U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-397/87-12

Docket No. 50-397 License No. NPF-21

Licensee: Washington Public Power Supply System
P. O. Box 968
3000 George Washington Way
Richland, Washington 99352

Facility Name: Washington Nuclear Project No. 2 (WNP-2)

Inspection at: WNP-2 Site, Benton County, Washington

Inspection Conducted: May 18-22, 1987

Inspector: G. M. Good
G. M. Good, Emergency Preparedness Analyst — 6/22/87 Date Signed

Approved by: R. F. Fish
R. F. Fish, Chief
Emergency Preparedness Section — 6/22/87 Date Signed

Summary:

Inspection on May 18-22, 1987 (Report No. 50-397/87-12)

Areas Inspected: Routine, unannounced emergency preparedness inspection in the areas of changes to the emergency preparedness program, notifications and communications, licensee audits, follow-up on nine NRC Information Notices and follow-up on five open items identified during previous inspections. The licensee's actions as a result of the March 22, 1987 loss of feedwater trip were examined from an emergency preparedness standpoint. Inspection procedures 82203, 82204, 82210, 82701 and 92701 were addressed.

Results: No deficiencies or violations of NRC requirements were identified. All of the open items identified during previous inspections and all of the Information Notices were closed. Four open items were identified during this inspection.

DETAILS

1. Persons Contacted

G. Bouchey, Director, Support Services
R. Chitwood, Manager, Emergency Planning and Environmental Programs (EP&EP)
D. Gano, Shift Technical Advisor
J. Hogg, Supervisor, Telecommunications
F. Klauss, Senior Emergency Planner
D. Mannion, Senior Emergency Planner
R. Mogle, Senior Emergency Planner
G. Oldfield, Principal Health Physicist
C. Powers, Plant Manager
J. Wyrick, Manager, WNP-2 Nuclear License Training

2. Action on Previous Inspection Findings

(Closed) Open Item (85-04-01): Visual alarms had not been installed in high noise areas. By letter dated August 26, 1986, the licensee notified the NRC that action on this issue had been completed. The inspector verified that the evacuation warning devices were in place, operational and tested on a regular basis. The inspector also verified that these devices and information associated with response to their activation were being addressed in training. This information is also contained on signs which are posted on each device. Applicable Emergency Plan Implementing Procedures (EPIPs) have been revised. This item is considered closed.

(Closed) Open Item (85-10-09): Provide systematic verification and documentation for the backup emergency dose projection system (EDPS) microcomputer program. This item remained open pending completion of the design document. Revision 0 of this document was completed as of September 9, 1986. The document was revised on October 15, 1986 to correct the high range Krypton 85 (Kr 85) response factor in the source code, add plume travel time to the output and to add a line print option. The document was revised again as a result of observations made by the Federal Emergency Management Agency (FEMA) during the licensee's 1986 annual emergency exercise. Revision 2 allows for direct input of plume centerline radioactivity concentrations or dose rates as determined by environmental field teams. Revision 2 was completed on January 12, 1987. This item is considered closed.

(Closed) Open Item (85-13-01): Incorporate change to Section 18.4 in the next revision of the Emergency Plan (EP). This change was incorporated into Revision 5 of the licensee's EP. Revision 5 was dated February 1986. This item is considered closed.

(Closed) Open Item (85-33-10): Review areas with limited egress under certain operational difficulties. As of April 23, 1986, this item remained open pending equipment installation scheduled to be performed during the next outage. This equipment installation was completed in April 1987. This item is considered closed.

(Closed) Open Item (GT-04-03): During an annual frequency test of the Emergency Broadcast System (EBS), a number of alerting radios were inadvertently activated. The licensee has purchased and distributed FM radios to eliminate the spurious activation problem. All but 100 radios have been replaced, with the remaining radios to be distributed within the next fiscal year. In the interim, all of the remaining AM radios have had adjustments made to their test frequencies to prevent spurious activation. During residence visits to replace the AM radios, some locations were found where FM reception was poor. It will be necessary for these locations to keep the AM radios. This item is considered closed.

3. Follow-up on NRC Information Notices

The Nuclear Safety Assurance Group (NSAG), part of Operational Assurance Programs, has a program for tracking licensee review and appropriate actions on NRC Bulletins and Information Notices, INPO notices and other similar documents. Copies of these documents are supplied to NSAG who establishes a file for each one. A master computer listing tracks the files and provides a connection between document and file numbers. This inspection included an examination of the files for the following NRC Information Notices:

IN 85-44	IN 86-10
IN 85-62	IN 86-18
IN 85-77	IN 86-97
IN 85-78	IN 86-98
IN 85-80	

Each file had a copy of the applicable Information Notice. The results of the reviews made and any actions taken have been documented on tracking forms and, if applicable, in memorandums, both of which were in the files. The examination of these files confirmed that the licensee had received these nine Information Notices and when necessary had taken appropriate action in response to the information provided in the Notice. All nine of these Information Notices are considered closed.

4. Notifications and Communications

This inspection included an examination of the licensee's program for testing the operability of the emergency communications systems. These systems include the dedicated phone system (called CRASH), that connects the onsite and offsite emergency centers, the backup direct dial system, the (NRC) Emergency Notification System (ENS) and the NRC Health Physics Network (HPN).

EPIP 13.14.4, "Emergency Equipment," identifies the communications systems to be tested and the test frequency. The above identified systems are required to be tested every month. Procedure 13.14.4 also identifies additional communications equipment and their test frequency.

The EP&EP organization has established a file to maintain the records related to the testing of these emergency communications systems. The test results are recorded on a form developed specifically for this

purpose. The test date, individual performing the test and test findings are recorded on the form. Corrective actions, necessitated by problems identified during the test, are recorded on the lower portion of the form. The test records for the period March 1986 through May 1987 were examined. All pertinent information was recorded on the forms. The forms showed that on about four occasions there were malfunctions of the equipment. In all cases, timely corrective actions were taken and recorded on the forms.

No deficiencies or violations of NRC requirements were identified during this part of the inspection.

5. Licensee Audits

The inspector verified that an independent audit of the emergency preparedness program had been conducted on an annual basis in accordance with 10 CFR 50.54(t) and Section 18 of the licensee's EP. Corporate Licensing and Assurance Audit 87-384, dated February 17, 1987, was reviewed. Fifteen Items of Concern (least significant) were issued as a result of the audit. Thirteen of the items were assigned to the EP&EP Department as the responsible organization and two were assigned to the plant. The EP&EP response to the audit report was submitted within the prescribed time period and the responses appeared to be adequate.

During this part of the inspection, the inspector reviewed the licensee's system for tracking findings identified in NRC inspection/exercise reports. The inspector examined the licensee's log book used to track these items. Based on a review of the log book and conversations with EP&EP personnel, the inspector concluded that only those items identified as "open" were being tracked. EP&EP personnel stated that this was a recent oversight since other findings had been tracked in the past. Since this situation could result in some NRC concerns being overlooked, resolution of this matter will be tracked by the Region as an open item (87-12-01).

No deficiencies or violations of NRC requirements were identified during this part of the inspection.

6. Changes to the Emergency Preparedness Program

To determine if any changes to the emergency preparedness program had been made which could affect the overall state of emergency preparedness, the inspector addressed the following areas: (1) changes to the Emergency Response Facilities (ERFs) (i.e., Technical Support Center (TSC), Operations Support Center (OSC) and Emergency Operations Facility (EOF)), (2) changes to the emergency response organization, and (3) changes to the licensee's emergency planning group. No notable changes have been made in these areas.

The Region V Emergency Preparedness Section performs an annual review of the EP and EPIPs. By letter dated April 21, 1987, Revision 6 to the licensee's EP had been reviewed. The EP, as changed, continued to meet the standards in 10 CFR 50.47(b) and the requirements of 10 CFR Part 50, Appendix E. The review of the EPIPs was accomplished in the Region V

office, prior to this inspection. The following procedures were reviewed:

13.1.1, Revisions 3 and 4, "Classifying the Emergency"

13.1.2, Revisions 3 and 4, "Plant Emergency Director Duties"

13.2.1, Revisions 3 and 4, "Fire/Explosions"

13.2.3, Revision 3, "Toxic or Flammable Gas Releases or Oxygen Deficient Atmosphere"

13.2.4, Revision 3, "Missiles"

13.3.2, Revision 3, "High Winds/Tornados"

13.3.3, Revision 3, "Floods"

13.3.4, Revision 3, "Ash Fallout"

13.4.1, Revision 4, "Notifications"

13.5.1, Revisions 3 and 4, "Controlled Evacuation of the Protected Area"

13.5.2, Revisions 3 and 4, "Immediate Evacuation of the Protected Area"

13.5.3, Revisions 4 and 5, "Evacuation of Exclusion Area and/or Nearby Facilities"

13.5.4, Revisions 3 and 4, "Columbia River Evacuation"

13.5.5, Revision 3, "Personnel Accountability"

13.5.6, Revision 3, "Personnel Search and Rescue"

13.6.1, Revisions 3 and 4, "Security Procedures"

13.7.1, Revision 3, "Personnel Monitoring"

13.7.2, Revision 3, "Contamination Control"

13.7.3, Revisions 3 and 4, "Plant Personnel Decontamination"

13.7.4, Revision 3, "Personnel Decontamination Operations at the Emergency Operations Facility"

13.7.5, Revisions 4 and 5, "Decontamination Operations at Remote Decontamination Locations"

13.7.6, Revision 3, "Plant First Aid Facility"

13.7.7, Revisions 3 and 4, "Emergency Operations Facility First Aid Center Operations"

13.7.8, Revisions 3 and 4, "Transportation of Injured or Contaminated Injured Personnel to an Offsite Medical Facility"

13.7.9, Revision 3, "Decontamination Within the Site Area Boundary"

13.7.10, Revision 1, "Offsite Emergency Response Personnel Dosimetry"

13.8.1, Revision 3, "Computerized Emergency Dose Projection System Operations"

13.8.2, Revisions 3 and 4, "Manual Offsite Dose Calculations"

13.8.3, Revisions 3 and 4, "Ingestion Pathway Dose Calculations"

13.9.1, Revisions 3 and 4, "Environmental Field Team Operations"

13.9.2, Revisions 3 and 4, "Field Exposure Rate Surveys"

13.9.3, Revision 3, "Portable Air Sampling"

13.9.4, Revision 3, "TLD and Fixed Air Sample Retrieval"

13.9.5, Revision 3, "Environmental Sample Collection"

13.9.6, Revision 4, "Field Analyses of Environmental Samples"

The questions/comments which were generated as a result of the review of these procedures were discussed with the licensee during this inspection. With the exception of some comments pertaining to EPIP 13.1.1 (see below), all of the questions were either explained or notations were made so that the procedures could be corrected/clarified in the next revision. Only one question, regarding step 8 of 13.7.10, needed attention now, rather than waiting for the next revision to be issued before the matter was clarified.

With respect to EPIP 13.1.1, during the procedure review, it became evident that there were a few emergency action levels (EALS) that were worded such that they appeared to result in an emergency classification that was not consistent with NUREG-0654. The EALs in question were for Technical Specification related Unusual Events and for the fire related EALs for the Unusual Event, Alert and Site Area Emergency classifications. It should be noted that the Technical Specification Unusual Event issue had been identified during a previous inspection (see Section 12 of Inspection Report No. 50-397/86-08). Subsequent to that inspection, a management decision was made to not change that EAL.

On May 19, 1987, during this inspection, a meeting was held with plant management to discuss this matter. During this meeting, the licensee reaffirmed their position regarding the methodology they used in

developing 13.1.1. The licensee has used a combination of symptomatic and situation based EALs. Guidance on this issue is being sought from NRC Headquarters, since this appears to be a generic issue. Pending a decision on this matter, the licensee has requested their Operational Assurance Department to perform a complete evaluation of 13.1.1. It should also be noted that the licensee volunteered to provide their assistance in resolving this issue. This matter will be tracked as an open item (87-12-02) until final disposition.

During the review of the licensee's classification procedure, the inspector examined two documents that pertained to this subject matter. One was a document dated August 26, 1983 that summarized an NRC review of the licensee's emergency classification system/EALs and the second was the licensee's response to this document. The licensee's response was dated October 3, 1983. One of the recommendations made in the August 1983 letter was that the licensee list the loss of onsite AC power capability under the situation based initiating conditions for an Unusual Event. The October 1983 response indicated that EPIP 13.1.1 would be revised to reflect this request. To date, this condition has not been incorporated into 13.1.1. This matter was brought to the licensee's attention during the aforementioned meeting on May 19, 1987. The Region intends to follow-up on this matter, therefore, it will be tracked as open item 87-12-03.

No deficiencies or violations of NRC requirements were identified during this part of the inspection.

7. Emergency Preparedness Review of the March 22, 1987 Loss of Feedwater Trip

This inspection included a review of the events that occurred during the March 22, 1987 loss of feedwater trip and an evaluation from an emergency preparedness standpoint. Region V Emergency Preparedness personnel were informed of this event during a March 25, 1987 telephone call from the Resident Inspector. The conversation included a discussion about whether it would have been appropriate to declare an Unusual Event. Based on a comparison of the situation as it existed during the loss of feedwater trip on March 22, 1987 and the symptomatic initiating conditions for an Unusual Event contained within EPIP 13.1.1, it was determined that condition A.1.a. of Attachment A had been met (Lo Lo reactor vessel water level (-50 inches)); however, the condition only lasted for approximately 16 seconds before water level was recovered. A description of this event can be found in Licensee Event Report (LER) No. 87-02.

This event was discussed during the May 19, 1987 meeting referred to above. During the meeting, the inspector was informed that because all required Engineered Safety Feature (ESF) actuations occurred and water level recovered immediately, an Unusual Event was not declared because the situation did not pose a threat to the safety of plant personnel or the public. Further, the licensee was able to produce a March 15, 1983 letter to the NRC in which this same situation was described. The licensee stated in the letter that an Unusual Event declaration for this situation is unwarranted because the plant responded as designed and the potential safety degradation was only momentary. Additionally, the

licensee stated that declaring an Unusual Event for this situation does not satisfy the purpose of this classification.

During the meeting, licensee personnel indicated that the situation described in the March 15, 1983 letter (loss of feedwater/reduction in water level without Unusual Event declaration) was addressed during training on EPIP 13.1.1. This information was not confirmed during a review of the lesson plan.

Based on the results of the investigation into the March 22, 1987 loss of feedwater trip, it appears that a declaration of an Unusual Event, based on Lo Lo reactor vessel water level, may not have been appropriate. However, two suggestions were made.

A. EPIP 13.1.1 could be improved if it were modified to include those situations where an EAL could be reached, without event declaration.

B. EPIP 13.1.1 could be improved if the sentence preceding the symptomatic initiating conditions for each of the four emergency classifications was modified to eliminate the word "consider". The sentence (verbatim for each classification) appears to indicate that event declaration need only be considered, rather than being an automatic result of meeting a prescribed initiating condition. The purpose of establishing a classification and EAL scheme was to develop trigger points for EP activation.

Since the Region intends to follow-up on the licensee's handling of these two suggestions, this matter will be tracked as open item 87-12-04.

No deficiencies or violations of NRC requirements were identified during this part of the inspection.

8. Exit Interview

The inspector held an exit interview with the licensee on May 22, 1987 to discuss the preliminary findings of the inspection. The attachment to this report identifies the licensee personnel who were present at the meeting. Mr. R. F. Fish, Chief of Region V's Emergency Preparedness Section, also attended the meeting. The inspector summarized the findings described in Sections 2-7 of this report. During the meeting, the change to EPIP 13.1.1, mentioned in Section 7, was not specifically identified as a follow-up/open item. Regarding the findings described as open items 87-12-01, 87-12-03 and 84-12-04 (Sections 5-7, respectively), the licensee indicated that there did not appear to be any problems with implementation of these suggestions. The inspector informed the licensee that they would be kept informed of the progress associated with the open item described as 87-12-02 (Section 6).

ATTACHMENT

EXIT INTERVIEW ATTENDEES

G. Bouchey, Director, Support Services
A. Hosler, Manager, Nuclear Safety Assurance Group
J. Houchins, Emergency Planner
F. Klauss, Senior Emergency Planner
D. Mannion, Senior Emergency Planner
R. Mogle, Senior Emergency Planner
R. Quay, Manager, General and Technical Support Training
C. Van Hoff, Senior State Liaison
S. Washington, Shift Technical Advisor
M. Wuestefeld, Supervisor, Reactor Engineering