U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-397/87-20

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: August 31 - September 4, 1987

Inspectors: G. M. Good, Emergency Preparedness Analyst (Team Leader) — Date Signed: 10/23/87

G. A. Brown, Emergency Preparedness Analyst — Date Signed: 10/26/87

K. M. Prendergast, Emergency Preparedness Analyst — Date Signed: 10/26/87

W. K. TenBrook, Radiation Specialist — Date Signed: 10/23/87

Team Members: R. A. Meck, Emergency Preparedness Specialist
T. H. Essig, Health Physicist
W. Hansen, Comex Corporation

Approved by: R. F. Fish, Chief
Emergency Preparedness Section — Date Signed: 10/28/87

Summary:

Inspection on August 31 - September 4, 1987 (Report No. 50-397/87-20)

Areas Inspected: Announced inspection of the emergency preparedness exercise and associated critique, follow-up on open items identified during the 1986 exercise and walkthrough interviews with selected Control Room personnel. Inspection procedures 82301, 92701, 82201 and 82202 were covered.

Results: No deficiencies or violations of NRC requirements were identified during this inspection.

DETAILS

1. Persons Contacted

D. Anderson, Supervisor, Mechanical Maintenance
L. Bradford, Supervisor, Health Physics (HP)
C. Card, Senior Health Physicist
R. Chitwood, Manager, Emergency Planning and Environmental Programs, (EP&EP)
Y. Derrer, Senior Training Specialist
F. Frisch, Operations Engineer
N. Hancock, Shift Manager
M. Johnson, Senior Information Officer
A. Klauss, Senior Emergency Planner
G. Kozlik, Shift Manager
D. Mannion, Senior Emergency Planner
G. Oldfield, Principal Health Physicist
D. Ottley, Supervisor, Radiological Services
M. Painter, Computer Engineer
G. Peterson, Director, Administrative and Support Services
L. Schleder, Environmental Scientist
W. Shaeffer, Shift Manager
L. Sharp, Principal Nuclear Engineer
R. Utter, Senior Training Specialist
R. Vosburgh, Manager, Safety Analysis and Engineering
R. Walton, Principal Engineer, Performance Evaluation
M. Wuestefeld, Supervisor, Reactor Engineering
J. Wyrick, Manager, WNP-2 Nuclear License Training

2. Action on Previous Inspection Findings

(Closed) Open Item (86-26-02): The effectiveness of the Operations Support Center (OSC) was hampered due to poor team briefings/debriefings. During this exercise, team briefings were routinely conducted by the Plant Emergency Team (PET) Leader and the lead Health Physicist and documented by dedicated Team Briefer/Debriefers. Briefings included information regarding task to be performed and the proper route to be taken considering plant conditions. All briefings and debriefings were documented and signed-off by the Lead Health Physicist and the OSC Director. This item is considered closed.

(Closed) Open Item (86-23-03): The Fixed Nuclear Facility (FNF) Notification form was not accurately or thoroughly completed. The FNF forms are used for making notifications to offsite agencies. During the exercise, six FNF forms were evaluated by the inspector. All of the forms indicated correct and timely information and all forms were fully completed, as required. This item is considered closed.

3. Shift Manager Walkthrough Interviews

Two Shift Managers (SMs) were interviewed to ascertain their knowledge of the purpose of Emergency Planning and their functions and

responsibilities when acting in the capacity of the Plant Emergency Director (PED). This was accomplished by presenting a scenario which exercised their understanding of the Emergency Plan (EP) and Emergency Plan Implementing Procedures (EPIPs). The scenario required each of them to act as the PED through a sequence of deteriorating plant conditions which culminated in a General Emergency (GE). The same scenario was presented to both SMs, modified only slightly when called for by variations in their responses.

The scenario was structured to present plant conditions which would require the SMs to use their operational judgement in making classification decisions. The scenario included several plant conditions and situations that did not specifically meet the Emergency Action Levels (EALs) identified in EPIP 13.1.1, "Classifying the Emergency"; however, they were very close (e.g., sustained wind speeds of 79 mph rather than 80 mph).

The results of the walkthrough interviews showed that both SMs were familiar with the purpose of the EP and the Emergency Preparedness Program, and demonstrated familiarity with the EPIPs. Both SMs understood and could perform the notification of offsite agencies in accordance with EPIP 13.4.1, "Notifications". The SMs were consistent in their event classification of scenario events with the exception of the Unusual Event (UE).

The UE scenario situation included 4 parameters which were close to the EALs, one of which was sustained winds of 79 mph. In response to the scenario, one SM decided that the situation justified a UE declaration and the other did not. The SM who did not declare the UE with winds at 79 mph did declare the UE when the wind speed increased to the EAL of 80 mph. When the SM was questioned about the significance of the difference, he indicated that declaring a UE would hinder him, rather than help him, since the declaration would require him to complete a form for notification and designate an individual to notify the NRC, with the possibility of having to continuously man the Emergency Notification System (ENS) telephone, but would not bring him any additional support.

In both interviews the scenario was interrupted and both SMs were questioned about a situation where the reactor vessel level fell to -50 inches for several seconds. This is also.a UE EAL. Neither of the SMs would declare a UE for this situation.

When challenged with Plant Emergency Director, including Recovery Manager (RM), responsibilities through a GE event, both SMs displayed less proficiency than they had at the lower levels. They both had trouble with the requirement for Protective Action Recommendations (PARs) and had difficulty using the PAR and Decision Flow Chart, Attachment A to EPIP 13.14.2, "Process for Determining Protective Action Recommendations and Protective Action Decisions".

Based on the results of the SM walkthroughs, the following suggestions for improving the program are offered.

a. The EALs both symptomatic and event oriented need to be re-examined to make their use more clearly defined for the PED (Shift Managers). If there are conditions when symptomatic EALs should not be used to classify an event then this ambiguity should be removed from the procedure. The use of the word "considered" in the classification guidance of EPIP 13.1.1 detracts from its usefulness.

(Note: The above issue has already been identified and is being tracked as open item 87-12-04. Open item 87-12-02 includes the issue of the licensee's EALs and whether they are consistent with NUREG-0654.)

b. The useability of the EPIPs could be improved. This might be accomplished through better organization, incorporation of decision tree methodology, indexing or a combination of the above. It is suggested that comments from all SMs and other PEDs be solicited.

c. Increase training emphasis for SMs in PED responsibilities during GEs with emphasis on making PARs. Training should also stress the benefits and requirements for the declaration of emergencies, with emphasis on UE level situations.

d. Through training, changes in procedures or both, emphasize that combinations of situations can warrant conservative action and emergency classification.

4. Emergency Preparedness Exercise Planning

The licensee's EP&EP group has the overall responsibility for developing, conducting and evaluating the emergency preparedness exercise. The EP&EP group developed the scenario package with the assistance of licensee staff possessing appropriate expertise (e.g., reactor operations, HP). Approximately eighteen people were involved. Persons involved in the scenario development were not participants in the exercise. The Managing Director for Operations was designated as the Exercise Director and a member of the EP&EP group was designated as the Exercise Coordinator.

The EP&EP group, in concert with the offsite agencies, established the exercise objectives. NRC Region V and the Federal Emergency Management Agency (FEMA), Region X were provided with an opportunity to comment on the exercise objectives and scenario package. The exercise package, generated in accordance with EPIP 13.14.8, "Drills and Exercises", included the objectives and exercise limitations, player information (guidelines), exercise scenario, messages used during the exercise, initial and subsequent plant parameters, meteorological and radiological data, controller/evaluator instructions and the critique worksheets. Advance copies of the scenario package were provided to the NRC evaluators and other persons having a specific need. The players did not have access to the exercise package or information on the scenario events. The exercise was intended to meet the requirements of IV.F.2.of Appendix E to 10 CFR Part 50.

Licensee controllers were stationed at each of the Emergency Response Facilities (ERFs) (e.g., Control Room (CR) Simulator, Technical Support

Center (TSC), OSC, Emergency Operations Facility (EOF) and Joint Information Center (JIC)) to provide messages/data where appropriate. Controllers were also dispatched with repair/monitoring teams. A final briefing of the controllers was conducted on September 1, 1987. The contents of the exercise package were discussed in detail at the briefing. All of the NRC evaluators were present for this controllers' briefing.

5. Exercise Scenario

The exercise scenario started with an event classified as a UE and ultimately escalated to a GE condition. A series of seismic events triggered the UE, Alert and GE declarations. The scenario developers did not provide for a Site Area Emergency (SAE) declaration. The GE was based on a major earthquake which caused a loss of all offsite power. Both emergency generators subsequently failed to start. An anticipated transient without scram (ATWS) situation was present since the control rod drives (CRDs) failed to fully insert. The CRDs could not be inserted because the Scram Discharge Volume (SDV) was flooded. This situation led to the core becoming uncovered and a radioactive gas release to the environment through a quake-damaged standby gas treatment (SBGT) system. Peripheral events included missing individuals identified during accountability, an injured Equipment Operator (EO), a contaminated HP technician, and a reporter who attempted to gain access to the site. As previously mentioned, the major earthquake was intended to prompt a GE declaration. The TSC initially declared a SAE while they were trying to determine the extent of damage. Also, there was conflicting information regarding the ATWS. The GE was declared 12 minutes after the SAE.

6. Federal Evaluators

Seven NRC inspectors evaluated the licensee's response. Inspectors were stationed in the CR/Simulator, TSC, OSC, EOF, Meteorological and Unified Dose Assessment Center (MUDAC) and JIC. One inspector accompanied and evaluated a field (offsite) monitoring team. The inspector who was assigned to the OSC accompanied repair/monitoring teams in order to evaluate their performance.

7. Control Room/Simulator

The following aspects of CR operations were observed during the exercise: detection and classification of emergency events, mitigation, notification and PARs. The following are NRC observations of the CR activities. The observations, as appropriate, are intended to be suggestions for improving the program.

a. The CR staff was technically competent and worked well as a team.

b. The UE and Alert were correctly classified and notifications (State, local and NRC) were rapidly made well within the required times and in the proper sequence.

c. Efforts to analyze and mitigate the effects of the emergency were well thought-out and aggressively pursued. The controller was

forced to intervene several times in order to allow the sequence of events to continue.

d. Since the EOF Communications Center does not report back to the SM/PED when notifications have been completed, the SM/PED can never be certain that notifications were received by the offsite agencies. During the exercise, a faxed copy of the FNF form was not received in the EOF Communications Center, although the mark on the original signifying successful transmission did appear. The CR was not notified by the Communications Center that the fax had not been received.

8. Technical Support Center

The following aspects of TSC operations were observed: activation, accident assessment/classification, dose assessment, notifications, PARs and CR support. The following are NRC observations of the TSC activities. The open items are of sufficient importance to warrant NRC examination during future inspections. The other observations, as appropriate, are intended to be suggestions for improving the program.

a. The system used to complete the plant status boards is efficient, effective and timely. Graphics Display System (GDS) printouts are used and changing/changed information is noted in red.

b. The post exercise critique was conducted in a thorough manner. Players, controllers and evaluators participated. All players were requested to complete "After Action Reports" at the conclusion of the exercise.

c. At the Alert level, the TSC staff did a good job in attempting to identify future complications should another earthquake occur.

d. The transfer of responsibilities between the CR and TSC was not conducted in a systematic manner. At 0842 the on-call PED in the TSC called for a controlled evacuation. Since the TSC had not been declared operational, this responsibility remained with the SM in the CR. At 0845 the TSC Director held a briefing during which he stated that although the TSC was capable of being declared operational (all key personnel were present) they were going to hold off until the CR completed the notifications for the Alert. The TSC was declared operational at 0848 and the TSC staff was informed that the PED had assumed the duties from the CR. At 0852 the PED called the CR to tell them he had assumed the duties of the PED. During this same call, the PED asked if the notifications for the Alert had been completed. As previously mentioned, this was to be accomplished prior to the turnover. During this call, the PED (TSC) stated that he was assuming the duties as of 0853.

e. Notifications to plant personnel were not made in complete accordance with EPIP 13.1.2, "PED Duties".

i. Step 6 of EPIP, 13.1.2 requires the PED to sound the alerting tone and make a PA announcement and then he is required to

repeat the step. This step was not repeated throughout the exercise.

ii. Step 6 of EPIP 13.1.2 requires that PA announcements include information about hazardous areas. When it was determined that a release was in progress, a PA announcement was not made.

iii. After the major earthquake, a PA announcement was not made for 11 minutes after the SAE was declared.

The resolution of this matter will be tracked as open item 50-397/87-20-01.

f. Information flow between and within the CR, TSC, OSC and EOF could be improved. Examples are as follows:

i. The PED and TSC Director were not kept informed of the status of the containment venting. At 1251 the decision was made to vent containment at 1300. The venting was delayed until 1307 so that field teams could be recalled prior to initiating the venting. Actual venting did not occur until 1338. The delay which occurred between 1307 and 1338 was due to controller intervention in the CR. Since the CR did not inform the TSC of the hold, the TSC could not inform the EOF. Once the venting actually began, the TSC did not inform the EOF of the start time. This communication flow problem resulted in key TSC and EOF personnel believing that there was a release in progress for 31 minutes when in fact no release was occurring.

ii. At 1234 the technical staff in the TSC had their first indications that there was a potential need to vent the containment; however, this information was not transmitted to MUDAC until approximately 1254. This information should have been transmitted to the MUDAC in a more timely manner so that dose calculations could be performed, or at least initiated prior to the release, in order to quantify the impact of the release.

iii. The PED was unaware of the actual start time of the earlier release (unfiltered) through the quake-damaged SBGT Division 1.

iv. Information about PARs and implemented offsite protective actions was not provided to the TSC staff.

v. The TSC staff was not informed that the security Closed Circuit Televisions were lost after the major earthquake occurred. This is a security condition yellow.

Licensee actions related to these information flow difficulties will be tracked as Open Item 50-397/87-20-02.

9. Operations Support Center

The following OSC operations were observed: activation of the facility, functional capabilities and disposition of various inplant repair/monitoring teams. The following are NRC observations of the OSC activities. The open item is of sufficient importance to warrant NRC examination during future inspections. The other observations, as appropriate, are intended to be suggestions for improving the program.

a. Activation of the OSC was very timely and efficient.

b. Habitability surveys were performed in the OSC at regular and frequent intervals (every 15 minutes) throughout the exercise. The OSC staff was informed of the results.

c. Prior to plant entry, every team was thoroughly briefed relative to the nature of the work to be performed, protective clothing, equipment requirements and expected radiological conditions enroute. Debriefings were also conducted of every team upon return to the OSC. Briefing and debriefing forms were used effectively to accomplish this task and were signed off by the Lead Health Physicist and the OSC Director.

d. The controller who accompanied Team No. 9 was not familiar with some of his duties and with some of the inplant radiological data contained in the scenario package. Examples are as follows:

   i. Erroneous radiation exposure rate data was given to the HP technician on the team.

   ii. The controller was unaware that the scenario contained contamination level data for the HP technician who had become contaminated.

   iii. A player was prompted by the controller when the latter provided information regarding the proper return route from the Alternate Access Point to the OSC. The player would normally have obtained such information from the OSC. The return route was critical because of high inplant and out-of-plant exposure rates which existed at the time.

   Note: Although the difficulties experienced with this controller appear to be an isolated case, this finding is being mentioned because poorly trained controllers can lead to objectives not being met.

e. Accountability was not completed in a timely manner. A request to evacuate the Protected Area was initiated at 0849. The OSC staff did not request a computer list from Security until 0902. The computer list names all persons known to be onsite. The list was delivered 10 minutes after the request was made, however, accountability was not completed until 0953. Since NUREG-0654, Planning Standard J.5, recommends that a goal of 30 minutes be used

to complete the accountability process resolution of this matter will be tracked as open item 50-397/87-20-03.

f. Briefings conducted by the OSC Director could not always be heard clearly over the background noise.

10. Emergency Operations Facility

The following EOF operations were observed: activation of the facility, functional capabilities, interface with offsite officials, notifications, PARs and MUDAC operations (offsite dose assessment and field monitoring teams). The following are NRC observations of the EOF activities. The open items are of sufficient importance to warrant NRC examination during future inspections. The other observations, as appropriate, are intended to be suggestions for improving the program.

a. Protective action recommendations based on dose assessments were formulated in a timely and proper manner and relayed to the Radiological Emergency Manager (REM).

b. Special admonition was given by the MUDAC Coordinator to the staff to review appropriate EPIPs during operations.

c. Field team SS1 correcly interpreted shine at the beginning of the exercise.

d. Information flow between and within the CR, TSC, OSC and EOF could be improved. Examples are as follows:

i. The Safety Manager did not provide adequate briefings to the RM. At 0845 the scenario provided for an injured worker. After 1000 the RM was still trying to find out more about the injured worker, such as, name, extent of injuries and disposition. The Safety manager had no information to provide to the RM, because he had not been aggressive in his efforts to obtain these details.

ii. The Security Manager did not take the initiative to keep the RM informed of the status of assembly and accountability.

iii. The Offsite Agency Coordination Center (OACC) did not keep the RM informed of this facility's activities in a timely manner. At 1022 the Department of Energy (DOE) had shut down all operations and evacuated all non-essential personnel from the 300 and 400 areas. The RM was not aware of this fact until he was told by a DOE representative during an 1142 briefing. It would have been appropriate for the OACC to advise the RM immediately after the fact.

iv. The RM was not able to get information regarding the start time of the first release through SBGT Division 1 until 1236, 26 minutes after the release started. It would have been appropriate for the REM in the EOF to take the initiative to obtain and provide this important radiological information to

the RM immediately. In addition, the PED in the TSC did not provide the RM with the exact time of this significant change in plant conditions.

v. During a staff briefing at 1345, the RM still did not have an accurate start time for the containment venting.

These communication difficulties are considered to be part of open item 87-20-02 identified in Section 8.f above.

e. The usefulness of the field team status board maps was hampered because measurements were recorded without associated times. The result was a very cluttered status board with old and current measurements side by side. However, the MUDAC Coordinator was provided with numerous "snapshot" field team summary maps.

f. The protective action status board in the MUDAC was not updated or completed. Also, feedback regarding implemented offsite protective actions was not provided to the MUDAC.

g. An iodine cartridge sample was returned to the HP Center without a data sheet. This resulted in the contact reading on the cartridge being confused with the whole body dose rate experienced by the team.

h. A field team controller who accompanied a team beyond the leading edge of the plume improperly extrapolated data to obtain whole body dose rate values. These improper dose rate values, subsequently relayed to the MUDAC, caused confusion with respect to plume boundaries during the later stages of the exercise.

i. Because the containment venting portion of the scenario was unanticipated, no scenario data to support the release was provided to the field team controllers. In order to avoid the confusion which could result from controller guessing, the scenario developers should make every effort to anticipate player responses or insure that all controllers are informed of significant scenario digressions through the controllers' communication network.

j. Some consideration should be given to the time it takes to actually perform certain actions which are simulated during an exercise. Two field teams simulated donning protective clothing and respirators. One team simulated a 4 minute delay and the other one did not delay at all. In reality, this effort would have taken much longer.

k. The field team (SS1) did not check for ground contamination.

l. No environmental samples were requested by MUDAC or taken by the field team (SS1).

m. Field team SS1 did not check for personnel contamination after they passed through the plume.

n. Based on observations made during the exercise and subsequent discussions with the field team evaluators (NRC and licensee) and the Field Team Coordinator in MUDAC, it appears that the licensee's program would benefit from a re-examination of MUDAC's utilization and control of the offsite field teams.

Examples of subjects that need to be considered include the following:

i. Re-affirm the role and purpose of the field teams.

ii. Re-affirm who is in control of the field teams; is the MUDAC in control or do field teams utilize their own expertise to control themselves?

iii. Determine whether there are any areas where required training needs to be enhanced (for field team members or MUDAC staff).

iv. Determine whether a set of minimum criteria for plume definition needs to be established.

v. Determine whether procedures adequately address the transportation and counting of field samples.

vi. Determine whether staff levels in MUDAC are sufficient to address the field teams, e.g., provide direction, receive data, compile and interpret data and determine utilization strategies.

This issue is being raised because two Supply System field teams (SS1 and SS2) appeared to have trouble locating and providing data to assist in defining the plume. Also, it is questionable whether the field teams were able to provide sufficient data to effectively compare dose projections being made by MUDAC. It should be noted that there were several other field teams, SS3, one DOE and two State teams. Although the DOE team provided a fair amount of data, SS3 was detained at the simulated river evacuation and the two State teams were east of the Columbia River, beyond the leading edge of the plume. It appears that SS1 passed through the plume once and touched it once. SS2 passed through the plume twice, possibly once unknowingly. The resolution of this issue will be tracked as open item 50-397/87-20-04.

11. Joint Information Center

The following JIC operations were observed: activation of the facility, functional capabilities, release of information to the public and media, and response to rumors. The following are NRC observations of the JIC activities. The observations, as appropriate, are intended to be suggestions for improving the program.

a. The JIC operated well to coordinate and disseminate information to the public and to respond to rumors and misinformation.

b. Frequent press briefings were held to keep the media informed on the status of the emergency.

c. Erroneous information posted on the status boards in the JIC lobby, auditorium and JIC Director's office could have been disseminated to the public, causing confusion. At 1300, the status boards indicated that Sector 1 was being evacuated out to 10 miles. The county and utility had only recommended a Sector 1 evacuation out to 5 miles.

d. On a number of occasions, the JIC was delayed in receiving a hardcopy of the county's emergency actions as provided in the Emergency Broadcast System (EBS) message to the public. The delay was attributed to a busy telefax machine.

e. Information about the simulated evacuation of non-essential WNP-1 personnel to the Supply System Headquarters parking lot was not relayed to the JIC in a timely manner. The evacuation took place at 0900, but the JIC was not informed until approximately 1400 hours.

12. Critiques

Immediately following the exercise, critiques were held in each of the ERFs. Players completed "After Action Reports" and submitted them to the Lead Controller at each facility. The critique process was also supported by findings from the licensee's controllers and evaluators. A summary of all of the licensee's findings was presented to the NRC evaluation team by the Exercise Coordinator during a September 3, 1987 meeting. The Director of Support Services and the Manager of EP&EP were present for this meeting. Arrangements have been made for the licensee to provide the Region with a copy of their final evaluation report, upon its completion. The following represent the types of comments made at this meeting.

a. Exchange of information in the CR could be better.

b. Keys for the emergency cabinet in the TSC could not be readily located.

c. Periodic PA announcements relative to an exercise being in progress were not routinely made.

d. The Emergency Dose Projection System (EDPS)/MUDAC cannot handle a variety of source terms associated with severe core damage accidents. The system can only handle loss of coolant accident (LOCA) situations.

e. The Operations Manager's Communicator failed to notify the CR when the RM took charge.

f. Scenario data for the OSC was too bulky.

g. A simulated team that was sent to the High Pressure Core Spray train was forgotten.

h. At times, inplant teams communicated with each other instead of the OSC.

i. Difficulties were identified with the accountability process.

j. There was a potentially conflicting PAR and Protective Action Decision (PAD) regarding farm animals.

k. A non-precise notification was made by the RM.

l. The scenario data for the aerial teams was unreasonable.

m. Field team training needs to be reviewed. Measurements at 3 feet are needed to establish plume passage.

n. PADs were not included in news releases.

o. Erroneous information was noted on some status boards (JIC).

p. The Support Manager at the JIC arrived late, because he was not listed on the call tree.

13. Exit Interview

An exit interview was held on September 4, 1987 to discuss the preliminary findings of the NRC inspection team. The attachment to this report identifies the personnel who were present at the meeting. The NRC was represented by the seven evaluator team members and Mr. C. Bosted, NRC Resident Inspector. The licensee was informed that no deficiencies or violations of NRC requirements were identified during the inspection. The findings described in Sections 2, 3 and 7-11 of this report were mentioned. The licensee was informed that one exercise weakness (87-20-02) (see Sections 8 and 10) had been identified; however, the three open items (87-20-01, 87-20-03 and 87-20-04) (see Sections 8, 9 and 10) were not categorized as open items during the exit interview. The NRC Team Leader stated that it appeared that exercise objectives 1.a.2 and 1.e.3 had not been met. These two exercise objectives concerned, respectively, the timely and accurate exchange of information between facilities and demonstration of proper support of emergency managers and directors by their staff members.

Subsequent to the inspection, review of the findings by Region V supervision resulted in the item identified as an exercise weakness being reclassified as one that will be tracked as an open item.

ATTACHMENT

EXIT INTERVIEW ATTENDEES

A. Licensee Personnel

H. Aeschliman, Senior Licensing Engineer
J. Baker, Assistant Plant Manager
G. Bouchey, Manager, Support Services
R. Chitwood, Manager, EP&EP
R. Corcoran, Manager, Operations
K. Cowan, Manager, Plant Technical
Y. Derrer, Senior Training Specialist
G. Gelhaus, Manager, Nuclear Systems and Analysis
G. Godfrey, Manager, Performance Evaluation
J. Houchins, Emergency Planner II
M. Humphreys, Senior Nuclear Engineer
A. Klauss, Senior Emergency Planner
J. Landon, Manager, Plant Maintenance
D. Larson, Manager, Radiological Programs
D. Mannion, Senior Emergency Planner
B. Matthews, Manager, Public Affairs
K. Meehan, EOF Communications Center Coordinator
R. Mogle, Senior Emergency Planner
D. Ottley, Supervisor, Radiological Services
A. Oxsen, Assistant Managing Director for Operations
F. Quinn, Principal Scientist
G. Ray, Emergency Planner I
L. Sharp, Principal Nuclear Engineer
V. Shockley, Supervisor, HP Support
R. Stickney, Manager, Technical Training
R. Walton, Principal Engineer, Performance Evaluation
E. Worthen, Principal Engineer, Operations
M. Wuestefeld, Supervisor, Plant Technical

B. Other Personnel

D. Williams, Nuclear Engineer, Bonneville Power Administration