

REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

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FACIL:50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
AUTH.NAME AUTHOR AFFILIATION
UHRIG,R.E. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
VARGA,S.A. Operating Reactors Branch 1

SUBJECT: Forwards info re containment sumps & insulation, per NRC
801031 request.

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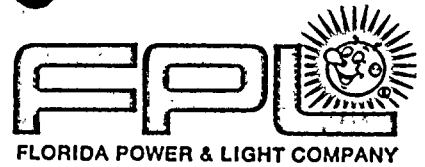
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April 7, 1981
L-81-160

Office of Nuclear Reactor Regulation
Attention: Mr. S.A. Varga, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Varga:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Containment Sumps and Insulation

Please find attached the information concerning containment sumps and insulation requested by the NRC letter dated October 31, 1980.

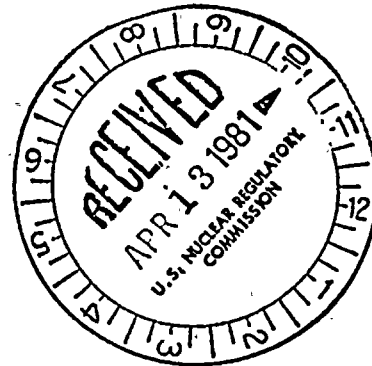
Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/mbd

Attachment

cc: J.P. O'Reilly, Region II
Harold F. Reis, Esquire



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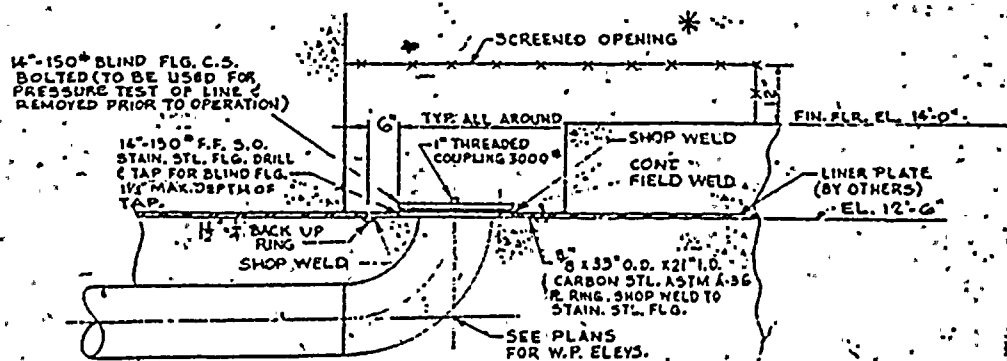
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ATTACHMENT A

- 1) Containment Sump Design Features
- 2) Sump Dimensions and Location and Configuration of Recirc. Suction Lines Unit 3.
- 3) Sump Dimensions and Location and Configuration of Recirc. Suction Lines Unit 4.
- 4) Location of Containment Sump Inside Containment Relative to Reactor Primary System.

1) Containment Sump
Design Features



SECTION A-A

TYP UNITS 3 & 4

* Screen over sumps remove all Debris 1/4" or larger.

CONTAINMENT

N

64'-3" P.

48'-0"

8'-0"

16'-6"

W.P. EL. 8'-2 1/2"

3'-6" x 3'-6" PIT. (TYP.)

8' x 8' SCREENED OPENING-REMOVABLE (TYP.)

W.P. EL. 10'-9 1/2"

10'-0"

16'-11 1/2"

27'-0"

18'-9"

4'-10"

FIELD WELD

14" STAINLESS STEEL PIPE

W.P. EL. 7'-6"

W.P. EL. 10'-6"

W.P. EL. 10'-4 1/2"

W.P. EL. 7'-0"

RESID. HT. EXCH.

14'-0"

23'-6"

5'-0"

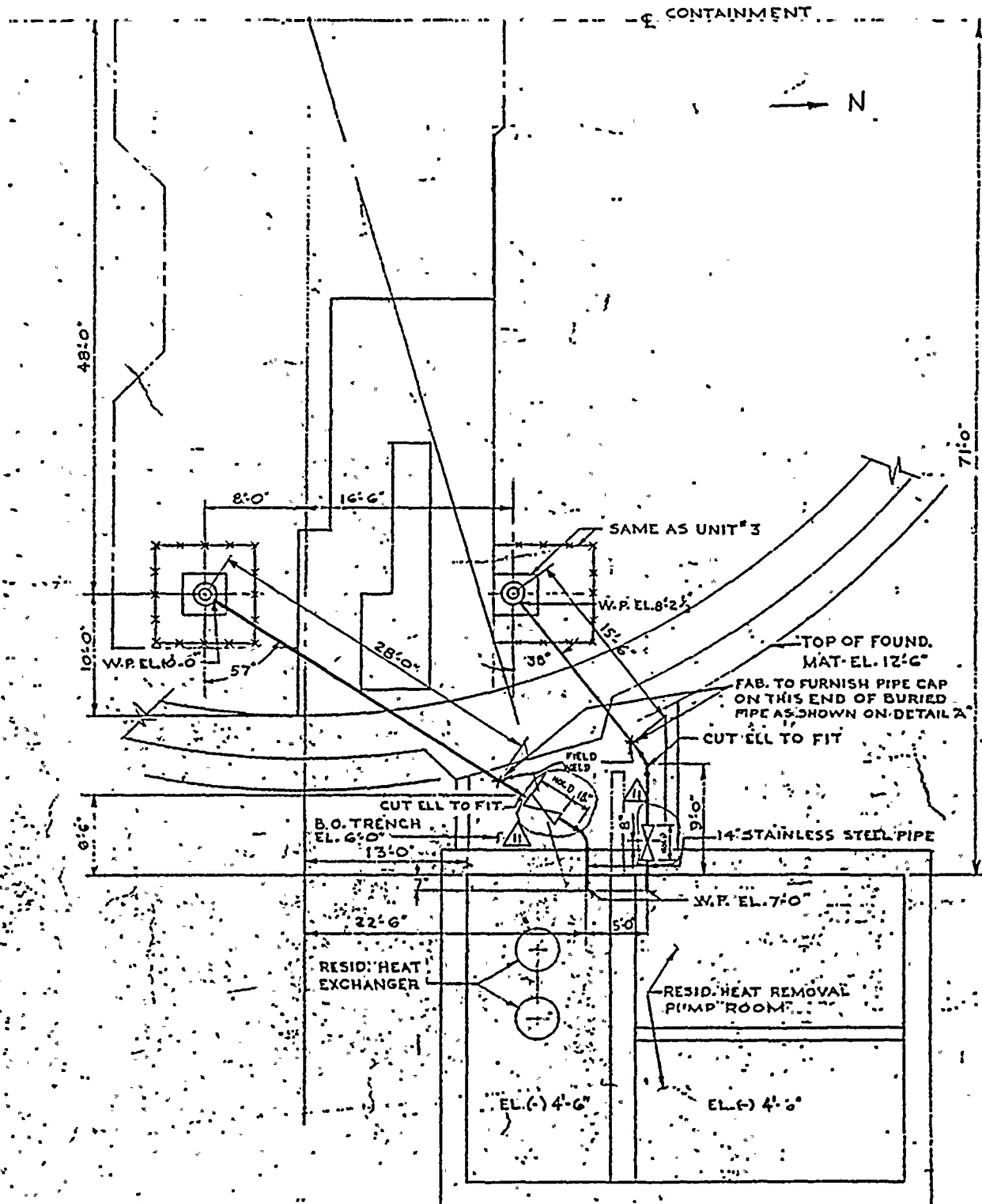
RESID. HEAT REMOVAL PUMP ROOM FLOOR EL. (-) 4'-6"

EL. (-) 4'-6"

PLAN AT EL. 14'-0"

UNIT. NO. 3

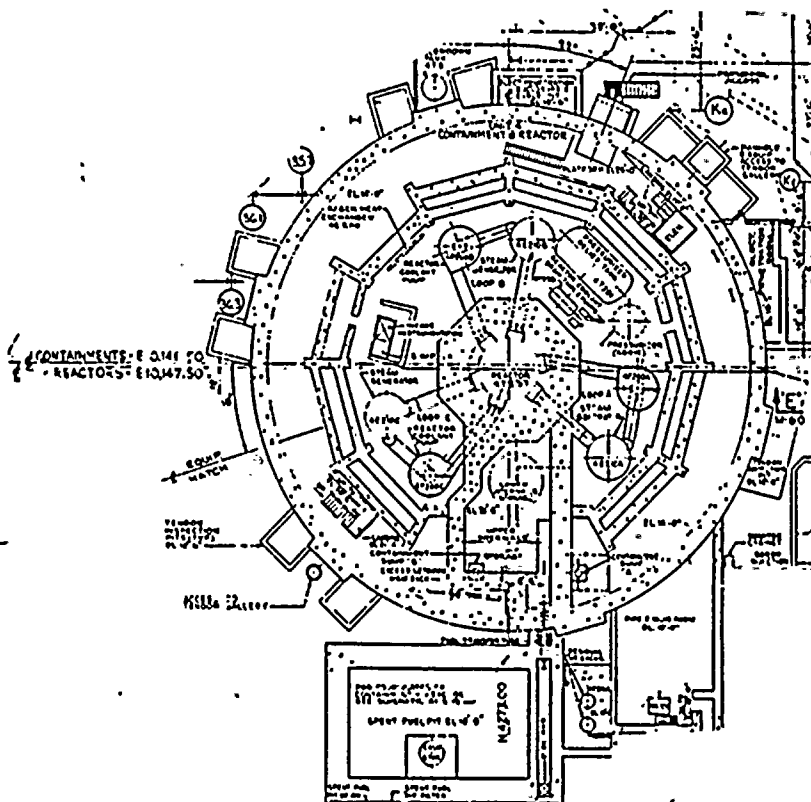
3) UNIT 4 - CONTAINMENT
 SUMP DIMENSIONS
 LOCATION AND CONFIGURATION
 OF RECIRCULATION SUCTION LINES.



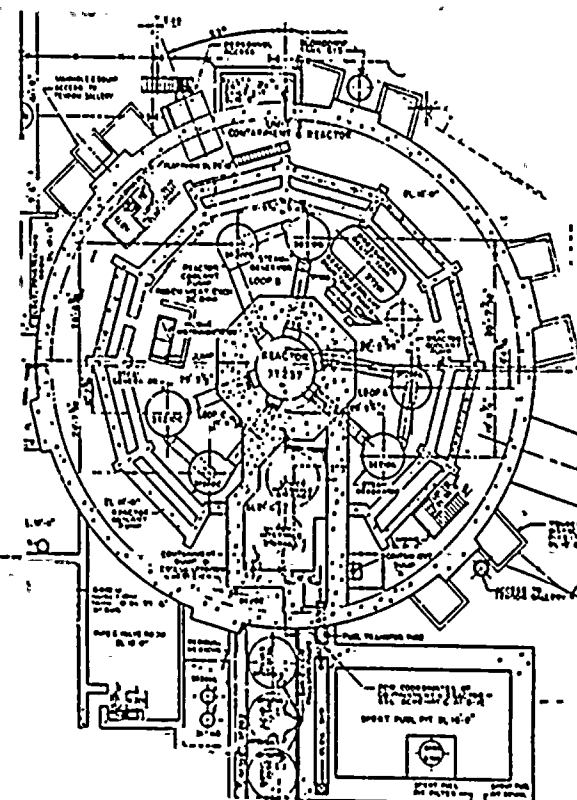
PLAN AT EL. 14'
 UNIT NO. 4

4) LOCATION OF CONTAINMENT SUMP
INSIDE CONTAINMENT BLDG AND
RELATIVE TO THE REACTOR
PRIMARY SYSTEM

→ N



UNIT 4



UNIT 3

FLOOR PLAN
18' Elev.

ATTACHMENT B

- 1) Insulation Materials
- 2) Method of Attachment
- 3) Location Zones
- 4) Location & Quantity (one unit only)
Piping Insulation
- 5) Location & Quantity (one unit only)
Equipment Insulation

All information provided in this attachment is approximate and is applicable to both Units 3 and 4.

1) Insulation Materials

- | | |
|-----------------|--|
| 1. Type | Amosite Asbestos with Sodium Silicate |
| 2. Brand Name | Unibestos |
| 3. Manufacturer | Pittsburgh Corning |
| 4. Density | 16 lb/ft ³ |
| 5. Composition | Leachable Chlorides less than 125 ppm
Sodium Silicate (Na ₂ SiO ₃) over 60,000 ppm |

Metal Reflective Insulation

- | | |
|-----------------|---|
| 1. Manufacturer | Transco (Universal Fabricated Products) |
| 2. Material | Stainless Steel |

2) Method of Attachment

Piping

- 1) Each layer of sectional covering is securely wired on with No. 16 BWG. gage annealed iron wire.
- 2) No less than 3 loops of wire per section on pipes up to 6 inches inclusive and no less than 4 loops on larger sizes.
- 3) Aluminum Jacketing - Flat Type - fastened with "Breakway" type rivets. Jacket 0.020 inch Aluminum Type 3004 Alclad conforming to ASTM Spec. B13-209-65.

Equipment

- 1) Insulation is held securely in place by No. 16 B & S Gage Monel or Stainless Steel Wire attached to metal clips or equivalent device.
- 2) On large, flat, or cylindrical surfaces, 0.020 inch aluminum jacket covering with vapor barrier is used.

3) Location Zones

- A - West Half Below 30' - 6" Elevation (inside secondary shield wall)
- B - East Half Below 30' - 6" Elevation (inside secondary shield wall)
- C - West Half Below 95' Elevation (inside secondary shield wall)
- D - East Half Below 95' Elevation (inside secondary shield wall)
- E - Below 30' - 6" Elev. (outside secondary shield wall).
- F - Below 95' Elevation (outside secondary shield wall).

ZONE A

<u>Pipe</u>		<u>Insulation</u> ^{2.}	<u>Partial</u>
<u>Size (in.)</u>	<u>Length ^{1.} (Ft.)</u>	<u>Thickness (in.)</u>	<u>Additional Zone</u>
12	40	3 1/2	
4	130	3	
	97	2	E
3	112	2 1/2	B
	116	2 1/2	
	25	2	
2	107*	2 1/2	B
	260	2 1/2	
	296*	2	B
	312	2	
1	15*	2	
3/8	12*	2	

* Pipe size 2" & under estimated lengths

4) Continued

Zone B

<u>Pipe</u>		<u>Insulation 2.</u>	<u>Partial</u>
<u>Size (in.)</u>	<u>Length¹ (Ft.)</u>	<u>Thickness (in.)</u>	<u>Additional Zone</u>
14	65	3 1/2	
10	10	3 1/2	A
4	120	3	A
3	137	2	
3	140	2	A
2	3	2 1/2	
1	200*	2	A
3/4	130*	2	A
	359*	2	
3/8	120*	2	

* Pipe length Estimated

4) Continued

Zone C

<u>Pipe</u>		<u>Insulation²</u>	<u>Partial</u>
<u>Size (in.)</u>	<u>Length¹(Ft.)</u>	<u>Thickness (in.)</u>	<u>Additional Zone</u>
12	79	3 1/2	A
6	124	3 1/2	
4	31	3	

Zone D

<u>Pipe</u>		<u>Insulation²</u>	<u>Partial</u>
<u>Size (in.)</u>	<u>Length¹(Ft.)</u>	<u>Thickness (in.)</u>	<u>Additional Zone</u>
2	215*	2 1/2	C
3/4	240*	2	C

* Pipe Length Estimated

4) Continued

Zone E

<u>Pipe</u>		<u>Insulation²</u>
<u>Size (in.)</u>	<u>Length¹ (ft.)</u>	<u>Thickness (in.)</u>
3	63	2 1/2
3	116	2

Zone F

<u>Pipe</u>		<u>Insulation²</u>
<u>Size (in.)</u>	<u>Length¹ (ft.)</u>	<u>Thickness (in.)</u>
26	298	3
14	250 (Unit 3 only)	3
	261 (Unit 4 only)	3

Primary Coolant Piping

<u>Pipe</u>		<u>Insulation²</u>
<u>Size (in.)</u>	<u>Length¹ (Ft.)</u>	<u>Thickness (in.)</u>
36.3	75	3 1/2
34	51	3 1/2
32.3	51	3 1/2

5) Equipment

<u>Item</u>	<u>No./ Unit</u>	Per Item Surface <u>AREA¹(Ft.²)</u>	Insulation ² <u>Thickness (in.)</u>	<u>Location Zone</u>
Steam Generator	3	2423	3 1/2	C & D
Reactor Coolant Pump (casing only)	3	200	3 1/2	A & B
Pressurizer	1	819	4	C
Pressurizer Relief Tank	1	633	2	A
Excess Letdown Heat Exchanger (Heads Only)	1	4	3 1/2	E
Regenerative Heat Exchanger	1	95	3 1/2	A
Reactor Vessel	1	1780	Metal Reflective	A & B

1. Unless otherwise noted length of pipe or surface area for one unit only.
2. Basic insulating material for all piping & equipment is Amosite Abestos with exception of Reactor Vessel. Thickness does not include metal jacketing.