFER TO DWG. : 1208-01-PR-UDD-057.
 - 10) FOR LOW PRESSURE FLUSHING CONDENSATE REFER TO DWG. : 1208-01-PR-UDD-051.
 - 11) FOR LOW PRESSURE SATURATED STEAM REFER TO DWG. : 1208-01-PR-UDD-051.

- GENERAL NOTES:
- 1) FOR SYMBOLS AND OTHER DETAILS PLEASE REFER TO PID 1208-01-PR-PID-051 .
 - 2) FOR ALL "CD" LINES THE FLANGES ARE TO BE LOCATED AT MINIMUM DISTANCE FROM GRADE. ALL "CD" LINES SHALL HAVE SLOPE TO ENSURE FREE DRAINING TOWARDS TK-104 TANK.
 - 3) SAFETY AND CONTROL VALVE IN/OUT LINES AND RELATED BYPASS LINE SIZE TO BE VERIFIED DURING ENGINEERING PHASE, AFTER CONTROL VALVES AND SAFETY VALVES SELECTION.
 - 4) MFR
PIDEC
 - 5) WHERE IT'S INDICATED "MIN" OR "MINIMUM DISTANCE" THE LENGTH OF THE INTERESTED PIPE TO BE KEPT AS SHORT AS POSSIBLE (ABOUT ONE HUNDRED MILLIMETERS) IN ORDER TO PREVENT DEAD ZONE.
 - 6) FOR THE DESCRIPTION OF ATTRIBUTES OF HYDRAULIC CONSTRAINTS OF LINES (SELF DRAINING, SLOPE, GRAVITY FLOW, ETC.) REFER TO DOC. "GENERAL REQUIREMENTS FOR PIPING" WHERE SPECIFIC REQUIREMENTS ARE INDICATED THAT PIPING SHALL FOLLOW. NO EXCEPTIONS ARE ALLOWED.
 - 7) ALL DRIP RINGS MUST BE INSTALLED TO HAVE THE RELEVANT TAPPING IN THE BOTTOM PART (THE LOWEST POINT). NO EXCEPTIONS ARE ALLOWED.
 - 8) ALL CHECK VALVES HAVE TO BE INSTALLED IN VERTICAL POSITION, UNLESS VENDOR DIFFERENT INDICATIONS.

HOLD :
- WILL BE FINALIZED AFTER RECEIVING VENDOR DATA/DOCUMENT.

EQUIPMENT LIST	
97-FL-113	

DE	EXT	AFC	A
Eng. Phase	Purpose of Distribution (POD)	Purpose of Issue (POI)	Owner's Action

REV.	ISSUE DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY	PROJECT
02	11.03.2019	APPROVED FOR CONSTRUCTION (WITH HOLD)	F.Sadeghian	M.Satoori	M.Zia	M.R.Sarafi
01	26.04.2018	ISSUED FOR ENGINEERING	F.Sadeghian	M.Satoori	M.Zia	M.R.Sarafi
00	26.04.2017	ISSUED FOR ENGINEERING	M.Karimi	M.M.Izady	M.Zia	M.R.Sarafi

OWNER:

MC:

EPC CONTRACTOR:

PROJECT: HENGAM FERTILIZER PROJECT

TITLE: PIPING AND INSTRUMENT DIAGRAM
UREA PLANT FLARE

SCALE: N.T.S	OWNER PROJECT NO.: NA	DWG. NO.: 1208-97-SA-PID-015	REV: 02	SIZE: A2
SHT.: 1 OF 1	PIDEC PROJECT NO.: 1208			