



Portland General Electric Company



April 15, 1981

Trojan Nuclear Plant
Docket 50-344
License NPF-1

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Eisenhut:

Forwarded hereby is PGE's response to NRC generic letters 81-10 (February 18, 1981) and 81-17 (March 5, 1981), requesting a commitment to the implementation schedules for TMI Action Plan Item III.A.1.2 (Upgrade Emergency Support Facilities) and NUREG-0696.

A. Emergency Response Facilities

PGE's basic commitments to the emergency response facility requirements of Action Plan Item III.A.1.2 and NUREG-0696 were submitted on October 17, 1979 and October 21, 1980. At this time, PGE commits to the requirements and schedule set forth in generic letter 81-10 with the following exceptions:

1. Technical Support Center (TSC) Computer System:

The TSC computer system will provide the necessary information for the Plant management, Engineering, and technical personnel assigned to the TSC to aid the control room operators in handling accident conditions. The data set available for display at the TSC includes the Safety Parameter Display System (SPDS), the Bypassed and Inoperable Status Indication (BISI), pertinent radiological and meteorological data, and the critical Plant system parameters. The critical system parameters available in the TSC computer system do not include the entire set of variables listed in Regulatory Guide 1.97 (Revision 2), since the Regulatory Guide is still undergoing evaluation for its implementation in 1983. However, the set of parameters included in the TSC data system covers the majority of the variables in Regulatory Guide 1.97 (Revision 2), which are pertinent to determine the Plant systems dynamic behavior through the course of the accident and appropriate mitigating actions.

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Selection of the parameters is based on an evaluation of Plant systems/ functions which are critical in mitigating accident conditions. The critical Plant systems/functions include: reactor core integrity, primary coolant system integrity, reactor core cooling, Containment integrity, and radioactive effluents.

The TSC data set will also be made available on demand to the EOF and alternate EOF.

2. Emergency Operations Facility (EOF) Location and Habitability:

PGE's October 21, 1980 letter described the location and habitability of the Trojan EOF, which is located at the Trojan Visitors Information Center (VIC), approximately 1/2 mile from the Plant. A fully-equipped alternate EOF is located at the PGE office in St. Helens, Oregon, 13 miles from the Plant. The alternate EOF will have the same data displays and communications as the primary EOF. The primary EOF does not meet the NUREG-0696 requirements for shielding and ventilation system filtration, although the building does meet the 100-year flood criteria. The compliance of the EOF with the 100-year wind criteria is currently being evaluated.

In PGE's October 21, 1980 response, an evaluation of the habitability of the EOF was made versus the Standard Review Plan (SRP) 6.4 dose criteria. Due to the location of the EOF (in a very infrequent wind direction), the results of the analysis indicated that the EOF met the SRP 6.4 habitability criteria for a Design Basis Accident at the Trojan Nuclear Plant.

In view of this, and the desirability to keep overall control of the emergency as close to the Plant as possible, PGE hereby requests that the Trojan EOF be exempted from the shielding and ventilation requirements of NUREG-0696.

3. NUREG-0654, Appendix 2 Implementation:

NUREG-0654 Appendix 2 requirements, as they relate to descriptions of the TSC and EOF instrumentation and data systems, will be addressed according to the implementation schedule for NUREG-0654 Appendix 2 (system description to be submitted by January 1, 1982). PGE compliance with the scheduled dates for equipment installation (July 1, 1982) and full operation (October 1, 1982) will be dependent upon hardware and software availability and equipment delivery schedules.

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4. Safety Parameter Display System:

The SPDS is an integral part of the TSC computer system which provides the data collection, manipulation and the CRT graphics displays of the Plant system safety parameters. The SPDS displays will be located in the control room and the TSC.

The SPDS is not designed to meet seismic qualifications since it is a non-safety system and is not required to mitigate accidents. In response to the requirements in NUREG-0696 for seismically-qualified backup displays, a minimum set of the critical parameters will be displayed on a seismically-qualified panel (post-accident panel) which is installed to incorporate certain post-TMI instruments in the control room. The critical parameters located in the post-accident panel include: the reactor vessel water level, Containment water level, and Containment high-range pressure. In addition, the RCS hot leg and cold leg temperatures and the RCS pressure are also available on this panel although the circuitry from isolators located elsewhere in the Control Room to the display devices is not seismically qualified. Other pertinent parameters, such as core flux, Containment isolation valves, and radioactive effluent monitors are already displayed in locations which are easily accessible and highly visible from the operating station of the control room operator. These parameters constitute a minimum set of critical parameters which meet the intent of ANSI Standard 4.5, 1980, for monitoring Plant safety functions.

B. Emergency Staffing Requirements

Attachment 1 to this letter shows PGE's proposed staffing levels for emergency situations. The proposed on-shift staffing levels are consistent with Table B-1 of NUREG-0654, Revision 1, provided the following assumptions are made:

1. The requirement for two maintenance technicians on-shift can be met by utilizing a single on-shift maintenance technician to perform both mechanical and electrical/I&C maintenance, and by utilizing the Plant Auxiliary Operators to perform Radwaste Operator functions.
2. The Security Watch Supervisor and other security personnel can be utilized to perform a portion of the

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communications/notification function until the TSC is activated.

The on-shift staffing levels will be fully implemented by September 1, 1981 with the exception of the licensed operators and maintenance technician. The licensed operators requirement will be implemented according to the schedule specified in Task Action Item I.A.1.3. The on-shift maintenance technician position will be filled on an interim basis by on-call personnel who will be able to augment the Plant staff within 60 minutes; the on-shift maintenance technician requirement will be implemented fully by July 1, 1982.

The PGE proposed augmentation capability complies with Table B-1 augmentation requirements with the exception of the following areas:

1. Table B-1 requires a certain number of personnel to report to Trojan within 30 minutes. PGE proposes that the minimum augmentation time be 60 minutes.

A 60-minute augmentation time is appropriate for the following reasons:

- a. Compliance with a 30-minute time requirement is not feasible given the location of the Trojan Nuclear Plant relative to the areas where Plant personnel live. Sixty minutes is a more reasonable amount of time for Plant personnel living in the vicinity of the Trojan Nuclear Plant to report onsite after notification. In reality, some personnel may be able to report onsite in less than 60 minutes.
 - b. It is unlikely that requiring Plant personnel to report onsite within 30 minutes would add significantly to the Plant staff's ability to cope with a quick-occurring accident, such as a steam generator tube rupture, main steam line break, or WASH-1400 PWR-8 or PWR-9 accident. Accidents that involve core degradation and significant radioactivity releases to the environment occur over much longer periods of time (ie, several hours); for these accidents, a 60-minute augmentation time would be sufficient.
2. The total number of Chemistry and Radiation Protection (C&RP) Technicians reporting onsite within 60 minutes

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is 3 versus 13 required by Table B-1. As shown in Attachment 1, these three personnel, in addition to the two C&RP technicians on shift, will provide sufficient chemistry and radiation protection expertise to meet all anticipated emergency requirements in the short term. It should be noted that licensed Plant operators are qualified in radiation protection access control and monitoring procedures. The Table B-1 requirement is not feasible in that it would require a total of 15 of the 18 available C&RP technicians to be onsite within 60 minutes.

3. The total number of maintenance technicians reporting onsite within 60 minutes is 2 versus 5 in Table B-1. These two personnel, along with the on-shift Maintenance Technician and Auxiliary Operator (Radwaste Operator), will provide sufficient maintenance expertise for emergency situations in the short term.

In addition, the following interpretations of the Table B-1 augmentation requirements were made:

1. The senior health physics expertise identified in Table B-1 is being interpreted to be the Trojan Radiation Protection Supervisor or one of his alternates.
2. The senior manager identified in Table B-1 as the EOF Director is interpreted as the duty Trojan Manager, Plant Services.

The augmentation levels shown in Attachment 1 will be fully implemented by September 1, 1981.

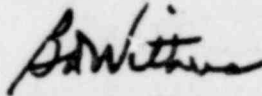
PGE believes that the minimum staffing and augmentation requirements given in Attachment 1 provide a reasonable effort to comply with the intent of Table B-1 to have an effective and responsive emergency organization during off-hours. It should also be noted that the Trojan Radiological Emergency Plan Implementing Procedures contain procedures for notifying the Plant

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staff during off-hours. Therefore, the actual number of personnel augmenting the Plant off-hours staff would likely be considerably greater than the minimum number specified in Attachment 1.

Sincerely,



Bart D. Withers
Vice President
Nuclear

Attachment

c: Mr. Robert A. Clark, Chief
Operating Reactors Branch No. 3
Division of Licensing
U. S. Nuclear Regulatory Commission

Mr. Lynn Frank, Director
State of Oregon
Department of Energy

ATTACHMENT 1

TABLE 2:5.2-1

STAFFING REQUIREMENTS FOR TROJAN NUCLEAR PLANT EMERGENCIES

Major Functional Areas	Major Tasks	Position Title or Expertise	Capability for Additions	
			On Shift	60 Min
Plant Operations and Assessment of Operational Aspects		Shift Supervisor	1	-
		Assistant Shift Supervisor	1	-
		Control Operator	1	-
		Assistant Control Operator	1	-
		Auxiliary Operator	3	-
Emergency Direction and Control (Emergency Coordinator)		Shift Supervisor	1	-
		Duty Plant General Manager	-	1
Notification/ Communication	Notify licensee, State, local, and Federal per- sonnel and maintain communication	Security Watch Supervisor/ Security personnel	2	-
		Shift Supervisor[a]	1	-
		Duty Manager, Plant Services (EOF Director)	-	1
Radiological Accident Assessment and Support of Operational Accident Assessment	Emergency Operations Facility (EOF) Director	Duty Manager, Plant Services	-	1
	Offsite dose assessment	Assistant Control Operator[b]	1	-
		Engineering Emergency Team (TSC)[b]	-	2
		Duty Radiation Protection Supervisor (EOF)[b]	-	1
	Offsite surveys	Field Team (C&RP Technicians)	-	2
	Onsite (out-of-Plant)/ in-Plant surveys/ chemistry/radiochemistry	C&RP Technicians	2	1

Major Functional Areas	Major Tasks	Position Title or Expertise	Capability for Additions	
			On Shift	60 Min
Plant System Engineering, Repair and Corrective Actions	Technical Support	Duty Manager, Technical Services	-	1
		Shift Technical Advisor	1	1
		Engineering Emergency Team	-	2
		Duty Maintenance Supervisor	-	1
	Repair and corrective actions	Maintenance Technician	1	2
Protective Actions (In-Plant)	Radiation protection: a. Access control b. H/P coverage for repair, corrective actions, search and rescue, first aid, and firefighting c. Personnel monitoring d. Dosimetry	C&RP Technicians	2[c]	3[c]
Firefighting	-	Fire Brigade	5[d]	-
Rescue Operations and First Aid	-	C&RP Technicians	2[e]	1[e]
Site Access Control and Personnel Accountability	Security, firefighting communications, personnel accountability	Security personnel	All per Security Plan	
		Total:	13[f]	13[f]

[a] Security Watch Supervisor and Security personnel perform initial notifications of State and county agencies; Shift Supervisor notifies NRC and maintains communications until Duty Manager, Plant Services arrives at EOF.

[b] Assistant Control Operator performs dose assessments until the TSC is activated; Engineering Emergency Team performs dose assessments at TSC until EOF is activated; Duty Radiation Protection Supervisor performs dose assessments at the EOF.

[c] Duty performed by C&RP Technicians assigned to onsite surveys (Sheet 1). Licensed operators are also trained in radiation protection.

[d] Fire Brigade consists of three operators and two Security personnel.

[e] Duty performed by C&RP Technicians assigned to onsite surveys (Sheet 1).

[f] Does not include Security personnel.