UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
PACIFIC GAS AND ELECTRIC COMPANY	)	Docket Nos. 50-275 O.L. 50-323 O.L.
(Diablo Canyon Nuclear Power Plant, Units 1 and 2)	)	

JOINT INTERVENORS' SECOND SET OF INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS TO NUCLEAR REGULATORY COMMISSION STAFF

I. Interrogatories

Please use the same instructions as those given in Joint Intervenors' first set of interrogatories to the Nuclear Regulatory Commission Staff ("Staff"). Joint Intervenors' contentions 10 and 12 are the contentions submitted in the low power proceeding and ordered by the Commission on September 21, 1981 to be included in the Diablo Canyon full power proceeding.

29. Explain the present Staff position on Joint Intervenors' contention 10, regarding pressurizer heater design, and state each and every fact on which that position is based.

30. Does the current position differ from the position of the Staff in any prior proceedings? If so, identify the proceeding(s), explain the prior position, and explain the

DS03
S 1/1

basis for the change in position.

31. Identify any officers or employees of, or consultants to, the Staff who dissent from the present Staff position on Joint Intervenors' contention 10. Explain the reasons for which any such person dissents.

32. Identify the specific sections and page numbers of the FSAR for Diablo Canyon and the NRC Staff's SER and SER Supplements for Diablo Canyon, which are relied upon in formulating the Staff position on Joint Intervenors' contention 10.

33. Identify all sections and page numbers of the FSAR, SER, and SER Supplements which contain subject matter pertaining to Joint Intervenors' contention 10.

34. The Staff has recognized that the "maintenance of natural circulation capability is important to safety (and) depends on the maintenance of pressure control . . . (which) is normally achieved through the use of pressurizer heaters." NUREG-0578, p. A-2.

    (a) Do you continue to agree with that view?

    (b) Explain why pressurizer heaters and their associated controls are not classified as "components important to safety," as discussed in GDC 17 and the Introduction to Appendix A to CFR Part 50.

35. Explain in detail whether and in what manner the following design criteria would be met with respect to the pressurizer heater and its associated controls.

    a) GDC 22 (diversity)

    b) GDC [illegible] (seismic and environmental qualification)

c) GDC 10 (automatic initiation)

d) GDC 3 and 22 (separation and independence)

36. Specify precisely under what conditions the pressurizer heaters will be relied upon at Diablo to:

(a) regulate and/or control pressure;

(b) initiate and/or maintain natural circulation;

(c) mitigate the consequences of inadequate core cOoling;

(d) stabilize the reactor in post-accident conditions;

(d) any other functions performed by the pressurizer heaters.

37. Assuming inoperability of the pressurizer heaters, specify in detail each and every means, system, and/or component available at Diablo Canyon to perform the functions listed in Interrogatory No. 36 under the conditions described in your response to that interrogatory. State each and every fact upon which you base your contention that such other means, systems, and/or components can adequately perform the functions listed.

38. Specify precisely each and every way in which the pressurizer heaters and associated controls at Diablo Canyon do not meet the safety-grade design criteria set forth in Appendix A to 10 C.F.R. Part 50, and list each design criteria not complied with.

39. Describe in detail what changes, if any, have been made in the design, contruction, installation, or operation of the pressurizer heaters and associated controls at Diablo Canyon since the TMI-2 accident in March 1979. With respect to any

changes or alterations, specify how, if at all, they are expected or intended to enhance the reliability of the components and/or safe operation of the plant, and state each and every fact upon which your response is based.

40. Describe in detail what you consider to be the implications, if any, of the experience at TMI-2 in March 1979 with respect to the design, installation, maintenance, and/or operation of the pressurizer heaters and associated controls at Diablo Canyon. State each fact upon which your response is based.

41. With respect to the pressurizer heaters and associated controls at Diablo Canyon, specify in detail:

    (a) their precise location in Units 1 and 2;

    (b) the precise specifications to which they were ordered and/or designed and any differences between the design specifications on the one hand and the heaters and associated controls as installed on the other;

    (c) their manufacturer;

    (d) the precise location of all seismic-related supports, hangers, snubbers, etc., w ich are attached to, relate to, or in any way could affect operation of the heaters, associated controls, and/or associated cables, electrical or otherwise;

    (e) the precise polar position and elevation and coordinate location with respect to the center of the containment at which the cables for the pressurizer heaters cross the annulus in Diablo Canyon, Unit 1.

42. List and describe in detail all analyses and tests conducted by you, your agents, or your consultants with respect to the pressurizer heaters and associated controls. Specify:

(a) the person or entity conducting the analyses or tests;

(b) the purpose(s) of the analyses or tests;

(c) the range of test conditions or conditions assumed in the analyses;

(d) the specifications of the components tested or analyzed;

(e) the results of the tests or analyses;

(f) any other tests or analyses planned to be conducted prior to full power operation.

43. State whether you contend that the pressurizer heaters and associated controls at Diablo Canyon should be classified as important to safety and required to meet all applicable safety-grade design criteria, and state each and every fact upon which your response is based.

44. Describe what modifications would have to be made in the Diablo Canyon pressurizer heaters and associated controls to bring them into compliance with all applicable safety-grade design criteria. Estimate the minimum time period necessary to make those modifications, and state each and every fact upon which your estimate is based.

45. Specify precisely (a) which Emergency Operating Procedures for Diablo Canyon include the use of pressurizer heaters and (b) which require that the heaters be switched to the on-site power supplies.

46. Explain the present Staff position on Joint Intervenors contention 12, regarding valve design, and state each and every fact on which that position is based.

47. Does the current position differ from the position of the Staff in any prior proceedings? If so, identify the proceeding(s), explain the prior position, and explain the basis for the change in position.

48. Identify any officers or employees of, or consultants to, the Staff who dissent from the present Staff position on Joint Intervenors' contention 12. Explain the reasons for which any such person dissents.

49. Identify the specific sections and page numbers of the FSAR for Diablo Canyon and the NRC Staff's SER and SER Supplements for Diablo Canyon, which are relied upon in forumlating the Staff position on Joint Intervenors' contention 12.

50. Identify all sections and page numbers of the FSAR, SER, and SER Supplements which contain subject matter pertaining to Joint Intervenors' contention 12.

51. Does the Staff agree that proper operation of PORVs, associated block valves and the instruments and controls for these valves is essential to mitigate the consequences of accidents? Explain your response fully.

52. Does the Applicant agree that failures of these valves, instruments and controls can cause or aggravate a LOCA? Explain your response fully.

53. Provide the justification for the failure to classify power operated relief valves (PORVs) and associated block valves

and their respective instruments and controls as "components important to safety," requiring compliance with safety-grade design criteria.

54. Explain how the motive and control components of the PORVs and their associated block valves and the vital instruments shall be supplied by the on-site emergency power source when offsite power is not available without degrading the capacity, capability and reliability of emergency power in violation of GDC 17.

55. How have the devices through which motive and control power components for the PORVs and their associated block valves are connected to emergency buses been qualified in accordance with safety-grade requirements?

56. With respect to the valves, instruments, and controls cited in contention 12, list each and every General Design Criterion in Appendix A to 10 C.F.R. Part 50 which is not complied with, and describe precisely in what respects those valves, instruments, and controls do not comply.

57. Describe precisely each and every function of the PORVs at Diablo Canyon, and for each such function, specify in detail the operating conditions in which the PORVs would be relied upon to perform that function.

58. Describe precisely each and every function of the block valves at Diablo Canyon, and for each such function, specify in detail the operating conditions in which the block valves would be relied upon to perform that function.

59. Specify precisely which Emergency Operating Procedures for Diablo Canyon include the use of (a) PORVs and (b) block valves.

60. Describe in detail what modifications would have to be made in the PORVs, block valves, instruments, and controls referred to in contention 12 to bring them into compliance with all applicable safety-grade design criteria. Estimate the minimum time period necessary to make those modifications, and state each and every fact upon which your estimate is based.

61. Describe in detail the current status of the EPRI valve performance testing program. In your response, state:

    (a) when the relief and safety valve testing will be completed;

    (b) under what conditions (e.g., transition flow, full water flow, saturated steam, etc.) have the relief and safety valves been tested to date;

    (c) whether any of the relief and safety valves tested have failed, suffered galling, or been in any way damaged during the testing, and, if so, describe in detail the circumstances of such occurrences;

    (d) why the relief and safety valve testing program completion date has been delayed and when the program is now scheduled to be completed;

    (e) whether an EPRI block valve testing program is planned and, if so, when it will be completed;

(f) other than the block valve failures discussed at the Diablo Canyon low power test hearing in May 1981, whether any of the block valves tested have failed, suffered galling, or been in any way damaged during the testing, and, if so, describe in detail the circumstances of such occurrences;

(g) whether PGandE has submitted to the NRC a correlation or other evidence to substantiate that the valves tested in the EPRI program demonstrate the functionability of the relief and safety valves installed at Diablo Canyon, and, if so, describe that correlation or other evidence in detail;

(h) to what extent, if at all, the control circuitry, piping, and supports associated with the Diablo Canyon relief and safety valves have been qualified, and, if so, describe precisely how they have been qualified and the results of any related tests or analyses;

(i) when the "correlation" referred to in subpart (g) of this interrogatory is expected to be received by the NRC.

62. On August 19, 1981, an emergency planning exercise for Diablo Canyon was held in San Luis Obispo. Based on your involvement in or observation of that exercise and your knowledge of the involvement of other persons, officials, agencies (including FEMA), or other entities, describe the exercise in detail and include in your response at least the following information:

(a) a detailed description of the exercise scenario employed, including the simulated events, time period and locations involved;

(b) the number of persons participating in the drill, including the specific company, agency, or other entity represented, if any, and the extent and nature of their involvement;

(c) (1) the number of PGandE personnel assumed or deemed to have been evacuated during the course of the exercise; (2) the number of PGandE employees actually evacuated, and (3) when such evacuation was begun and when completed;

(d) (1) the number of non-PGandE persons (e.g., members of the public) assumed or deemed to have been evacuated and/or sheltered during the course of the exercise, (2) the number of such persons actually evacuated and/or sheltered, and (3) when such evacuation was begun and when completed;

(e) (1) the number of ambulances assumed or deemed to have been utilized during the course of the exercise and (2) the number of ambulances actually utilized;

(f) (1) the number of simulated injured persons assumed or deemed to have been transported to and treated at French Hospital during the course of the exercise and (2) the number of simulated injured persons actually transported and treated at French Hospital;

(g) (1) the number of simulat injured persons assumed or deemed to have been transported to and treated at St. Francis Hospital in San Francisco during the course of the exercise and (2) the number of simulated injured persons actually transported to and treated at St. Francis Hospital;

(h) (1) the number of residences and/or households in San Luis Obispo and Santa Barbara Counties assumed or deemed to have been contacted during the exercise, (2) the number and location of such residence and/or households actually contacted, and (3) the time period required to contact such residences and/or households;

(i) (1) the number of automobiles assumed or deemed to have utilized Highway 101 as an evacuation route during the course of the exercise and (2) the number of automobiles which actually utilized Highway 10 as an evacuation route;

(j) (1) the number of persons or automobiles assumed or deemed to have utilized Highway 1 as an evacuation route during the course of the exercise and (2) the number of persons or automobiles which actually utilized Highway 1 as an evacuation route;

(k) (1) the number of persons or automobiles assumed or deemed to have utilized Avila Road as an evacuation route during the course of the exercise and (2) the number of persons or automobiles which actually used Avila Road as an evacuation route;

(l) (1) the number of persons assumed or deemed to have been notified of a radiological emergency occurring at Diablo Canyon during the course of the exercise, (2) the number and location of persons actually notified of such emergency, and (3) the time period required to complete such notification.

(m) (1) the number of emergency response personnel (i.e., law enforcement, fire, health, park, military, monitoring, etc) assumed or deemed to have been mobilized and/or dispatched during the course of the exercise and (2) the number of such personnel actually mobilized and/or dispatched;

(n) (1) the protective actions assumed or deemed to have been taken within the plume exposure pathway EPZ by public officials, emergency response personnel, and members of the public during the course of the exercise and (2) the protective actions actually taken by such persons within the area specified;

(o) (1) the protective actions assumed or deemed to have been taken within the ingestion pathway EPZ by public officials, emergency response personnel, and members of the public during the course of the exercise and (2) the protective actions actually taken by such persons within the area specified;

(p) (1) the number and location of radiological monitoring samplings assumed or deemed to have been taken during the course of the exercise and (2) the number and

location of such samplings actually taken;

(q) (1) the number of persons involved in the exercise and (2) the number of persons reasonably expected to be involved in an actual radiological emergency at Diablo Canyon;

(r) (1) the number of automobile accidents or collisions, if any, assumed or deemed to have occurred on main evacuation routes during the course of the exercise and (2) the number of such accidents or collisions reasonably expected to occur in the event a full scale evacuation is ordered in response to an actual radiological emergency at Diablo Canyon;

(s) (1) the types and quantities of emergency response equipment (e.g., communications equipment, respiratory equipment, protective clothing, monitoring equipment, vehicles, helicopters, signs, placards, medical equipment, etc.) assumed or deemed to be available or to have been used during the course of the accident and (2) the types and quantities of such equipment actually available or used;

(t) (1) the number of media personnel present and inquiries from the public received during the course of the exercise and the number of such personnel likely to be present and inquiries from the public likely to be received in the event of an actual radiological emergency at Diablo Canyon;

(u) the names of all local and state officials, agencies, offices, and/or other entities actually notified as part of the exercise, by telephone or otherwise, regarding the simulated emergency at Diablo Canyon; the approximate time of each such notification; the precise language of the notification message; the name of the person who notified such officials and/or agencies; the names of each person who received the notice; and the time period required to complete notification of all such persons;

(v) a detailed description of the Staff's role, if any, in the exercise.

63. Based on your involvement in or observation of the August 19, 1981 emergency planning exercise and your knowledge of the involvement of other persons, officials, agencies (including FEMA), or other entities in that exercise, provide a detailed chronology of all actions taken by the participants in connection with the exercise, and include in that chronology at least the following information:

(a) the time each action was taken;

(b) the name of the person taking the action;

(c) the office, agency, or other entity represented by that person;

(d) any problems or difficulties encountered by that person in taking the action;

(e) the location of the action including, for example, point of origin and point of destination;

(f) any equipment (i.e., vehicles, walkie-talkie, radio, protective clothing, etc.) utilized in taking the action;

(g) the consequences resulting from the action.

64. Explain in detail how the exercise included such things as

(a) simulated casualties;

(b) offsite fire department assistance;

(c) rescue of personnel;

(d) use of protective clothing;

(e) deployment of radiological monitoring teams; and

(f) public information and notification activities.

65. State now, if at all, the August 19 exercise simulated and/or tested for the complicating effects of a major earthquake on emergency response capability at Diablo Canyon.

66. State what, if any, critical emergency response equipment (i.e., vehicles, communications systems and lines, monitoring equipment, notification sirens, etc.) were assumed to fail during the course of the August 19 exercise.

67. State what, if any, evacuation routes

(a) for the site and

(b) for the plume exposure pathway EPZ

were assumed to be fully or partially blocked during the course of the August 19 exercise.

68. In light of the information and experience gained from the August 19 exercise, what revisions, changes, or alterations, if any, will be required in the following documents prior to full power operation of Diablo Canyon:

(a) the Diablo Canyon on-site emergency plan and emergency procedures;

(b) the San Luis Obispo County emergency and evacuation plans;

(c) the State of California emergency plan;

(d) the San Luis Obispo County Sheriff's "plan" (Board Exh. 5 at Diablo Low Power Test hearing).

II. Request for Production of Documents

Please use the same instructions as those given in Joint Intervenors' first request for production of documents to the Staff, except that the date for production shall be on or before November 6, 1981, unless another time is agreed upon.

Each document is relevant to Joint Intervenors' admitted contentions. The term "document" as used herein is consistent with the definitions set forth at page 2 of Joint Intervenors First Set of Interrogatories and Request for Production of Documents to the Nuclear Regulatory Commission Staff, previously filed herein.

1. All documents identified in response to Interrogatory Nos. 29-68 supra.

2. All documents in the possession, custody or control of the Staff or its agents or consultants which relate in anyway to the emergency planning exercise held on August 19, 1981 in San Luis Obispo County. Without limitation of the scope of this request, documents

requested include:

(a) All evaluations, assessments, memoranda, notes, critiques or other documents which assess, or in any way relate to the August 19 exercise.

(b) All notes, photographs, memoranda, or other documents which record or relate in any way to actions or events which occurred in preparation for, during, or as a consequence of the August 19 exercise.

(c) All documents which assess or in any way relate to whether the scenario for the August 19 exercise was complete and adequate to test the emergency response capabilities of PGandE, the County, and/or the State.

3. All documents in the possession, custody, or control of the Staff or its agents or consultants which relate in any way to, or were prepared in connection with or by PGandE in response to, the NUREG-0737 item II.D.1 requirement that the licensee submit to the NRC "a correlation or other evidence to substantiate that the valves tested in the EPRI or other generic test program demonstrate the functionability of as-installed primary relief and safety valves." (NUREG-0737, at II.D.1-2.)

4. All documents in the possession, custody, or control of the Staff or its agents or consultants which relate in any way to the reliability, design, and/or classification of (a) the pressurizer heaters and

associated controls installed at Diablo Canyon or (b) such components of a design, model, or type similar to those installed at Diablo Canyon.

5. All documents in the possession, custody, or control of the Staff or its agents or consultants which relate in any way to the reliability, design, and/or classification of (a) the Diablo Canyon relief valves, associated block valves, and the instruments and controls for those valves or (b) such components of a design, model, or type similar to those installed at Diablo Canyon.

Dated: October 7, 1981

Respectfully submitted,

JOEL R. REYNOLDS, ESQ.
JOHN R. PHILLIPS, ESQ.
Center for Law in the
Public Interest
10203 Santa Monica Blvd.
Fifth Floor
Los Angeles, CA 90067

DAVID S. FLEISCHAKER, ESQ.
1735 Eye Street, N.W.
Washington, D.C. 20006
(202) 638-6070

By Joel Reynolds
JOEL R. REYNOLDS

Attorneys for Joint Intervenors
SAN LUIS OBISPO MOTHERS FOR PEACE
SCENIC SHORELINE PRESERVATION
CONFERENCE, INC.
ECOLOGY ACTION CLUB
SANDRA SILVER
ELIZABETH APFELBERG
JOHN J. FORSTER

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of PACIFIC GAS AND ELECTRIC COMPANY (Diablo Canyon Nuclear Power Plant, Units 1 and 2)	)	Docket Nos. 50-275 O.L. 50-323 O.L.

CERTIFICATE OF SERVICE

I hereby certify that on this 7th day of October, 1981, I have served copies of the foregoing JOINT INTERVENORS' SECOND SET OF INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS TO NUCLEAR REGULATORY COMMISSION STAFF, mailing them through the U. S. mails, first class, postage prepaid.

Nunzio Pallodino,
Chairman
U.S. Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, D.C. 20555

Peter A. Bradford,
Commissioner
U.S. Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, D.C. 20555

Victor Gilinsky,
Commissioner
U.S. Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, D.C. 20555

John F. Ahearne,
Commissioner
U.S. Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, D.C. 20555

Thomas Roberts,
Commissioner
U.S. Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, D.C. 20555

Richard S. Salzman,
Chairman
Atomic Safety & Licensing
Appeal Board
U.S.Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. W. Reed Johnson
Atomic Safety & Licensing
Appeal Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. John H. Buck
Atomic Safety & Licensing
Appeal Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Admin. Judge John F. Wolf,
Chairman
Atomic Safety & Licensing
Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Glenn O. Bright
Atomic Safety & Licensing
Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. Jerry R. Kline
Atomic Safety & Licensing
Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Docket & Service Branch
Office of the Secretary
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

William Olmstead, Esq.
Marc R. Staenberg, Esq.
Edward G. Ketchen, Esq.
Office of the Executive Legal
Director - BETH 042
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Nancy Culver
192 Luneta
San Luis Obispo, CA 93401

Mr. Frederick Eissler
Scenic Shoreline Preservation
Conference, Inc.
4623 More Mesa Drive
Santa Barbara, CA 93105

Sandra A. Silver
1760 Alisal Street
San Luis Obispo, CA 93401

Gordon Silver
1760 Alisal Street
San Luis Obispo, CA 93401

David S. Fleischaker, Esq.
P. O. Box 1178
Oklahoma City, Oklahoma 73101

Bruce Norton, Esq.
3216 N. Third Street
Suite 202
Phoenix, Arizona 85012

Mr. Yale I. Jones, Esq.
100 Van Ness Avenue
19th Floor
San Francisco, CA 94102

Andrew Baldwin, Esq.
Friends of the Earth
124 Spear Street
San Francisco, CA 94105

Harry M. Willis, Esq.
Seymour and Willis
601 California Street
Suite 2100
San Francisco, CA 94108

Janice E. Kerr, Esq.
Lawrence Q. Garcia, Esq.
J. Calvin Simpson, Esq.
California Public Utilities
Commission
5246 State Building
350 McAllister Street
San Francisco, CA 94102

Malcolm H. Furbush, Esq.
Vice President and General
Counsel
Philip A. Crane, Esq.
Pacific Gas & Electric Company
P. O. Box 7442
San Francisco, CA 941

Arthur C. Gehr, Esq.
Snell & Wilmer
3100 Valley Center
Phoenix, Arizona 85073

Mrs. Raye Fleming
1920 Mattie Road
Shell Beach, CA 93449

MHB Technical Associates
1723 Hamilton Avenue
Suite K
San Jose, CA 95125

Carl Nieburger
Telegram Tribune
P. O. Box 112
San Luis Obispo, CA 93402

Byron Georgiou, Esq.
Legal Affairs Secretary to
the Governor
State Capitol Building
Sacramento, CA 95814

Lawrence Coe Lanpher, Esq.
Hill, Christopher & Phillips
1900 M Street, N.W.
Washington, D.C. 20036

Joel Reynolds

JOEL R. REYNOLDS, ESQ.