

Washington Public Power Supply System
A JOINT OPERATING AGENCY

P. O. Box 968

3000 GEO. WASHINGTON WAY

RICHLAND, WASHINGTON 99352

PHONE (509) 375-5000

May 18, 1979
G02-79-100



Nuclear Regulatory Commission
Region V
Suite 202, Walnut Creek Plaza
Walnut Creek, California 94596

Attention: R. H. Engelken, Director

Subject: WPPSS NUCLEAR PROJECT NO. 2
NRC INSPECTION - FEBRUARY 27-28, MARCH 1-2,
AND MARCH 14-16, 1979
DOCKET NUMBER 50-397

References: 1) Letter, R. H. Engelken to N. O. Strand, dated
April 17, 1979.
2) Letter, D. F. Knuth to all AEC Licensees, dated
December 31, 1974, "Criteria for Determining Enforcement
Action and Categories of Non-Compliance".

Dear Mr. Engelken:

As requested in reference letter, we are implementing additional and immediate actions required to assure that ongoing construction activities are accomplished according to quality requirements.

Since our May 1978 conference, we have initiated actions to strengthen the WPPSS and the contractors QA Programs. However, we still have a need for continuing and increased attention in the following areas:

1. Responsibility of Project Managers, Construction Managers and Supervisors for enforcement of job quality requirements.
2. Improve contractor training and the problem feedback loop to firstline personnel.
3. Improve preplanning to prepare contractors before commencement of Quality Class I work.
4. Streamline contractor procedures to eliminate overly complex and unnecessary requirements.

7907030087 79-78

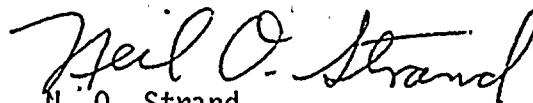
Some of our major actions, planned or underway, to address these specific areas and our overall QA Program are listed below:

1. We have initiated a detailed assessment and evaluation of our "Quality Assurance Program Corrective Measures," submitted to you by letter of September 1, 1978, in response to our May-June 1978 enforcement conferences. Target for completion of the evaluation and followup plan of action is July 31, 1979.
2. The Assistant Director-Projects has initiated a program of periodic reindoctrination of Project Managers and their Construction Managers and Supervisors for enforcement of job quality requirements.
3. WPPSS will instigate the training of craft supervisors and management of selected major WNP-2 contractors. The training module for craft supervision is one specially prepared by our architect-engineer for foreman level. Target date for completion of this module is August 1979.
4. We are now reviewing with WNP-2 contractors their system for problems feedback to crafts and firstline inspectors. We will improve the system where necessary. Expected completion date is June 1979.
5. Before any new Quality Class I work commences, WNP-2 Construction Management will ask for a QA audit to generally review the contractors' overall readiness. Work will not be allowed to proceed except in those areas not affected by the review and audit findings.
6. Because we have been concerned about the adequacy of our contractors' program for controlling their QA records, we have just audited their programs and will improve them where necessary. We have personnel assigned for ongoing review of records. To gain the necessary assurances, we have assigned and located document review personnel at three of the critical contractors' document control areas. On Contract 215, our Construction Management has been directing an effort to transfer documents from the field to the records vault.
7. In support of our Construction Management-Systems Completion Group, we have established a Quality Completion Group with Project QA. The latter group will support Systems Completion and Startup by timely identification and resolution of inspection backlogs and quality-related deficiencies.
8. On Contract 216, Waldinger has replaced its Project Manager and QA Manager and we are demanding their highest corporate attention to solve the QA problems. We are having weekly Project Management meetings with them on QA problems. A joint Project-Contractor Task Force of Engineering/Construction/QA-QC personnel has been started to speed up inspection backlogs. By June 1979, we plan to review and streamline Contract 216 procedures to delete overly complex and unnecessary requirements.

9. We are also having weekly Project Management meetings with Contract 220 (Johnson Controls) on quality problems and are expediting their program implementation. We took stop work actions in April in two areas where existing procedures were inadequate. By June 1979, we plan to review and streamline contractor procedures to delete overly complex and unnecessary requirements.
10. You are aware that our efforts significantly improved the 215 Contractor's QA Program over the last one-year period. Because of the size, importance and past history of the 215 Contract, we will continue to give this contract our close attention including improvement of hanger inspection backlogs.

If you have any questions or desire further information, please advise.

Very truly yours,



N. O. Strand
Managing Director

vh

cc: JG Davis - Office of Inspection & Enforcement, Washington, D.C.
CR Bryant - BPA

IE BULLETINS

IEB/DATE	REPLY DUE	REPLY DATE	CORRECT. ACTION /STATUS	Status
79-05/Var.	N.A.	-	(TMI) - Info -	Clsd
79-06/Var.	N.A.	-	(TMI - PWRS) - Not Applicable -	Clsd
79-07/4149	5299	8089 ¹	(Seismic Analy. of S.R. Pipe) Working	Open
79-08/4149	N.A.	-	(TMI - BWRS) - Info - Long Term	Clsd
79-09/4179	6179	6129	(CKT BKR Failures) Component not used @ WNP-2	Clsd
79-10/5119	N.A.	-	(Requal TR Prog. Statistics) - Not Applicable -	Clsd
79-11/5229	7229	8069 ¹	(Faulty Overcorr. Trip Device) Component not used @ WNP-2	Clsd
79-12/5319	N.A.	-	(BWR Scrams) Reviewed by WPPSS OPS	Clsd
79-13/6259	N.A.	-	(Feedwater Pipe Cracks-PWRS) - Not Applicable -	Clsd
79-14/7029	N029	9/7 + 9119	(As-Built Seismic Analys.) - Working	Open
79-15/7119	9119	9189	(Deep DRET Pump Defys) - Awaiting Suppliers Data	Open
79-16/7269	9219	9059	(Vital Area Access Control)-Reply Refs Phys Security Pln Cls	Clsd
79-17/7269	N.A.	-	(PWR Borated H ₂ O Pipe Cracks) - Not Applicable -	Clsd
79-18/8079	N.A.	-	(Audib. Prob on Evac) - Not Applicable -	Clsd
79-19/8109	N.A.	-	(Pkg Low Level Waste) - Not Applicable -	Clsd
79-20/8109	N.A.	-	(Pkg Low Level Wasted-Matl. Lic.) - Not Applicable -	Clsd
79-21/8139	N.A.	-	(Temp. Effects on Level Meas) Reviewed/No Prob @ WNP-2	Clsd
79-22/9059	N.A.	-	(Tritium Gas Lkg-Matl. Lic.) - Not Applicable -	Clsd
79-23/9129	0279	N029	(Failures of D.G. Field Ex. XFMR) Reviewed not a prob @ WNP-2	Clsd
79-24/9279	N.A.	-	(Frozen Lines) Reviewed/No Prob @ WNP-2	Clsd
79-25/N029	1020		(W BFD Relay Failure) Component not used @ WNP-2	Clsd
79-26/N209	N.A.	-	(Boron Loss - BWR Control Rod Blds) - Reviewed	Clsd
79-27/N309	N.A.	-	(Loss of NON IE Instrum.) - Working -	Open
79-28/D079	2070	1280	(Poss. Limit Switch Prob) Components not used @ WNP-2	Clsd
79-01B/1140	N.A.	-	(Envir. Qual Equip) - Working -	Open
79-17 ₁ /0299	N.A.	-	(PWR Borated H ₂ O Cracks) - Not Applicable -	Clsd
79-14 ₂ /9079	N.A.	-	(Guidance-As-built Sesimic Analysis) (Info for 79-14)	Clsd
79-03A/4040	8040	(Open)	(Long. Weld Defects) - Working -	Open
79-01B/2290	N.A.	-	(Environ. Qual. Equip) - Working -	Open
80-01/1110	N.A.	-	(Ads VLV Operability) - Working -	Open
80-02/1210	5210	(Open)	(Inadeq. Supplier QA) - Working -	Open
80-03/2060	3210	3180	(Loss of Charcoal) - Working -	Open
80-04/2080	N.A.	-	(PWR Main Line Bk) - Not Applicable -	Clsd
80-05/3100	N.A.	-	(CVCS TK Damage) - Working -	Open
80-06/3130	N.A.	-	(ESF Reset Contr) - Working -	Open
80-07/4040	N.A.	-	(Jet Pump Failure) - Working -	Open
80-08/4070	7070	(Open)	(Exam of Cont. Liner Pene Welds) - Working -	Open
80-09/4170	6170	(Open)	(Hydromotor Actuators) - Working -	Open

¹Extension Requested/Granted

[illegible]

ATTACHMENT 6

JUSTIFICATION FOR INCREASED INSPECTION FREQUENCY

CONCERN	EXAMPLES
1. Questions exist in the acceptability of completed safety related work.	<p>The sacrificial shield wall, completed in June, 1978 has been found to be seriously deficient, indicating quality controls during the period of fabrication and erection were not as effective as required. (IE Inspection Reports 50-397/79-12, 13, 16, 80-04)</p> <p>The pipe whip restraints, completed in February, 1977 have been found to be seriously deficient, indicating quality controls during this period were not as effective as required. (IE Inspection Reports 50-397/80-04)</p> <p>The postweld heat treatment of pipe welds conducted during the period of February, 1977 to 1979 was found to be seriously deficient, indicating quality controls during this period were not as effective as required. (IE Inspection Report 50-397/79-10)</p> <p>The pipe support installation/inspection program up to May, 1978 was found to be seriously deficient and was the subject of 9 items of noncompliance during Dec. 1977-May 1978, indicating prior quality controls were not effective. (IE Inspection Reports 50-397/77-07, 78-03, 80-06).</p> <p>HVAC installation (including safety related portions) up through 1978 was found by the licensee to be sufficiently deficient to require a 100% reinspection. (IE Inspection Report 50-397/79-04)</p> <p>In 1978, the licensee found piping contractor welding procedures to have nontraceable test results and other problems requiring "re-qualification" of all procedures. (IE Inspection Reports 50-397/79-14, 79-16)</p>
2. Licensee control of current work activities. (This concern is further defined in items 3, 4, and 5 below).	<p>Pipe support installation, the subject of 5 items of noncompliance in 1977, 4 items of noncompliance in 1978, 1 item of noncompliance in 1979, is again the subject of an item of noncompliance in 1980. (IE Inspection Reports 50-397/77-07, 78-03, 79-03, 80-04).</p> <p>Ability to maintain component and equipment cleanliness continues to be a problem site management has not been effective in resolving. Cleanliness was the subject of 4 items of noncompliance in 1979 and one in 1980. (IE Inspection Reports 50-397/79-01, 79-04, 79-16, 80-04)</p> <p>(For additional examples refer to items 3 and 4 below).</p>

JUSTIFICATION FOR INCREASED INSPECTION FREQUENCY (cont.)

CONCERN

EXAMPLES

3. Timeliness of identification of problems to site and licensee headquarters management, and timeliness of response to problems.
- NRC identified a concern on the seismic qualification of electrical conduit clamping devices in October 1978. As of April 1980, the licensee has still not determined which clamping devices will perform to seismic requirements. Some steps were taken in January 1980 and April 1980 to restrict the type of clamping device to those which show the most promise in meeting seismic testing requirements; however, many devices installed between 10/78 and 1/80 may require reinspection/replacement. (IE Inspection Reports 50-397/78-10, 78-11, 79-04, 79-09, 80-06)

Electrical separation requirements has been an NRC concern since October 1978. The licensee's requirements in this area have been changed by the licensee but were not formally submitted to NRR as of April 18, 1980. The latest set of requirements do not appear to comply with current industry standards and have the potential for resulting in significant rework if disapproved by NRR. NRC:RV concerns with the new criteria have been forwarded to IE:HQ for submittal to NRR.

Environmental qualification of electrical components has been an NRC concern since March 1979. While the licensee has been active in this area the actions have not been completed. (IE Inspection Report 50-397/79-04).

In August 1979, the NRC pointed out an inconsistency between the PSAR and the 215 contractor's inspector qualification procedure. As of February 1980, no effective action had been taken. (IE Inspection Reports 50-397/79-14, 80-04).

JUSTIFICATION FOR INCREASED INSPECTION FREQUENCY (cont.)

CONCERN

EXAMPLES

4. Thoroughness in performing evaluations of problems.

Licensee management was advised by their contractor of problems with the sacrificial shield wall in November, 1978. A corrective action plan was developed and implemented in March, 1979. In June, 1979, the NRC received allegations concerning the wall. Investigation at that time established that validity of Leckenby sacrificial shield wall records was in question (a thorough licensee evaluation during November, 1978 to March, 1979 should have identified this concern). In July, 1979, the licensee's corrective action program was expanded to include a quality review of the Leckenby program. This review was effectively completed by November 30, 1979 without identifying significant problems in Leckenby QA program, which were identified by the NRC investigation of 11/27/79 to 2/28/80. In addition, in October, 1979, the NRC identified that licensee's engineering review for structural acceptability of the wall (which started in March, 1979) was being performed on an incomplete data base (engineers were plotting/extrapolating typical wall defects in lieu of all actual known defects). (IE Inspection Reports 50-397/79-12, 79-13, 79-16, 80-04)

Licensee reported major defects in Leckenby electroslag welds for certain pipe whip restraint brackets in a 50.55(e) item in March, 1979. Of the 45 brackets fabricated 20 had to be completely rebuilt, 14 were repaired, and 11 were found acceptable. The licensee's evaluation of the problem failed to address other electroslag welding done by the same contractor for WNP-2 (i.e., the sacrificial shield wall and pipe whip restraints) which turned out to have significant welding deficiencies as well as major quality problems. A thorough evaluation should have surfaced many of the Leckenby problems later identified by the NRC. (IE Inspection Reports 50-397/79-06, 79-12, 79-13, 79-16, 80-04).
5. Although the licensee has made significant improvements in training with their Q-Tips program, further improvement is warranted in the licensee's program for personnel training and problem feedback in view of the repetitive nature of several items of noncompliance during the past year.

Refer to item 2 above for examples.

