107-D	
PRIMARY REFORMER EFFLUENT TRANSFER LINE	
DES./OPER.TEMP °C	800/731
DES./OPER.PRESS kg/cm2G	44.4/40.2
INSULATION/THICK mm	NA
MATERIAL	CS
DIMENSION (OD SHELLxL) mm	813x23700

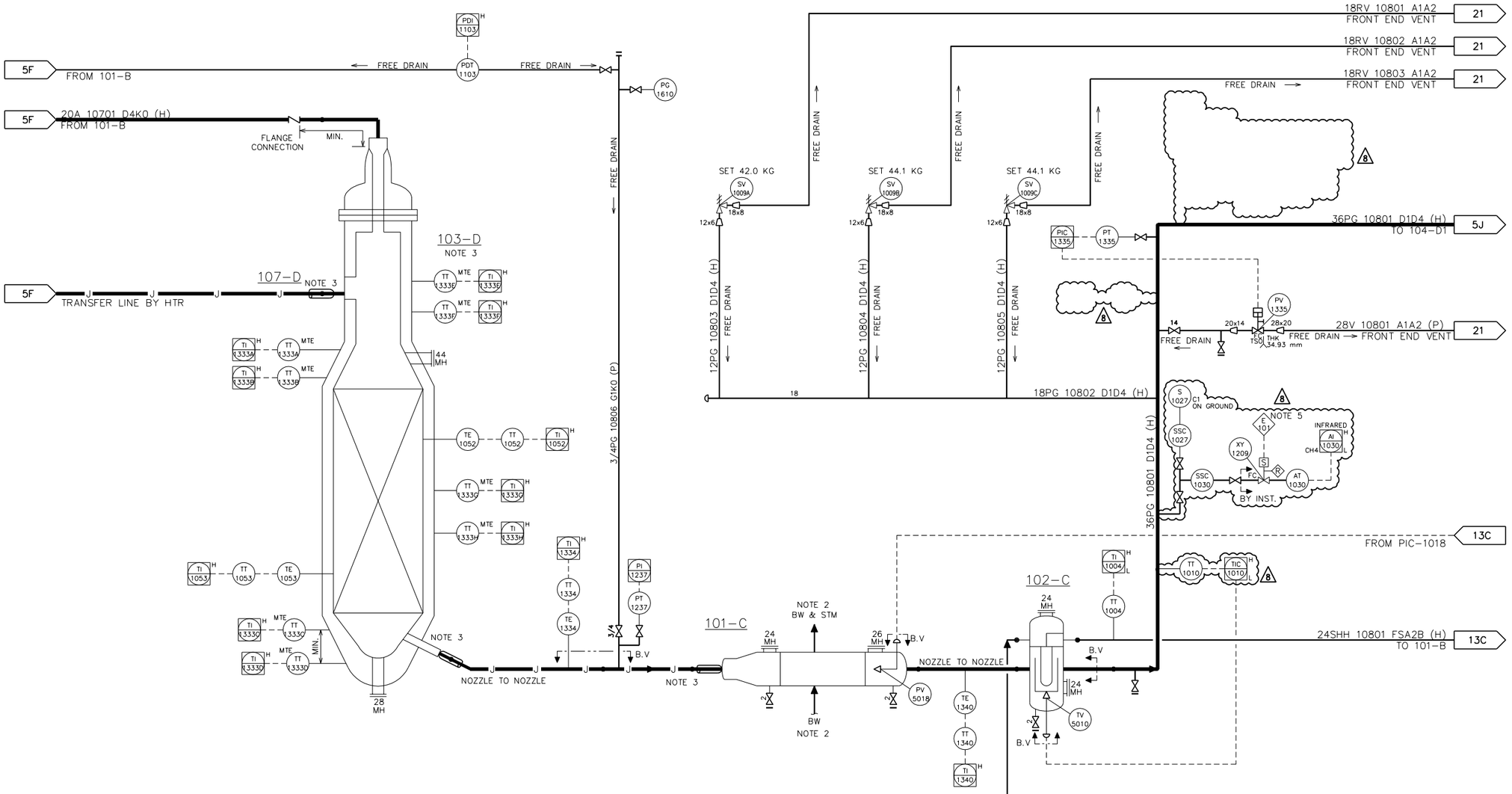
103-D		
SECONDARY REFORMER		
DES./OPER.TEMP	°C	UPPER N-C:516; BELOW N-C:205; WATER JACKET:105/ N-C:497; N-A:715; REFORMER INT.:1397; BOTTOM:898
DES./OPER.PRESS	kg/cm2G	44.4/40.07
INSULATION/THICK	mm	NA
MATERIAL		CS
DIMENSION (ID SHELLxL)	mm	5050x1665
VOLUME CATALYST	m3	42.2

101-C			
SECONDARY REFORMER WASTE HEAT BOILER			
		SHELL	TUBE
DES./OPER.TEMP	°C	360/328.2	B.V/894.5;440.3
DES./OPER.PRESS	kg/cm2G	139.7/126.97	44.7/38.77
INSULATION/THICK	mm	B.V	B.V
MATERIAL		15NiCuMoNb5-6-4	13CrMo4-5
DIMENSION (ID SHELLxL)	mm	2844x7600	
SURFACE AREA	m2	910.7	

102-C			
HP STEAM SUPERHEATER			
		SHELL	TUBE
DES./OPER.TEMP	°C	400/440.3; 371	380/327.9;345.6
DES./OPER.PRESS	kg/cm2G	44.7/39.3	139.2/126.5
INSULATION/THICK	mm	B.V	B.V
MATERIAL		13CrMo4-5	13CrMo4-5
DIMENSION (ID SHELLxL)	mm	2158x10244	
SURFACE AREA	m2	979.9	

NOTES

1. FOR GENERAL NOTES AND SYMBOLS SEE DRAWING 4A, 4B.
2. FOR BOILER WATER LINES SEE DRAWING 13B.
3. FOR COOLING WATER TO 103-D, 107-D AND 101-C WATER JACKETS SEE DRAWING 6A.
4. DELETED.
5. REFER TO WRITE-UP BY CONTROL SYSTEMS ENGINEERING FOR INTERLOCK DESCRIPTION.
6. DELETED.



REV.	DESCRIPTION	DRWN	CHKD	DESD	CHKD	APVD	APVD	AUTH	ISSUE	DATE
B/1	RE-ISSUED FOR CONSTRUCTION (AFC-3)	TS	ABA		DU	HOM	ANS		HK US	C L 14/11/13 S V
1/A	RE-ISSUED FOR CONSTRUCTION (AFC-2)	TS	ABA		DU	HOM	AH		HK US	C L 28/06/13 S V
5/0	RE-ISSUED FOR CONSTRUCTION (AFC-1)	TS	ABA		DU	HOM	AH		HK US	C L 10/04/13 S V
3/1	ISSUED FOR CONSTRUCTION (AFC)	EB	ABA		DU	RK	AH		SHL US	C L 26/11/12 S V
2/1	RE-ISSUED FOR APPROVAL (AFD-1)	EB	ABA		DU	RK	U		SHL US	C L 29/08/12 S V
3/0	ISSUED FOR APPROVAL (AFD)	EB	ABA		DU	RK	U		SHL US	C L 22/06/12 S V
2/0	ISSUED FOR DETAIL DESIGN (AFP-2)	EB	ABA		JHK	YSK	BOP		H.N SHL	C L 14/05/12 S V

REVISIONS

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

CLIENT NAME : PUPUK KALTIM
P.T. PUPUK KALIMANTAN TIMUR

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

CONTRACTOR : PT. ENTRAKARYA PERSADA TEKNIK / Toyo Engineering Corporation

ISSUE MARK I 14/NOV/13

CONTRACTOR WORK NUMBER : 10107 / BA096300 / 11-018-01

PIPING & INSTRUMENT FLOW DIAGRAM
SECONDARY REFORMER

SCALE	DWG. NO.	
	K5-01-E1-PD-5G-T	
DOC. NO. K5-01-E1-PD-010-T	SHEET 010/073	REV.8