

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-506/80-10
50-509/80-10

Docket No. 50-508 & 50-509 License No. CPPR-154 & 155 Safeguards Group _____

Licensee: Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Facility Name: WNP-3 and WNP-5

Inspection at: WNP-3 and WNP-5 Site (Satsop)

Inspection conducted: September 23-26, 1980

Inspectors: *D. P. Hajst* 10/20/80
D. P. Hajst, Reactor Inspector Date Signed

J. O. Elin 10/20/80
J. O. Elin, Reactor Inspector Date Signed

Date Signed

Approved By: *R. C. Haynes* 10/24/80
R. C. Haynes, Chief, Projects Section Date Signed
Reactor Construction and Engineering Support Branch

Summary:

Inspection during the period of September 23-26, 1980

(Report Nos. 50-508/80-10 and 50-509/80-10)

Areas Inspected: Routine, unannounced inspection by regional based inspectors of construction activities including storage, handling, protection and receipt of safety related components; licensee action on previous inspection findings; licensee action on IE Bulletins; and quality assurance program and implementing procedures of the prime electrical contractor. The inspection involved 49 inspector-hours onsite by two NRC inspectors.

Results: One item of noncompliance applicable to both units was identified in the area of final location storage of Quality Class 1 equipment.

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DETAILS

1. Persons Contacted

a. Washington Public Power Supply System (WPPSS)

- *C. E. Love, Deputy Division Manager
- *J. C. Lockhart, Quality Assurance Manager
- *P. A. Davis, Senior Project Quality Engineer
- *O. E. Trapp, Project Engineering Manager
- *M. M. Monopoli, Quality Assurance Staff Engineer
- *J. J. Terpstra, Contract Administrative Supervisor
- *E. L. Stephens, Assistant Civil Superintendent
- *J. A. Vanni, Project Quality Engineer

b. EBASCO Services, Inc. (EBASCO)

- *A. M. Cutrona, Deputy Quality Assurance Manager
- *L. A. Bast, Project Quality Engineer
- *L. F. Adams, Senior Project Quality Engineer
- *J. C. Murphy, Project Superintendent
- *T. E. Cottrell, Senior Resident Engineer
- J. Nerle, Senior Design Engineer
- K. A. Kirkevold, Engineer

c. Peter Kewit Sons' Company

- D. Paulson, QA Manager

d. Wallace/Superior (WS)

- R. McGuire, QA Manager
- G. Stein, QC Manager

e. State of Washington (EFSEC)

- *G. Hansen, Senior Projects Engineer

*Denotes those persons present at the exit interview on September 26, 1980.

2. Site Tour

On September 23, 1980, the inspectors conducted a tour of Units 3 and 5 to observe completed work and work in progress for obvious deviations or noncompliance with PSAR commitments and regulatory requirements. Particular attention was given to the activities of safety related component storage conditions, structural steel welding and structural bolting, and concrete placement activities.

The inspectors identified an apparent item of noncompliance in the storage conditions associated with charging pumps installed in their final location in Units 3 and 5. Three charging pumps in Unit 5 and one charging pump in Unit 3 were stored in conditions not meeting the applicable requirements of ANSI N45.2.2 and Regulatory Guide 1.38. (These items are detailed in Paragraph 5.d.)

3. Licensee Action on Previously Identified Followup Items.

- a. (Open) 50-508/80-07/01 Wallace/Superior-Control of Weld Filler Material. During a previous inspection, 31 pieces of unused E6011, 3/32-inch weld filler material were found to be uncontrolled during the Unit 3 plant tour.

The inspectors found no uncontrolled weld filler material during this inspection. The inspector examined Wallace/Superior Procedure No. QCP-7-7 Revision 2 for control of weld filler metal. No deviations from the requirements of AWS D1.1 were identified. The certifications and test data for two heats of E70S-3 weld filler metal and one heat of E7018 weld filler metal were examined against AWS D.1.1 and Procedure QCP-7-7 requirements. No items of noncompliance or deviations were identified.

The weld filler metal control system will be examined in the context of the entire Wallace/Superior quality assurance program and specification and PSAR requirements during a subsequent inspection.

- b. (Open) 50-508/80-07/02 Wallace/Superior-Use of Contractor NCR Form-Procedure QCP-12-12. During a previous inspection the inspector observed that the Wallace/Superior nonconformance reporting Procedure No. QCP-12-12 did not specifically address the use of the contractor's NCR form for onsite detected nonconformances.

During this inspection, the inspector reiterated the concern to the licensee that without specific guidance, the contractor NCR form could be used to disposition nonconformances where engineer review is required pursuant to criterion III of 10 CFR 50 Appendix B. The contractor has committed to provide specific guidance on the use of the Wallace/Superior NCR form. This item remains open.

4. Licensee Actions on IE Bulletins

- a. Bulletin 78-12, 78-12A and 78-12B - Atypical Weld Material in Reactor Vessel Welds

The licensee response letter No. G03-80-531, dated March 17, 1980 indicated that a generic report entitled "Atypical Weld Material in Reactor Vessel Welds" by Combustion Engineering, was submitted to the NRC on June 8, 1979. The inspector examined the site copy of the report which indicated that there is no evidence of atypical weld material in the WNP-3 or 5 reactor vessels. This item is closed.

b. Bulletin 79-02, Revision 2-Pipe Support Designs Using Concrete Expansion Anchor Bolts.

The licensee response letter dated December 13, 1979 reiterated a previous response which indicated that there are no plans to use concrete expansion anchors for attachment of Seismic Class I pipe supports at WNP-3/5. This item is closed.

c. Bulletin 79-03A-Longitudinal Weld Defects in Stainless Steel Pipe Spools.

The licensee letter No. G03-80-795 dated April 15, 1980 in response to Bulletin 79-03 indicated that an inspection program on the WNP-3 gas stripper regenerative heat exchanger shell disclosed no evidence of centerline lack of penetration. The letter also stated that the inspection program was not applicable to the WNP-5 gas stripper heat exchanger shell because, although it uses the same material specification, it is from a different manufacturer, Trent Tube Division of Colt Industries.

Bulletin 79-03A stated that the problem of centerline lack of penetration is generic to all welded SA-312/A312 material, and that the NRC has verified centerline lack of penetration in SA-312 or A312 fusion welded pipe manufactured by the Trent Tube Division. The licensee was unaware of any expansion of the inspection program to cover the WNP-5 gas stripper shell as a result of Bulletin 79-03A. The licensee committed to investigate the action to be taken in light of the above.

Licensee letter No. G03-80-1910 dated August 8, 1980, addressed specifically to Bulletin 79-03A, stated that a review of piping material was in progress to determine if any SA-312 or A-312 Type 304 fusion welded pipe is in use or planned for use on WNP-3/5. The results of this review are not yet available. This item remains open.

d. Bulletin 79-15-Deep Draft Pump Deficiencies

The licensee response letter No. G03-79-1871 dated October 3, 1979 stated that the only pumps falling into the design class described in the subject bulletin are the containment spray pumps. The inspector examined the following records associated with the subject pumps: (1) Drawings, sectional assemblies and parts list; (2) Quality assurance requirements (in the form of a manufacturing and quality control plan); and (3) design specifications. The licensee was not aware of any reliability testing requirements or procedures used to align the pump column. In addition, specific instructions to verify the absence of the bulletin-identified deficiencies during inspections were not included in the specifications or manufacturing and quality control plan.

Since the pumps have not yet been manufactured, no maintenance history is available, no major repair efforts have been undertaken and tests have not been performed. The licensee committed to investigate the bulletin requirements stated above. This item remains open.

e. Bulletin 79-24 - Frozen Lines

This bulletin was issued for information to the licensee. At the request of the inspector, the licensee replied to the bulletin in letter G03-80-2294, dated September 22, 1980. A review by the licensee of safety-related process, instrument, and sampling line freeze protection indicates that the design of the category IE electric freeze protection and maintenance systems imposes sufficient criteria to ensure that thermal alarm sensors are: (1) located to monitor the anticipated worst case condition and (2) calibrated to indicate within $+2/-0^{\circ}\text{F}$ of the actual fluid temperature. This item is closed.

f. Bulletin 80-05 - Vacuum Condition Resulting in Damage to Chemical Volume Control System Holdup Tanks

The licensee response letter No. ELE-GCS-80-176 indicated that all tanks in the chemical and volume control system are adequately protected. The licensee is presently reviewing the design of all tanks and components in the radwaste system. The results of this review are expected to be available on October 12, 1980. This item remains open.

g. Bulletin 80-08-Examination of Containment Liner Penetration Welds

Licensee response letter No. G03-80-1732 dated July 15, 1980 states that 100% radiography will be performed on the butt welds at the WNP-3/5 containment penetration connections. Where radiography is not practical or results of radiography are inconclusive, ultrasonic examination will be performed. The weld joint will be a butt weld with a consumable insert. Specifications governing this work do not permit use of a backing ring. This item is closed.

h. Bulletin 80-09-Hydrator Actuator Deficiencies

Licensee response letter No. G03-80-1521 dated June 25, 1980 indicated that hydrator actuators of the specified models are being supplied to WNP-3/5 under two contracts. Licensee letter No. G03-80-2291 dated September 22, 1980 indicated that American Warming and Ventilating Company (AWV) is supplying twenty-eight ITT-General Control's actuators with a No. 1 spring for use in damper actuating applications. AWV will compare the results of ITT-GC testing with their damper torque requirements for acceptability. Valtek Inc. is also awaiting the results of the ITT-GC test program prior to confirming that their actuators are adequately sized. This item remains open.

i. Bulletin 80-10-Contamination of Non-Radioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment

This bulletin was issued to holders of construction permits for information. The licensee has forwarded this bulletin to his Architect-Engineer for information and use. This item is closed.

j. Bulletin 80-16-Potential Misapplication of Rosemount Inc. Models 1151 and 1152 Pressure Transmitters with Either "A" or "D" Output Codes

Licensee response letter No. ELE-KAH-80-014 dated August 19, 1980 indicates that no Rosemount Model 1151 or 1152 pressure transmitters with output codes "A" or "D" are installed or planned to be installed in safety-related applications at WNP-3/5. This item is closed.

k. Bulletin 80-19-Failures of Mercury-Wetted Matrix Relays in Reactor Protective Systems of Operating Nuclear Power Plants Designed by Combustion Engineering

Licensee response letter No. G03-80-2124 dated September 5, 1980 indicates that Model HG2X-1011 mercury wetted relays, or other mercury wetted relays are not used in the logic matrix of the reactor protection system at WNP-3/5. This item is closed.

5. Review of Safety Related Equipment Storage.

a. Review of Procedures (EBASCO/WPPSS)

The inspector examined the following EBASCO/WPPSS procedures detailing receipt inspection, storage, and maintenance of material and equipment:

QAI 10-1	Receiving inspection and material requisitioning.
QAI 13-1	Surveillance of storage/maintenance functions for project procured permanent plant material and equipment.
ASP-QA-7-12	Use of quality status tags.
ASP-QA-7-6	Receiving inspection.
ASP-QA-7-7	Quality assurance records.
ASP-AM-8-2	Program and management for the maintenance of equipment and material during storage.
ASP-AM-8-5	Material control.
ASP-RE-2-28	Standard requirements for maintenance of equipment and materials during storage.

The inspector found that these procedures did reflect, in general, the requirements of ANSI N45.2.2 and ANSI N45.2.3 for receiving, storage, maintenance and housekeeping.

b. Review of Procedures (Fischbach-Moore)

The inspector reviewed several Fischbach-Moore procedures detailing receiving inspection, storage and control of measuring and test equipment. In addition, the Fischbach-Moore Quality Assurance Manual was reviewed.

The Fischbach-Moore Quality Assurance Manual appeared to be a general document applicable to several construction sites. It did not contain specific instructions as to applicable standards at the WNP 3/5 site. These specific references to applicable standards were to be detailed in instructions or procedures prepared for the WNP 3/5 site. The Quality Assurance Manual appeared to meet the requirements of a quality assurance program in accordance with 10 CFR 50, Appendix B.

The Fischbach-Moore receiving inspection instruction (QAP-30153) which had been approved by WPPSS/EBASCO, was examined for compliance with ANSI N45.2.2. This procedure did not appear to provide detailed instructions to the receiving inspector in accordance with ANSI N45.2.2. Specifically, the standard was only mentioned in the tabulated reference section (paragraph 3.2). The specific inspection steps detailed in ANSI N45.2.2, paragraph 5.2.2, were not referenced or re-stated in the procedure. Also, the receiving inspection checklist provided did not require all the inspection criteria detailed in the standard.

The instruction in paragraph 5.1.6(B) required that "Receiving inspection shall be performed in an area equivalent to the level of storage requirement for the item(s) being inspected." The instruction did not provide any details as to what the "Levels of Storage" were or what requirements were to be imposed, or provide reference to this information.

The instruction in paragraph 5.1.5(A) stated "in some cases, it may not be possible to determine the proper storage requirements prior to receipt of an item." No instructions were provided as to what to do in this case. The receipt inspector's responsibilities and actions were not clear if this situation did arise.

The inspector expressed concern that this instruction did not provide specific guidance to the receiving inspector in accordance with ANSI N45.2.2. The licensee stated that this instruction would be reviewed further and appropriate changes made.

Fischbach-Moore Instruction C/QCP-30253 "Electrical Material and Equipment Storage and Control" was also reviewed. The inspector noted that this procedure, in paragraph 6.2.15 did not require segregation or barriers, in addition to hold tags, to be provided for nonconforming material in accordance with ANSI N45.2.2 and applicable WPPSS/EBASCO procedures. The licensee stated that this would be changed to conform with requirements. These procedures will be examined during a subsequent inspection. (50-508/80-10/01) (50-509/80-10/01)

Fischbach-Moore Procedure QAP-40153 "Control of Measuring and Test Equipment" was reviewed. This instruction did not provide detailed instructions for calibration and control of test equipment at the site. The procedure stated that "The project engineer or his designee" was to prepare a "Project procedure to implement the calibration and control program...". It further required that "Detailed project procedures shall be prepared and approved to provide the following:

- (a) Calibration procedures and instructions for the equipment and tools to be calibrated onsite.
- (b) Care, maintenance and control of the calibration reference standards."

These detailed project procedures were not approved by EBASCO/WPPSS at the time of the inspection and were not reviewed by the inspector.

c. Inspection of Work and Work Activities

The inspector toured the EBASCO/WPPSS warehouses onsite and the Saginaw laydown area for compliance with the requirements of Regulatory Guide 1.38/ANSI N45.2.2, Regulatory Guide 1.39/ANSI N45.2.3 and EBASCO/WPPSS instructions. Two receiving inspectors and a maintenance manager were interviewed.

The inspector found that storage conditions for Level A, B, and C components met or exceeded requirements. The inspector determined that EBASCO/WPPSS receiving inspectors had been adequately instructed in receiving inspection requirements as detailed in paragraph 5.2.2 of ANSI N45.2.2.

The inspector noted that safety injection tanks at the Saginaw Laydown Area had moss growing on their outer surfaces. This moss appeared to be removable by wiping the affected areas. The licensee stated that these tank surfaces would be cleaned. The inspector also identified several embed plates with hold tags which were not segregated by rope barriers in accordance with procedures. Many other embed plates were located nearby with hold tags and properly segregated. The licensee stated that segregation ropes would be provided.

The inspector noted that the laydown area was prone to weed growth. The licensee stated that chemical sprays are used for weed abatement. The inspector cautioned the licensee about use of chemical sprays near sensitive components such as stainless steel pipe. During this inspection the only stainless steel materials were found in level B warehouses so that there was no problem then.

d. Review of Final Location Storage

During the site tour on September 23, 1980 and at several other times during the inspection, the inspector examined final location storage conditions of safety related equipment.

The inspector observed that Unit 3 reciprocating charging pump 2 and Unit 5 reciprocating charging pumps 1, 2, and 3, which had been placed on foundation mounts, were not being maintained in storage conditions that meet the requirements of Regulatory Guide 1.38 and ANSI N45.2.2. The pumps (level C items) and their associated motors (level B items) were covered with a wood frame structure. This structure was covered and enclosed, except at the floor, by visquene sheets. The floor is concrete. Heating and temperature control was provided by three incandescent lights at the motor end of the enclosure.

The inspector noted that the floor of the pump room, both inside and outside the visquene enclosure, was covered with approximately 1 inch of water. This storage condition was contrary to the requirements of the ANSI N45.2.2 standard.

Peter Kiewit Sons' Company Procedure No. PKS-WI-A101, "Care and Maintenance Inspection for Charging Pumps", defines storage to be ANSI N45.2.2 storage level B for the motors and level C for the pumps. Section 6.1.2 of the ANSI standard states that the storage area shall be well drained. In this case, the floor drains had been plugged which permitted water to accumulate on the floors. No alternate means had been provided to avoid the accumulation of water.

The failure to maintain the floor in a well drained condition negated the storage objective to maintain the equipment dry. The heat source provided by the licensee in the form of incandescent lights within the visquene enclosure tended to heat the enclosed water and increase the water vapor content within the enclosure. This additional water vapor was then free to condense back to liquid form on the cooler surfaces of the motor or pump. Thus, the storage condition provided by the licensee was not fully effective in minimizing moisture within the equipment as intended.

The inspector observed these pumps daily during the inspection and the conditions identified above persisted until the morning of September 26, 1980. The licensee believed that the storage conditions were adequate. Storage of quality class 1 charging pumps at Unit 3 have been the subject of previous NRC finding (IE Inspection Report No. 50-508/79-10).

Charging pump maintenance records were reviewed by the inspector. These records showed that the specific maintenance requirements detailed by Peter Kewit Sons' Company procedure were being met, however, this procedure did not include the "well drained floor" requirements of ANSI N45.2.2. Nonetheless, contract specification No. 3240-251, entitled "Erection of Piping Systems and Installation of Mechanical Equipment", applicable to the quality affecting activities performed by the Peter Kewit Sons' Company at WNP-315, invokes the requirements of ANSI N45.2.2-1972 for the receiving, handling and storage of all materials.

The failure of the storage procedure to establish adequate measures to maintain final location storage conditions for reciprocating charging pumps within the standards invoked by the contract specification is an apparent item of noncompliance (50-508/80-10/02) (50-509/80-10/02).

The inspector observed that quality class 1 reactor building drain pumps installed in Unit 3 were stored in a similar manner to the charging pumps noted above. There was again some evidence of moisture present within the enclosing structure. The environmental conditions of storage of these and other quality class 1 equipment items will be within the scope of future inspection efforts pertaining to the above item of noncompliance.

6. Management Meeting

The inspectors, including the resident reactor inspector, met with the licensee representatives, denoted in paragraph 1 at the conclusion of the inspection on September 26, 1980. The inspectors summarized the scope of the inspection and the findings. The licensee was informed that as a result of the recent Systematic Assessment of Licensee Performance (SALP) of WNP-3/5, more attention will be focused by the inspectors on the adequacy of procedures and preplanning efforts prior to the start of safety related activities.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

APR 13 1981

Docket Nos. 50-508
50-509

Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

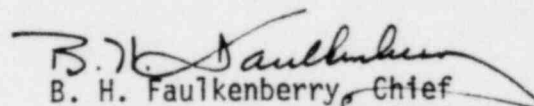
Attention: Mr. D. E. Dobson
WNP-3/5 Program Director (Acting)

Gentlemen:

Thank you for your letter dated March 13, 1981 informing us of the additional steps you have taken to correct the items which we brought to your attention in our letter dated October 21, 1980. Your corrective actions will be verified during a future inspection.

Your cooperation with us is appreciated.

Sincerely,


B. H. Faulkenberry, Chief
Reactor Construction Projects Branch



Washington Public Power Supply System
A JOINT OPERATING AGENCY



P. O. BOX 1223

ELMA, WASHINGTON 98541

March 13, 1981
G03-81-746

Nuclear Regulatory Commission, Region V
Suite 202, Walnut Creek Plaza
1990 N. California Boulevard
Walnut Creek, California 94596

Attention: Mr. B. H. Fulkenberry, Chief
Reactor Construction
Projects Branch

Gentlemen:

Subject: WPPSS NUCLEAR PROJECTS 3 & 5
NRC INSPECTION OF WNP-3 and WNP-5
DOCKET NUMBERS 50-508 AND 50-509

- Reference: 1). Letter, R.H. Engelken to R.L. Ferguson, NRC Inspection at Washington Nuclear Projects Nos. 3 and 5, dated October 21, 1980.
2). G03-80-2965, letter, F.D. McElwee to G.S. Spencer, same subject, dated November 21, 1980.
3). Letter, G.S. Spencer to F.D. McElwee, same subject, dated November 6, 1981.

Reference 3 presented questions regarding incorporation of ANSI equipment storage requirements into Contractor procedures. Answers provided herein will attempt to clarify the actions taken at the WNP-3/5 site.

1. As indicated in IE Inspection Report No. 50-508, 509/80-10 which accompanied the subject Notice of Violation, site records showed that the charging pump storage requirements detailed by Peter Kiewit Sons' procedure were being met. However, this procedure failed to establish adequate measures to maintain final location storage conditions within the standards invoked by the contract specifications; namely the ANSI N45.2.2-1972 standard. What specific actions have adequately incorporated the specific storage requirements of ANSI N45.2.2-1972?

Storage conditions specified by the Charging Pump Manufacturer can be met by conformance with ANSI N45.2.2-1972 Level C. Motor storage requires the additional controls of energized Strip Heaters and a protective cover with an internal heat source.



Washington Public Power Supply System

Mr. B. H. Faulkenberry
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March 13, 1981
G03-81-746

Engineering assessment of the Charging Pump Rooms, has determined the manufacturer's storage requirements can be met without imposing Level B ANSI requirements. Consequently, the Engineer will initiate a Field Change Request (FCR) which aligns the Contract with actual manufacturer storage recommendations.

These storage requirements are applicable only to the pump pedestal upon which the Charging Pump and motor are stored.

Peter Kiewit Sons' Co. will be directed to incorporate these specific requirements into their Care and Maintenance Instructions.

The date of full compliance for these actions will be implemented by April 15, 1981.

2. What specific actions have been taken, or will be taken, to ensure that other contractors responsible for the storage and maintenance of Quality Class I equipment have procedures which incorporate the requirements of industry standards invoked by the contract specification?

Contracts, other than 3240-251, which require care and maintenance of Quality Class I equipment are 225/253 and 232. The 225/253 Contractor's quality assurance program specifies, in accordance with contract requirements, procedures which govern the preparation and implementation of Care and Maintenance Instructions (CMI's). Contract requirements specify referencing manufacturer's recommendations for storage and maintenance, Engineer's CMI's are reviewed and approved by the Engineer to ensure that these requirements are incorporated in the CMI's. The 232 contractor has committed (letter 232WP-81-012 dated January 29, 1981) to utilize a procedure governing the preparation of CMI's. This procedure, 3240-232-100 ("Preparation of Care and Maintenance Instructions") is expected to be implemented by May 1, 1981 pending review and approval by the Engineer as described above.

Should you have any questions or desire further information, please feel free to contact me directly.

Very truly yours,

D. E. DOBSON
Acting Program Director, WNP-3/5

cc: D. Smithpeter - BPA
Ebasco - New York
WNP-3/5 Files - Richland

D. E. DOBSON, Being first duly sworn, deposes and says: That he is the Acting Program Director, WNP-3/5, for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that he is authorized to submit the foregoing on behalf of said applicant; that he has read the foregoing and knows the contents thereof; and believes the same to be true to the best of his knowledge.

DATED 3.13, 1981.

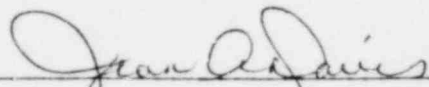


D. E. DOBSON

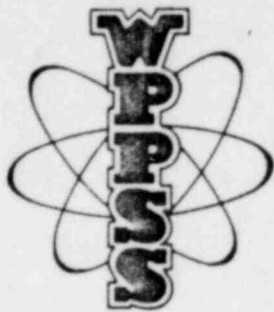
STATE OF WASHINGTON)
) ss
COUNTY OF GRAYS HARBOR)

On this day personally appeared before me D. E. DOBSON to me known to be the individual who executed the foregoing instrument and acknowledged that he signed the same as his free act and deed for the uses and purposes therein mentioned.

GIVEN under my hand and seal this 13th day of March, 1981.



Notary Public in and for the State
of Washington
Residing at E. Lora



Washington Public Power Supply System
A JOINT OPERATING AGENCY

P. O. BOX 1223

ELMA, WASHINGTON 98541

PHONE (206) 249-5001

February 20, 1981
G03-81-531

Nuclear Regulatory Commission, Region V
Suite 202, Walnut Creek Plaza
1990 North California Boulevard
Walnut Creek, California 94596

Attention: Mr. G. S. Spencer
Chief, Reactor Construction and
Engineering Support Branch

Gentlemen:

Subject: WPPSS NUCLEAR PROJECTS 3 AND 5
NRC INSPECTION OF WNP-3 AND WNP-5
DOCKET NUMBERS 50-508 AND 50-509

- References: 1) Letter, R. H. Engelken to R. L. Ferguson,
NRC Inspection at Washinton Nuclear Projects
Nos. 3 and 5 dated, October 21, 1980.
- 2) Letter, G. S. Spencer to F. D. Elwee, same
subject, dated November 6, 1980. *IFB 80-21*
- 3) Letter, G. S. Spencer to F. D. Elwee, same
subject, dated January 6, 1981.

The NRC requested information relative to incorporation of ANSI requirements into contractor storage procedures in reference 3. These responses will not be completed by the requested date, due to the complexities of the involved conditions.

We request the response dates be delayed until March 13, 1981. If this does not meet with your approval, please so indicate as quickly as possible.

Very truly yours,

D. E. DOBSON
Project Manager, WNP-3/5

cc: D. Smithpeter - BPA
Ebasco - New York
WNP-3/5 - Richland



81-20



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

FEB 10 1981

Docket Nos. 50-508
50-509

Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Attention: Mr. D. E. Dobson
Acting Program Director

Gentlemen:

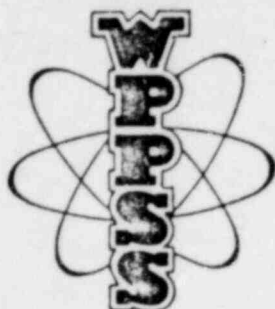
Subject: Request for delay in response date, (your letter of
January 29, 1981).

Thank you for your letter, referenced above, requesting a delay in
the response date for four letters issued by G. S. Spencer, Region V,
to F. D. McElwee, dated January 5, 6, and 9, 1981. Extension of the
response date to February 20, 1981, as requested, is acceptable to
this office.

Sincerely,

R. H. Engelken
Director

dupl 8103250028



Washington Public Power Supply System
A JOINT OPERATING AGENCY



P. O. BOX 1223

ELMA, WASHINGTON 98541

PHONE (206) 2-9-5001

January 29, 1981
G03-81-264

Nuclear Regulatory Commission, Region V
Suite 202, Walnut Creek Plaza
1990 North California Boulevard
Walnut Creek, California 94596

Attention: Mr. R. H. Engelken

Gentlemen:

Subject: WPPSS NUCLEAR PROJECTS 3 AND 5
DOCKET NOS. 50-508, 50-509

- References:
- 1) Letter, G. S. Spencer to F. D. McElwee, dated January 5, 1981, regarding response to August 29 - September 26, 1980 inspection.
 - 2) Letter, G. S. Spencer to F. D. McElwee, dated January 6, 1981, regarding response to September 23-26, 1980 inspection.
 - 3) Letter, G. S. Spencer to F. D. McElwee, "November 18-21, 1980 Inspection," dated January 9, 1981.
 - 4) Letter, G. S. Spencer to F. D. McElwee, "December 8-19, 1980 Inspection," dated January 9, 1981.

The NRC has requested in the referenced four (4) letters various responses or information from the Washington Public Power Supply System. However, we will not be able to complete our effort by the dates requested in your letters. This is due to the large quantity of information being generated by several site organizations and contractors.

The additional time is required to verify that the information is complete and accurate, prior to stating commitments to the NRC.

We request that our response date for the four (4) letters be delayed until February 20, 1981. We trust this delay will be acceptable to you.

Very truly yours,

D. E. DOBSON
Acting Program Director, WNP-3/5

cc: D. Smithpeter - BPA
Ebasco - New York
WNP-3/5 Files - Richland

dup 8103250032

81-08



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

JAN 6 1981

Docket Nos. 50-508, 50-509

Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Attention: Mr. F. D. McElwee
MNP-3/5 Program Director

- References: (1) WPPSS Letter from F. D. McElwee to G. S. Spencer
dated November 21, 1980, No. G03-80-2965
- (2) NRC Letter from G. S. Spencer to R. L. Ferguson
dated October 21, 1980

Gentlemen:

Thank you for your letter, Reference (1), responding to the item of noncompliance provided to you by Reference (2). Our review of the information presented in your letter indicates that there may be a misunderstanding concerning the cause of the item of noncompliance. Consequently, we need additional information to permit our assessment of your corrective actions. Accordingly, pursuant to Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, you are required to submit to this office, within twenty-five (25) days of the date of this letter, a written statement or explanation addressing the following questions regarding the finding and the incorporation of ANSI equipment storage requirements into contractor procedures.

1. As indicated in IE Inspection Report No. 50-508, 509/80-10 which accompanied the subject Notice of Violation, site records showed that the charging pump storage requirements detailed by Peter Kiewit Sons' procedure were being met. However, this procedure failed to establish adequate measures to maintain final location storage conditions within the standards invoked by the contract specification; namely, the ANSI N45.2.2-1972 standard. What specific actions have been taken to ensure that the Peter Kiewit Sons' maintenance procedure adequately incorporates the specific storage requirements of ANSI N45.2.2-1972?
2. What specific actions have been taken, or will be taken, to ensure that other contractors responsible for the storage and maintenance of Quality

POOR ORIGINAL

Washington Public Power
Supply System

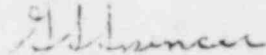
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Class 1 equipment have procedures which adequately incorporate the specific requirements of industry standards invoked by the contract specification?

Please contact us if you have any questions regarding the above. Your cooperation is appreciated.

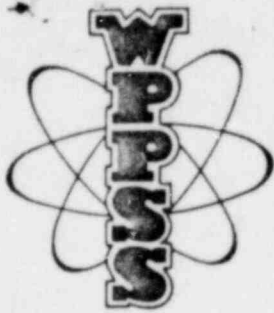
Sincerely,



G. S. Spencer, Chief
Reactor Construction and
Engineering Support Branch

cc:
M. E. Witherspoon, Division Manager
Quality Assurance, WPPSS
D. E. Dobson, Division Manager
WNP-3/5, WPPSS

POOR ORIGINAL



Washington Public Power Supply System
A JOINT OPERATING AGENCY



P. O. BOX 1223

ELMA, WASHINGTON 98541

PHONE (206) 249-5001

November 21, 1980
G03-80-2965

Nuclear Regulatory Commission, Region V
Suite 202, Walnut Creek Plaza
1990 North California Boulevard
Walnut Creek, California 94596

Attention: Mr. G. S. Spencer
Chief Reactor Construction and
Engineering Support Branch

Subject: WPPSS NUCLEAR PROJECTS 3 & 5
NRC INSPECTION OF WNP-3 AND WNP-5
DOCKET NUMBERS 50-508 AND 50-509

- References:
- 1) Letter, R. H. Engelken to R. L. Ferguson, NRC Inspection at Washington Nuclear Projects Nos. 3 and 5, dated October 23, 1980.
 - 2) Letter, D. F. Knuth to all AEC Licensees, "Criterion for Determining Enforcement Action and Categories of Noncompliance", dated December 31, 1974.

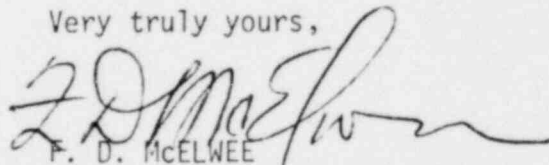
Dear Mr. Spencer:

This letter is in response to your letter of October 23, 1980, which discussed the results of the inspection conducted September 23-26, 1980, of activities authorized by Nuclear Regulatory Commission Construction Permit Numbers CPPR-154 and CPPR-155. The letter identified one item of noncompliance categorized in accordance with Reference 2 and required the Supply System to provide a response to these items.

The specific Nuclear Regulatory Commission Finding, as stated in your letter, and the Supply System response are provided in Attachment I to this letter.

Should you have any questions or desire further information, please feel free to contact me directly.

Very truly yours,


F. D. McELWEE
Program Director, WNP-3/5

Attachment

cc: D. Smithpeter - BPA
Ebasco - New York
WNP-3/5 Files - Richland

80-49

ATTACHMENT I

10 CFR 50, Appendix B, Criterion V, states, in part, that "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings, of a type appropriate to the circumstances... Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished..."

Paragraph 17.1.5 of the Quality Assurance Program documented in the PSAR states, in part, that "Contractors and vendors, including Ebasco and C-E, are required to have written instructions, procedures, policies and/or drawings which govern their quality related activities and which include appropriate quantitative and qualitative acceptance/rejection criteria..."

Contract Specification No. 3240-251, entitled "Erection of Piping Systems and Installation of Mechanical Equipment", applicable to site work by the Peter Kiewit Sons' Company, states, in part in paragraph 2.8 that, "Receiving, handling and storage of all materials shall comply with ANSI N45.2.2-1972. Levels of storage shall be designated by the engineer..." Appendix 2.A-D to the specification includes a chart in paragraph 2.2 wherein the engineer designated ANSI N45.2.2 level B as the storage level for the charging pumps.

Section 6.1.2 of ANSI N45.2.2-1972 defines storage requirements for level B equipment to include storage in an area that is "well drained".

Contrary to the above, on September 23, 1980, the Peter Kiewit Sons' Company Procedure No. PKS-WI-A101, entitled "Care and Maintenance Inspection for Charging Pumps", the governing procedure concerning in place storage of the charging pumps, did not include the appropriate acceptance criteria for a well drained storage area. Further, the final storage locations for Unit 5 charging pumps Nos. 05-CH-PP-003, 004 and 005 and Unit 3 charging pump No. 03-CH-PP-004 were not well drained in that the floor drains were plugged shut and the floors of these areas were covered with water to a depth of one inch during the period September 23-26, 1980.

This is an infraction (applicable to both Units 3 and 5).

Corrective Steps Which Have Been Taken

Directions were issued to the Contractor responsible for general housekeeping in the Charging Pump Rooms to remove floor drain plugs and to vacuum any remaining water standing in accumulated areas.

Directions were issued to the Contractor to plug all electrical conduit lines where water was weeping and contributing to this drainage condition. Drains shall remain plugged until further notice.

Directions were issued to the Contractor to wipe off any accumulated moisture found on charging pump and motor exterior surfaces.

Corrective Steps Which Have Been Taken (Continued)

Owner/Engineer QA/QC shall verify that the above corrective measures have been completed and the results of these verifications shall be documented by the Owner/Engineer.

Date of full compliance will be December 10, 1980.

Corrective Steps Which Will Be Taken To Avoid Further Violation

The deficiency identified is an isolated case caused by Contractors plugging floor drains during clean-up operations to prevent construction debris from "stopping up" drains, and not removing drain plugs in a timely manner. Contractors working in the plant island have been directed to remove drain plugs in a more timely manner in order to maintain well drained storage areas. Contractors responsible for the care and maintenance of "in-placed" stored equipment were notified to include draining requirements as a QA/QC Surveillance or inspection checkpoint, if not presently addressed in their QA program. If deficient draining conditions are identified in the future, Contractors shall document and resolve these conditions in accordance with his approved QA program.

Date of full compliance will be December 10, 1980.

In addition the Owner/Engineer will reevaluate all currently specified ANSI N45.2.2 storage levels and determine if a lower storage level or a "modified" storage level for equipment stored "in-place" can be assigned. Where applicable, vendor concurrence shall be received prior to lowering or modifying current ANSI N45.2.2 storage levels. This effort will be completed by December 15, 1980.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

OCT 21 1980

Cocket No. 50-508 50-509

Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Attention: Mr. R. L. Ferguson
Managing Director



Gentlemen:

Subject: NRC Inspection at Washington Nuclear Projects Nos. 3 and 5

This refers to the inspection conducted by Messrs. D. P. Haist and J. O. Elin of this office on September 23-26, 1980 of activities authorized by NRC Construction Permit Nos. CPPR 154 and CPPR 155, and to the discussion of our findings with Mr. C. E. Love and other members of your staff at the conclusion of the inspection.

Areas examined during this inspection are described in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Based on the results of this inspection, it appears that one of your activities was not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed herewith as Appendix A. These items of noncompliance has been categorized into a level as described in our correspondence to all NRC licensees dated December 31, 1974.

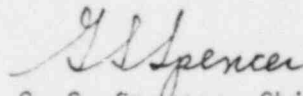
This notice is sent to you pursuant to the provisions of Section 2.201, of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within thirty (30) days of your receipt of this notice, a written statement or explanation in reply including (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved.

OCT 21 1980

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office, within 30 days of the date of this letter, requesting that such information be withheld from public disclosure. The application must include a full statement of the reasons why it is claimed that the information is proprietary. The application should be prepared so that any proprietary information identified is contained in an enclosure to the application, since the application without the enclosure will also be placed in the Public Document Room. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely,



G. S. Spencer, Chief
Reactor Construction and
Engineering Support Branch

Enclosures:

- A. Notice of Violation
- B. IE Inspection Report
No. 50-508/80-10
50-509/80-10

cc w/o enclosure B:

- M. E. Witherspoon, Division Manager
Quality Assurance, WPPSS
- D. E. Dobson, Division Manager, WPPSS

APPENDIX A

Washington Public Power Supply System
P.O. Box 968
Richland, Washington 99352

Docket Number 50-508, 50-509

Construction Permit Number CPPR 154, CPPR 155

NOTICE OF VIOLATION

Based on the results of NRC inspections conducted on September 23-26, 1980, it appears that one of your activities was not conducted in full compliance with the conditions of your NRC Construction Permit No. CPPR-154/155 as indicated below:

10 CFR 50, Appendix B, Criterion V, states, in part, that "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances... Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished..."

Paragraph 17.1.5 of the Quality Assurance Program documented in the PSAR states, in part, that "Contractors and vendors, including Ebasco and C-E, are required to have written instructions, procedures, policies and/or drawings which govern their quality related activities and which include appropriate quantitative and qualitative acceptance/rejection criteria..."

Contract Specification No. 3240-251, entitled "Erection of Piping Systems and Installation of Mechanical Equipment", applicable to site work by the Peter Kiewit Sons' Company, states, in part in paragraph 2.8 that, "Receiving, handling and storage of all materials shall comply with ANSI N45.2.2-1972. Levels of storage shall be designated by the engineer..." Appendix 2.A-D to the specification includes a chart in paragraph 2.2 wherein the engineer designated ANSI N45.2.2 level B as the storage level for the charging pumps.

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Contrary to the above, on September 23, 1980, the Peter Kiewit Sons' Company Procedure No. PKS-WI-A101, entitled "Care and Maintenance Inspection for Charging Pumps", the governing procedure concerning in-place storage of the charging pumps, did not include the appropriate acceptance criteria for a well drained storage area. Further, the final storage locations for Unit 5 charging pumps Nos. 05-CH-PP-003, 004 and 005 and Unit 3 charging pump No. 03-CH-PP-004 were not well drained in that the floor drains were plugged shut and the floors of these areas were covered with water to a depth of one inch during the period September 23-26, 1980.

This is an infraction (applicable to both Units 3 and 5).

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-508/80-10
50-509/80-10

Docket No. 50-508 & 50-509 License No. CPPR-154 & 155 Safeguards Group

Licensee: Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Facility Name: WNP-3 and WNP-5

Inspection at: WNP-3 and WNP-5 Site (Satsop)

Inspection conducted: September 23-26, 1980

Inspectors: *D. P. Hajst* 10/20/80
D. P. Hajst, Reactor Inspector Date Signed

J. O. Elin 10/20/80
J. O. Elin, Reactor Inspector Date Signed

 Date Signed

Approved By: *R. C. Haynes* 10/24/80
R. C. Haynes, Chief, Projects Section Date Signed
Reactor Construction and Engineering Support Branch

Summary:

Inspection during the period of September 23-26, 1980

(Report Nos. 50-508/80-10 and 50-509/80-10)

Areas Inspected: Routine, unannounced inspection by regional based inspectors of construction activities including storage, handling, protection and receipt of safety related components; licensee action on previous inspection findings; licensee action on IE Bulletins; and quality assurance program and implementing procedures of the prime electrical contractor. The inspection involved 49 inspector-hours onsite by two NRC inspectors.

Results: One item of noncompliance applicable to both units was identified in the area of final location storage of Quality Class 1 equipment.

DETAILS

1. Persons Contacted

a. Washington Public Power Supply System (WPPSS)

- *C. E. Love, Deputy Division Manager
- *J. C. Lockhart, Quality Assurance Manager
- *R. A. Davis, Senior Project Quality Engineer
- *O. E. Trapp, Project Engineering Manager
- *M. M. Monopoli, Quality Assurance Staff Engineer
- *J. J. Terpstra, Contract Administrative Supervisor
- *E. L. Stephens, Assistant Civil Superintendent
- *J. A. Vanni, Project Quality Engineer

b. EBASCO Services, Inc. (EBASCO)

- *A. M. Cutrona, Deputy Quality Assurance Manager
- *L. A. Bast, Project Quality Engineer
- *L. F. Adams, Senior Project Quality Engineer
- *J. C. Murphy, Project Superintendent
- *T. E. Cottrell, Senior Resident Engineer
- J. Werle, Senior Design Engineer
- K. A. Kirkevold, Engineer

c. Peter Kewit Sons' Company

- D. Paulson, QA Manager

d. Wallace/Superior (WS)

- R. McGuire, QA Manager
- G. Stein, QC Manager

e. State of Washington (EFSEC)

- *G. Hansen, Senior Projects Engineer

*Denotes those persons present at the exit interview on September 26, 1980.

2. Site Tour

On September 23, 1980, the inspectors conducted a tour of Units 3 and 5 to observe completed work and work in progress for obvious deviations or noncompliance with PSAR commitments and regulatory requirements. Particular attention was given to the activities of safety related component storage conditions, structural steel welding and structural bolting, and concrete placement activities.

The inspectors identified an apparent item of noncompliance in the storage conditions associated with charging pumps installed in their final location in Units 3 and 5. Three charging pumps in Unit 5 and one charging pump in Unit 3 were stored in conditions not meeting the applicable requirements of ANSI N45.2.2 and Regulatory Guide 1.38. (These items are detailed in Paragraph 5.d.)

3. Licensee Action on Previously Identified Followup Items.

- a. (Open) 50-508/80-07/01 Wallace/Superior-Control of Weld Filler Material. During a previous inspection, 31 pieces of unused E6011, 3/32-inch weld filler material were found to be uncontrolled during the Unit 3 plant tour

The inspectors found no uncontrolled weld filler material during this inspection. The inspector examined Wallace/Superior Procedure No. QCP-7-7 Revision 2 for control of weld filler metal. No deviations from the requirements of AWS D1.1 were identified. The certifications and test data for two heats of E70S-3 weld filler metal and one heat of E7018 weld filler metal were examined against AWS D.1.1 and Procedure QCP-7-7 requirements. No items of noncompliance or deviations were identified.

The weld filler metal control system will be examined in the context of the entire Wallace/Superior quality assurance program and specification and PSAR requirements during a subsequent inspection.

- b. (Open) 50-508/80-07/02 Wallace/Superior-Use of Contractor NCR Form-Procedure QCP-12-12. During a previous inspection the inspector observed that the Wallace/Superior nonconformance reporting Procedure No. QCP-12-12 did not specifically address the use of the contractor's NCR form for onsite detected nonconformances.

During this inspection, the inspector reiterated the concern to the licensee that without specific guidance, the contractor NCR form could be used to disposition nonconformances where engineer review is required pursuant to criterion III of 10 CFR 50 Appendix B. The contractor has committed to provide specific guidance on the use of the Wallace/Superior NCR form. This item remains open.

4. Licensee Actions on IE Bulletins

- a. Bulletin 78-12, 78-12A and 78-12B - Atypical Weld Material in Reactor Vessel Welds

The licensee response letter No. G03-80-531, dated March 17, 1980 indicated that a generic report entitled "Atypical Weld Material in Reactor Vessel Welds" by Combustion Engineering, was submitted to the NRC on June 8, 1979. The inspector examined the site copy of the report which indicated that there is no evidence of atypical weld material in the WNP-3 or 5 reactor vessels. This item is closed.

b. Bulletin 79-02, Revision 2-Pipe Support Designs Using Concrete Expansion Anchor Bolts.

The licensee response letter dated December 13, 1979 reiterated a previous response which indicated that there are no plans to use concrete expansion anchors for attachment of Seismic Class I pipe supports at WNP-3/5. This item is closed.

c. Bulletin 79-03A-Longitudinal Weld Defects in Stainless Steel Pipe Spools.

The licensee letter No. G03-80-795 dated April 15, 1980 in response to Bulletin 79-03 indicated that an inspection program on the WNP-3 gas stripper regenerative heat exchanger shell disclosed no evidence of centerline lack of penetration. The letter also stated that the inspection program was not applicable to the WNP-5 gas stripper heat exchanger shell because, although it uses the same material specification, it is from a different manufacturer, Trent Tube Division of Colt Industries.

Bulletin 79-03A stated that the problem of centerline lack of penetration is generic to all welded SA-312/A312 material, and that the NRC has verified centerline lack of penetration in SA-312 or A312 fusion welded pipe manufactured by the Trent Tube Division. The licensee was unaware of any expansion of the inspection program to cover the WNP-5 gas stripper shell as a result of Bulletin 79-03A. The licensee committed to investigate the action to be taken in light of the above.

Licensee letter No. G03-80-1910 dated August 8, 1980, addressed specifically to Bulletin 79-03A, stated that a review of piping material was in progress to determine if any SA-312 or A-312 Type 304 fusion welded pipe is in use or planned for use on WNP-3/5. The results of this review are not yet available. This item remains open.

d. Bulletin 79-15-Deep Draft Pump Deficiencies

The licensee response letter No. G03-79-1071 dated October 3, 1979 stated that the only pumps falling into the design class described in the subject bulletin are the containment spray pumps. The inspector examined the following records associated with the subject pumps: (1) Drawings, sectional assemblies and parts list; (2) Quality assurance requirements (in the form of a manufacturing and quality control plan); and (3) design specifications. The licensee was not aware of any reliability testing requirements or procedures used to align the pump column. In addition, specific instructions to verify the absence of the bulletin-identified deficiencies during inspections were not included in the specifications or manufacturing and quality control plan.

Since the pumps have not yet been manufactured, no maintenance history is available, no major repair efforts have been undertaken and tests have not been performed. The licensee committed to investigate the bulletin requirements stated above. This item remains open.

e. Bulletin 79-24 - Frozen Lines

This bulletin was issued for information to the licensee. At the request of the inspector, the licensee replied to the bulletin in letter G03-80-2294, dated September 22, 1980. A review by the licensee of safety-related process, instrument, and sampling line freeze protection indicates that the design of the category IE electric freeze protection and maintenance systems imposes sufficient criteria to ensure that thermal alarm sensors are: (1) located to monitor the anticipated worst case condition and (2) calibrated to indicate within $+2/-0^{\circ}\text{F}$ of the actual fluid temperature. This item is closed.

f. Bulletin 80-05 - Vacuum Condition Resulting in Damage to Chemical Volume Control System Holdup Tanks

The licensee response letter No. ELE-GCS-80-176 indicated that all tanks in the chemical and volume control system are adequately protected. The licensee is presently reviewing the design of all tanks and components in the radwaste system. The results of this review are expected to be available on October 12, 1980. This item remains open.

g. Bulletin 80-08-Examination of Containment Liner Penetration Welds

Licensee response letter No. G03-80-1732 dated July 15, 1980 states that 100% radiography will be performed on the butt welds at the WNP-3/5 containment penetration connections. Where radiography is not practical or results of radiography are inconclusive, ultrasonic examination will be performed. The weld joint will be a butt weld with a consumable insert. Specifications governing this work do not permit use of a backing ring. This item is closed.

h. Bulletin 80-09-Hydrator Actuator Deficiencies

Licensee response letter No. G03-80-1521 dated June 25, 1980 indicated that hydrator actuators of the specified models are being supplied to WNP-3/5 under two contracts. Licensee letter No. G03-80-2291 dated September 22, 1980 indicated that American Warming and Ventilating Company (AWV) is supplying twenty-eight ITT-General Control's actuators with a No. 1 spring for use in damper actuating applications. AWV will compare the results of ITT-GC testing with their damper torque requirements for acceptability. Valtek Inc. is also awaiting the results of the ITT-GC test program prior to confirming that their actuators are adequately sized. This item remains open.

i. Bulletin 80-10-Contamination of Non-Radioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment

This bulletin was issued to holders of construction permits for information. The licensee has forwarded this bulletin to his Architect-Engineer for information and use. This item is closed.

j. Bulletin 80-16-Potential Misapplication of Rosemount Inc. Models 1151 and 1152 Pressure Transmitters with Either "A" or "D" Output Codes

Licensee response letter No. ELE-KAH-80-014 dated August 19, 1980 indicates that no Rosemount Model 1151 or 1152 pressure transmitters with output codes "A" or "D" are installed or planned to be installed in safety-related applications at WNP-3/5. This item is closed.

k. Bulletin 80-19-Failures of Mercury-Wetted Matrix Relays in Reactor Protective Systems of Operating Nuclear Power Plants Designed by Combustion Engineering

Licensee response letter No. G03-80-2124 dated September 5, 1980 indicates that Model HG2X-1011 mercury wetted relays, or other mercury wetted relays are not used in the logic matrix of the reactor protection system at WNP-3/5. This item is closed.

5. Review of Safety Related Equipment Storage.

a. Review of Procedures (EBASCO/WPPSS)

The inspector examined the following EBASCO/WPPSS procedures detailing receipt inspection, storage, and maintenance of material and equipment:

QAI 10-1	Receiving inspection and material requisitioning.
QAI 13-1	Surveillance of storage/maintenance functions for project procured permanent plant material and equipment.
ASP-QA-7-12	Use of quality status tags.
ASP-QA-7-6	Receiving inspection.
ASP-QA-7-7	Quality assurance records.
ASP-AM-8-2	Program and management for the maintenance of equipment and material during storage.
ASP-AM-8-5	Material control.
ASP-RE-2-28	Standard requirements for maintenance of equipment and materials during storage.

The inspector found that these procedures did reflect, in general, the requirements of ANSI N45.2.2 and ANSI N45.2.3 for receiving, storage, maintenance and housekeeping.

b. Review of Procedures (Fischbach-Moore)

The inspector reviewed several Fischbach-Moore procedures detailing receiving inspection, storage and control of measuring and test equipment. In addition, the Fischbach-Moore Quality Assurance Manual was reviewed.

The Fischbach-Moore Quality Assurance Manual appeared to be a general document applicable to several construction sites. It did not contain specific instructions as to applicable standards at the WNP 3/5 site. These specific references to applicable standards were to be detailed in instructions or procedures prepared for the WNP 3/5 site. The Quality Assurance Manual appeared to meet the requirements of a quality assurance program in accordance with 10 CFR 50, Appendix B.

The Fischbach-Moore receiving inspection instruction (QAP-30153) which had been approved by WPPSS/EBASCO, was examined for compliance with ANSI N45.2.2. This procedure did not appear to provide detailed instructions to the receiving inspector in accordance with ANSI N45.2.2. Specifically, the standard was only mentioned in the tabulated reference section (paragraph 3.2). The specific inspection steps detailed in ANSI N45.2.2, paragraph 5.2.2, were not referenced or re-stated in the procedure. Also, the receiving inspection checklist provided did not require all the inspection criteria detailed in the standard.

The instruction in paragraph 5.1.6(B) required that "Receiving inspection shall be performed in an area equivalent to the level of storage requirement for the item(s) being inspected." The instruction did not provide any details as to what the "Levels of Storage" were or what requirements were to be imposed, or provide reference to this information.

The instruction in paragraph 5.1.5(A) stated "in some cases, it may not be possible to determine the proper storage requirements prior to receipt of an item." No instructions were provided as to what to do in this case. The receipt inspector's responsibilities and actions were not clear if this situation did arise.

The inspector expressed concern that this instruction did not provide specific guidance to the receiving inspector in accordance with ANSI N45.2.2. The licensee stated that this instruction would be reviewed further and appropriate changes made.

Fischbach-Moore Instruction C/QCP-30253 "Electrical Material and Equipment Storage and Control" was also reviewed. The inspector noted that this procedure, in paragraph 6.2.15 did not require segregation or barriers, in addition to hold tags, to be provided for nonconforming material in accordance with ANSI N45.2.2 and applicable WPPSS/EBASCO procedures. The licensee stated that this would be changed to conform with requirements. These procedures will be examined during a subsequent inspection. (50-508/80-10/01) (50-509/80-10/01)

Fischbach-Moore Procedure QAP-40153 "Control of Measuring and Test Equipment" was reviewed. This instruction did not provide detailed instructions for calibration and control of test equipment at the site. The procedure stated that "The project engineer or his designee" was to prepare a "Project procedure to implement the calibration and control program...". It further required that "Detailed project procedures shall be prepared and approved to provide the following:

- (a) Calibration procedures and instructions for the equipment and tools to be calibrated onsite.
- (b) Care, maintenance and control of the calibration reference standards."

These detailed project procedures were not approved by EBASCO/WPPSS at the time of the inspection and were not reviewed by the inspector.

c. Inspection of Work and Work Activities

The inspector toured the EBASCO/WPPSS warehouses onsite and the Saginaw laydown area for compliance with the requirements of Regulatory Guide 1.38/ANSI N45.2.2, Regulatory Guide 1.39/ANSI N45.2.3 and EBASCO/WPPSS instructions. Two receiving inspectors and a maintenance manager were interviewed.

The inspector found that storage conditions for Level A, B, and C components met or exceeded requirements. The inspector determined that EBASCO/WPPSS receiving inspectors had been adequately instructed in receiving inspection requirements as detailed in paragraph 5.2.2 of ANSI N45.2.2.

The inspector noted that safety injection tanks at the Saginaw Laydown Area had moss growing on their outer surfaces. This moss appeared to be removable by wiping the affected areas. The licensee stated that these tank surfaces would be cleaned. The inspector also identified several embed plates with hold tags which were not segregated by rope barriers in accordance with procedures. Many other embed plates were located nearby with hold tags and properly segregated. The licensee stated that segregation ropes would be provided.

The inspector noted that the laydown area was prone to weed growth. The licensee stated that chemical sprays are used for weed abatement. The inspector cautioned the licensee about use of chemical sprays near sensitive components such as stainless steel pipe. During this inspection the only stainless steel materials were found in level B warehouses so that there was no problem then.

d. Review of Final Location Storage

During the site tour on September 23, 1980 and at several other times during the inspection, the inspector examined final location storage conditions of safety related equipment.

The inspector observed that Unit 3 reciprocating charging pump 2 and Unit 5 reciprocating charging pumps 1, 2, and 3, which had been placed on foundation mounts, were not being maintained in storage conditions that meet the requirements of Regulatory Guide 1.38 and ANSI N45.2.2. The pumps (level C items) and their associated motors (level B items) were covered with a wood frame structure. This structure was covered and enclosed, except at the floor, by visquene sheets. The floor is concrete. Heating and temperature control was provided by three incandescent lights at the motor end of the enclosure.

The inspector noted that the floor of the pump room, both inside and outside the visquene enclosure, was covered with approximately 1 inch of water. This storage condition was contrary to the requirements of the ANSI N45.2.2 standard.

Peter Kiewit Sons' Company Procedure No. PKS-WI-A101, "Care and Maintenance Inspection for Charging Pumps", defines storage to be ANSI N45.2.2 storage level B for the motors and level C for the pumps. Section 6.1.2 of the ANSI standard states that the storage area shall be well drained. In this case, the floor drains had been plugged which permitted water to accumulate on the floors. No alternate means had been provided to avoid the accumulation of water.

The failure to maintain the floor in a well drained condition negated the storage objective to maintain the equipment dry. The heat source provided by the licensee in the form of incandescent lights within the visquene enclosure tended to heat the enclosed water and increase the water vapor content within the enclosure. This additional water vapor was then free to condense back to liquid form on the cooler surfaces of the motor or pump. Thus, the storage condition provided by the licensee was not fully effective in minimizing moisture within the equipment as intended.

The inspector observed these pumps daily during the inspection and the conditions identified above persisted until the morning of September 26, 1980. The licensee believed that the storage conditions were adequate. Storage of quality class 1 charging pumps at Unit 3 have been the subject of previous NRC finding (IE Inspection Report No. 50-503/79-10).

Charging pump maintenance records were reviewed by the inspector. These records showed that the specific maintenance requirements detailed by Peter Kewit Sons' Company procedure were being met, however, this procedure did not include the "well drained floor" requirements of ANSI N45.2.2. Nonetheless, contract specification No. 3240-251, entitled "Erection of Piping Systems and Installation of Mechanical Equipment", applicable to the quality affecting activities performed by the Peter Kewit Sons' Company at WNP-315, invokes the requirements of ANSI N45.2.2-1972 for the receiving, handling and storage of all materials.

The failure of the storage procedure to establish adequate measures to maintain final location storage conditions for reciprocating charging pumps within the standards invoked by the contract specification is an apparent item of noncompliance (50-508/80-10/02) (50-509/80-10/02).

The inspector observed that quality class 1 reactor building drain pumps installed in Unit 3 were stored in a similar manner to the charging pumps noted above. There was again some evidence of moisture present within the enclosing structure. The environmental conditions of storage of these and other quality class 1 equipment items will be within the scope of future inspection efforts pertaining to the above item of noncompliance.

6. Management Meeting

The inspectors, including the resident reactor inspector, met with the licensee representatives, denoted in paragraph 1 at the conclusion of the inspection on September 26, 1980. The inspectors summarized the scope of the inspection and the findings. The licensee was informed that as a result of the recent Systematic Assessment of Licensee Performance (SALP) of WNP-3/5, more attention will be focused by the inspectors on the adequacy of procedures and preplanning efforts prior to the start of safety related activities.