

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8211230412 DOC. DATE: 82/11/18 NOTARIZED: NO DOCKET #
 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 AUTH. AFFILIATION
 UHRIG, R. E. Florida Power & Light Co.
 RECIPIENT NAME RECIPIENT AFFILIATION
 EISENHUT, D. G. Division of Licensing

SUBJECT: Forwards inservice insp relief Requests 6 & 7 originally transmitted 790918 & clarified w/addl info, in response to NRC 820316 & 0614 requests.

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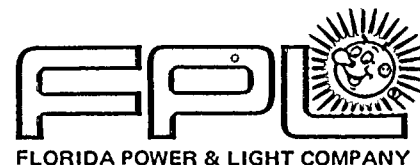
U. T. 4 J. 100
G. S. 100
R. 100

1. The following information was obtained from the records of the Federal Bureau of Investigation, Washington, D. C., on the subject of the above captioned case:

[illegible]

20,317

[illegible]



November 18, 1982
L-82-514

Office of Nuclear Reactor Regulation
Attention: Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

Re: Turkey Point Units 3 & 4
Docket No. 50-250 & 50-251
Inservice Inspection Relief Request

Please find attached relief requests 6 & 7 originally transmitted by L-79-261 dated September 18, 1979 and clarified with additional information in response to your questions of March 16, 1982 by L-82-245 dated June 14, 1982. These requests are being transmitted following discussions with your staff.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/JEM/mvt

Attachments

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

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PDR ADDCK 05000250
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Turkey Point Unit No. 4

RELIEF REQUEST NO. 6/7

A. Component Classification:

- Class 1
- Code Examination Category
 - 1) B-L-1, (Item No. B5.6)
 - 2) B-L-2, (Item No. B5.7)

B. Examination Requirement:

- 1) Code Item No. B5.6 - Volumetric examination, to include 100% of pressure retaining welds, of one pump in each group of pumps performing similar functions in a system. The examinations shall be performed during each inspection interval, and maybe performed at or near the end of the inspection interval.
- 2) Code Item No. B5.7 - Visual examination of the interval pressure boundary surfaces on one pump in each of the group of pumps performing similar functions in the system during each inspection interval. The examinations maybe performed at or near the end of the inspection interval.

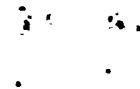
C. Relief Requested: Reactor Coolant Pump (s)

In lieu of Volumetric Examinations, Florida Power & Light Co. proposes to perform:

- 1) 100% visual examination of the external surfaces only of one pump casing welds to the extent and frequency of Examination Category B-L-2.
- 2) Partial surface examination of the external casing weld (s) of only one pump, conditions permitting - to the frequency of Examination Category B-L-2.

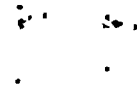
D. Basis for Relief:

- 1) State-of-the-Art Ultrasonic Techniques have not been developed to meet the Code requirements. In the event that an ultrasonic examination technique is developed that meets the Code requirements, the intent of the Code will be followed. Florida Power & Light Company has representation on ASME Code committees, and keeps abreast of State-of-the-Art developments in all aspects of nondestructive examination methods in the industry.



Turkey Point Unit No. 4
RELIEF REQUEST NO. 6/7

- 2) Radiographic examination is not possible without the complete disassembly of the pump (see figure I). To perform this examination, large expenditures of manhours and man-rem are required with essentially no compensating increase in plant safety. Based on actual data compiled from the radiographic examination of the Turkey Point Unit No. 3 reactor coolant pump casing welds and visual examination of the internal pressure boundary surfaces on one pump, in excess of 5900 man-hours and 46 man-rem exposure was expended in the disassembly, examinations and reassembly of the pump. These examinations are conducted under somewhat adverse conditions which have far reaching effects as depicted in Figure 2 thru Figure 5.
- 3) There is a very low probability, based upon industry experience, to disassembly pump(s) for maintenance purposes. There is no requirement by the pump manufacture (Westinghouse) to disassemble the pump(s) as part of normal maintenance or inspection. Accordingly, Florida Power & Light Company's procedures do not require disassembly of the pump(s) for maintenance or inspection purposes. There are no reported failures within the pump casings with these model pump(s). It's note worthy to mention that removal of the pump impeller does not provide access to the casing internal surfaces which would still prohibit the inspection (visual and volumetric) of the pump to Code requirements. See Figure I for items to be removed for Code ISI examination compliance.
- 4) Florida Power & Light Company feels that adequate safety margins are inherent in the basic pump design. The structural integrity afforded by the existing pump casing material will not significantly degrade over its lifetime. The reactor coolant pump casing material, cast stainless steel (ASTM A351-CF8M), is widely used in the nuclear industry and has performed extremely well. The presence of some delta ferrite (typically 5% or more) substantially increases resistance to intergranular corrosion and stress corrosion cracking. The delta ferrite also results in improved resistance to pitting corrosion.
- 5) Florida Power & Light Company feels that the satisfactory inspection results achieved in February 1982 (See D.2), coupled with the same inspections conducted by three (3) other utility company's and employing the same manufactures model pumps, provides additional assurance as to the pump's casing integrity.



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E. Alternate Examinations:

- 1) Manufacture's Shop Radiographs, ASME Section III.
- 2) Hydrostatic Tests, ASME Section XI.
- 3) Surface Examinations, ASME Section XI.
- 4) Visual Examinations, ASME Section XI.
- 5) The extent of surface coverage to be achieved, and the alternate examinations and tests, provide assurance of an acceptable level of quality and safety.

F. Implementation Schedule:

At or near the end of the Inspection Interval.

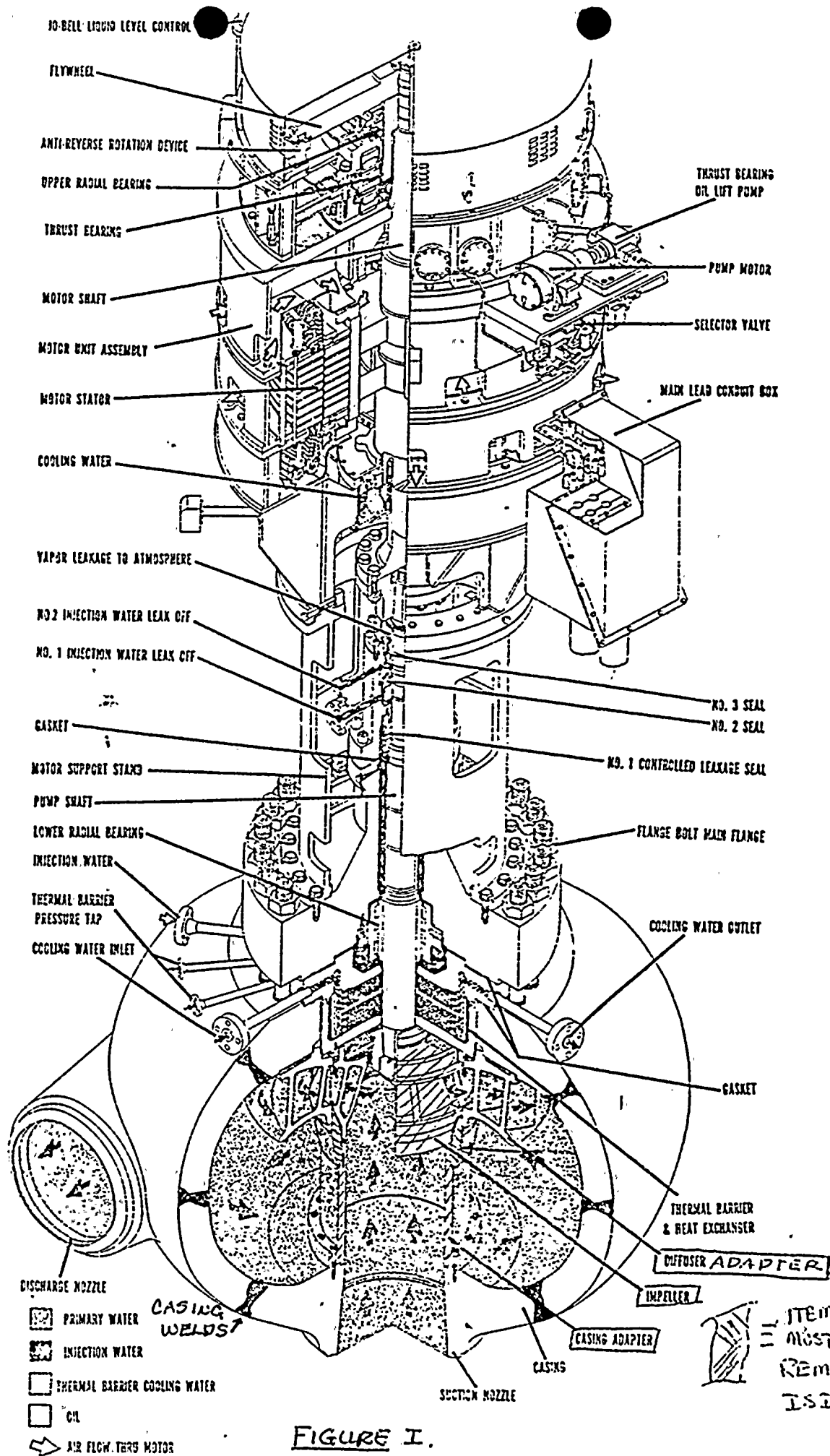
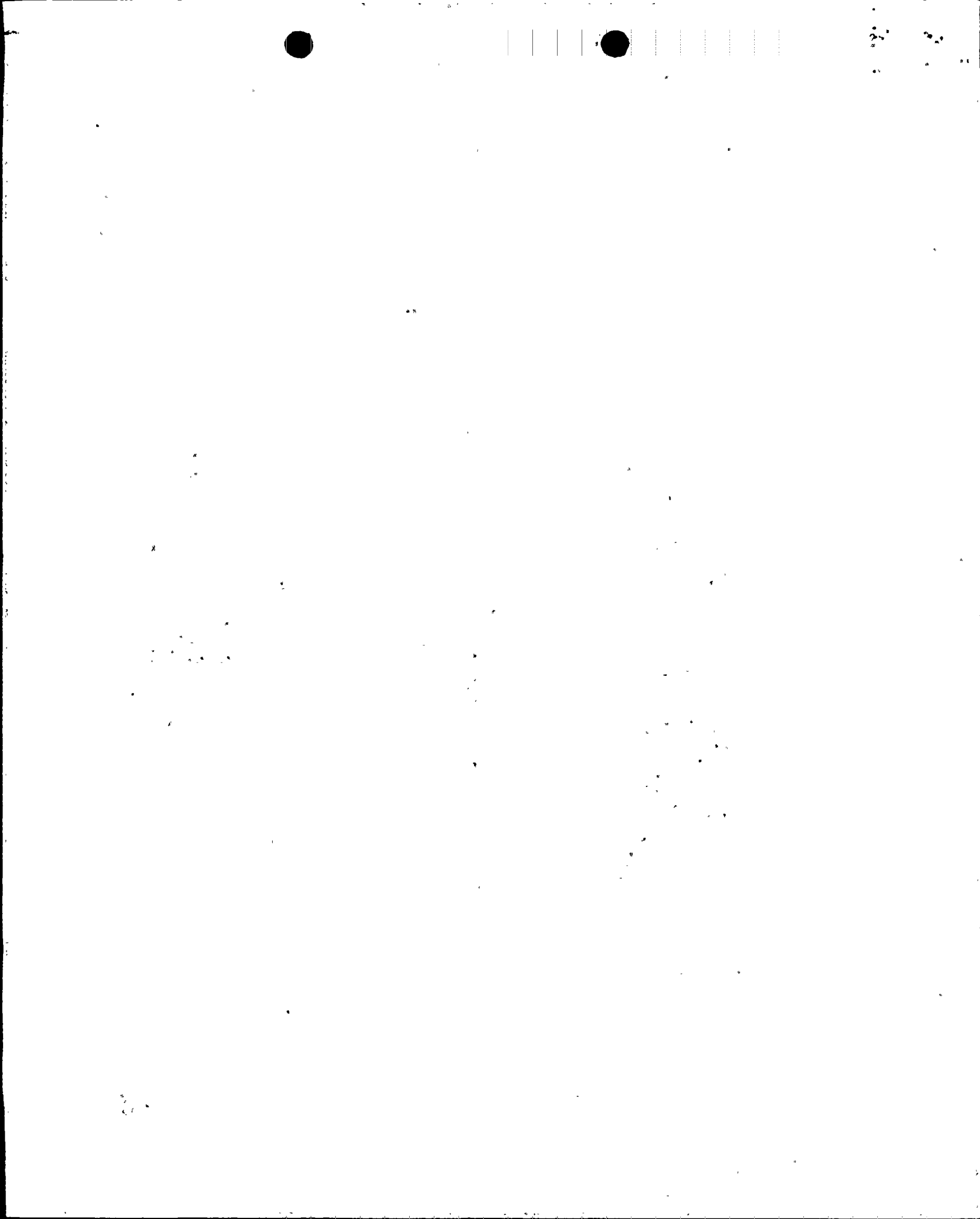


FIGURE I.

FIGURE I-1 Cutaway and Flow Diagram



GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC)
AND DURING THE (MINAC) EXAMINATION. 14' ELEVATION

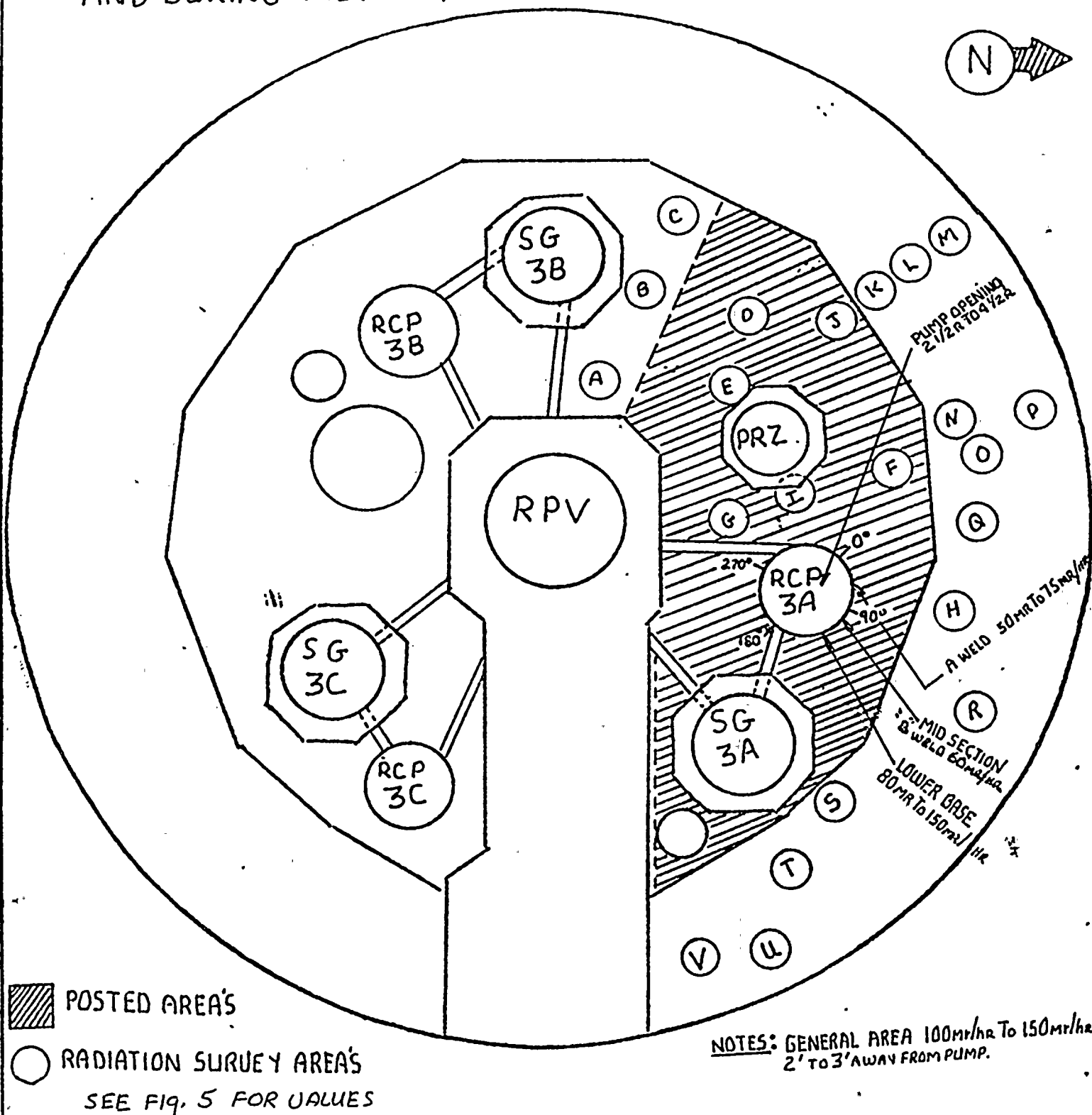
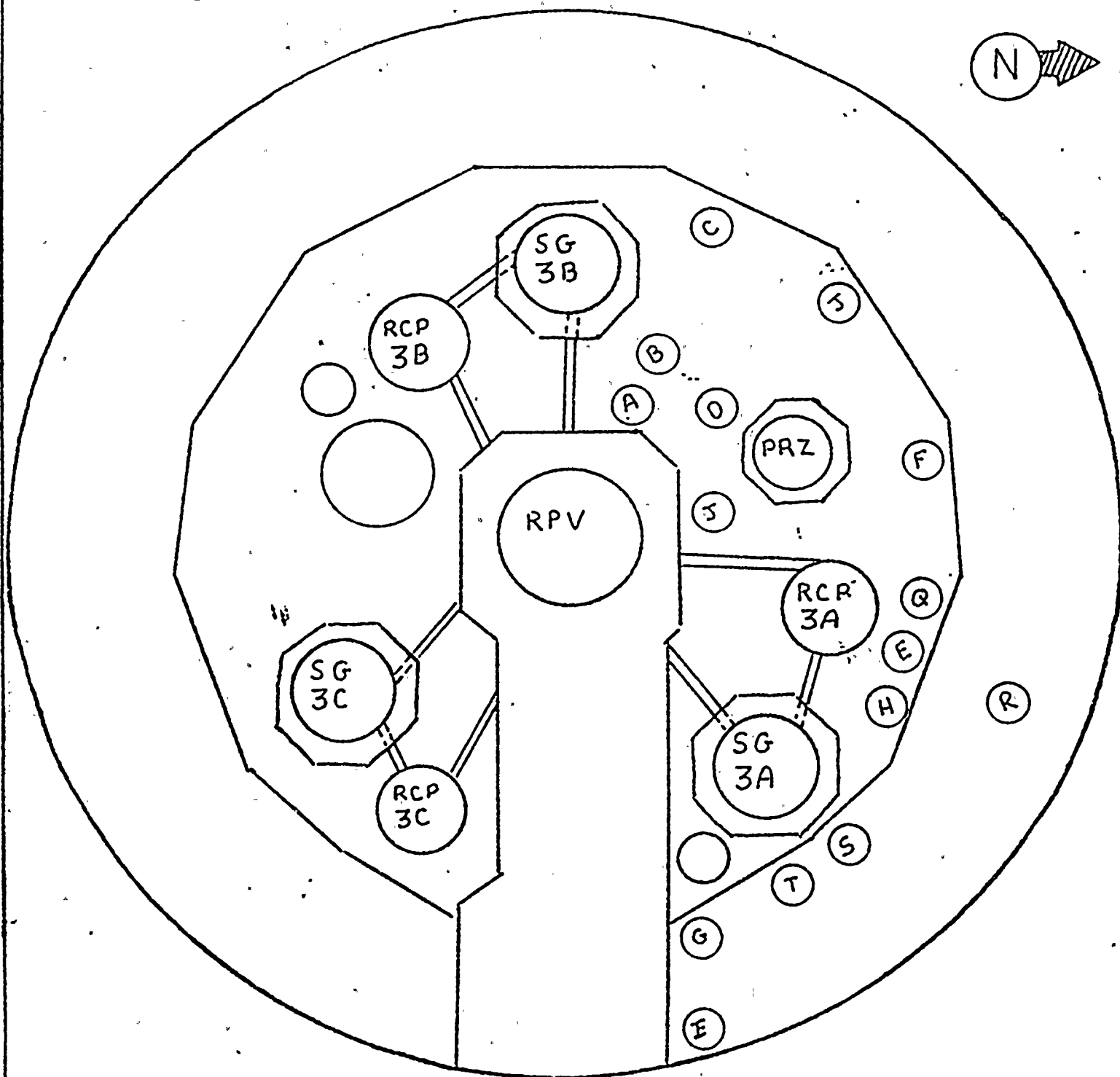


FIGURE NO. 2

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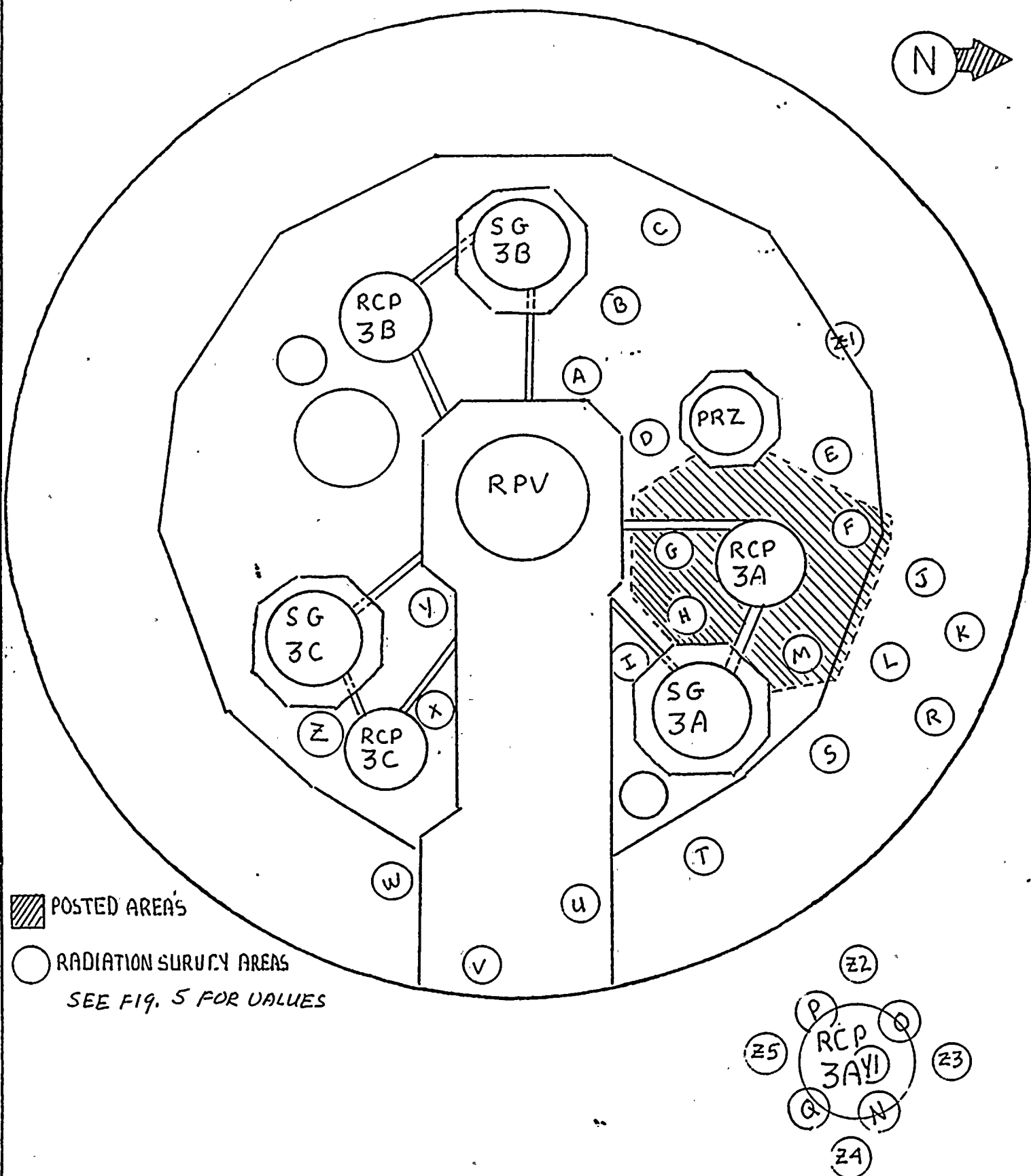
GENERAL SURVEY OF RCP AREA PRIOR TO RT(MINAC)
AND DURING THE (MINAC) EXAMINATION. 30' 6" ELEVATION



○ RADIATION SURVEY AREA'S
SEE FIG. 5 FOR VALUES

FIGURE NO. 3

GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC)
AND DURING THE (MINAC) EXAMINATION 58' ELEVATION



	ELEVATIONS	14'		30'6"		58'					14'		30'6"		58'	
		PRIOR TO	DURING	PRIOR TO	DURING	PRIOR TO	DURING				PRIOR TO	DURING	PRIOR TO	DURING	PRIOR TO	DURING
A		100				7	7		Z1							4
B		100	150	1		3	5		Z2							15
C		80		4		4			Z3							15
D		90			1	7	7		Z4							15
E		70		4		4.5			Z5							15
F		70	75	.4	.6	.8			Y1							600
G		100		2		4	4									
H		5		.4	.5	2	3		NOTE: ALL DOSE RATES ARE IN MREM/HR. READINGS FOR DURING WERE TAKEN DURING 360° ROTATIONAL SHOT AT 100% POWER							
I				14		3.5	4									
J					.6	.8	.8									
K						.4	.5									
L						.4										
M			3			.7	1									
N			5			10	400									
O			25			10	400									
P			2			10	400									
Q			5			10	400									
R			2.5			.4										
S			50			.5	.5									
T			5			1.5	1.5									
U			2.5			10										
V						5										
W						6	7									
X						5	5									
Y						10	15									
Z							5									

FIGURE NO. 5

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