

SECTION 1

GENERAL DESCRIPTION

1.1 General Data

Dimensions

Height:

Bottom of Sliding Support Base Plate to Top of Inlet Nozzle 77 ft.

Weights:

Shipping	570 tons
Flooded	752 tons
Operating (15% load)	638 tons
Operating (100% load)	654 tons
Primary Manway Covers (2)	1028 lb each
Secondary Manway Covers (2)	434 lb each
Primary Inspection Covers (2)	75 lb each
Secondary Handhole Covers (9)	35 lb each

<u>Pressures:</u>	<u>Design</u>	<u>Full Load Operating</u>	<u>Hydrotest</u>
Primary	2500 psig	2220 psia	3125 psig
Steam Outlet	1050 psig	925 psia	1312.5 psig
Feedwater	1100 psig		-
Primary Drop		33 psi	

<u>Temperatures (°F)</u>	<u>Max</u>	<u>Full Load Operating</u>	<u>Hydrotest (min)</u> (Shell Temp.)
Primary	650	608 Inlet	100
Secondary	600	570	130
Feedwater	600	470	

Operating Limits and Precautions

Min. Pressurization Temperature	100F (Primary), 130F (Sec.)
Max. Heatup/Cooldown Rate	100 F/hr
Min. Annulus Water Temp.	10 F below saturation
Pressure (max.)	hydrotest pressures

Note: Prior to operating this unit, consult Plant Operating & Maintenance Procedures prepared by owner (based on Draft Procedures prepared by B&W).

Operating Conditions (Full Load)

Heat Transfer	4.75×10^9 BTU/hr
Primary Fluid Flow	68.95×10^6 lb/hr
Steam Flow	6.12×10^6 lb/hr

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FACILITY ENGINEERING

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Heat Transfer Tubes

Number
Material
Size

15,457
Inconel *
0.625" O.D., 0.034" wall, 56',
2-3/8" long, with 52' 1-3/8"
heating length

Total Heating Area

131,806 ft²

Openings, Nozzles and Penetrations (See Fig. 8 - 1)

Primary Inlet Nozzle (1) 36" I.D.
Primary Outlet Nozzles (2) 28" I.D.
Steam Outlet Nozzles (2) 24" O.D.
Feedwater Inlet Nozzles (32) 3" I.D.
Auxiliary Feedwater Nozzle (1) 5" I.D. (CAPPED)
Shell Drains (2) Above Lower Tubesheet 1" dia.
(4) At Lower Tubesheet 1 1/2 in.
(2) At Handholes Above Feedwater
Header, 180° apart 1 1/2 in.

Level Sensing Connections, 1" I.D., 28° toward W axis from Z axis,
180° apart.

Lower Low Level: (2) 20" below datum line.

Upper Low Level: (2) 6'-4" above datum line.

Spare (capped) : (2) 20' 11-11/16" above datum line.

High Level : (2) 30' 8-1/8" above datum line.

Auxiliary Feedwater Nozzles (8) 3" I. D.

Temperature Sensing Connection

(1) 1 1/2" I.D., 34° toward Y axis from X axis, 14"
below datum.

(2) 1 1/2" I.D. 23'-8-11/16" above datum.

Vent and Level Sensing, 1 1/2" I.D. in upper tubesheet transition
bevel, between X and Y axes.

Primary Manways (2) 16" I.D., in top head on Y axis
and in bottom head on X axis.

Secondary Manways (2) 16" I.D. on X axis near the tubesheets.

Primary Inspection Openings (2) 5" I.D. W axis of top head;
between X-W axis of bottom head.

Secondary handholes (9) 5" I.D. upper 2, 30' 11-11/16"
datum line, lower 7, on datum line

Primary Drain (1) 1" I.D., dead center lower head.

*Inconel is the trade name of a Ni-Cr-Fe alloy manufactured by the International Nickel Co. and used as a generic term throughout the industry to denote similar alloys instead of a specific manufacturer.

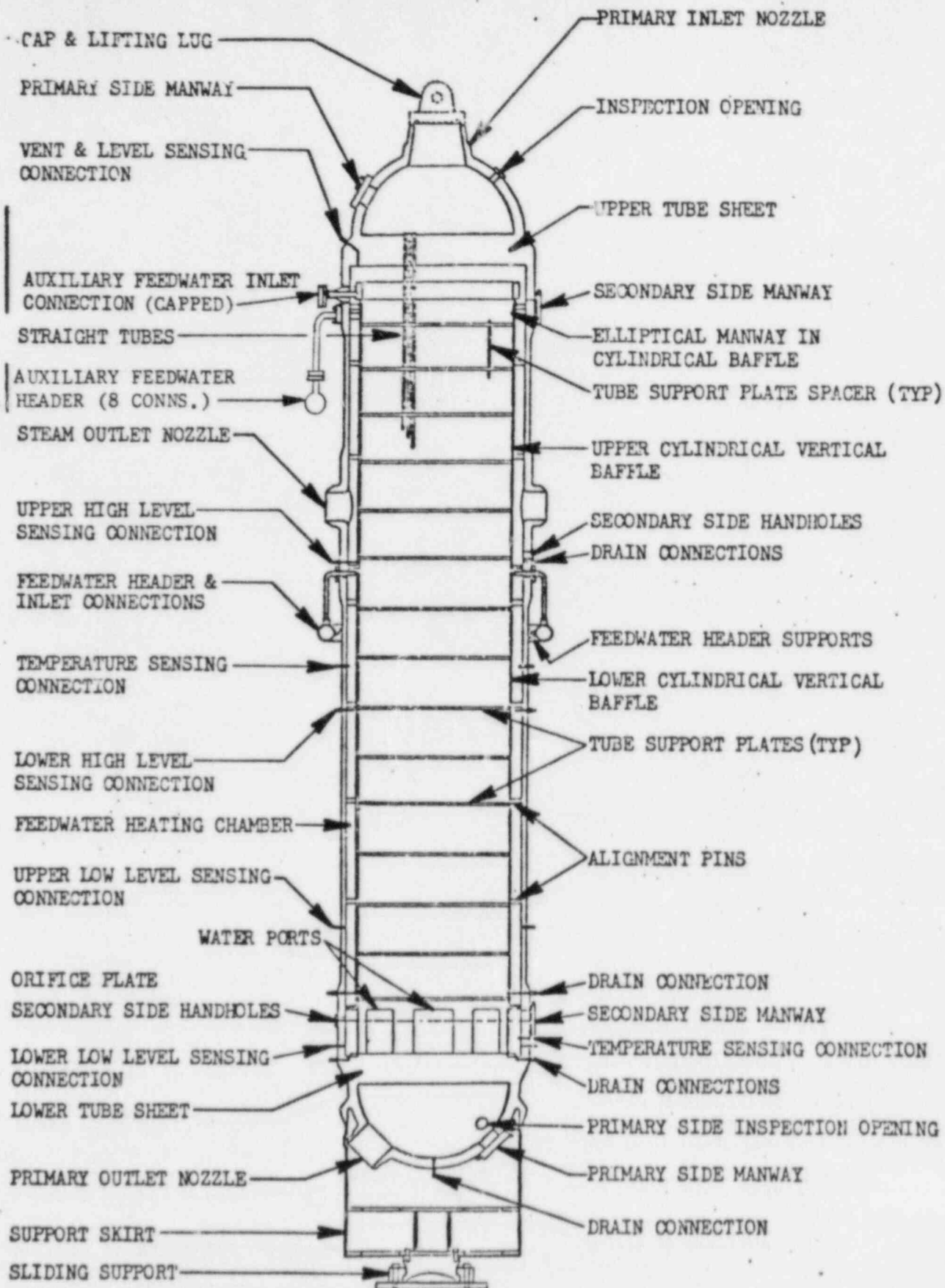


FIGURE 1-1
ONCE THROUGH STEAM GENERATOR