2.5 Trace gas radiative forcing indices

Chapter 3 Observed climate variability and change

Chapter 4 Climate processes

Chapter 5 Climate models—validation

Chapter 6 Climate models projections of future climate

Chapter 7 Changes in sea-level

Chapter 8 Detection of climate change, and attribution of causes

Chapter 9 Terrestrial biotic responses to environmental change and feedbacks to climate

Chapter 10 Marine biotic responses to environmental change and feedbacks to climate

Chapter 11 Advancing our understanding

III. Public Availability of Comments

Subsequent to the US assembly of its comments, all comments received will be available for public inspection in the NSF Library, which is located on the second floor of the NSF building at 4201 Wilson Boulevard, Arlington, VA (adjacent to the Ballston Metro station). Robert W. Corell,

Assistant Director for Geosciences, NSF, and Chair, Subcommittee on Global Change Research.

[FR Doc. 95–10933 Filed 5–3–95; 8:45 am] BILLING CODE 7555–01–M

NUCLEAR REGULATORY COMMISSION

Final Disposition of SEP Lessons-Learned Issues; Issued

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of issuance.

SUMMARY: The Nuclear Regulatory Commission (NRC) has issued Generic Letter 95–04 which informs licensees of nuclear power reactors about the final disposition of the 27 lessons-learned issues found in the Systematic Evaluation Program (SEP). This generic letter is available in the Public Document Rooms under accession number 9504210293.

DATES: The generic letter was issued on April 28, 1995.

ADDRESSES: Not applicable.

FOR FURTHER INFORMATION CONTACT: Sheri R. Peterson at (301) 415–2752.

SUPPLEMENTARY INFORMATION: None.

Dated at Rockville, MD, this 28th day of April, 1995.

For the Nuclear Regulatory Commission. **Brian K. Grimes**,

Director, Division of Project Support, Office of Nuclear Reactor Regulation.

[FR Doc. 95–11028 Filed 5–3–95; 8:45 am] BILLING CODE 7590–01–M

[Docket Nos. 50-361 and 50-362]

Southern California Edison, et al.; San Onofre Nuclear Generating Station, Units 2 and 3, Issuance of Director's Decision Under 10 CFR 2.206

Notice is hereby given that the Director, Office of Nuclear Reactor Regulation, has acted on a Petition for action under 10 CFR 2.206 received by Ted Dougherty, dated August 10, 1994, for the San Onofre Nuclear Generating Station, Units 2 and 3.

The Petitioner requested that the NRC cause the shutdown and dismantlement of the San Onofre Nuclear Generating Station because of concerns regarding (1) the vulnerability of the San Onofre Nuclear Generating Station to earthquakes because of nearby fault lines and (2) a newspaper article concerning the threat of vehicle bombs and the Commission's recent rule requiring nuclear generating plants to install antiterrorist barriers within 18 months.

The Director of the Office of Nuclear Reactor Regulation has determined that the request should be denied for the reasons stated in the "Director's Decision Under 10 CFR 2.206" (DD–95–06), the complete text of which follows this notice, and which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document room located at the University of California Main Library, P.O. Box 19577, Irvine, California 92713.

A copy of this Decision has been filed with the Secretary of the Commission for the Commission's review in accordance with 10 CFR 2.206(c) of the Commission's regulations. As provided by this regulation, this Decision will constitute the final action of the Commission 25 days after the date of issuance unless the Commission, on its own motion, institutes review of the Decision within that time.

Dated at Rockville, Maryland, this 27th day of April 1995.

For the Nuclear Regulatory Commission. William T. Russell,

Director, Office of Nuclear Reactor Regulation.

I. Introduction

On August 10, 1994, Mr. Ted Dougherty (the Petitioner) submitted a letter to the Nuclear Regulatory Commission (the Commission or NRC) requesting a shutdown of the San Onofre Nuclear Generating Station (SONGS). The Commission determined to act on this request pursuant to 10 CFR 2.206. The request was based on concerns regarding the vulnerability of SONGS to earthquakes because of the existence of nearby fault lines, and concerns regarding the defensibility of SONGS to a terrorist threat.

On September 22, 1994, I informed the Petitioner that the Petition had been referred to this Office for action pursuant to 10 CFR 2.206 of the Commission's regulations. I also informed the Petitioner that the NRC would take appropriate action within a reasonable time regarding the Petitioner's request.

My Decision in this matter follows.

II. Background

The Petitioner provided as basis for the request (1) a letter to the Governor of California wherein the Petitioner expressed concerns regarding the vulnerability of SONGS to earthquakes and (2) a *Los Angeles Times* article concerning the threat of vehicle bombs and the Commission's recent rule requiring nuclear generating plants to install antiterrorist barriers within 18 months.

III. Discussion

A. Vulnerability of SONGS to Earthquakes

The Petitioner asserts that SONGS is vulnerable to a deep ocean quake as well as a magnitude 8 earthquake (or greater) on the Newport-Inglewood fault. He asserts that human error following an earthquake of this magnitude could result in failure of the plant's safety systems to protect the plant, thereby resulting in a meltdown.

Before licensing SONGS (and all nuclear plants), the NRC reviewed the design of the facility including its ability to withstand the effects of natural phenomena such as earthquakes, tornadoes, and hurricanes without loss of capability to perform the safety functions. Appendix A (Criterion 2) to 10 CFR part 50 states that the design basis for the nuclear power plant should reflect the most severe of the natural phenomena that have been historically

reported for the site and surrounding area, the combinations of the effects of normal and accident conditions with the effects of the natural phenomena, and the importance of the safety functions to be performed. Appendix A to 10 CFR part 100, "Seismic and Geologic Siting Criteria for Nuclear Power Plants," Section III(C), requires that the nuclear power plant's design bases for earthquakes be determined through evaluation of the geologic and seismic history of the nuclear power plant site and surrounding region. The purpose of this determination is to estimate the magnitude of the strongest earthquake that might affect the site of a nuclear power plant during its operating lifetime, the earthquake postulated for the seismic design of a plant, called the Safe Shutdown Earthquake (SSE), defines the maximum ground motion for which certain nuclear power plant structures, systems and components necessary for safe operation and shutdown are designed to remain functional (e.g., for decay heat removal after the reactor is shutdown).

The San Onofre Nuclear Generating Station (SONGS) site had undergone geologic and seismic investigations and reviews prior to issuance of the construction permits including surveys performed by the applicant, the United States Geological Survey, the California Division of Mines and Geology, and the National Oceanic and Atmospheric Administration. The findings of these investigations were reviewed extensively by the staff and were litigated extensively in proceedings concerning the issuance of the construction permits 1 and operating licenses 2 for SONGS Units 2 and 3.

The Petitioner asserts that SONGS is vulnerable to a deep ocean quake. There are a number of offshore faults in the coastal waters off of Southern California. Of greatest concern to the San Onofre site is an offshore structure beginning with the Newport-Inglewood Zone of Deformation near Long Beach, passing the site about 8 kilometers offshore and extending south to the San Diego area as the Rose Canyon Fault

Zone.³ This entire structure is known as the Offshore Zone of Deformation (OZD).⁴ The Atomic Safety and Licensing Board determined, during the 1982 operating license proceeding, that, based on historic earthquake data, the distinctive geology of the area, and prevailing stresses in the earth's crust, the controlling feature for San Onofre is the OZD.⁵

The Petitioner asserts that SONGS is vulnerable to a magnitude 8 or greater earthquake on the Newport-Inglewood Fault. The largest earthquake known to have occurred on that fault is the 1933 Long Beach earthquake which was a magnitude 6.3.6 Testimony presented during the operating license proceeding concluded that the features of the OZD, its geologic strain rate, regional tectonic setting, and absence of extensive and/or through-going fault rupture in nearsurface strata along much of the OZD, all support earthquakes of less than about a magnitude 7.7 In addition, the NRC staff concluded, based on an evaluation of historical seismicity of the OZD and an evaluation of the fault parameters, that a maximum magnitude of 7.0 is based upon a reasonable and conservative interpretation of all available geological and seismological information.8 The Atomic Safety and Licensing Board 9 as well as the Atomic Safety and Licensing Appeal Board 10 concluded that a magnitude 7 earthquake on the OZD is appropriately conservative.11 The Petitioner has not provided any basis to support the likelihood of magnitude 8 or greater earthquake on the Newport-Inglewood Fault or call into question the conclusion of the Atomic Safety and

Licensing Board and the Atomic Safety and Licensing Appeal Board.

The Petitioner expresses concern that panic caused by an earthquake could result in a meltdown due to human error. The ability of a nuclear power plant to resist the forces generated by the ground motion during an earthquake is incorporated in the design and construction of the plant. Industry codes and practices that govern the design and construction of nuclear power plant structures and components are far more stringent than those used for residential and commercial buildings. As a result, nuclear power plants are able to resist earthquake ground motions well beyond their design bases and well beyond the ground motion that would result in damage to commercial buildings.

As a safety requirement, nuclear power plants have strong ground motion seismic instruments in and near the sites. If the ground motion at a site exceeds a specified level, which is onehalf or less of the Safe Shutdown Earthquake, the plant is required to shut down (10 CFR 100, Appendix A, V, (a)(2)). As a defense-in-depth design feature, SONGS has a automatic seismic scram system to shut down the reactors when the ground motion exceeds a conservatively selected threshold value. 12 Prior to resuming operations following plant shutdown as the result of an earthquake, the licensee is required to demonstrate to the Commission that no functional damage has occurred to those plant features necessary for continued safe operation.

In summary, based on exhaustive seismic and geologic investigations performed for the SONGS site, which has been subjected to extensive litigation, the seismic design basis for the plant is reasonably conservative.

The Petitioner has failed to provide an adequate basis for his concern regarding the seismic adequacy of SONGS and, accordingly, has not raised any substantial health or safety issue that would call into question the safe operation of SONGS.

B. Threat of Vehicle Bombs

The Petitioner asserts that SONGS is not defensible from terrorists. The Petitioner bases this assertion on a newspaper article (*Los Angeles Times*, August 4, 1994) concerning the threat of vehicle bombs at nuclear plants and the Commission's recent rule requiring nuclear plants to install anti-terrorist barriers within 18 months.

¹ See Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP– 73–36, 6 AEC 929 (1973), and ALAB–248, 8 AEC 957 (1974).

² See Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP–82–3, 15 NRC 61 (1982); ALAB–673, 15 NRC 688 (1982); ALAB–717, 17 NRC 346 (1983); and see Carstens v NRC, 742 F.2d 1546 (D.C. Cir. 1984), cert denied 471 U.S. 1136 (1985) (the Court of Appeals affirmed the Commission's granting of the operating licenses for SONGS Units 2 and 3, noting the voluminous record and substantial evidence supporting the seismic review).

³ See Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP–82–3, 15 NRC 61, at 68 (1982).

⁴ Id

⁵ Id., at 69.

⁶ Id., at 104.

⁷ Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB– 673, 15 NRC 688, 709 n. 40 (1982).

⁸ NUREG-0712, "Safety Evaluation Report Related to the Operation of San Onofre Nuclear Generating Station, Units 2 and 3," Section 2.5.2.3.4, February 1981.

⁹ See Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP– 82–3, 15 NRC 61, at 86 (1982).

¹⁰ Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 364-65 (1983)

¹¹ The Petitioner also provided a scenario of the effects on the Los Angeles area of a magnitude 6 earthquake on the Newport-Inglewood Fault followed by a magnitude 8 earthquake. The Petitioner has failed to provide any basis to support this scenario. The staff reviewed this scenario and determined that, based on the investigations and reviews discussed above, it has no basis in scientific theory or physical possibility.

¹² NUREG-0741, "Technical Specifications San Onofre Nuclear Generating Station Unit 2," Table 3.3.1 February 1982; and NUREG-0952, "Technical Specifications San Onofre Nuclear Generating Station Unit 3,", Table 3.3.1, November 1982.

The Commission's regulations regarding physical protection of nuclear plants are set forth in 10 CFR part 73. The regulations require a physical protection system designed to protect against acts of radiological sabotage or theft of special nuclear material based on certain design basis threats. The design basis threats for radiological sabotage defined in 10 CFR part 73.1(a)(1) include "a determined, violent, external assault." The potential threat posed by malevolent use of vehicles as part of a violent external assault and the need to protect against it, were the subject of detailed analysis before the NRC published its regulations on design basis threat. However, the use of a land vehicle bomb was not initially included in the design basis threat for radiological sabotage.

The newspaper article cited by the Petitioner describes two events that occurred in February 1993: a forced vehicle entry into the protected area at Three Mile Island (TMI), Unit 1, and a van bomb which was detonated in a public underground parking garage at the World Trade Center in New York City. As a result of these events, the Commission directed the NRC staff to reevaluate and, if necessary, update the design basis threat for vehicle intrusions and the use of vehicle bombs.

In its subsequent review of the threat environment, the NRC staff concluded that there is no indication of an actual vehicle threat against the domestic commercial nuclear industry (59 FR 3889, August 1, 1994). Nonetheless, in light of the above recent events, the NRC staff concluded that a vehicle intrusion or bomb threat to a nuclear power plant could develop without warning in the future. Therefore, on August 1, 1994, the Commission published in the Federal Register (59 FR 38889), a final regulation to amend its physical protection regulation for operating nuclear power reactors. The amendments modified the design basis threat for radiological sabotage to include use of a land vehicle by adversaries for transporting personnel and their hand-carried equipment to the proximity of vital areas and to include a land vehicle bomb (see 10 CFR 73.1(a)(1)(i)(E) and (iii)).

All operating commercial nuclear power plants, including SONGS Units 2 and 3, must comply with the modified design basis threat. This amended rule requires reactor licensees to install vehicle control measures, including vehicle barrier systems, to protect against the malevolent use of a land vehicle by February 29, 1996 (see 10 CFR 73.55(c)(9)). A description of the proposed vehicle control measures for

all operating commercial power reactors was required to be submitted to the Commission by February 28, 1995, for review. The licensee for SONGS submitted its proposed measures on February 24, 1995, and they are currently being reviewed by the NRC staff.

The security program at SONGS has consistently demonstrated superior performance and continues to exceed regulatory requirements. In addition to the normal NRC inspection activities of the SONGS security program, and Operational Safeguards Response Evaluation (OSRE) was conducted with the assistance of members of the U.S. Army Special Forces. One objective of the OSRE is to evaluate the licensee's abilities to respond to an external threat. The OSRE team concluded that SONGS had an excellent contingency response capability.

The Petitioner has failed to provide an adequate basis for asserting that the plant is not defensible. The petitioner cited a newspaper article as basis for his allegation. The article does not provide any information that is new or different than that already considered by the Commission. The staff has concluded that the Petitioner has not raised a significant health or safety issue.

IV. Conclusion

The NRC staff has reviewed the basis and justification stated to support the Petitioner's request that the NRC take appropriate actions to cause the shutdown and dismantling of SONGS. This review did not reveal any substantial safety issues that would call into question the continued safe operation of SONGS.

The institution of proceedings in response to a request pursuant to Section 2.206 is appropriate only when substantial health and safety issues have been raised. See Consolidated Edison Co. of New York (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, (1975), and Washington Public Power Supply System (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). This standard has been applied to determine whether any action in response to the Petition is warranted. For the reasons discussed above, no basis exists for taking any action in response to the Petition as no substantial health or safety issues have been raised by the Petition. Accordingly, no action pursuant to Section 2.206 is being taken in this matter.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 CFR 2.206(c). As provided by this regulation, the

Decision will constitute the final action of the Commission 25 days after issuance, unless the Commission, on its own motion, institutes a review of the Decision within that time.

Dated at Rockville, Maryland this 27th day of April 1995.

For the Nuclear Regulatory Commission.

William T. Russell,

Director, Office of Nuclear Reactor Regulation.

[FR Doc. 95–11030 Filed 5–3–95; 8:45 am]

[Docket No. 030-31609 License No. 37-28496-01 (Revoked) EA 94-253]

McCormick, Taylor, And Associates, Inc., Philadelphia, Pennsylvania; Order Imposing A Civil Monetary Penalty

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McCormick, Taylor and Associates, Inc. (MTA) (Licensee) was the holder of Byproduct Materials License No. 37–28496–01 (License) issued by the Nuclear Regulatory Commission (NRC or Commission) on October 31, 1979. The License was revoked by the Commission on August 13, 1992 for nonpayment of fees. The License authorized MTA to possess and use certain byproduct materials in accordance with the conditions specified therein at its facility in Philadelphia, Pennsylvania.

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An inspection of MTA's activities was conducted on December 2, 1994, at MTA's facility located in Philadelphia, Pennsylvania. The results of the inspection and review of communication (and associated documents) conducted between NRC and MTA between August 13, 1992, and November 19, 1994, indicated that MTA had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon MTA by letter dated February 13, 1995. The Notice states the nature of the violations, the provisions of the NRC requirements that MTA had violated, and the amount of the civil penalty proposed for one of the violations.

MTA responded to the Notice in two letters, both dated March 10, 1995. In its responses, MTA admits the violations as stated in the Notice and requests mitigation of the penalty.

III

After consideration of MTA's responses and the statements of fact, explanation, and arguments for