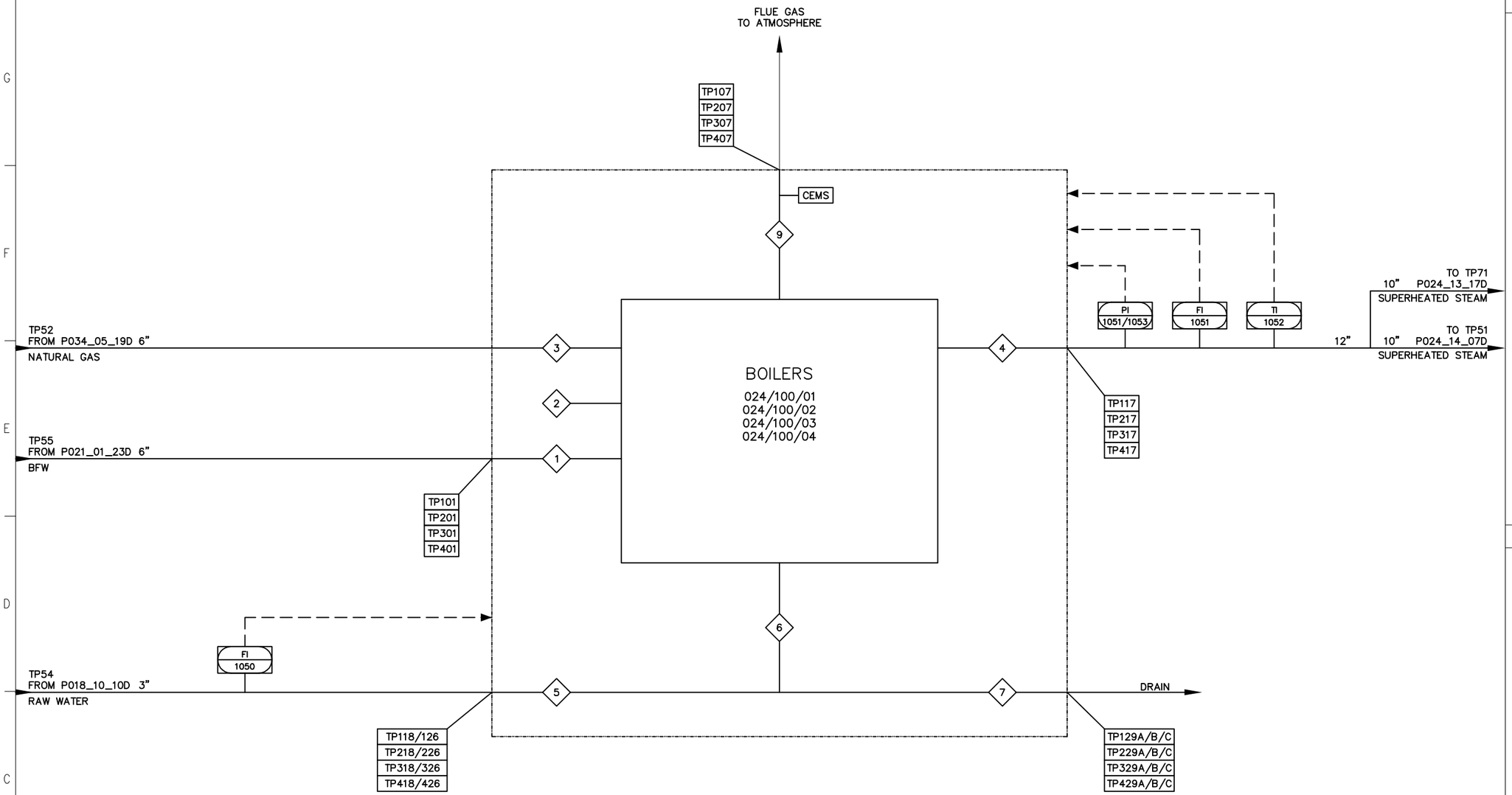


NOTES

1. MASS AND HEAT BALANCE DOES NOT ACCOUNT FOR FLUE GAS RECYCLE.

HOLDS.

1. HEAT AND MASS BALANCE TO BE CONFIRMED.

ITEM No.		024/100/01,02,03,04					
DESCRIPTION		PACKAGE BOILERS					
CAPACITY OR DIMENSIONS		PRODUCE 94tpd STEAM AT 24barg AND 260°C					
MATS OF CONSTN		TBC					
NUMBER OF	ON LINE	1 TO 4					
	STAND BY	1 TO 3					
	TOTAL	4					

STREAM No.	1	2	3	4	5	6	7		9		STREAM No.
COMPONENT FLOWS	BFW	COMBUSTION AIR	NAT GAS	SUPERHEATED STEAM	RAW WATER	BLOWDOWN	DRAINS		FLUE GAS		COMPONENT FLOWS
WATER kg/h	95410			94000	6348	1410	7758		11507		WATER kg/h
OXYGEN kg/h		21736							630		OXYGEN kg/h
NITROGEN kg/h		71546							71620		NITROGEN kg/h
NATURAL GAS kg/h			5740								NATURAL GAS kg/h
CO2 kg/h									15259		CO2 kg/h
NOx kg/h									6		NOx kg/h
TOTAL FLOW kg/h	95410	93282	5740	94000	6348	1410	7758		99021		TOTAL FLOW kg/h
TOTAL FLOW m³/h	99.39	77734.67	2391.55	8392.86	6.35	1.69	7.85		124180		TOTAL FLOW m³/h
TEMPERATURE DegC	100	10	10	260	10	224	50		152		TEMPERATURE DegC
DENSITY kg/m³	960	1.2	2.4	11.2	1000	835	988		0.7		DENSITY kg/m³
PRESSURE bar g	35	0	2	24	4.8	24	0		0 (TBC)		PRESSURE bar g
ENTHALPY kJ/kg	421.7	283.5	51505	2907	42.6	962	209		174.5		ENTHALPY kJ/kg
TOTAL HEAT FLOW kW	11176	7346	82118	75905	75	377	450		4800		TOTAL HEAT FLOW kW
COMMENTS	AT 105°C FROM DEAERATOR, COOLS TO 100°C AT TP		ENTHAPLY BASED ON 40.38MJ/sm³						PRESSURE ASSUMED		COMMENTS

REV	DATE	DESCRIPTION	DR'N	CHK'D	APP'D
01	17.10.18	PRELIMINARY	AR	JW	JW

wood.

PROJECT No: **17202101**

VENATOR

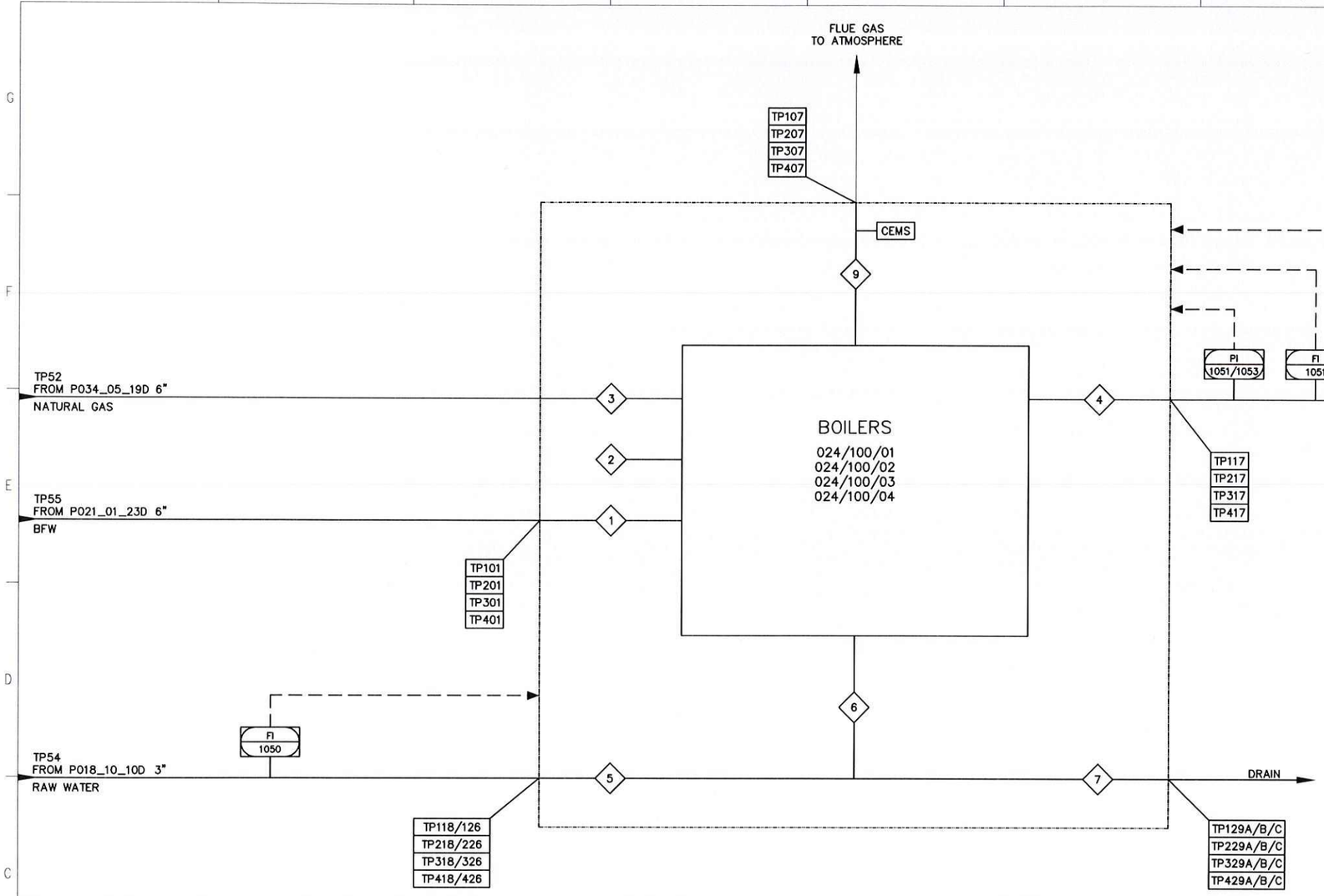
TITLE:

PROCESS FLOW DIAGRAM
GREATHAM BOILER REPLACEMENT
NEW BOILER PACKAGES

DR'N	CHK'D	APP'D	SCALE	
DATE	DATE	DATE	NTS	A1

SITE | AREA | DRG.No 17202101-8110-20-0001 | REV 01

DSN: 31



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wood.

PROJECT No. 17202101

VENATOR

TITLE:

PROCESS FLOW DIAGRAM
GREATHAM BOILER REPLACEMENT
NEW BOILER PACKAGES

DR'N		CHK'D		APP'D		SCALE	NTS	A1
DATE		DATE		DATE				
SITE	AREA	DRG.No	17202101-8110-20-0001			REV	01	

DSN: 31