

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270
HARTFORD, CONNECTICUT 06101
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March 16, 1981

Docket No. 50-245
A01143

Director of Nuclear Reactor Regulation
Attn: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

- References:
- (1) W. G. Council letter to D. M. Crutchfield, dated March 6, 1981.
 - (2) D. M. Crutchfield letter to W. G. Council, dated July 25, 1980.
 - (3) D. M. Crutchfield letter to W. G. Council, dated July 22, 1980.
 - (4) Personal communication via telephone requests from NRC Project Manager, dated March 31, 1980; June 23, 1980; July 9, 1980 and; July 21, 1980.
 - (5) W. G. Council letter to D. M. Crutchfield, dated September 2, 1980.
 - (6) Personal communication via telephone request from NRC Project Manager, dated February 17, 1981.
 - (7) NRC Staff seismic visit of Millstone Unit No. 1 site, February 24, 1981.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1
SEP Topic III-6 Seismic Review

Northeast Nuclear Energy Company summarized the recent docket history of the SEP Seismic Review Topic III-6 in Reference 1. That reference also provided seismic support details and calculations for seven of the ten components that remain unreviewed. NNECO and the NRC staff agreed the remaining items would be provided by March 16, 1981. Accordingly, this letter now transmits the support details and masses for the three remaining components; specifically:

Emergency Service Water Pump;
Shutdown Heat Exchanger; and
Oil Storage Day Tank.

It is NNECO's understanding that all requested information necessary to support the NRC staff review of SEP Seismic Topic III-6 has now been provided. If there is any need for additional supporting information, please contact us.

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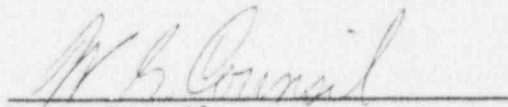
Mr. Dennis M. Crutchfield
Page 2
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Copies of this letter, including all attachments as detailed on the next page, are being transmitted directly to those listed below, in order to expedite completion of this SEP topic. Because of this distribution, only three sets of attachments are hereby enclosed with this original letter to the Office of Nuclear Reactor Regulation. If you have any questions, please contact us.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Senior Vice President

WGC/RLM/mar

ATTACHMENTS

cc: Mr. J. J. Shea
U.S. NRC Staff

Mr. T. Cheng
U.S. NRC Staff

Mr. Stevenson
Structural Mechanics Associates
3645 Warrensville Center Road
Cleveland, OH 44122

ATTACHMENT

MILLSTONE UNIT NO. 1 TOPIC III-6

SEISMIC SUPPORT OF ELECTRICAL EQUIPMENT

PACKAGES TRANSMITTED

Emergency Service Water Pump

- Drawing showing support detail, pump and motor dimensions, and component masses

Shutdown Heat Exchanger

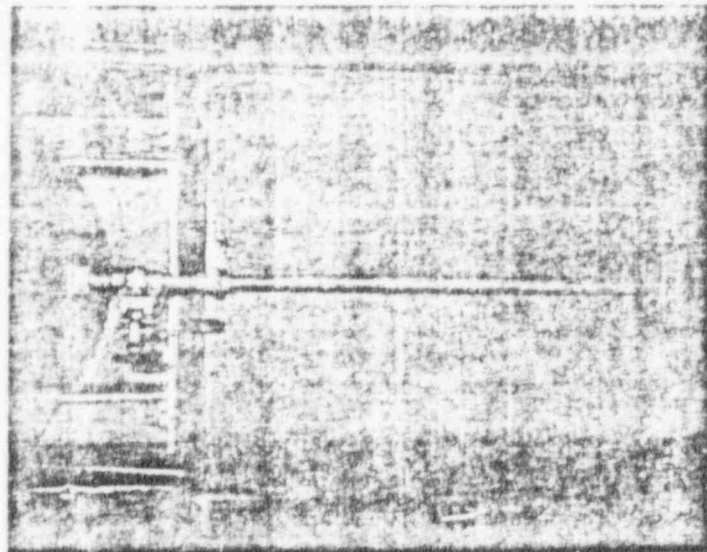
- Support Photographs
- Specification Sheet for Exchanger
- Support Detail
- Support Description

Oil Storage Day Tank

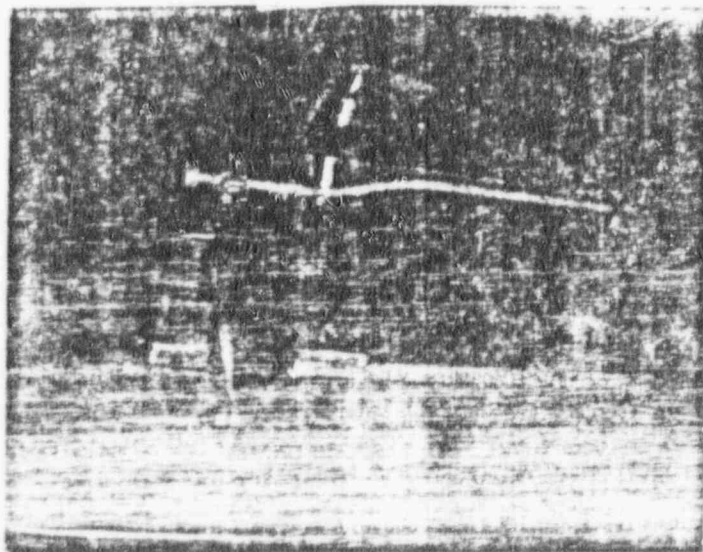
- Support Description and Tank Mass
- Tank Drawing

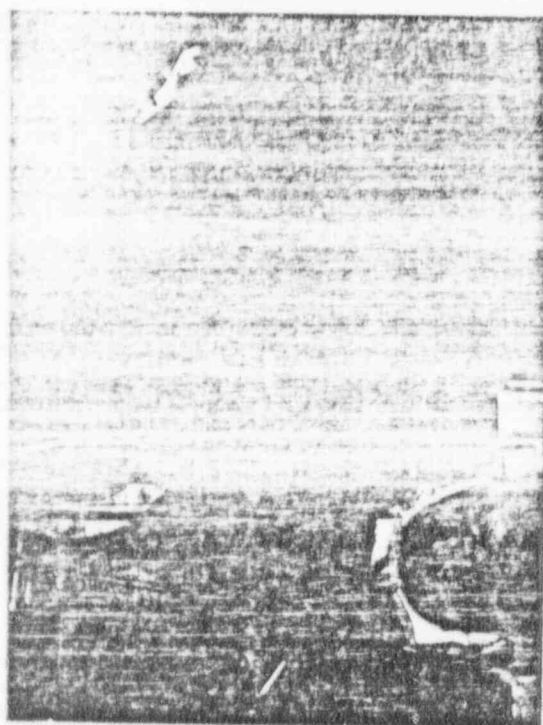
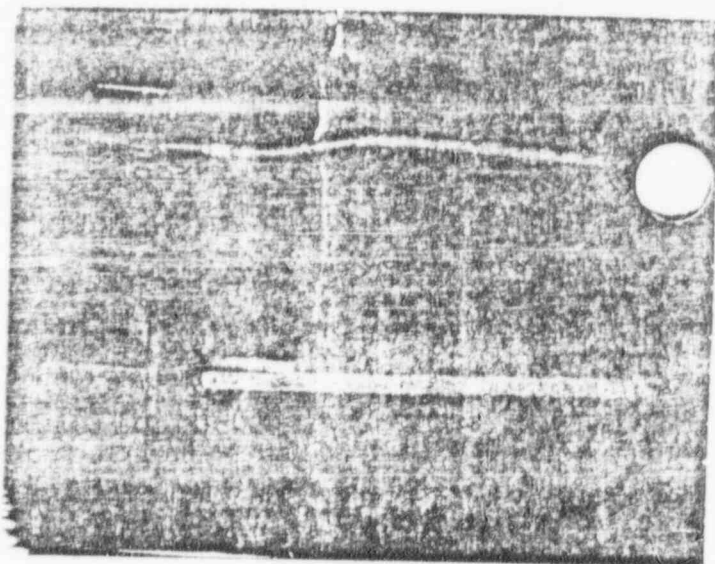
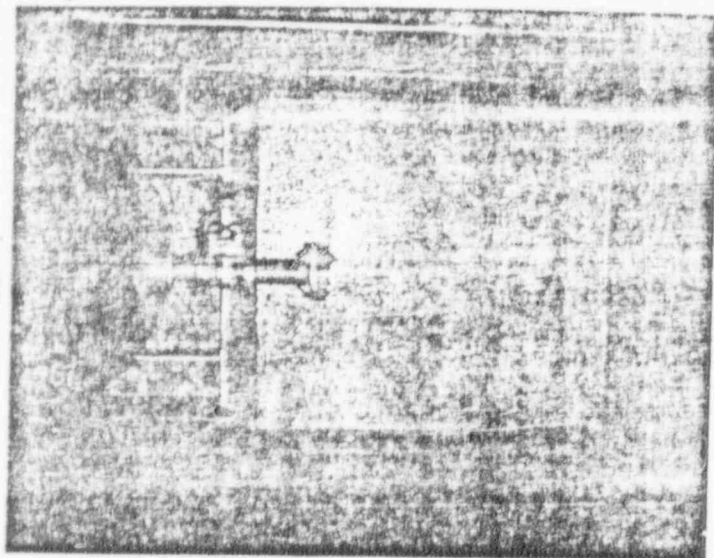
SHUTDOWN HEAT
EXCHANGER

8108250 325

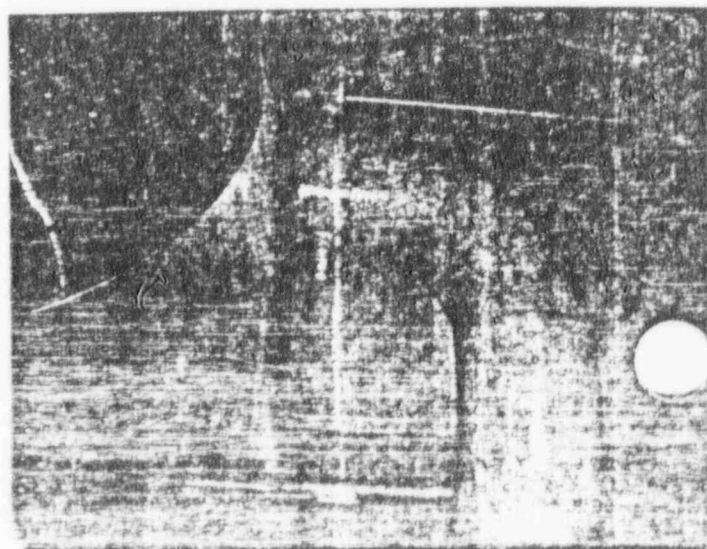
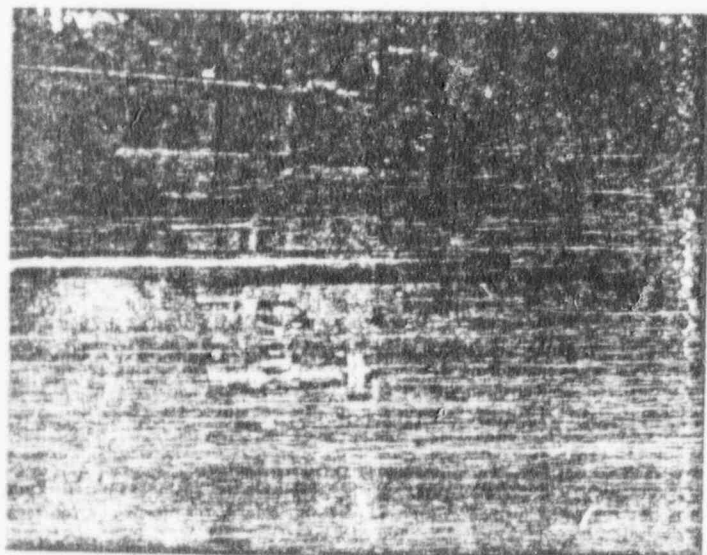


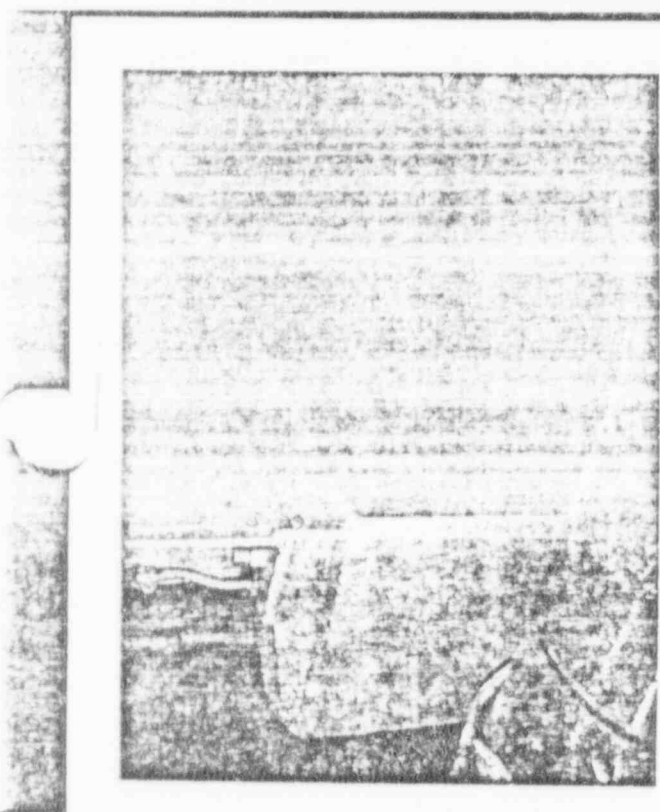
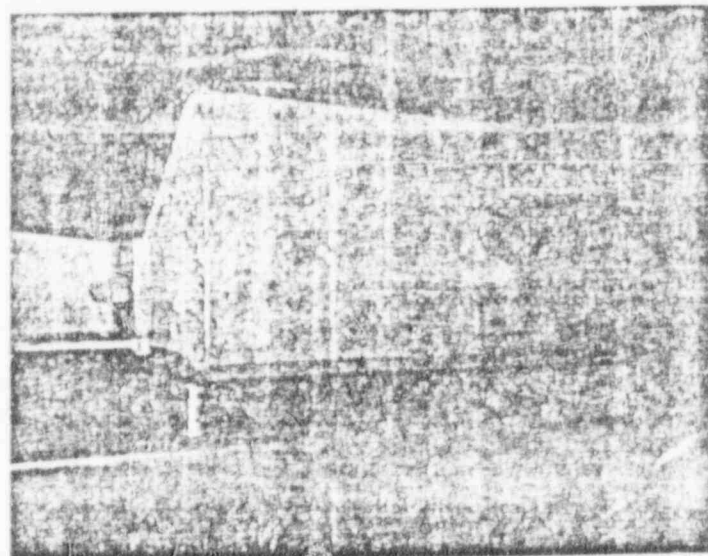
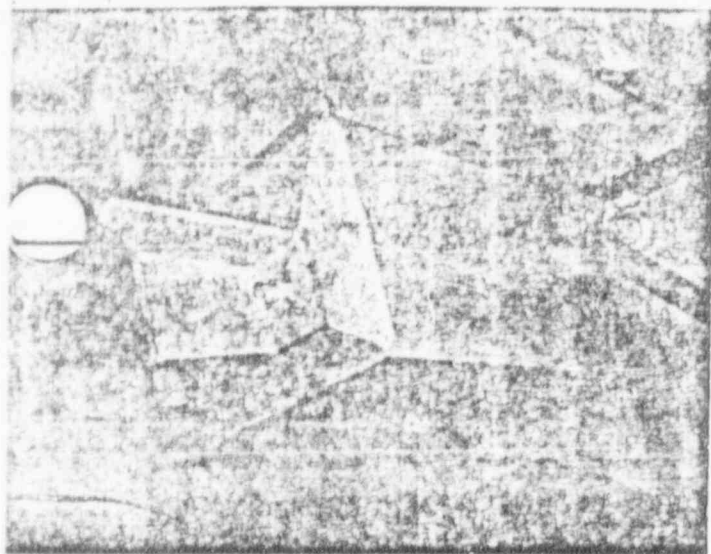
MILLSTONE 1 (UP 1)
SHUTDOWN HEAT EXCHANGER SUPPORT



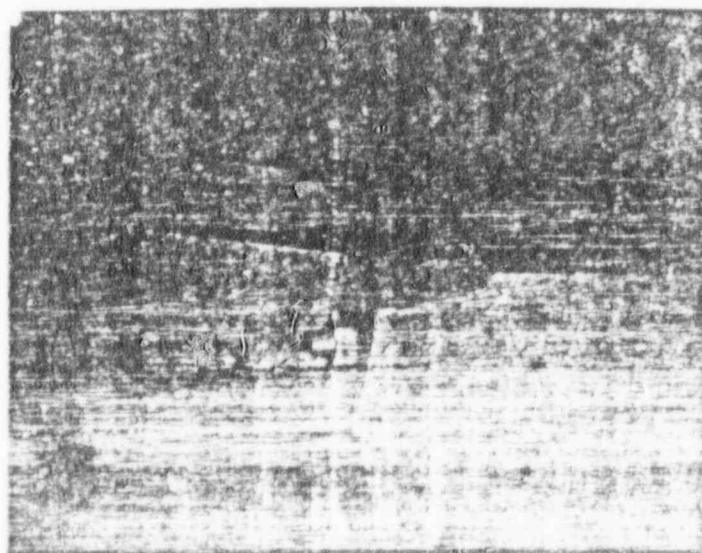
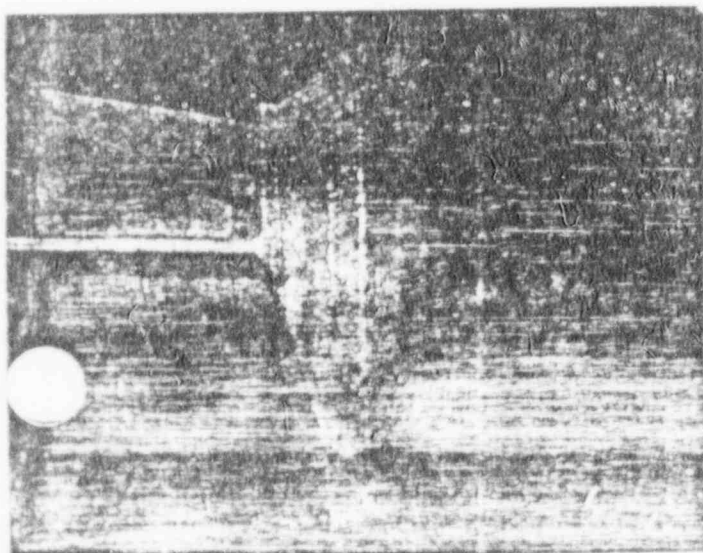
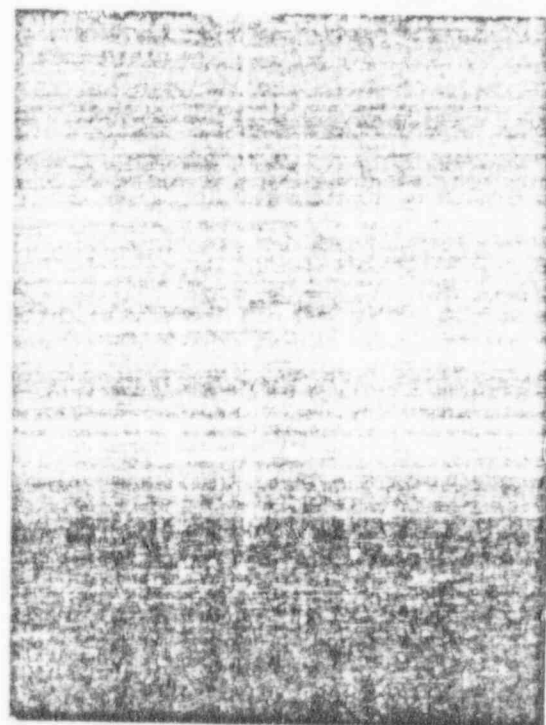


MILLSTONE 1 (UP ↑)
SHUTDOWN HEAT EXCHANGER SUPPORT

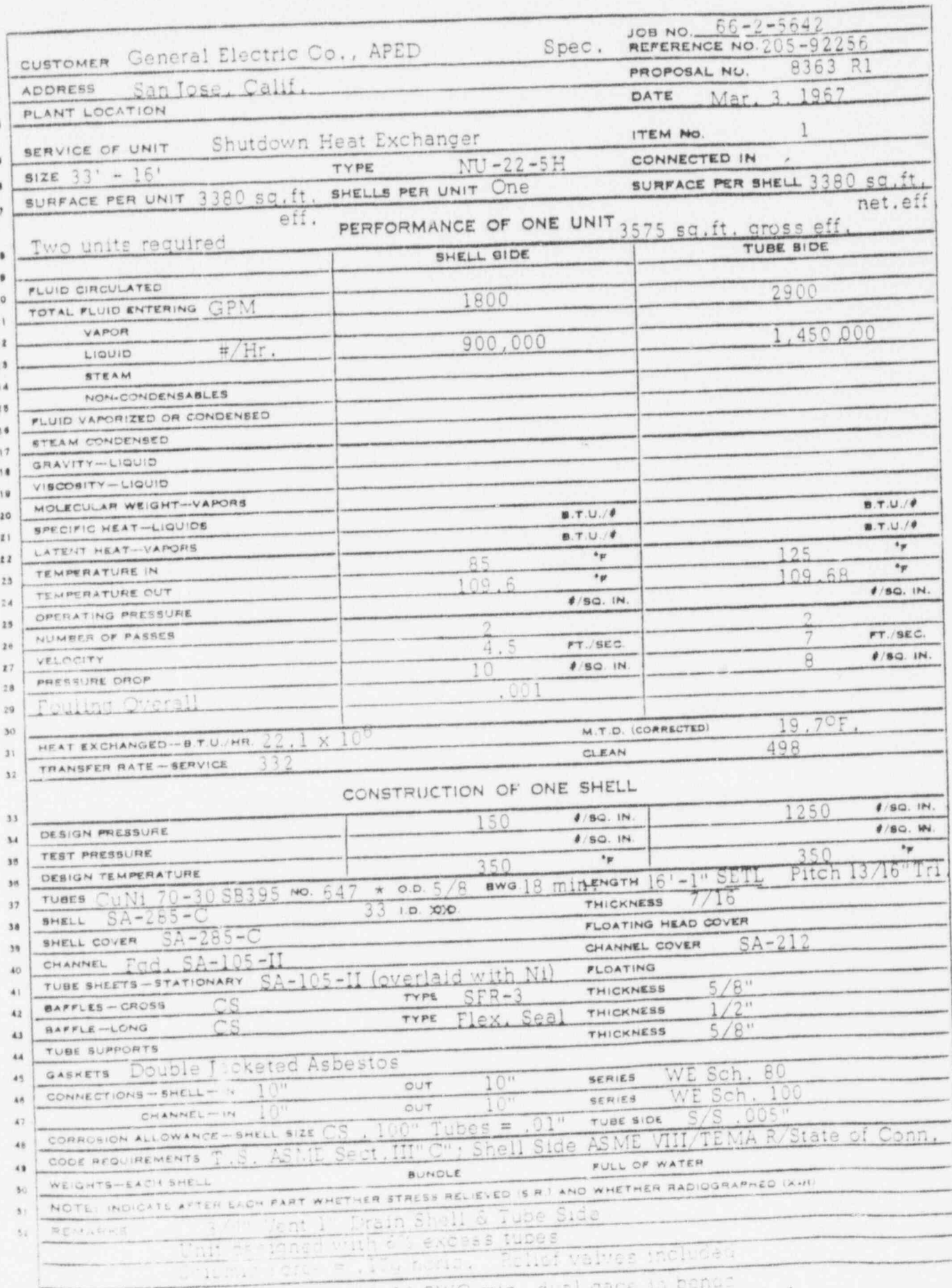




MILLSTONE 1 (UP ↑)
SHUTDOWN HEAT EXCHANGER SUPPORT



EXCHANGER SPECIFICATION SHEET

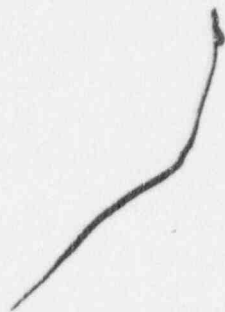


MILLSTONE 1
SHUTDOWN HEAT EXCHANGER

3/4" DIA. TIE RODS SPACED 24" O.C.
 2 1/8" I.C. RAD. 1/2" DIA.

1/2" OF SLIDING SUPPORT
 PROVIDE 2, SLOTTED
 HOLES 1 1/2" X 2 LG

7
 4



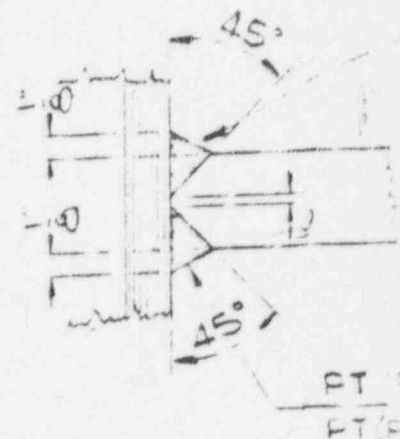
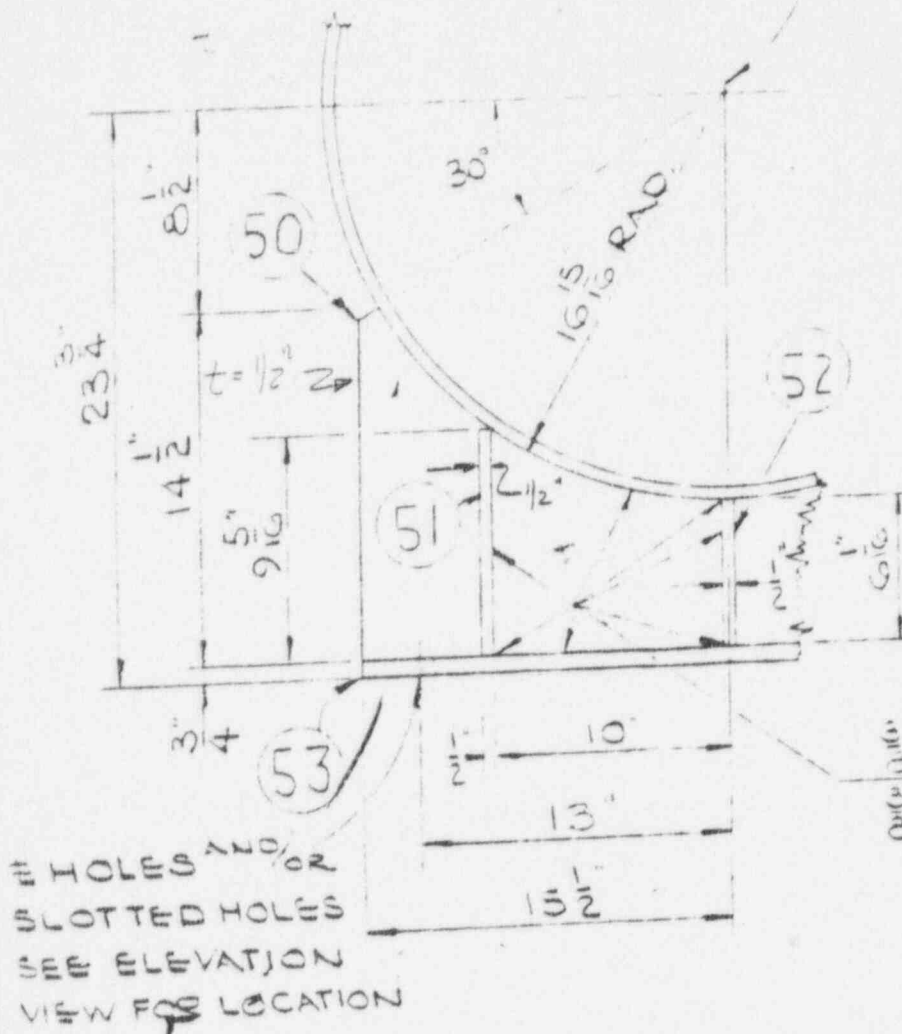
92 1" X 3000" SOCKET
 WELD COUPLING
 PROVIDE TEST PLUG
 102 PER DWG. SW3A-13

FILL GAP
 METAL L
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SYMMETRICAL
 ABOUT E.

CONTINUE PART WELD
 BEVEL (SECT. B-B) AROUND
 CORNER OF PARTITION RIB

OVERLAY



SECTION A-A

SECTION B

MILLSTONE 1 SHUTDOWN HEAT EXCHANGER

SUBJECT SHUT DOWN HEAT EXCHANGERBY M.A. FULMER DATE _____P1 BLDG EL. 42'-6"MILLSTONE 1

2 - 1" ϕ BOLTS PER LEG OF HEAT EXCHANGER

(3 SETS OF LEGS ALONG LENGTH OF UNIT - TOTAL = 6 BOLTS)

BOLTS ARE 36" IN LENGTH

The heat exchanger legs are set on concrete pads (attached by the 1" ϕ bolts). The pads are 36 inches wide, 13 inches thick, and 37 1/2 inches high with about 3 inches of grout between the heat exchanger legs and concrete pads. The bolts on each leg are spaced approximately 26 inches apart.

The heat exchanger itself is designed to withstand a 0.17 g seismic force according to its specifications.

*EMERGENCY
SERVICE WATER
PUMPS*

OIL STORAGE
DAY TANK

SUBJECT OIL STORAGE DAY TANK
EL. 34'-6" TURBINE BUILDING
MILLSTONE 1

BY M.A. POWERS DATE _____

HEIGHT: 12'-2"

DIAMETER: 5'-0"

THICKNESS: 0.25" from 0'-0" to 7'-0"

0.1875" from 7'-0" to 11'-8"

0.1345" from 11'-8" to 12'-2" (ie. conical top section)

BASE: THICKNESS = 0.3125"

TANK ON 2" OF GROUT

ANCHORAGE: $\frac{1}{2}$ " DIAMETER BOLTS PLACED AT 6 PLACES AROUND

BASE OF TANK (SPACED AT 60°)

WEIGHT: EMPTY \approx 2,325 lbs.

FULL \approx 14,100 lbs.