SURFACE CONDENSER - Design Characteristics

Type - Two-Pass, Divided Water Box, Twin Shell Surface Condenser with Reverse Flow

Cooling Surface - 361,000 Sq. Ft.

Tubes:

Size - 1" × ~~18~~ 22 BWG × 34' Effective Length

Material - ~~90-10 Cu Ni~~ AL 29-4C
Quantity - 40,544
Inlet Ends - Rolled and Flared
Outlet Ends - Rolled and Flared

Shell - A-285 Gr. C Steel

Water Boxes and Covers - 70-30 Cu Ni

Tube Sheets - B-171 Muntz

Steam Inlet Neck Expansion Joint - Bellows, Stainless Steel

Condenser Design Data:

Steam Condensed, lbs/hr	2,584,785
Total Heat Load to Circ. Water, Btu/hr	2.474×10^9
Absolute Pressure, in. Hg.	2.50
Circ. Water Inlet Temperature, °F	85.0
Circ. Water Outlet Temperature, °F	103.39
Circ. Water Quantity (Max.), GPM	269,100
Water Velocity in Tubes (max.), fps	6.26
Tube Cleanliness Factor, %	85
Water Side Pressure Drop, ft. H_2O, incl. rev. flow	19.8
Maximum Oxygen Content of Condensate, cc/liter	0.005
Approximate Dry Weight, lbs.	1,505,000
Approximate Operating Weight, lbs.	2,902,000

5069

EQUIPMENT LOG

(Where Serial Numbers are missing operator should record data from applicable Name Plate.)

LOCATION: Jacksonville Electric Authority
Northside Generating Station
Jacksonville, Florida

UNIT: 3

TYPE: 361,000 Sq. Ft. Surface Condenser

MANUFACTURER: DELAVAL

SERIAL NO.: 500289

EQUIPMENT CHARACTERISTICS:

Tubes

Size	Gauge	Length	Material	Quantity	Location
1"	~~18~~ 22 BWG	Eff. 34'	~~90-10 Cu Ni~~ AL29-4C	40,544	Main Banks

Circulating Water Flow: 269,000 GPM

Water Side: Design/Test - 30/35 PSIG

Tube Sheet: Material - B-171 Muntz Thickness - 1-1/4"

MAINTENANCE/GENERAL OPERATING CHARACTERISTICS LOG

It is recommended operating personnel record all routine or special maintenance and operating data as accomplished for this equipment.

Notify manufacturer and/or supplier of equipment of any nonroutine repair or maintenance problems.

DATE	CK. BY	APP'D.	ALTERATIONS	EQUIPMENT LOG SURFACE CONDENSER	
				DE LAVAL TURBINE INC. TRENTON NEW JERSEY 08602	CW-2400EW