

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of) Docket No. 50-275
PACIFIC GAS AND ELECTRIC COMPANY) Docket No. 50-323
Diablo Canyon Nuclear Power)
Plant Units Nos. 1 and 2)
_____)

GOVERNOR DEUKMEJIAN'S FIRST SUPPLEMENTAL ANSWERS
TO APPLICANT'S FIRST SET OF INTERROGATORIES

Governor George Deukmejian hereby provides this first supplement to his answers to the first set of interrogatories propounded to him by Applicant Pacific Gas and Electric Company. This supplement provides the answers specified by the Atomic Safety and Licensing Appeal Board in its August 9, 1983, order. Further supplemental answers are contemplated, as provided by 10 C.F.R. section 2.740(e).

INTERROGATORY NO. 3:

Identify all examinations, reviews, studies, analyses, or the like, conducted, initiated, or anticipated to be conducted by or for you since September 1981 relating in whole or part to design quality assurance or design activities at Diablo Canyon. As to each such study, analysis, or the like, state:

(a) The date of preparation or anticipated preparation.

(b) The name of each and every person who has or will contribute to the effort.

(c) The contribution of each person identified in your answer to 3(b).

ANSWER TO INTERROGATORY NO. 3:

An index of those examinations, reviews, studies, analyses, or the like that are in the possession of the Governor, his attorneys, or consultants is attached hereto as Exhibit 3-1.

INTERROGATORY NO. 5:

Identify each and every structure at Diablo Canyon that you believe to be "important-to-safety", but which is not classified as design Class I. As to each such structure identified, state:

(a) The bases for your opinion that the structure should be considered "important-to-safety".

(b) Each regulation which, in your opinion, requires each such structure to be classified as "important-to-safety".

(c) The date upon which each such regulation required each such structure to be so classified.

ANSWER TO INTERROGATORY NO. 5:

A list of structures, buildings and facilities considered to be important to safety, but which are not within PG&E's design Class I, is attached hereto as Exhibit 5-1.

(a) The basis for this categorization is that, upon evaluation of all criteria set forth in the previous answer to this interrogatory, it is concluded that the listed

structures, buildings, and facilities function during plant operation to provide reasonable assurance that Diablo Canyon can be operated without undue risk to the health and safety of the public.

(b) 10 C.F.R. part 50, Appendix A, GDC-1.

(c) February 1971.

Supplements to this answer are contemplated, pursuant to 10 C.F.R. section 2.740(e).

INTERROGATORY NO. 6:

Identify specifically each and every system at Diablo Canyon that you believe to be "important-to-safety", but which is not classified as design Class I. As to each such system identified, state:

(a) The bases for your opinion that each such system should be considered "important-to-safety".

(b) Each regulation which, in your opinion, requires each such system to be classified as "important-to-safety".

(c) The date upon which each such regulation required each such system to be so classified.

ANSWER TO INTERROGATORIES NO. 6:

A list of systems and components which the Governor considers to be important to safety but which are not within PG&E's design Class I is attached hereto as Exhibit 6/7-1. The terms "systems" and "components" are used interchangeably because the terminology conforms to that of PG&E.

(a) The basis for this categorization is that, upon evaluation of all criteria set forth in the previous answer

to this interrogatory, it is concluded that the listed systems and components function during plant operation to provide reasonable assurance that Diablo Canyon can be operated without undue risk to the health and safety of the public.

(b) 10 C.F.R. part 50, Appendix A, GDC-1.

(c) February 1971.

INTERROGATORY NO. 7:

Identify specifically each and every component at Diablo Canyon that you believe to be "important-to-safety", but which is not classified as design Class I. As to each such component identified, state:

(a) The bases for your opinion that each such component should be considered "important-to-safety".

(b) Each regulation which, in your opinion, requires each such component to be classified as "important-to-safety".

(c) The date upon which each such regulation required each such component to be so classified.

ANSWER TO INTERROGATORY NO. 7:

See answer to Interrogatory No. 6.

INTERROGATORY NO. 14:

List each ITR, with revision number, that you have reviewed to date. As to each ITR, state specifically:

(a) Each fact stated therein with which you disagree.

(b) The specific page(s) of each ITR where the fact(s) set forth in your answer to 14(a) is located.

(c) Each conclusion or opinion stated therein with

which you disagree.

(d) The specific page(s) of each ITR where the conclusion(s) or opinion(s) set forth in your answer to 14(c) is located.

(e) The specific bases for your disagreement with each such fact, conclusion or opinion.

ANSWER TO INTERROGATORY NO. 14:

The Governor's review of the ITR's is not yet complete. This answer is current as of the date of this filing, and will be supplemented as provided by 10 CFR 2.740(e) and the board's order.

The Governor does not know of any factual statements in any ITR thus far reviewed with which he disagrees. However, he disagrees with certain opinions and conclusions expressed in the ITRs. The conclusions and statements of opinion in each ITR reviewed to date with which there is disagreement are listed in Exhibit 14-1, attached hereto.

The answer does not specify pages and paragraphs of each ITR, since that information is as readily available to PG&E as to the Governor.

INTERROGATORY NO. 15:

For each answer to these interrogatories, and all subparts thereto, identify each person who participated in the preparation of your answers pursuant to 10 C.F.R. § 2.740b(b).

ANSWER TO INTERROGATORY NO. 15:

All answers partially prepared by Michael J. Strumwasser, Special Counsel to the Attorney General; Susan L.

Durbin, Deputy Attorney General; Christina Neal, Analyst. All have the address 3580 Wilshire Blvd., Los Angeles, CA 90010.

MHB Associates, under the direction of Richard Hubbard, partially prepared the answers to Interrogatories 3, 5, 6, 7 and 14. Dr. Jose Roesset partially prepared the answers to Interrogatory 3 and 14.

DATED: August 19, 1983 JOHN K. VAN DE KAMP, Attorney General
of the State of California
ANDREA SHERIDAN ORDIN, Chief
Assistant Attorney General
MICHAEL J. STRUMWASSER, Special
Counsel to the Attorney General
SUSAN L. DURBIN,
PETER H. KAUFMAN,
Deputy Attorneys General

By *Susan L. Durbin*
SUSAN L. DURBIN

Attorneys for Governor
George Deukmejian

3580 Wilshire Boulevard
Suite 800
Los Angeles, California 90010
(213) 736-2105

Exhibit 3-1

- 10/30/81 Letter from Gov. Brown to Palladino with memo to Denton outlining California's proposal for an independent quality verification program.
- 11/07/81 Letter from Byron Georgiou to Chairman Palladino listing 13 seismic design errors, and reiterating request for an independent verification program. Attached is a description of each of the 13 errors.
- 11/16/81 Letter from Herb Brown to Chairman Palladino further elucidating on Gov. Brown's verification proposal, and further outlining PG&E/Blume QA deficiencies.
- 11/19/81 Statement of Richard Hubbard before House Subcommittee on Energy and the Environment summarizing deficiencies in PG&E's Diablo QA program.
- 12/14/81 Letter from Richard Hubbard to Lawrence Lanpher, containing comments on the 11-12-81 R.L. Cloud report.
- 1/15/82 Letter from Herb Brown to the NRC Commissioners transmitting attached comments by Governor Brown on the proposed seismic design verification program.
- 2/17/82 Presentation of Richard Hubbard for Governor Brown concerning PG&E's proposed seismic design verification program. Presentation given at February 17, 1982 meeting with NRC staff.
- 2/25/82 Letter from Herb Brown to NRC Commissioners and enclosure presenting Governor Brown's technical comments on the proposed seismic design verification program.
- 5/24/82 Affidavit of Richard Hubbard concerning breakdowns in the Diablo Canyon Quality Assurance Program.
- 8/ 2/82 Letter from Alan Dynner to Harold Denton enclosing technical comments from counsel to Governor Brown on the proposed phase II Diablo Canyon design verification program.

- 9/ 9/82 Presentation of Richard Hubbard on the proposed Diablo Canyon verification program, presented at September 9, 1982 meeting with NRC staff.
- 11/10/82 Presentation of Richard Hubbard concerning proposed phase II Diablo Canyon design verification program, presentation made before the NRC Commissioners.
- 3/ 7/83 Dr. Jose Roesset to Michael J. Strumwasser - Lists questions regarding the seismic analyses conducted for Diablo
- 3/25/83 Richard B. Hubbard to Michael J. Strumwasser - Encloses Summary of Anonymous Allegations regarding Diablo
- 3/31/83 Supplemental affidavit of Richard Hubbard concerning breakdowns in the Diablo Canyon Quality Assurance program.
- 4/26/83 Dr. Jose Roesset to Michael J. Strumwasser - Comments on the review of the seismic design of Diablo
- 5/ 2/83 Curran Roller to Michael J. Strumwasser - Encloses Information Concerning Bechtel/PG&E Schedule Incentives at Diablo
- 5/ 3/83 Dr. Jose Roesset to Michael J. Strumwasser - Comments on the open items and errors reported by the IDVP
- 6/17/83 Richard B. Hubbard to Michael J. Strumwasser - Summaries of ITRs 18, 20, 21, 22, 23, and 24
- 7/28/83 Richard B. Hubbard to Michael J. Strumwasser - Encloses Summaries of ITRs 25, 26, 27, and 28
- 8/ 8/83 Richard B. Hubbard to Michael J. Strumwasser - Comments for NRC Commissioners re: IDVP Diablo Proceeding
- 8/18/83 Dr. Jose Roesset - Comments on ITR's

Unknown Richard Hubbard, Dr. Jose Roesset - Summaries of and
comments on remaining ITR's, SER, IDVP Final Report,
ITP Phase I Final Report (dates of completion unknown)

Exhibit 5-1

to Governor Deukmejian's First Supplemental Response
to Applicant's First Set of Interrogatories

I. STRUCTURES, BUILDINGS, AND FACILITIES

A. Containment Building

Structures and Components

Reactor Cavity Liner

Radiation Shielding (Permanently Installed)

Ventilation and Air Cleaning Systems, Dwg 102023

Containment Fan Cooling System Annular

CRDM Ventilation System

Incore Instrument Room Air Conditioning

Iodine Removal System

Containment Purge Supply and Exhaust Fans

B. Auxiliary and Fuel Handling Building and Facilities, RMS 22000

Buildings and Components

Pipe Rupture Restraints

Radiation Shielding (Permanently Installed)

Spent Fuel Pool Liner

Safety Related Masonry Walls

Ventilation, DWG 102023

High Radioactivity Sampling Station

Interim High Radioactivity Sampling Station

Fuel Handling Facilities

New Fuel Storage Racks

C. Turbine Building and Facilities, RMS 24000

Building and Components

Turbine Building

480 V Switchgear Rooms

Diesel Generator Rooms

Structures

Component Cooling Water Heat Exchanger Pipe Whip Shield

Pipe Rupture Restraints

Ventilation

Technical Support Center Normal Heating and Ventilation System

D. Intake and Discharge Structures and Facilities, RMS 26000

Structures and Components

Intake Structure

Pipe Rupture Restraints

Exhibit 6/7-1

to Governor Deukmejian's First Supplemental Response
to Applicant's First Set of Interrogatories

II. NUCLEAR STEAM SUPPLY - MECHANICAL SYSTEMS

A. Reactor Coolant System, DWG 102007, RMS 31000

Reactor Coolant Pump

Reactor Coolant Pump Motor

Tanks

Reactor Vessel and Associated Items

Vessel Insulation

Pressurizer Relief Tank

Heat Exchangers and Heaters

Pressurizer Heaters

Other Components

Control Rod Drive Mechanism (CRDM) and Ventilation Shrouds,
RMS 31100

Fuel and Rod Control Cluster Assemblies

Flux Thimble Isolation Valves

B. Chemical and Volume Control System - DWG 102008, RMS 32000

Tanks and Demineralizers

Boric Acid Batch Tank

Heat Exchangers and Heaters

Boric Acide Batch Tank Primary Preheater

C. Safety Injection System, DWG 102009, RMS 33000

Piping and Valves

Accumulator Nitrogen Supply Line, except for protion that
penetrates Containment and connects Accumulator Nozzles.

G. Spent Fuel Pool Cooling System - DWG 102013, RMS 37110

Pumps

Spent Fuel Pool Pump

Demineralizers

Spent Fuel Pool Demineralizer

Heat Exchangers

Spent Fuel Pool Heat Exchanger

Piping and Valves

Spent Fuel Pool Cooling System Piping

Spent Fuel Pool Cooling System Valves

Other Components

Spent Fuel Pool Leak Detection System

H. Component Cooling Water System - DWG 102014, RMS 52100

Served Components (CCW Side)

Spent Fuel Pool Heat Exchanger

NSSS Sample Heat Exchangers (Secondary Side)

I. Liquid Radwaste Systems - DWG 102019, RMS 35000

Pumps

Reactor Coolant Drain Tank Pump

Tanks

Reactor Coolant Drain Tank

Piping and Valves

Portions of System Piping from Reactor Coolant Drain Tank and Pumps to Chemical and Volume Control system (Liquid Holdup Tanks), to Safety Injection System (Refueling Water Storage Tank), and to Equipment Drain Receivers; Piping from Miscellaneous Equipment Drain Tank and Pumps to Equipment Drain Receivers; Piping from Equipment Drain Receivers and Pumps to Waste Concentrator; Piping from Waste Concentrator through Waste Concentrates Holding Tank and Pumps to Drumming Station, and Radioactive Resins Removal System Piping.

Valves for above portions of System.

J. Gaseous Radwaste System - DWG 102024, RMS 36000

Pumps, Etc.

Waste Gas Compressors

Tanks

Waste Gas Decay Tanks

Piping and Valves

Gaseous Radwaste Piping

Gaseous Radwaste Valves

O. Post Loca High Radiation Sampling System

III. BALANCE OF PLANT - MECHANICAL SYSTEMS

B. Feedwater System - DWG 102003, RMS 45000

Pumps and Turbines

Steam Generator Feedwater Pump

Heat Exchangers and Heaters

Feedwater Heaters

I. Fire Protection System - DWG 102018, RMS 55000

Pumps

Gasoline Driven Fire Pumps with 300 Gallon Water Tank

Tanks

Raw Water Storage Reservoir
CO₂ Storage Tank

K. Diesel Engine Generating System - DWG 102021, RMS 47000

Piping and Valves

Engine Combustion Air Intake and Exhaust Piping (Air Dryer)
Piping.
Engine Combustion Air Intake and Exhaust Piping (Air Dryer)
Valves.

Other Components

Fuel Oil System
Diesel Fuel Oil

L. Turbine and Generator Associated System - DWG 102022, RMS 41000

Other Components

Electrohydraulic Control Unit

S. Emergency Assessment and Response System

T. Compressed Breathable Air System

IV. ELECTRICAL SYSTEMS AND EQUIPMENT

D. 480 V Systems and Equipment, RMS 63400

480 V Systems - Vital
Ground Detection System - Vital

F. 120 V Security System Uninterruptible AC Power Supply, RMS 63800, 66500

G. 125 and 250 VDC Systems and Equipment, RMS 63900

125 VDC System - Vital
DC Ground Detection System

H. Lighting Systems and Equipment, RMS 68600

Lighting System - Vital AC

Lighting Transformers

Vital (11E, 13E, 15E, 16E)

Lighting and Power Panels

Vital AC (111, 131, 132, 151, 161)

L. Other Systems and Equipment

Site Emergency and Containment Evacuation Signals, RMS 66300
Heat Tracing Systems, RMS 68110
Boric Acide - Nonvital (Traces 22, 23, 27, 182 anmd 183)
Post LOCA Sampling system
Interim Post LOCA Sampling System

V. INSTRUMENTATION AND CONTROLS

C. Rod Control Systems, RMS 31100

D. Solid State Protection Systems, RMS 31200

Computer Demultiplexer

E. Piping Systems Instrumentation and Controls, DWG 102001

Condensate System Instrumentation and Controls, DWG 102002,
RMS 44000

Radiation, Instrument Systems, DWG 102931

Nuclear Steam Supply Sampling System Instrumentation and
Controls, DWG 102011, RMS 37200

Radiation Instrument Systems, DWG 102012, RMS 38000

Gross Failed Fuel Detector System, RMS 31300

Spent Fuel Pool Cooling System Instrumentation and Controls,
DWG 102013, RMS 37110

G. Loose Parts Monitor System, RMS 39000

I. Control Boards, RMS 70000

Dedicated Shutdown Panel

O. Fire Detections System, RMS 55300

Smoke and Flame Detectors

Fire Detection Control Cabinet

P. Reactor Containment System, RMS 21000

Polar Crane Seismic Lock Control
Containment Leak Rate Test Facilities

Q. Seismic Monitoring System, RMS 70000

S. Plant Security System, RMS 66500

Exhibit 14-1

ITR 6

Area of Disagreement: Definition of acceptance criteria.

Basis for Disagreement: Definitions of acceptance criteria are unclear. For example, the tolerance within which agreement must occur is not specified.

ITR 6

Area of Disagreement: Adequacy of IDVP verification of seismic qualification of auxiliary building.

Basis for Disagreement: The selection of work reviewed is not sufficiently complete.

ITR 6

Area of Disagreement: Adequacy of soil springs analysis.

Basis for Disagreement: The soil prime analysis is unclear as to its consideration of soil mass, embvdedment, radiation damping and boundaries.

ITR 13

Area of Disagreement: Adequacy of IDVP verification of HLA soils work.

Basis of Diagreement: An inadequate verification of the HLA soils work was done, in that: 1) no independent measurements of the depth to bedrock or the properties of the backfill soil were done; and 2) no check was performed of the bearing capacity or lateral earth pressures.

ITR 13

Area of Disagreement: Accuracy of IDVP verification of HLA soils work.

Basis for Disagreement: The check of blow count data used approximate corection factors which are known to be inaccurate.

ITR 13

Area of Disagreement: Adequacy of IDVP verification of HLA soils work.

Basis for Disagreement: In assessing the reasonableness of the materials properties definition, an inadequate range of factors was considered. No consideration was given to variation of soil properties with varying levels of strain due to an earthquake.

ITR 16

Area of Disagreement: Adequacy of IDVP verification of HLA soils work.

Basis for Disagreement: As in ITR 13, no consideration was given to verification of soil properties with varying levels of strain due to earthquake. Also, an inadequate sample of work was checked in this ITR.

ITR 18

Area of Disagreement: Resolution of EOI's 8019, 8020, 8021, 8035, 8036, 8038, and 8039

Basis for Disagreement: Resolutions do not address root causes of EOI's, or ensure that similar problems do not exist in unreviewed portions of the plant

ITR 21

Area of Disagreement: Resolution of EOI's 8028, 8029, 8030, and 8031

Basis for Disagreement: Resolutions do not address root causes of EOI's, or ensure that similar problems do not exist in unreviewed portions of the plant

ITR 21

Area of Disagreement: Resolution of EOI 8014

Basis for Disagreement: Resolution of this EOI mentions only one of six level control valves, provides no resolution as to remaining five valves. Also, root cause of EOI was not addressed

ITR 22

Area of Disagreement: Resolution of EOI 8027

Basis for Disagreement: The reason for the original problem has not been ascertained, and there is, therefore, no assurance that the problem has been solved

ITR 22

Area of Disagreement: Resolution of EOI 8015

Basis for Disagreement: The resolution of this EOI does not resolve concerns raised in ITR 22, Rev. 0 as to possible negative results of not requiring flaw testing

ITR 23

Area of Disagreement: Resolution of EOI 8049

Basis for Disagreement: The resolution of this EOI does not address generic implications of overlooking vital equipment in the original review, and provides no assurance that similar problems do not exist elsewhere in the plant

ITR 24

Area of Disagreement: Resolution of EOI's 8023, 8024, 8025, and 8026

Basis for Disagreement: Resolutions of these EOI's do not address the generic implications of the EOI's

ITR 24

Area of Disagreement: Resolution of EOI 8022

Basis for Disagreement: Resolution of this EOI does not explain why the interrupting current required for buses F, G, and H changed between Rev. 0 and Rev. 1, nor does it address the generic implications of the EOI

ITR 24

Area of Disagreement: Resolution of EOI 8022

Basis for Disagreement: Resolution of this EOI does not discuss the significance, in terms of reduced safety margin, of using manufacturer tests to establish interrupting capacity, rather than using nameplate rating

ITR 24

Area of Disagreement: Resolution of EOI 8045

Basis for Disagreement: The resolution of this EOI does not address the potential for common-mode failure in the 125V dc diesel engine starting circuits. Neither does it address the potential generic implications of this EOI

ITR 25

Area of Disagreement: Resolution of EOI's 8063, 8011, and 8044

Basis for Disagreement: Resolution of these EOI's does not address their potential generic implications, or why such implications should be considered resolved

ITR 26

Area of Disagreement: Resolution of EOI 8041

Basis for Disagreement: Resolution of this EOI fails to address the root cause and the generic implications of the undetected error

ITR 27

Area of Disagreement: Resolution of EOI's 8051 and 8059

Basis for Disagreement: The resolution of these EOI's fails to address the root causes of the EOI's and their generic implications

ITR 28

Area of Disagreement: Resolution of EOI 8053

Basis for Disagreement: Resolution of this EOI does not show that other such errors could not affect the quality standards applied to other equipment in other systems

ITR 28

Area of Disagreement: Resolution of EOI 8056

Basis for Disagreement: Resolution of this EOI fails to show that the CRVP system was the only system for which Class 1E equipment was omitted from the EQ report

ITR 28

Area of Disagreement: Resolution of EOI 8059

Basis for Disagreement: Resolution of this EOI fails to verify that the as-built wiring is in accordance with PG&E's wiring system

ITR 50

Area of Disagreement: Analysis of seventh item of PG&E/BNL disagreement.

Basis for Disagreement: The ITR fails to indicate or specify which spectra are correct, or why.

ITR 50

Area of Disagreement: Resolution of PG&E/BNL disagreements.

Basis for Disagreement: The ITR does not consider or resolve the generic implications of the differences between the BNL and Blume spectra.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL 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.

CERTIFICATION

I, Susan L. Durbin, hereby certify:

1. I am one of the attorneys for Governor George Deukmejian in the above-entitled matter and, as such, am authorized to execute this certification.

2. I have read the foregoing Governor Deukmejian's First Supplemental Answers to Applicant's First Set of Interrogatories and know the contents thereof.

3. I am informed and believe said answers to be true and correct.

I certify under penalty of perjury that the foregoing is true and correct.

Executed at Los Angeles, California, on August 19,
1983.

Susan L. Durbin

SUSAN L. DURBIN

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

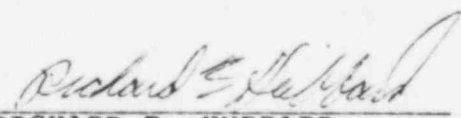
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

AFFIDAVIT OF RICHARD B. HUBBARD

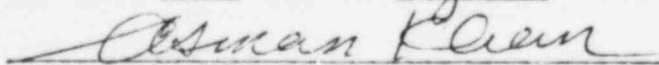
FOR GOVERNOR GEORGE DEUKMEJIAN

RICHARD B. HUBBARD, being duly sworn, do say under oath that I, the undersigned have assisted in preparing and reviewing supplemental responses number 3, 5, 6, 7, and 14 of Governor Deukmejian to Pacific Gas and Electric Company's First Set of Interrogatories, dated June 10, 1983. Said answers are true and correct to the best of my knowledge and belief.



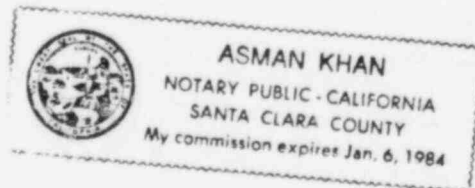
RICHARD B. HUBBARD

Subscribed and sworn to before
me this 18th day of August, 1983.



NOTARY PUBLIC

My Commission expires: Jan 6, 1984



BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

Docket Nos. 50-275
50-323

Jose W. Roerich

Signed: Jose M. Roesset