

**PUGET
POWER**

August 13, 1979
PLN-223

Director of Nuclear Reactor Regulation
Attn: Dr. Harold Denton, Director
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Skagit Nuclear Power Project
Docket Numbers 50-522 and 50-523
Puget Sound Power & Light Company's
responses and commitments to the
following NRC documentation re. the
Three Mile Island Incident.

1. Recommendations of NUREG-0578, "TMI-2 LESSONS LEARNED TASK FORCE STATUS REPORT AND SHORT-TERM RECOMMENDATIONS," July 19, 1979.
2. Requirements of IE Bulletin 79-08, "EVENTS RELEVANT TO BOILING WATER REACTORS IDENTIFIED DURING THREE MILE ISLAND INCIDENT," April 14, 1979.
3. Requirements of the NRC Staff memo to the Commissioners entitled, "ACTION PLAN FOR PROMPTLY IMPROVING EMERGENCY PREPAREDNESS," July 23, 1979 (SECY-79-450).

Dear Dr. Denton:

As discussed with Puget Power's Vice President of Engineering and Construction, Mr. Warren J. Ferguson, on August 3, 1979, in meetings with Mr. Vassallo, Mr. Varga and others of the NRC, we are at this time submitting 40 copies of our responses and commitments to the above subject NRC documentation. As suggested during the August 3, 1979 meetings, we are submitting this material at this time so that an early review can be initiated and so that the NRC may implement those actions necessary to grant a construction permit for the Skagit Nuclear Power Project, Units 1 and 2, in an orderly and timely manner.

Puget Power has followed the Three Mile Island incident and studied all aspects to determine how they might be relevant to and impact Skagit. Puget Power's Manager of Skagit Operations is presently directing the company's efforts with regard to the Three Mile Island incident. He draws upon the Manager of Nuclear Licensing and Safety, the Principal Engineer Nuclear, who is also the Project Engineer for Skagit, and other company expertise as appropriate to ensure that all relevant lessons learned from the incident are reviewed and incorporated into the company's nuclear program and plant design. Puget Power is also participating in industry efforts to study and review the incident and has, as an example, a representative to EPRI's Nuclear Safety Analysis Center.

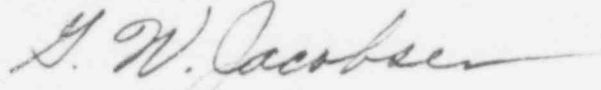
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August 13, 1979

The company's efforts are in addition to those reviews being performed by the Bechtel Power Corporation, Puget's Architect-Engineer, and the General Electric Company, Puget's NSSS vendor. The latter reviews will be factored into the Puget Power's assessments. This letter and its attachments represent Puget Power's responses and commitments with respect to the recommendations set forth in the above subject documents. As appropriate, the commitments will be incorporated into the plant design, training programs, operating procedures and emergency response plans. Necessary details of these commitments will be set forth in the FSAR. It is Puget Power's intent to continue to review, study, and assess all relevant material and data as it becomes available through the construction phase and implement any additional changes necessary to protect the public health and safety.

If questions arise during the course of the NRC's review of our responses and commitments, please call us immediately.

Very truly yours,



G. W. Jacobsen, Director
Skagit Nuclear Project

JEM/bw

cc: Attached Correspondence List

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SKAGIT NUCLEAR POWER PROJECT
UNITS 1 and 2
PUGET SOUND POWER & LIGHT COMPANY
Docket Nos. 50-522 & 50-523
NUREG-0578 COMMITMENTS

The following information addresses the requirements of NUREG-0578, "TMI-2 LESSONS LEARNED TASK FORCE AND SHORT-TERM RECOMMENDATIONS," (July 19, 1979). Where more detailed engineering or design is necessary, the details of implementation will be spelled out in the FSAR.

* * * *

2.1 Design and Analysis

- Item 2.1.1 Emergency Power Supply Requirements for the Pressurizer Heaters, Power-Operated Relief and Block Valves, and Pressurizer Level Indicators in PWRs.

Recommendation:

Provide redundant emergency power for the minimum number of pressurizer heaters required to maintain natural circulation conditions in the event of loss of offsite power. Also provide emergency power to the control and motive power systems for the power-operated relief valves and associated block valves and to the pressurizer level indication instrument channels.

Response:

This recommendation is not applicable to the BWR/6 NSSS of the Skagit Nuclear Power Project.

- Item 2.1.2 Performance Testing for BWR and PWR Relief and Safety Valves.

Recommendation:

Commit to provide performance verification by full scale prototypical testing for all relief and safety valves. Test conditions shall include two-phase slug flow and subcooled liquid flow calculated to occur for design basis transients and accidents.

Response:

PSP&L is following industry efforts to establish the functional performance capabilities of PWR and BWR safety and relief valves for normal, transient and accident conditions. PSP&L commits to incorporating in Skagit the resolution arrived at by ongoing

industry/NRC activities.

Item 2.1.3 Information to Aid Operators in Accident Diagnosis and Control.

- a. Direct Indication of Power-Operated Relief Valve and Safety Valve Position for PWRs and BWRs.

Recommendation:

Provide in the control room either a reliable, direct position indication for the valves or a reliable flow indication devices downstream of the valves.

Response:

Skagit will comply with this recommendation. Among the alternatives we will examine is the detection of flow by acoustic methods. In this regard, PSP&L is for instance monitoring the results of EPRI research project no. RP1246, "Acoustic Monitoring for Power Plant Valves".

- b. Instrumentation for Detection of Inadequate Core Cooling PWRs and BWRs.

Recommendation:

Perform analyses and implement procedures and training for prompt recognition of low reactor coolant level and inadequate core cooling using existing reactor instrumentation.

Response:

Skagit will comply with this recommendation.

Item 2.1.4 Containment Isolation Provisions for PWRs and BWRs.

Recommendation:

Provide containment isolation on diverse signals in conformance with Section 6.2.4 of the Standard Review Plan, review isolation provisions for non-essential systems and revise as necessary, and modify containment isolation designs as necessary to eliminate the potential for inadvertent reopening upon reset of the isolation signal.

Response:

The Skagit design includes diverse signals for initiating containment isolation and provisions which eliminate the potential for inadvertent reopening upon reset of the isolation signal.

PSP&L will perform a design review of Skagit to determine whether any

corrective measures are necessary. Isolation provisions for non-essential systems will also be reviewed and revised as necessary. Skagit's final design will meet the requirements of this recommendation.

Item 2.1.5 Post-Accident Hydrogen Control Systems for PWR and BWR Containments.

a. Dedicated Penetrations for External Recombiner or Post-Accident External Purge System.

Recommendation:

For plants that have external recombiners or purge systems, provide dedicated penetrations and isolation systems that meet the redundancy and single failure requirements of the Commission regulations. Modify design as necessary so that these systems are not connected to, or are branch lines of, the large containment purge penetrations.

Response:

The Skagit design includes 100% redundant hydrogen recombiners located within the containment of each unit as described in section 6.2.5.2.4 of the PSAR. This recommendation is therefore not applicable.

b. Inerting BWR Containments.

Recommendation:

Provide inerting for all Mark I and Mark II BWR containments. This would require changes at Vermont Yankee and Hatch Unit 2 (operating plants), as well as pending OL applications for Mark I and II BWRs.

Response:

This is not applicable to Skagit, which has a concrete Mark III containment.

c. Capability to Install Hydrogen Recombiner at Each Light Water Nuclear Power Plant.

Recommendation:

A minority of the Task Force recommends that all operating reactors, which do not already have the capability, be required to provide the capability to add, within a few days after an accident, a hydrogen recombinder system for post-accident hydrogen control.

Response:

The Skagit design includes 100% redundant hydrogen recombiners located within the containment of each unit as described in section 6.2.5.2.4 of the PSAR. This recommendation is therefore not applicable.

Item 2.1.6 Post-Accident Control of Radiation in Systems Outside Containment of PWRs and BWRs.

- a. Integrity of Systems Outside Containment Likely to Contain Radioactive Materials (Engineered Safety Systems and Auxiliary Systems).

Recommendation:

Perform leakage rate tests on systems outside containment that process primary coolant and could contain high level radioactive materials. Develop and implement a periodic testing program and preventive maintenance programs.

Response: PSP&L will perform a design review to identify systems outside containment that process primary coolant and could contain high level radioactive materials. Appropriate periodic testing and preventive maintenance programs will be implemented to comply with this recommendation.

- b. Design Review of Plant Shielding of Spaces for Post-Accident Operations.

Recommendation:

Perform a design review of the shielding of systems processing primary coolant outside of containment. Determine any areas or equipment that are vital for post-accident occupancy or operation and assure that access and performance will not be unduly impaired due to radiation from these systems.

Response:

The necessary review will be performed to assure that access and performance will not be unduly impaired.

Item 2.1.7 Improved Auxiliary Feedwater System Reliability for PWRs.

- a. Automatic Initiation of the Auxiliary Feedwater System.

Recommendation:

Provide automatic initiation of all auxiliary feedwater systems. The initiation signals and circuits shall be designed in such a manner that a single failure will not result in the loss of auxiliary feedwater system function. Testability of the initiating signals and circuits shall be a feature of the design. The initiating signals and circuits

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a single failure will not result in the loss of auxiliary feedwater system function. Testability of the initiating signals and circuits shall be a feature of the design. The initiating signals and circuits shall be powered from the emergency buses. Manual capability to initiate the auxiliary feedwater system from the control room must be retained and must be implemented in such a manner that a single failure in the manual circuits will not result in the loss of system function. The a-c motor-driven pumps and valves in the auxiliary feedwater system must be included in the automatic actuation (simultaneous or sequential) of the loads to the emergency buses. The design of the automatic initiating signals and circuits must be such that their failure will not result in the loss of manual capability to initiate the auxiliary feedwater system from a control room.

Response:

This recommendation is not applicable to Skagit.

b. Auxiliary Feedwater Flow Indication to Steam Generators.

Recommendation:

Provide safety-grade indication in the control room of auxiliary feedwater flow for each steam generator. The flow instrument channels shall be powered from the emergency buses, consistent with satisfying the power diversity requirements for auxiliary feedwater systems.

Response:

This recommendation is not applicable to Skagit.

Item 2.1.8 Instrumentation to Follow the Course of an Accident.

a. Improved Post-Accident Sampling Capability.

Recommendation:

Review and upgrade the capability to obtain samples from the reactor coolant system and containment atmosphere under high radioactivity conditions. Provide the capability for chemical and spectrum analysis of high-level samples onsite.

Response:

PSP&L will conduct a design and operational review of the reactor coolant and containment atmospheric sampling systems to determine the capability of personnel to obtain a sample under accident conditions without incurring excessive radiation exposure. A comparable review will be made of the radiological spectrum analyses facilities to determine ability to quantify certain radioisotopes that are indicators of core damage. These systems will be upgraded as necessary, as will chemical analyses facilities.

b. Increased Range of Radiation Monitors.

Recommendation:

Provide high range radiation monitors for noble gases in plant effluent lines and a high-range radiation monitor in the containment. Provide instrumentation for monitoring effluent release lines capable of measuring and identifying radioiodine and particulate radioactive effluents under accident conditions.

Response:

PSP&L will participate in the industry efforts to provide: a) high range radiation monitors for noble gases in plant effluent lines, b) a high-range radiation monitor in the containment, and c) instrumentation for monitoring effluent release lines capable of measuring and identifying radioiodine and particulate radioactive effluents under accident conditions. The instrumentation for Skagit will comply with the final resolution between the NRC and the industry based on state-of-the-art capability.

c. Improved In-Plant Iodine Instrumentation.

Recommendation:

Provide instrumentation for accurately determining in-plant airborne radioiodine concentrations to minimize the need for unnecessary use of respiratory protection equipment.

Response:

Instrumentation will be provided for determining in-plant airborne radioiodine concentrations to minimize the need for unnecessary use of respiratory protection equipment. Accuracy and sensitivity will be based on state-of-the-art capability.

Item 2.1.9 Analysis of Design and Off-Normal Transients and Accidents.

a. Recommendation:

Provide the analysis, emergency procedures, and training to substantially improve operator performance during a small break loss-of-coolant accident.

Response:

PSP&L will provide the appropriate analysis, procedures and training, as outlined at pp. A-42 to A-45 of NUREG-0578.

b. Recommendation:

Provide the analysis, emergency procedures, and training needed to assure that the reactor operator can recognize and respond to conditions of inadequate core cooling.

Response:

PSP&L will provide the appropriate analysis, procedures and training, as outlined at pp. A-42 to A-45 of NUREG-0578.

c. Recommendation:

Provide the analysis, emergency procedures, and training to substantially improve operator performance during transients and accidents, including events that are caused or worsened by inappropriate operator actions.

Response:

PSP&L will provide the appropriate analysis, procedures and training as discussed at p. A-45 of NUREG-0578.

Item 2.2 Operations

Item 2.2.1 Improved Reactor Operations Command Function.

a. Shift Supervisor Responsibilities

Recommendation:

Review plant administrative and management procedures. Revise as necessary to assure that reactor operations command and control responsibilities and authority are properly defined. Corporate management shall revise and promptly issue an operations policy directive that emphasizes the duties, responsibilities, and authority and lines of command of the control room operators, the shift technical advisor, and the person responsible for reactor operations command in the control room (i.e., the senior reactor operator).

Response:

PSP&L has reviewed the discussion at pp. A-47 to A-48 of NUREG-0578 and will assure that administrative and management procedures are established and implemented to comply with this recommendation.

b. Shift Technical Advisor

Recommendation:

Provide on shift at each nuclear power plant, a qualified person (the shift technical advisor) with a bachelor's degree or equivalent in a science or engineering discipline and with specific training in the plant response to off-normal events and in accident analysis of the plant. Shift technical advisory shall serve in an advisory capacity to shift supervisors. The licensee shall assign normal duties to the shift technical advisor that pertain to the engineering aspects of assuring safe operations of the plant, including the review and evaluation of operating experience.

Response:

These staffing recommendations will be reviewed by PSP&L. Skagit will be in compliance with such requirements as may be in effect at the time of operating licensing issuance, and PSP&L will make appropriate provisions in its staffing and training plans.

c. Shift and Relief Turnover Procedures

Recommendation:

Review and revise plant procedures as necessary to assure that a shift turnover checklist is provided and required to be completed and signed by the on-coming and off-going individuals responsible for command of operations in the control room. Supplementary checklists and shift logs should be developed for the entire operations organization, including instrument technicians, auxiliary operators, and maintenance personnel.

Response:

Necessary shift and relief turnover procedures will be in place prior to operation of Skagit. Among the features of improved procedures which will be considered are those identified at pp. A-52 to A-54 of NUREC-0578.

Item 2.2.2 Improved In-Plant Emergency Procedures and Preparations

a. Control Room Access

Recommendation:

Review plant emergency procedures, and revise as necessary to assure that access to the control room under normal and accident conditions is limited to those persons necessary to the safe command and control or operations.

Response:

Adequate controls for control Room access will be provided, along the lines of the limitations identified at p. A-56 of NUREG-0578.

b. Onsite Technical Support Center

Recommendation:

A separate technical support center shall be provided for use by plant management, technical, and engineering support personnel. In an emergency, this center shall be used for assessment of plant status and potential offsite impact in support of the control room command and control function. The center should also be used in conjunction with implementation of onsite and offsite emergency plans, including communications with an offsite emergency response center. Provide at the onsite technical support center the as-built drawings of general plant arrangements and piping, instrumentation and electrical systems. Photographs of as-built system layouts and locations may be an acceptable method of satisfying some of these needs.

Response:

Skagit will have an Onsite Technical Support Center which will comply with the above recommendation. A preliminary partial description of this facility is included in the following paragraphs.

The present Skagit design already includes an area which should meet the requirements for an Onsite Technical Support Center. This area consists of the Shift Supervisors office and the space designated as a "Work Area" on Figure 1. This area is immediately adjacent to the control room and has the same habitability requirements as the control room for postulated accident conditions.

The BWR/6 Nuclenet control room design for Skagit includes a Supervisor's Console located in the Shift Supervisor's office. This console provides CRT displays which can be used by plant management and technical support personnel to determine plant status. These are the same displays available to the control room operator from the plant computer. Additional information to follow the course of an accident, such as area radiation and effluent monitoring, is available on "back row" panels in the control room. ("Back row" panels are referred to the "Auxiliary Control Room" on Figure 1.) The accessibility of the panels from the Technical Support Center combined with the Nuclenet Supervisor's Console should greatly reduce the potential for congestion in the control room and avoid interference with the reactor command and control function.

The Technical Support Center described above will include the necessary equipment for communications with the NRC and the Emergency Operations Center (See responses to item 9 of Bulletin 79-08, Attachment 2; and item 3 of SECY-79-450, Attachment 3). It is anticipated that the NRC, state and local government would have individuals located in the Technical Support Center. Space is available for a limited number of

non-PSPL personnel in the Technical Support Center and communications equipment will be provided for them to remain in contact with their respective offices or the Emergency Operations Center. PSPL believes that it is essential that representatives of these government agencies have direct knowledge of current and projected plant status since they have responsibility for recommending the protective actions which may be appropriate for the public.

c. Onsite Operational Support Center

Recommendations

Each operating nuclear power plant should establish and maintain a separate onsite operational support center outside the control room. In the event of an emergency, shift support personnel (e.g., auxiliary operators and technicians) other than those required and allowed in the control room shall report to this center for further orders and assignment.

Response:

Skagit will provide an Onsite Operational Support Center outside the control room, as a mustering point for operational support personnel.

Item 2.2.3 Revised Limiting Conditions for Operation of Nuclear Power Plant Based Upon Safety System Availability.

Recommendation:

Require that the Technical Specifications for each reactor provide that the reactor be placed in a hot shutdown condition within 8 hours and in a cold shutdown condition by the licensee within 24 hours of any time that it is found to be or to have been in operation with a complete loss of safety function (e.g., loss of emergency feedwater, high-pressure ECCS, low-pressure ECCS, containment, emergency power or other prescribed safety function). Require that an assessment of the cause of the loss of safety function be made (e.g., maintenance, operations error) and that an evaluation of alternative corrective actions be made and documented by the licensee. Require that the senior corporate officer responsible for operation of the facility present the licensee recommendation for corrective action and evaluation of the alternatives at a public meeting with senior NRC officials. Require that the senior NRC officials issue their decision at that public meeting, or a subsequent public meeting if time is required for staff evaluation, concerning the adequacy of the changes to improve operational reliability proposed by the utility. Allow the facility to return to power only after NRC approval of the changes proposed by the licensee.

Response:

As indicated by NUREG-0578, p. A-63, implementation of this suggestion requires a rule change and certain rulemaking procedures. PSP&L will comply with any rule which may be adopted by the NRC on this subject applicable to the Skagit plant.

FIGURE 1

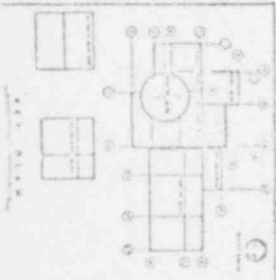
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CONTROL ROOM PLAN - EL. 400.1'



NOTES

1. ALL EQUIPMENT SHALL BE AS SHOWN ON THE DRAWING.
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REFERENCE DRAWINGS

1. CONTROL ROOM PLAN - EL. 400.1' (THIS DRAWING)
2. CONTROL ROOM PLAN - EL. 400.1' (THIS DRAWING)
3. CONTROL ROOM PLAN - EL. 400.1' (THIS DRAWING)
4. CONTROL ROOM PLAN - EL. 400.1' (THIS DRAWING)

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SKAGIT NUCLEAR POWER PROJECT
UNITS 1 and 2
PUGET SOUND POWER & LIGHT COMPANY
Docket Nos. 50-522 & 50-523
BULLETIN 79-08 COMMITMENTS

The information which follows addresses PSP&L's response to IE Bulletin No. 79-08, "Events Relevant to Boiling Water Reactors Identified During Three Mile Island" (April 14, 1979). Although this document is, at least initially, intended for operators of licensed Boiling Water Reactors, PSP&L has reviewed it for its applicability at construction permit stage. Certain items have been identified, as to which appropriate commitments can be made now. The following responses address each item of IE Bulletin 79-08.

* * * *

ITEM:

1. Review the description of circumstances described in Enclosure 1 of IE Bulletin 79-05 and the preliminary chronology of the TMI-2 3/28/79 accident included in Enclosure 1 to IE Bulletin 79-05A.
 - a. This review should be directed toward understanding: (1) the extreme seriousness and consequences of the simultaneous blocking of both trains of a safety system at the Three Mile Island Unit 2 plant and other actions taken during the early phases of the accident; (2) the apparent operational errors which led to eventual core damage; and (3) the necessity to systematically analyze plant conditions and parameters and take appropriate corrective action.
 - b. Operational personnel should be instructed to (1) not override automatic action of engineered safety features unless continued operation of engineered safety features will result in unsafe plant conditions (see Section 5a of this bulletin); and (2) not make operational decisions based solely on a single plant parameter indication when one or more confirmatory indications are available.
 - c. All licensed operators and plant management and supervisors with operational responsibilities shall participate in this review and such participation shall be documented in plant records.

Response:

- 1a. These matters will be incorporated and stressed in the training program for the Skagit operating staff.
- 1b. Operating personnel will be instructed as indicated and appropriate procedures will be established to meet the requirement of recommendation 1b.

- 1c. Operating personnel, as well as plant managers and supervisors with operating responsibilities will participate in the programs described in 1a. and 1b. This will be documented in the plant training records.

ITEM:

2. Review the containment isolation initiation design and procedures, and prepare and implement all changes necessary to initiate containment isolation, whether manual or automatic, of all lines whose isolation does not degrade needed safety features or cooling capability, upon automatic initiation of safety injection.

Response:

2. The recommended review will be conducted for Skagit. The scope of this review is addressed in the response to Item 2.1.4 of NUREG-0578 in Attachment 1.

ITEM:

3. Describe the actions, both automatic and manual, necessary for proper functioning of the auxiliary heat removal system (e.g., RCIC) that are used when the main feedwater system is not operable. For any manual action necessary, describe in summary form the procedure by which this action is taken in a timely sense.

Response:

3. If the main feedwater system becomes inoperable during operation, the High Pressure Core Spray (HPCS) system and the Reactor Core Isolation Cooling (RCIC) system will automatically start and provide an abundant amount of make-up water to the reactor. Safety relief valves on the main steam lines automatically control reactor pressure by discharging steam to the suppression pool.

A few manual actions are required to initiate long term core and containment cooling. Sufficient information will be available to the operator in the control room to assist him in taking the required manual actions and to verify that automatically initiated systems are achieving their objective.

A detailed description of the automatic and manual actions and procedures necessary for proper functioning of the heat removal systems that are used when the main feedwater system is inoperable will be provided during the OL review.

ITEM:

4. Describe all uses and types of vessel level indication for both

automatic and manual initiation of safety systems. Describe other redundant instrumentation which the operator might have to give the same information regarding plant status. Instruct operators to utilize other available information to initiate safety systems.

Response:

4. All uses and types of vessel level indication for both automatic and manual initiation of safety systems will be reviewed and described in the FSAR. Redundant instrumentation which the operator will have to give the same information regarding plant status will be identified and factored into operator training, instruction, and procedures. The operator training program will be reviewed to assure that operators utilize all available information to initiate safety systems. Details will be described at the time the FSAR is submitted.

ITEM:

5. Review the action directed by the operating procedures and training instructions to ensure that:
 - a. Operators do not override automatic actions of engineered safety features, unless continued operation of engineered safety features will result in unsafe plant conditions (e.g. vessel integrity).
 - b. Operators are provided additional information and instructions to not rely upon vessel level indication alone for manual actions, but to also examine other plant parameter indications in evaluating plant conditions.

Response:

- 5a. Procedures will be developed to ensure that operators do not override automatic actions of engineered safety features unless continued operation will result in unsafe conditions.
- 5b. The procedures and operational training for Skagit will stress that operators shall take into account all available plant parameter conditions and not merely rely on vessel level indication.

ITEM:

6. Review all safety-related valve positions, positioning requirements and positive controls to assure that valves remain positioned (open or closed) in a manner to ensure the proper operation of engineered safety features. Also review related procedures, such as those for maintenance, testing, plant and system startup, and supervisory periodic (e.g., daily/shift checks,) surveillance to ensure that such valves are returned to their correct positions following necessary manipulations

and are maintained in their proper positions during all operational modes.

Response:

6. PSP&L will review all safety-related valve positions, position requirements and controls to assure that valves remain positioned to assure proper operation of engineered safety features. Procedures will also be developed and reviewed to assure that such valves are returned to correct position after being moved and are maintained in that position. The implementation of these procedures and their adequacy will be confirmed on a continuing basis by the Quality Assurance Program for Operations.

ITEM:

7. Review your operating modes and procedures for all systems designed to transfer potentially radioactive gases and liquids out of the primary containment to assure that undesired pumping, venting or other release of radioactive liquids and gases will not occur inadvertently.

In particular, ensure that such an occurrence would not be caused by the resetting of engineering safety features instrumentation. List all such systems and indicate:

- a. Whether interlocks exist to prevent transfer when high radiation indication exists.
- b. Whether such systems are isolated by the containment isolation signal.
- c. The basis on which continued operability of the above features is assured.

Response:

7. PSP&L will review Skagit's operating modes and procedures and, at the time of FSAR submittal, provide descriptions of procedures and controls to prevent the inadvertent or undesirable transfer of radioactive fluids or gases outside of containment.

ITEM:

8. Review and modify as necessary your maintenance and test procedures to ensure that they require:
 - a. Verification, by test or inspection, of the operability of redundant safety-related systems prior to the removal of any safety-related system from service.

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- b. Verification of the operability of all safety-related systems when they are returned to service following maintenance or testing.
- c. Explicit notification of involved reactor operational personnel whenever a safety-related system is removed from and returned to service.

Response:

- 8. Skagit maintenance and test procedures will be written to ensure that maintenance and test procedures address verification of the operability of necessary safety-related systems and the explicit notification of appropriate personnel of any change in the operational status of those systems. During the approval process these procedures will be reviewed to ensure that the necessary administrative controls are included to fully comply with this requirement.

ITEM:

- 9. Review your prompt reporting procedures for NRC notification to assure that NRC is notified within one hour of the time the reactor is not in a controlled or expected condition of operation. Further, at that time an open continuous communication channel shall be established and maintained with NRC.

Response:

- 9. Procedures for this purpose will be described during the OL review for Skagit at the time the FSAR is submitted.

ITEM:

- 10. Review operating modes and procedures to deal with significant amounts of hydrogen gas that may be generated during a transient or other accident that would either remain inside the primary system or be released to the containment.

Response:

- 10. The review will be conducted and operating modes and procedures will be described, at the time the FSAR is submitted, for dealing with significant amounts of hydrogen gas inside the primary system or containment which may be generated during a transient or accident.

ITEM:

11. Propose changes, as required, to those technical specifications which must be modified as a result of your implementing the items above.

Response:

11. All of the foregoing items will be reviewed prior to submittal of the OL application. Technical specifications coming out of this review will be prepared and incorporated during OL review.

SKAGIT NUCLEAR POWER PROJECT
UNITS 1 and 2
PUGET SOUND POWER & LIGHT COMPANY
Docket Nos. 50-522 & 50-523
EMERGENCY PLAN COMMITMENTS

The Commission's Staff recently submitted to the Commissioners an "Action Plan for Promptly Improving Emergency Preparedness" (SECY-79-450, July 23, 1979). That document outlines immediate steps to improve licensee preparedness "at all operating power plants and for near term OLs." Although not applicable by its terms to pending CP applicants, PSP&L's Task Force on Emergency Plans has been evaluating many of the matters discussed in SECY-79-450. Although details will be furnished during the OL review, PSP&L, based on its study to date submits the following comments and commitments with respect to emergency plans for Skagit:

* * * *

ITEM:

1. Upgrade licensee emergency plans to satisfy Regulatory Guide 1.101, with special attention to the development of uniform action level criteria based on plant parameters.

Response:

1. The emergency plan for Skagit will comply with the requirements of Regulatory Guide 1.101. In developing the plan, special consideration will be given to the establishment of uniform action level criteria appropriate to the Skagit design.

ITEM:

2. Assure the implementation of the related recommendations of the NRR Lessons Learned Task Force involving instrumentation to follow the course of an accident and relate the information provided by this instrumentation to the emergency plan action levels. This will include instrumentation for post-accident sampling, high range radioactivity monitors, and improved in-plant radioiodine instrumentation. The implementation of the Lessons Learned recommendation on instrumentation for detection of inadequate core cooling will also be factored into the emergency plan action level criteria.

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Response:

2. PSP&L is committed to these design features in Attachment 1. (See response to Recommendation 2.1.8 of NUREG-0578.) The implementation of the Lessons Learned recommendation on instrumentation for detection of inadequate core cooling will also be factored into the emergency plan action level criteria.

ITEM:

3. Determine that an Emergency Operations Center for Federal, State and local personnel has been established with suitable communications to the plant, and that upgrading of the facility in accordance with the Lessons Learned recommendation for an in-plant technical support center is underway.

Response:

3. PSP&L is committed to establishing an Emergency Operations Center as required by this recommendation. (See response to Recommendation 2.2.2.b. of NUREG-0578 (Attachment 1).) The location of the Emergency Operations Center and the facilities to be provided there will be described in the FSAR.

ITEM:

4. Assure that improved licensee offsite monitoring capabilities (including additional TLD's or equivalent) have been provided for all sites.

Response:

4. Skagit will comply with this requirement.

ITEM:

5. Assess the relationship of State/local plans to the licensee's and Federal plans so as to assure the capability to take appropriate emergency actions. Assure that this capability will be extended to a distance of 10 miles as soon as practical but not later than January 1, 1981. This item will be performed in conjunction with the Office of State Programs and the Office of Inspection and Enforcement.

Response:

5. PSP&L is cooperating with other utilities in Washington as well as cognizant agencies of the State of Washington and local governments to develop an emergency response plan designed to assure the capability to take protective measures out to a distance of 10 miles from the plant site.

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ITEM:

6. Require test exercises of approved Emergency Plans (Federal, State, local, licensees), a review plans for such exercises, and participate in a limited number of joint exercises. Tests of licensee plans will be required to be conducted as soon as practical for all facilities and before reactor startup for new licensees. Exercises of State plans will be performed in conjunction with the concurrence reviews of the Office of State Programs. Joint test exercises involving Federal, State, local and licensees will be conducted at the rate of about 10 per year, which would result in all sites being exercised once each five years.

Response:

6. Skagit will comply with all requirements regarding the nature and frequency of periodic drills of emergency plan. Procedures for this purpose will be provided in the FSAR.

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