

CERTIFICATE OF SERVICE

Frank W. Ostrander, Jr., Esq.
Richard M. Sandvik, Esq.
Assistant Attorney General
State of Oregon
Department of Justice
500 Pacific Building
520 S. W. Yamhill
Portland, Oregon 97204

William Kinsey, Esq.
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon 97208

Ms. Nina Bell
728 S. E. 26th Avenue
Portland, Oregon 07214

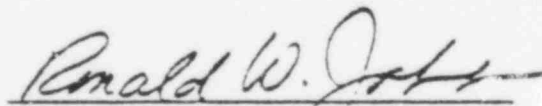
Mr. John A. Kullberg
Route 1, Box 250Q
Sauvie Island, Oregon 97231

Mr. David B. McCoy
348 Hussey Lane
Grants Pass, Oregon 97526

Ms. C. Gail Parson
P. O. Box 2992
Kodiak, Alaska 99615

Mr. Eugene Rosolie
Coalition for Safe Power
215 S. E. 9th Avenue
Portland, Oregon 97214

Columbia County Courthouse
Law Library
Circuit Court Room
St. Helens, Oregon 97051


Ronald W. Johnson
Corporate Attorney
Portland General Electric Corporation

Dated: August 20, 1979

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
) Docket 50-344
PORTLAND GENERAL ELECTRIC COMPANY,)
et al.) (Control Building Proceeding)
)
(Trojan Nuclear Plant))

LICENSEE'S SUPPLEMENTAL RESPONSES
DATED AUGUST 20, 1979
TO INTERROGATORIES FROM COALITION FOR SAFE POWER
AND CONSOLIDATED INTERVENORS

The following are Licensee's supplemental responses dated August 20, 1979 to Interrogatories received from the Coalition for Safe Power and the Consolidated Intervenors.

Persons responding to each Interrogatory are indicated by their initials as follows:

G. A. Zimmerman (GAZ), PGE
R. W. Johnson (RWJ), PGE
D. L. Damon (DLD), Bechtel
E. W. Edwards (EWE), Bechtel

I. CONSOLIDATED INTERVENORS' (DAVID B. MC COY'S)
INTERROGATORIES, DATED AUGUST 14, 1979

Interrogatory 8

"Provide a summary of the equipment which is housed in the Control Building which is safety related. Identify any equipment which is related to safe shutdown of Trojan during OBE and SSE."

Interrogatory 9

"Provide a history of reportable occurrences which have involved any of the equipment in Interrogatory 8. Provide all File 93.16 which are related to these and in File 93.16 reports related to these reportable occurrences."

Supplemental Response to Interrogatories 8 and 9

The response to Interrogatory 8 remains unchanged. Provided as Attachment 1 hereto are two reportable occurrences involving equipment identified in response to Interrogatory 8. (GAZ)

II. COALITION FOR SAFE POWER'S INTERROGATORIES, DATED SEPTEMBER 6, 1978

Interrogatory 3

"Provide all minutes of Board of Directors meetings at which the matter of the Trojan Control Building was discussed or issues related to Trojan shutdown."

Supplemental Response to Interrogatory 3

Attachment 2 hereto contains relevant portions of Board of Directors meeting minutes since the previous responses of September 25, 1978, October 27, 1978, and February 1, 1979.

(RWJ)

III. INTERROGATORIES DATED JANUARY 29, 1979 FROM NINA BELL OF THE CONSOLIDATED INTERVENORS

Interrogatory 8

"Explain how and when reviews will be made to confirm the seismic qualification of safety-related equipment following the modifications to the Control Building."

Supplemental Response to Interrogatory 8

The analyses described in Appendix B of the "Report on

Design Modification for the Trojan Control Building",
PGE-1020, are now complete.

(DLD)

IV. CONSOLIDATED INTERVENORS' INTERROGATORIES
DATED FEBRUARY 9, 1979

Interrogatory 34

"What principles are used in determining placement of the bolts?"

Interrogatory 35

"What methods will be used in this determination?"

Supplemental Response to Interrogatories 34 and 35

Section 5.3.4 of PGE-1020 describes the principles and methods whereby drilling of bolt holes will not adversely affect the reinforcing steel or equipment in, on or near the walls. The overall bolting pattern to be shown on construction drawings will be determined based on the principle of developing adequate shear transfer between the wall and the plate. In addition, placement of the bolts will take into consideration the size of the washers to be used. Since the washers have a radius of 9 in. and a thickness of 2 in., the bolt holes must be centered at least 9 in. from any equipment attached to the wall and in an area where equipment adjacent to the wall is more than 2 in. from the wall.

This subject is further described in Licensee's response to NRC's Questions 6 and 22, dated May 18, 1979. These

responses were served on all parties on July 6, 1979 and June 22, 1979, respectively. (DLD)

Interrogatory 36

"Provide detailed drawings of the plate(s)."

Supplemental Response to Interrogatory 36

Detailed drawings of the plates as developed will be placed in the Discovery Room at PGE's headquarters in Portland. (GAZ)

Interrogatory 37

"How will the bolt holes be drilled?"

Supplemental Response to Interrogatory 37

The drilling equipment to be used and protective measures to be taken are discussed in Licensee's Answers, dated August 13, 1979 (served August 14, 1979), to NRC Questions 11 and 17, dated July 20, 1979. Drilling is also discussed in Licensee's Answers, dated July 5, 1979, to NRC questions arising from a site visit. (EWE)

Interrogatory 38

"What is the postulated effect of the drilling on adjacent or tangent cracks in the structure?"

Supplemental Response to Interrogatory 38

Licensee's Response dated June 29, 1979 to the NRC's Question 30 dated May 18, 1979 provided an evaluation of the drilling effects on the wall capacity, including the effects of any cracking present in the walls. (DLD)

Interrogatory 41

"What existing structures will be removed?"

Interrogatory 42

"For each of these removed:

- a. Will they be replaced?
- b. What methods and equipment will be used?
- c. What materials are in these structures?"

Interrogatory 43

"Will there be beam trimming and where?"

Supplemental Responses to Interrogatories 41, 42, and 43

In addition to the stair, ladder and steel platform indicated in Licensee's Response dated March 1, 1979 to Interrogatories 41 and 42, portions of the concrete slab at El 93 ft; 2 in. of the steel girder flanges below El 93 ft; and a nonstructural portion of a concrete slab at El 69 ft will be removed. These are all in the Turbine Building adjacent to the R-line wall. Concrete removal will be by saw cutting and some chipping with pneumatic tools and removal of the portion of the girder will be by oxyacetylene torch. Structural capacity of the slab removed at El 93 ft will be replaced by addition of a reinforced concrete curb adjacent to the area where the slab has been removed. The girder and nonstructural slab need not be replaced. (DLD)

Interrogatory 47

"What is the length and width of such excavations [through four slab and two rock foundation]?"

Supplemental Response to Interrogatory 47

The information supplied in our previous response dated March 1, 1979 to this Interrogatory should be replaced with the following: 1) approximately 29 ft long and 4 ft wide at line N; 2) approximately 29 ft long and 5 ft wide at line N'; and 3) approximately 29 ft long and 5 ft wide at line R. (DLD)

Interrogatory 49

"What equipment will be used to raise/lower plate(s) into position?"

Interrogatory 50

"If a postulated failure of such equipment were to occur, what would the effects be?"

Interrogatory 51

"What cable penetrations could be effected by such an accident?"

Supplemental Response to Interrogatories 49, 50 and 51

More details on equipment to be used for raising and lowering the steel plates and an analysis of the effects of failure of such equipment are provided with Licensee's Responses dated August 13, 1979 (served August 14, 1979) to NRC Questions 1, 2 and 3, dated July 20, 1979. Cable penetrations could not be affected by the accident postulated in NRC Questions 1 and 2. (DLD)

Interrogatory 65

"What is the material composing 'protective blankets' mentioned in Section 5.3.11 of PGE-1020?"

Interrogatory 66

"Provide documentation of fire protection tests done on this blanket material."

Interrogatory 67

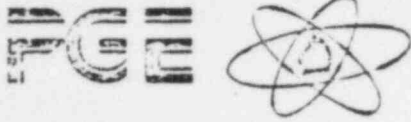
"What fire protection will be provided for cable trays during welding?"

Interrogatory 68

"What fire protection will be provided for cable penetrations?"

Supplemental Response to Interrogatories 65, 66, 67 and 68

Licensee's Response dated August 13, 1979 (served August 14, 1979) to NRC Question 11 dated July 20, 1979 identifies and provides a test report for material that may be utilized for protection of cables as an alternative to the material identified in our previous response dated March 1, 1979 to these Interrogatories. Other measures to protect the cables in this area are also described in the referenced response to NRC Question 11. (EWE)



Portland General Electric Company
 Trojan Nuclear Plant
 P.O. Box 439
 Rainier, Oregon 97048

ATTACHMENT 1 TO LICENSEE'S
 SUPPLEMENTAL RESPONSES
 DATED AUGUST 20, 1979 TO
 INTERROGATORIES

February 13, 1979
 BDW-092-79

POOR ORIGINAL

Mr. K. H. Engelken, Director
 Nuclear Regulatory Commission, Region V
 1990 North California Blvd.
 Walnut Creek, California 94596

Dear Sir:

In accordance with the Trojan Operating License, Appendix A, US NRC Technical Specifications, attached is Licensee Event Report No. 79-01 which describes a condition where routine surveillance testing of the 125V DC batteries was not completed as required.

Sincerely yours,

B. D. Withers
 B. D. Withers
 Plant Superintendent

JCP
 BDW/JCP:th

Attachments

- c: J. L. Williams
- C. Goodwin, Jr.
- D. J. Broehl
- R. L. Sullivan
- S. L. Loy
- S. R. Christensen
- Nuclear Operations Board
- Trojan Operating Committee
- Plant Review Board
- L. W. Quinn
- D. F. Kielblock
- L. W. Erickson
- Shift Supervisors
- W. K. Woods, DOE/EFSC
- Office of Management Information and Program Control
- Edison Electric Institute - Patricia Higgins
- NRC Resident
- File 93.24a

G L A D			Action/
Disc	C	R	Date
		DIH	
		JGL	
		NPL	
		CLP	
		JAL	
		CRG	
		SUG	
		MCH	
		RNS	
		JLT	
		GAZ	
		LWE	
		BAK	
		LLC	
		DRJ	
		CAI	
		SKY	
File No.			

1074 113

TRIP COVERED BY WKC
 Licensee Event Report (79-01)
 No. 1074-113 occur.

FEB 14 1979

REPORTABLE OCCURRENCE

1. Report Number: 79-01
2. a. Report Date: February 13, 1979
b. Occurrence Date: January 19, 1979
3. Facility: Trojan Nuclear Plant, P. O. Box 439 Rainier, Oregon 97048
4. Description of Occurrence:

Failure to perform quarterly surveillance testing on the 125V DC batteries.
5. Conditions Prior to Occurrence:

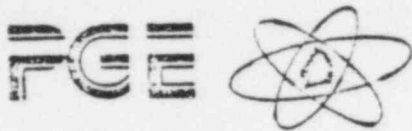
The plant was in operational Mode 1 at 100 per cent of rated power.
6. Description of Occurrence:

The operability of the 125 volt DC electrical system is confirmed by performing quarterly surveillance testing on the 125 volt batteries. This testing consists of measuring charger voltage and current, the electrolyte level, specific gravity and cell voltage of every cell. A review of plant records identified that these measurements were not taken during the last quarter of 1978. No other surveillance items were missed as a result of this occurrence.
7. Designation of Apparent Cause of Occurrence:

The apparent cause of this event is personnel error. Scheduling of some technical specification surveillance was done by computer. A programming error deleted these surveillance items from the computer program, thus they were not shown as being due.
8. Analysis of Occurrence:

This event had no effect on either plant or public safety. Subsequent surveillance testing verified that the required parameters were within the specified limits.
9. Corrective Action:

The scheduling of Technical Specification surveillance items is now being done manually, pending resolution of the problems with the company computer.



Portland General Electric Company
 Trojan Nuclear Plant
 P.O. Box 439
 Rainier, Oregon 97048

April 20, 1979
 BDW-371-79

Mr. R. H. Engelken, Director
 Nuclear Regulatory Commission, Region V
 1990 North California Blvd.
 Walnut Creek, California 94596

Dear Sir:

In accordance with the Trojan Operating License, Appendix A, US NRC Technical Specifications, attached is Licensee Event Report No. 79-02 which describes a condition where routine surveillance testing of the automatic isolation feature of the control room ventilation system was not completed as required.

Sincerely,

B. D. Withers

B. D. Withers
 Plant Superintendent

JCP
 BDW/JCP:ga

Attachments

- c: J. L. Williams
- C. Goodwin, Jr.
- D. J. Broehl
- R. L. Sullivan
- S. L. Loy
- S. R. Christensen
- Nuclear Operations Board
- Trojan Operating Committee
- Plant Review Board
- L. W. Quinn
- D. F. Kielblock
- L. W. Erickson
- Shift Supervisors
- Director, DOE/EPSC
- Office of Management Information and Program Control
- Edison Electric Institute - Patricia Higgins
- NRC Resident Inspector
- File 93.24a

GLAD

JLF	_____	_____
DIH	_____	_____ <i>52</i>
CJP	_____	_____ <i>4M</i>
JWL	_____	_____
GRC	_____	SGG _____
MTH	_____	RNS _____
JLT	_____	_____
GAZ	_____	_____ <i>2 5g</i>
LWE	_____	RAK _____
LLL	_____	JGL _____
SML	_____	KM _____
DRS	_____	_____
CAH	_____	_____
Proj	_____	_____
PGE HEAD	_____	_____
3rd LINE	_____	_____

REPORTABLE OCCURRENCE

1. Report Number: 79-02
2. a. Report Date: April 19, 1979
b. Occurrence Date: March 22, 1979
3. Facility:
Trojan Nuclear Plant, PO Box 439, Rainier, Oregon 97048
4. Identification of Occurrence:
Failure to perform 18-month surveillance testing of the control room emergency ventilation system isolation feature.
5. Conditions Prior to Occurrence:
The plant was in various operational modes including Mode 1 at 100% of rated power.
6. Description of Occurrence:
The operability of the automatic isolation feature of the control room emergency ventilation system on high chlorine and high radiation is confirmed by performing 18-month surveillance testing as required by Section 4.7.6.1.d.2 of the Technical Specifications. Two successive surveillances were not performed covering the period from November, 1975 to March, 1979. During this time, calibration checks were performed every six months on the high chlorine instrument which, as part of the calibration check procedure, verified the proper operation of the automatic isolation damper. This occurrence was discovered during a review of test records while establishing a manual scheduling system for technical specification surveillance items as corrective action from LER 79-01.
7. Designation of Apparent Cause of Occurrence:
The apparent cause of this event is personnel error. Scheduling of technical specification surveillance items was done by computer. There are approximately 48 separate surveillance items regarding the ventilation systems and the computer schedule grouped them together under one item which made it very difficult to keep track of individual items. Plant personnel overlooked these two individual surveillance items during the above time period.

1074 117

8. Analysis of Occurrence:

This event had no effect on either plant or public safety. Within one hour of discovery of the missed surveillances, the surveillance tests were performed satisfactorily thus verifying that the automatic isolation features were operable. During the time period that these two surveillances were not performed, calibration checks were performed every six months on the high chlorine instrument. These checks verified that the isolation damper closed automatically on a simulated high chlorine signal. The time it took for the damper to close was not checked.

9. Corrective Action:

The corrective action for this event is part of the corrective action for LER 79-01 which entails converting from computer scheduling of surveillance items to manual scheduling. In addition, each of the approximately 48 separate surveillance items concerning ventilation systems is now being scheduled separately.

ATTACHMENT 2 TO LICENSEE'S
SUPPLEMENTAL RESPONSES
DATED AUGUST 20, 1979 TO
INTERROGATORIES

PORTLAND GENERAL ELECTRIC COMPANY
MINUTES OF DIRECTOR'S MEETING

PAGE NO.
2

January 3, 1979

Mr. Lindblad addressed the availability of the Trojan plant. He reported that the plant was in the process of resuming generation and that he expected the permanent correction of the control building wall to be determined in about six months and that subsequent construction of the corrective work would take about nine months.

1074 120

POOR ORIGINAL

PORTLAND GENERAL ELECTRIC COMPANY
MINUTES OF DIRECTORS' MEETING

PAGE NO.
10

April 4, 1979

Mr. Lindblad added that the NRC hearing on the specific design to be used in repairing the control building at the Trojan Plant had been scheduled for late July or early August 1979.

1074 121

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION


BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
) Docket 50-344
PORTLAND GENERAL ELECTRIC COMPANY,)
et al) (Control Building Proceeding)
)
(Trojan Nuclear Plant))

STATE OF OREGON)
) ss
County of Multnomah)


AFFIDAVIT OF G. A. ZIMMERMAN

G. A. Zimmerman, being duly sworn according to law, deposes and says that he is Supervisor, Licensing Section, Generation Licensing & Analysis Department, Portland General Electric Company, and that the answers associated with his name and contained in Licensee's Responses dated August 20, 1979 to Interrogatories are true and correct to the best of his knowledge and belief.



G. A. Zimmerman

Subscribed and sworn to before me
this 20th day of August 1979.



Notary Public of Oregon

My Commission Expires August 9 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

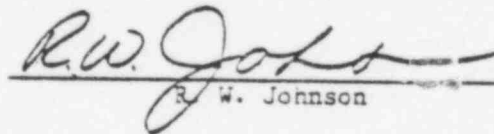
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
) Docket 50-344
PORTLAND GENERAL ELECTRIC COMPANY,)
et al) (Control Building Proceeding)
)
(Trojan Nuclear Plant))

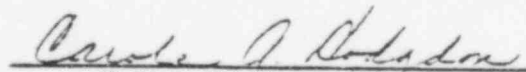
STATE OF OREGON)
) ss
County of Multnomah)

AFFIDAVIT OF R. W. JOHNSON

R. W. Johnson, being duly sworn according to law, deposes and says that he is a Corporate Attorney, Portland General Electric Company, and that the answers associated with his name and contained in Licensee's Responses dated August 20, 1979 to Interrogatories are true and correct to the best of his knowledge and belief.


R. W. Johnson

Subscribed and sworn to before me
this 20th day of August 1979.


Notary Public of Oregon

My Commission Expires August 9, 1982

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

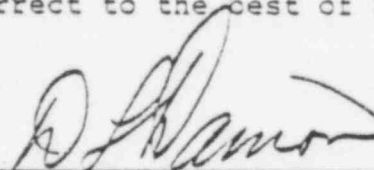
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
) Docket 50-344
PORTLAND GENERAL ELECTRIC COMPANY,)
et al.) (Control Building Proceeding)
)
(Trojan Nuclear Plant))

STATE OF CALIFORNIA)
) ss
County of San Francisco)

AFFIDAVIT OF D. L. DAMON

D. L. Damon, being duly sworn according to law, deposes and says that he is a Project Engineer, Bechtel Power Corporation, and that the answers associated with his name and contained in the Licensee's Responses of August 20, 1979 to Interrogatories of Consolidated Intervenors dated August 24, 1978, January 29, 1979, and February 9, 1979, and those of the Coalition for Safe Power dated September 6, 1978 are true and correct to the best of his knowledge and belief.

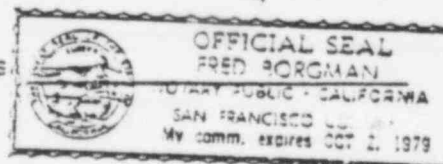


D. L. Damon

Subscribed and sworn to before me
this 17th day of August 1979.


Notary Public of California

My Commission Expires



1074 124

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

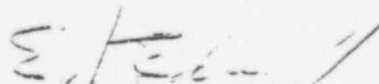
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
) Docket 50-344
PORTLAND GENERAL ELECTRIC COMPANY,)
et al.) (Control Building Proceeding)
)
(Trojan Nuclear Plant))

STATE OF CALIFORNIA)
) ss
County of San Francisco)

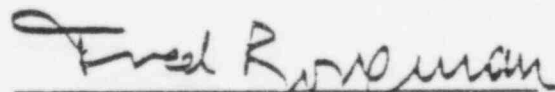
AFFIDAVIT OF E. W. EDWARDS

E. W. Edwards, being duly sworn according to law, deposes and says that he is a Field Construction Manager, Bechtel Power Corporation, and that the answers associated with his name and contained in the Licensee's Responses of August 20, 1979 to Interrogatories of Consolidated Intervenors dated August 24, 1978, January 29, 1979, and February 9, 1979, and those of the Coalition for Safe Power dated September 6, 1978 are true and correct to the best of his knowledge and belief.



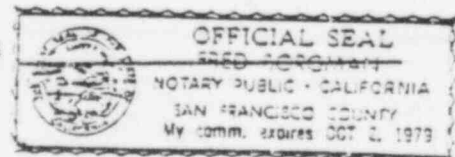
E. W. Edwards

Subscribed and sworn to before me
this 17th day of August 1979.



Notary Public of California

My Commission Expires



1074 125