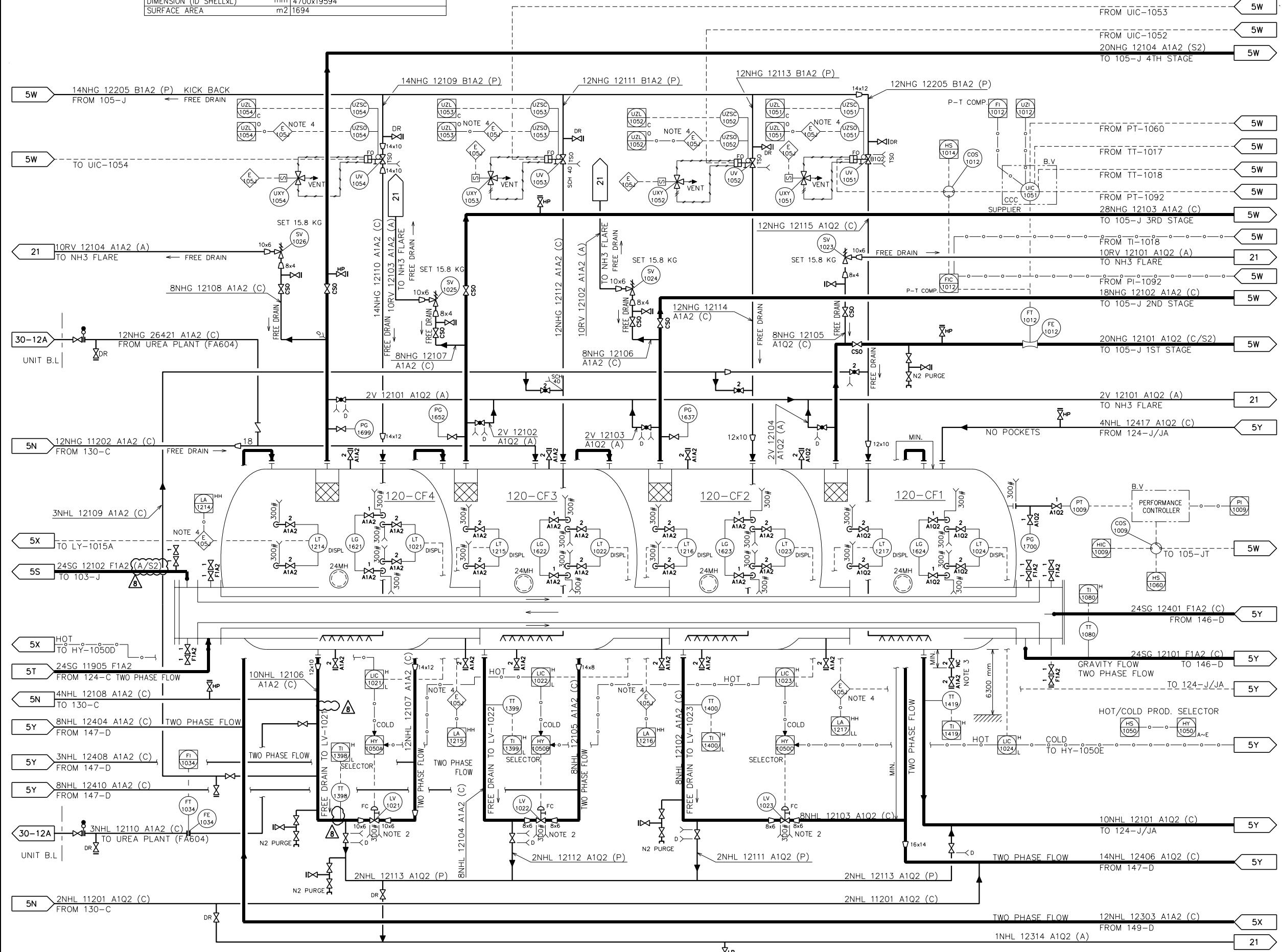


120-C AMMONIA UNITIZED CHILLER		
	SHELL	TUBE
DES./OPER.TEMP	°C	65; -29/41; -17.8
DES./OPER.PRESS	kg/cm ² G	170/150.9
INSULATION/THICK	mm	COLD/-
MATERIAL	CS	CS SEAMLESS
DIMENSION (ID SHELLxL)	mm	4700x19594
SUPERACE AREA	m ²	1604



NOTES

1. FOR GENERAL NOTES AND SYMBOLS SEE DRAWING 4A, 4B.
 2. LV-1021/1022/1023 TO BE LOCATED AT GRADE AS NEAR TO 120-CF AS POSSIBLE TO AVOID CAVITATION.
 3. FIRST GATE VALVE TO BE MINIMUM DISTANCE FROM 120-CFT AND NORMALLY CLOSED. SECOND 2" VALVE NEAR GRADE WILL BE LEFT OPEN AS COLLECTED TO DRUM.
 4. REFER TO WRITE-UP CONTROL SYSTEMS ENGINEERING FOR INTERLOCK DESCRIPTION.

120-CF4	
4TH STAGE REFRIGERANT	FLASH DRUM
DES./OPER.TEMP.	°C 65(MAX.) : -29(MIN.)/-
DES./OPER.PRESS.	kg/cm2G 15.8/6.9
INSULATION/THICK.	mm COLD/-
MATERIAL	CS
DIMENSION	(DXxTL-TL) mm 4700x4300
VOLUME	m ³ BV

120-CF3
 3RD STAGE REFRIGERANT FLASH DRUM
 DES./OPR TEMP. °C 65(MAX) : -29(MIN) / -2.2
 DES./OPR.PRESS. kg/cm² 15.8/3
 INSULATION/THICK. mm COLD / -
 MATERIAL CS
 DIMENSION (DxDx(TL-TL)) mm 4700x6700
 VOLUME m³ BV

120-CF2	
2ND STAGE REFRIGERANT FLASH DRUM	
DES./OPER.TEMP.	°C 65(MAX.) ; -29(MIN.)/-17.8
DES./OPER.PRESS.	kg/cm ² G 15.8/1.1
INSULATION/THICK.	mm COLD/-
MATERIAL	CS
DIMENSION	(Dx(TL-TL)) mm 4700x4200
VOLUME	m ³ BV

120-CF1	
1ST STAGE REFRIGERANT	FLASH DRUM
DEG./OPER TEMP.	°C 65(MAX.) : -40(MIN.)/-33
PSI./OPER PRESS.	kg/cm ² 15.8/0.02
INSULATION/THICK.	mm COLD/-
MATERIAL	CS
DIMENSION	(ID x (TL-TL)) mm 4700x4394
VOLUME	m ³ BV

<u>1</u>	<u>RE-ISSUED FOR CONSTRUCTION (AFC-3)</u>	TS	ABA	DU	HGM	ANS	NK	US	S	V	14/11/13
<u>2</u>	<u>RE-ISSUED FOR CONSTRUCTION (AFC-2)</u>	TS	ABA	DU	HGM	ANH	NK	US	L	V	28/08/13
<u>3</u>	<u>RE-ISSUED FOR CONSTRUCTION (AFC-1)</u>	TS	ABA	DU	HGM	ANH	NK	US	L	V	10/04/13
<u>4</u>	<u>ISSUED FOR CONSTRUCTION (AFC)</u>	EB	ABA	DU	RK	AAA	SHL	US	S	V	26/11/12
<u>5</u>	<u>RE-ISSUED FOR APPROVAL (AFD-1)</u>	EB	ABA	DU	RK	IJ	SHL	US	S	V	29/08/12
<u>6</u>	<u>ISSUED FOR APPROVAL (AFD)</u>	EB	ABA	DU	RK	IJ	SHL	US	S	V	23/06/12

C ISSUED FOR DETAIL DESIGN (APR-2) D DRAFT CHND DESD CHND APVD APVD AUTH ISSUE DATE
 REV. DESCRIPTION

REVISIONS

PROJECT NAME : KALTIM-5 PROJECT
 2500 MTPD AMMONIA AND 3500 MTPD UREA
 PONTIANAK, EAST KALIMANTAN, INDONESIA

BUNTANG, EAST KALIMANTAN, INDONESIA
CLIENT NAME : **PUPUK KALTIM**

PT. PUPUK KALIMANTAN TIMUR

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ABBR. FOR ISSUE
C=CLIENT
L=LICENSOR
S=SITE
V=VENDOR

CONTRACTOR : **PT. INTI KARYA PERSADA TEHNIK** / **TOYO ENGINEERING CORPORATION**
14 Nov '13

**PIPING & INSTRUMENT FLOW DIAGRAM
AMMONIA REFRIGERATION**

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DOC. NO. K5-01-E1-PD-023-T SHEET 023/073 REV.8