

February 12, 1993
LIC-93-0071

Omaha Public Power District
444 South 16th Street Mall
Omaha, Nebraska 68102-2247
402/636-2000

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

- REFERENCES:
1. Docket No. 50-285
 2. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section XI, 1980 Edition, Winter 1980 Addenda
 3. ASME Code Case N-481, "Alternative Examination Requirement for Cast Austenitic Pump Casings"
 4. Letter from Combustion Engineering Owners Group (J. J. Hutchinson) to NRC (Document Control Desk) "CEOG Submittal of CEN-412, Rel -tion of Reactor Coolant Pump Casing Inspection Reql - ents" dated November 27, 1991 (CEOG-91-716)
 5. Letter from the NRC (J. T. Larkins) to OPPD (W. G. Gates) dated December 18, 1991, "Request for Implementation of ASME Code Case N-498, Fort Calhoun Station, Unit 1 (TAC No. M82081)"
 6. Letter from OPPD (W. G. Gates) to NRC (Document Control Desk). "Request for Approval to Implement Provisions of ASME Code Case N-481" dated March 6, 1992 (LIC-92-074R)
 7. Letter from OPPD (W. G. Gates) to NRC (Document Control Desk) dated December 30, 1992 (LIC-92-365)

Gentlemen:

SUBJECT: Omaha Public Power District (OPPD) Interim Relief Request on Examinatic: Requirements of Reactor Coolant Pump (RCP) Casings

The purpose of this letter is twofold. First, OPPD is providing information requested on January 22, 1993 by Mr. S. D. Bloom of the NRC during a telephone conference with Mr. J. B. Herman of my staff. Mr. Bloom requested information concerning levels of personnel radiation exposure during the performance of a RCP examination. Secondly, pursuant to 10CFR50.55a(a)(3), OPPD is reiterating its request of Reference 7 for interim relief from performing the RCP casing volumetric weld examination (Item B12.10) and internal surface visual examination (Item B12.20) required by Table IWB-2500-1 of Reference 2.

In accordance with Mr. Bloom's request, attached are OPPD radiological surveys No. 92-0182 and No. 92-1071 dated February 1, 1992 and March 21, 1992 respectively. These radiological surveys show that area dose measurements and contact dose rates for the exterior of the pump bowl range from 30 - 1,000 mR/hr. For a single RCP, the estimated time to complete insulation

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Employment with Equal Opportunity
Male/Female

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removal/replacement and the VT-1 examination of the pump casing welds is 160 manhours. Based on these figures, the removal and replacement of the RCP insulation for access to the external pump surfaces and the examination itself would result in an estimated personnel radiation exposure of 12 man-rem.

On March 6, 1992, OPPD submitted a detailed request for relief (Reference 6) from the requirements of Table IWB-2500-1 based on implementation of ASME Code Case N-481 (Reference 3). In lieu of the examination requirements of Reference 2, Table IWB-2500-1, Items B12.10 and B12.20, ASME Code Case N-481 specifies the following VT-1, 2 and 3 visual examinations:

1. A VT-1 visual examination of the external surface of one RCP each ten-year inspection interval.
2. A VT-2 visual examination during the Reactor Coolant System (RCS) Hydrostatic Test.
3. A VT-3 visual examination of the RCP internals whenever a pump is disassembled for maintenance.

In accordance with the evaluation required by ASME Code Case N-481, CEQG Topical Report CEN-412 (Reference 4), determined that RCP casing integrity will be retained for 175 years under expected service conditions. Therefore, it is OPPD's position that the VT-1 visual examination is unnecessary since a RCP casing weld failure is not a credible event during the Station's lifetime. Also, the potential benefits of the VT-1 visual examination are outweighed by the increase in personnel radiation exposure.

The NRC's approval (Reference 5) of ASME Code Case N-498, allows the VT-2 visual examination to be done in conjunction with a RCS leakage test instead of a RCS hydrostatic test. OPPD proposes to implement ASME Code Case N-481 utilizing the following two alternative RCP visual examinations:

1. A VT-2 visual examination of the RCPs during the RCS leakage test to be performed in accordance with Item B15.10 of Table IWB-2500-1 of Reference 2 during each refueling outage.
2. A VT-3 visual examination of the interior surfaces of the RCP to the extent practical whenever a pump is disassembled for maintenance.

As noted in Reference 7, the NRC has determined that a safety evaluation report (SER) will be necessary prior to final approval of OPPD's alternative RCP examinations. Also, the NRC informed OPPD that the SER will not be issued before the FCS second ten-year inservice inspection interval ends in September 1993. The required RCP examinations must be performed before the third ten-year inservice inspection interval commences. Therefore, OPPD is requesting a one-time relief to allow performance of the proposed alternative visual examinations during the 1993 Refueling Outage scheduled to begin in September 1993. NRC approval is requested by April 1, 1993 to allow for planning and scheduling to support implementation during the 1993 Refueling Outage. These alternative RCP examinations will result in lower total radiation exposure to personnel without a reduction in the safety of the RCP pressure boundary.

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If you should have any questions, please contact me.

W. G. Gates

W. G. Gates
Vice President

WGG/sel

Attachments

c: LeBoeuf, Lamb, Leiby and MacRae
J. L. Milhoan, NRC Regional Administrator, Region IV
R. P. Mullikin, NRC Senior Resident Inspector
S. u. Bloom, NRC Project Manager

ALABAMA FIELD CODE

3201-027-92

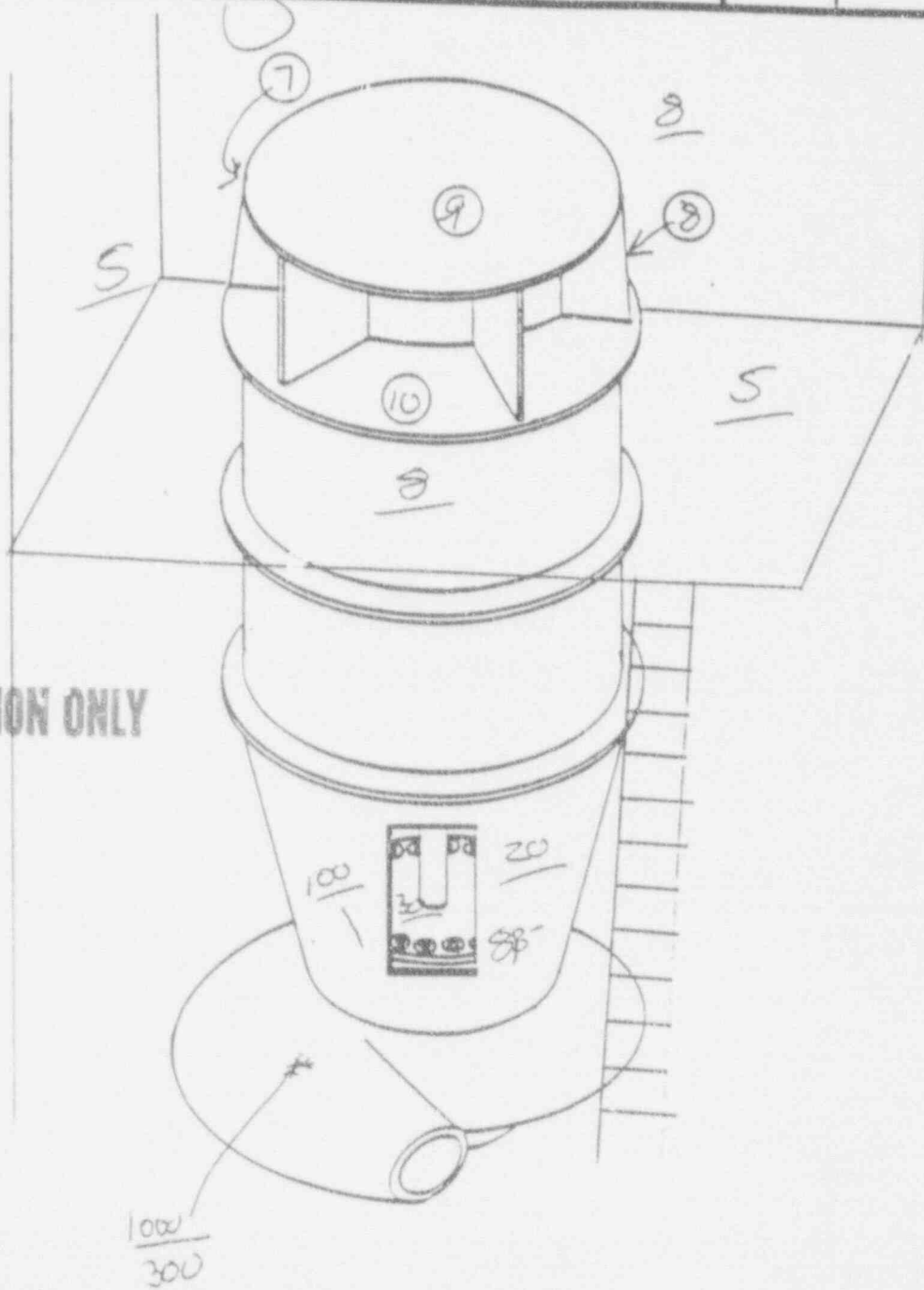
92-0182

FORT CALHOUN STATION UNIT NO. 1
RADIOLOGICAL SURVEY DIAGRAM

DATE: 2-1-92	TIME: 0900	RWP: 3516	TECH: Terry J. Bane / FERGUSON	INSTRUMENT INFORMATION		
AREA: (B) RCP			SIGN: [Signature]	TYPE	SERIALS	CAL DUE
PURPOSE: INITIAL SURVEY				Rad	5115	4-15-92
COMMENTS: Oil Oil pump surface				Tele	11743	3-12-92
				Term	3	6-21-92
A/S RESULTS: N/A			REF. RP 215			
			BCF: 3.6			
REVIEWED: [Signature]		DATE: 2-1-92	TIME: 1715			

Legend: Δ - Contact Doserate Δ - Air Supply
Unless otherwise noted, all doserates are mS/hr

FOR INFORMATION ONLY



92-1071				FORT CALHOUN STATION UNIT NO. 1 RADIOLOGICAL SURVEY DIAGRAM			
DATE: 2-21-92	TIME: 1100	RWP: 3527	TECH: HORTON	INSTRUMENT INFORMATION			
AREA: (D) RCP D				SIGN: Horton	TYPE	SERIAL	CAL DUE
PURPOSE: MOTOR STAND & STUD REMOVAL					RO 2	4447	6-11-92
COMMENTS:					RIT 14	44097	9-9-92
					PADLOC	5296	6-2-92
A/S RESULTS: $\Delta = 0.36 \text{ m}^2 \cdot \text{h}$ $\beta = 6.7 \text{ E}^{-11}$				BCF: NH	TEMP	4	4-27-92
REVIEWED: [Signature]				DATE: 3/20/92	TIME: 1500	NA	NA
					NA	NA	NA

Legend: * = Contact Doserate Δ = Air Sample
Unless otherwise noted, all doserates are mR/hr

- x = Boundary
- x = Sample Location
- = Step Off Pad
- 1-4 MOTOR STAND
- 5-6 ON STUD
- 7 LEAD SHIELDING
- 8-9 VOLUTE
- 10-11 CONCRETE FLOOR
- 12-14 GRATING

