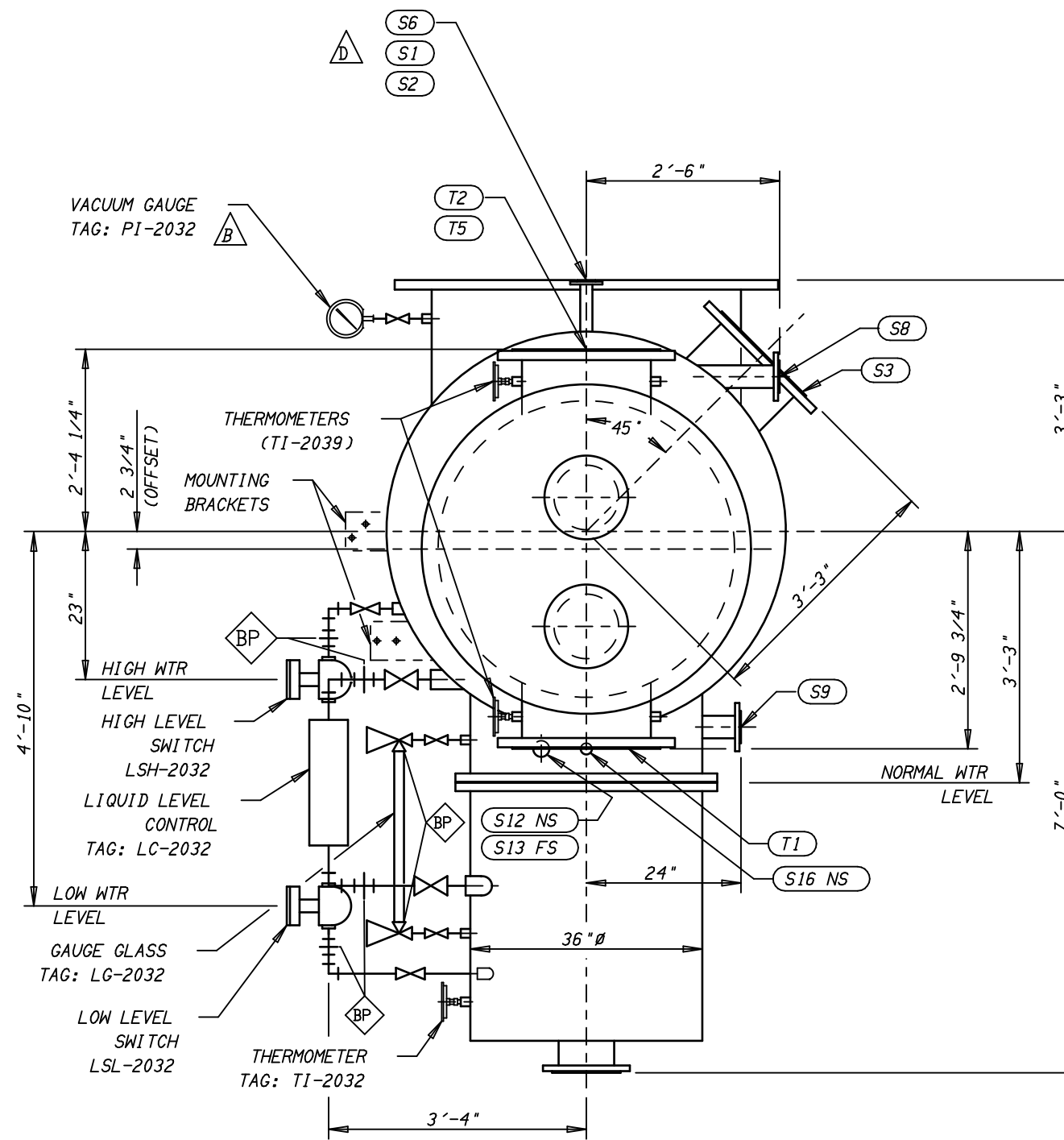
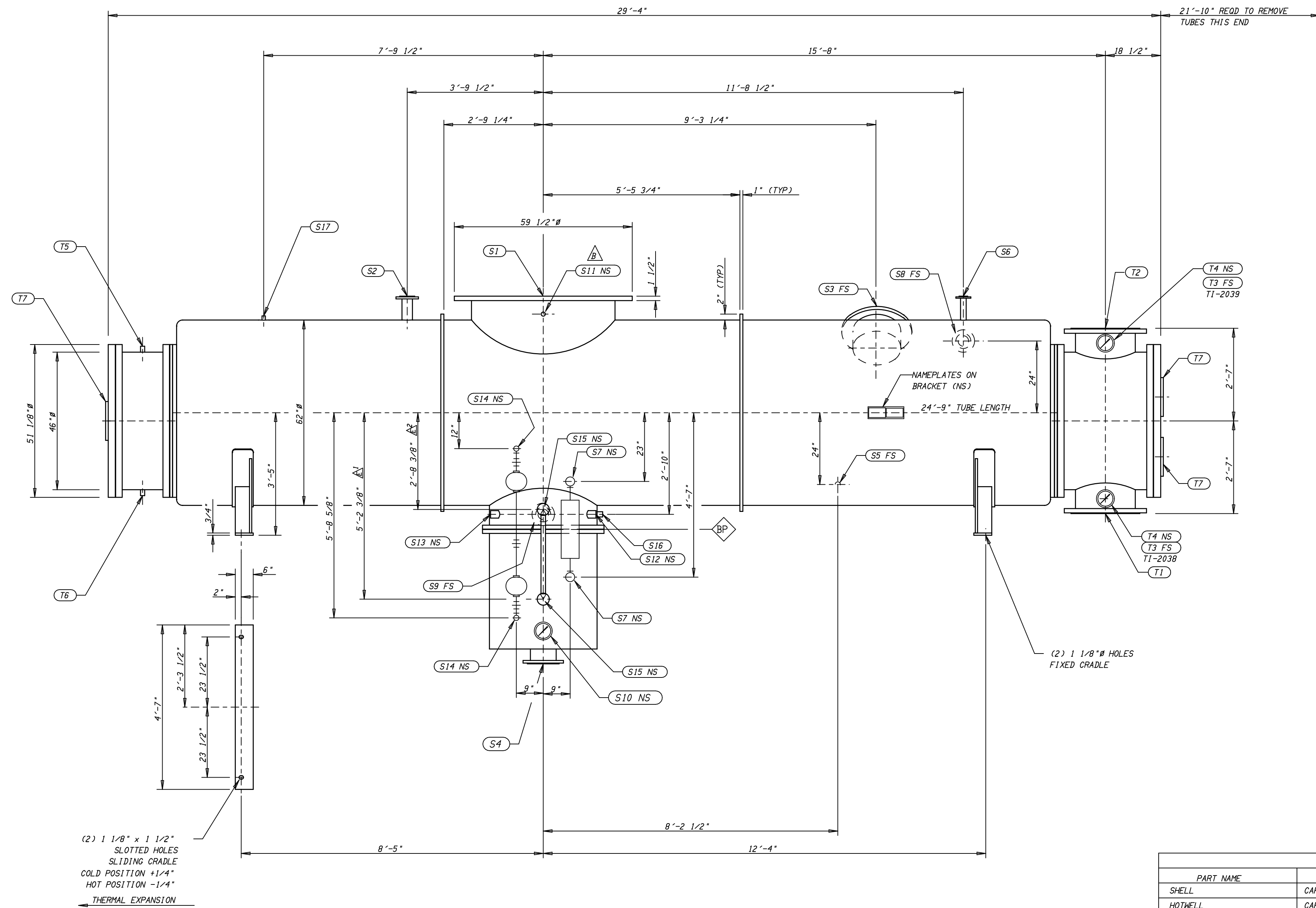


ACCESSORY ITEM #	SYMBOL	NO REQD	CONNECTION SCHEDULE		SERVICE	REMARKS
			S-SHELL SIDE	T-TUBE SIDE		
10	S1	1	48"	125# (FF)	STEAM INLET	(44) 1 5/8" HOLES ON 56" BC
	S2	1	3"	150# ANSI (RF)	AIR OFFTAKE	
	S3	1	16"	150# ANSI (RF)	A.R.V.	A.R.V. BY GRAHAM
	S4	1	8"	150# ANSI (RF)	CONDENSATE OUTLET	
5	S5	1	1"	NPT (3000#)	DRAIN	FROM GLAND SEAL COND.
	S6	1	1 1/2"	150# ANSI (RF)	TURBINE/PUMP VENT CONN.	
	S7	2	2"	NPT (3000#)	LIQUID LEVEL CONTROL	LLC BY GRAHAM
	S8	1	3"	150# ANSI (RF)	RECYCLE	START-UP
	S9	1	3"	150# ANSI (RF)	RECYCLE	NORMAL
16	S10	1	3/4"	NPT (3000#)	THERMOMETER	TI W/HELL BY GRAHAM
	S11	1	3/4"	NPT (3000#)	VACUUM GAUGE	GA. BY GRAHAM
21	S12	1	1 1/2"	NPT (3000#)	CONDENSATE INLET	FROM I.C. TRAP
	S13	1	1 1/2"	NPT (3000#)	CONDENSATE INLET	FROM A.C. TRAP
12 & 13	S14	2	1"	NPT (3000#)	LEVEL SWITCH	SWITCHES BY GRAHAM
	S15	2	3/4"	NPT (3000#)	GAUGE GLASS	GA. BY GRAHAM
11	S16	1	1"	NPT (3000#)	RAW WATER START-UP	
	S17	1	1/2"	NPT (3000#)	TEST CONN.	(PLUGGED)
	T1	1	20"	150# ANSI (RF)	WATER INLET	
	T2	1	20"	150# ANSI (RF)	WATER OUTLET	
	T3	2	3/4"	NPT (3000#)	TEST CONN.	(PLUGGED)
	T4	2	3/4"	NPT (3000#)	THERMOMETER	TI W/HELL BY GRAHAM
	T5	1	3/4"	NPT (3000#)	VENT	(PLUGGED)
	T6	1	3/4"	NPT (3000#)	DRAIN	(PLUGGED)
	T7	3	10"	STUDDED	INSPECTION PORTS	W/COVER



MATERIALS OF CONSTRUCTION		
PART NAME	MATERIAL	SPECIFICATION
SHELL	CARBON & FORGED STEEL	SA-36, SA-516-70, SA-53-B, SA-105
HOTWELL	CARBON & FORGED STEEL	SA-516-70, SA-53-B, SA-105
INLET CHANNEL	CARBON & FORGED STEEL	SA-516-70, SA-53-B, SA-105
RETURN CHANNEL	CARBON & FORGED STEEL	SA-516-70, SA-105
CHANNEL COVER	CARBON STEEL	SA-516-70
TUBESHEETS	316 STAINLESS STEEL	SA-240-316
TUBE SUPPORTS & SHROUD	CARBON STEEL	SA-516-70
TIERODS, SPACERS, NUTS	CARBON STEEL	C.O.
TUBES	316 STAINLESS STEEL	SA-249-TP316
GASKETS-SHELL SIDE	CANVAS SOAKED IN RED LEAD PRIMER	
GASKETS-TUBE SIDE	NON ASBESTOS	MANVILLE STYLE 961
BOLTING-EXTERNAL	ALLOY & CARBON STEEL	SA-193-B7, SA-194-2H

CUSTOMER/CLIENT - MINERVA NEWARK LLC
 PROJECT - STO COGENERATION PROJECT
 PROJECT NO. - 98-047 MIN

ENGINEER/CONTRACTOR - PCI ENERGY GROUP
 PCI DWG FILE NO. - SC-101-005
 CUSTOMER ORDER NO. - 98-047MIN-001
 GRAHAM JOB NO. - 98-37360M

DESIGN - ASME SECTION VIII DIV 1 1995 EDITION A97 ADDENDA
 CONSTRUCTION - ASME & HEI
 INSPECTION - CUSTOMER & ASME
 STAMPING - ASME
 TAG - CD-01
 PAINTING (EXTERNAL CARBON STEEL SURFACES)
 SURFACE PREPARATION - GRAHAM STD
 PAINT: INDIRACOTE 10-9252 RED OXIDE PRIMER

- NOTES:
- BOLT HOLES STRADDLE CL'S.
 - ALL N.P.T. CONNECTIONS ARE FEMALE TAPERED PIPE THREAD.
 - CONNECTION FLANGES ARE ANSI STD. DRILLING & THICKNESS UNLESS OTHERWISE NOTED.
 - SAFETY DEVICES OR OVER-PRESSURE PROTECTION SHALL BE PROVIDED PRIOR TO PLACING VESSEL IN SERVICE.
 - DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED: TEMA STD.
 - EJECTOR PACKAGE MOUNTED ON SURFACE CONDENSER.
 - REFER TO ACCESSORY LIST DWG NO A-50629-41 FOR ITEM NOS. AND DESCRIPTIONS.
 - REFER TO DWG NO. D-50629-11 FOR 1/A CONDENSER PACKAGE.
 - REFER TO DWG NO D-50629-31 FOR PIPING AND INSTRUMENTATION DIAGRAM.

DRAWING LIST:
 INTER-AFTER CONDENSER ---- D-50629-11
 ATMOS RELIEF VLV ----- B-50629-21
 ACCESSORY LIST ----- A-50629-31

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EST'D. WGTs. (LBS.)	M.A.W.P. (P.S.I.G.)	TEMP. (° F.)	HYDRO TEST PRESS. (P.S.I.G.)	CORR. ALLOW. (INCHES)
EMPTY----- 33000	FV & 15	DESIGN/MDMT	22.5	.0312
FLOODED--- 70000				
OPERATING- 44500				

CERTIFIED CORRECT
 GRAHAM CORPORATION
 A. J. Wacławski

BP SYMBOL FOR SHIPPING BREAK POINTS.

① CARBON STEEL PRESSURE PARTS

REV	DESCRIPTION	DATE	MADE	CHKD	APPD
E	DIMENSIONS WERE 115'-0 3/8" & 212'-6 3/8"				
D	DELETED S3 CALLOUT FROM 90" POSITION				
C	ADDED PD NO., ADDED TAG NO'S., & REV'D MATERIALS				
B	RELOCATED P1-2032 (VACUUM GAUGE) (S-11 HAS FS) PER CUSTOMER REQUEST 3/9/99				
A	REV'D PER CUST. PRINT DATED 2-9-99 & FAXES				
0	ORIGINAL ISSUE				

GRAHAM CORPORATION
 20 FLORENCE AVE. BATAVIA, NEW YORK

SURFACE CONDENSER

SCALE	DSGN	DRWN	CHKD	APPD	DATE	DWG. NO.	REV
1:24	GPF	GPF	AJM		1/18/99	D-50629-1	E