

COPY

DAVID R. PIGOTT
EDWARD B. ROGIN
SAMUEL B. CASEY
Of ORRICK, HERRINGTON & SUTCLIFFE
A Professional Corporation
600 Montgomery Street
San Francisco, California 94111
Telephone: (415) 392-1122

CHARLES R. KOCHER
JAMES A. BEOLETTO
SOUTHERN CALIFORNIA EDISON COMPANY
P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770
Telephone: (213) 572-1212

Attorneys for Applicants
Southern California Edison Company,
San Diego Gas & Electric Company,
City of Anaheim, California and
City of Riverside, California

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-361 OL
)	50-362 OL
SOUTHERN CALIFORNIA)	
EDISON COMPANY, <u>ET AL.</u>)	APPLICANTS' COMMENTS ON
)	ADEQUACY OF EXISTING
(San Onofre Nuclear Generating)	PUBLIC NOTIFICATION
Station, Units 2 and 3).)	SYSTEM IN SAN CLEMENTE,
)	<u>CALIFORNIA.</u>
)	

Pursuant to Order (Soliciting Comments on Siren Coverage In San Clemente) ("Order") of the Atomic Safety and Licensing Board) ("Board"), dated May 14, 1982, SOUTHERN CALIFORNIA EDISON COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY, AND THE CITIES OF ANAHEIM AND RIVERSIDE, CALIFORNIA

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("Applicants") hereby reply to the five questions posed by the Board in response to the letter, dated April 26, 1982, to the NRC from the Mayor of San Clemente ("Letter"). The due date for these comments was extended by the Board to June 8, 1982.

I.

PRELIMINARY STATEMENT

The adequacy of the siren system was before this Board as one of the emergency planning issues heard by the Board during the period August 25, to September 29, 1981.^{1/} The Board found the system to be appropriately designed but conditioned full power operation of SONGS 2 on NRC Staff confirmation that the siren system has been successfully tested (Initial Decision ("ID"), pp. 55-56; 170-172; 214.) Siren tests were conducted during the week of January 24, 1982 and on May 24, 1982. As of the date of this document it is Applicants' understanding that confirmation of test results is in progress by the NRC Staff.

1/ CONTENTION 2:

Whether there is reasonable assurance that the emergency response planning and capability of implementation for SONGS 2 and 3, affecting the offsite transient and permanent population will comply with 10 C.F.R. ¶ 50.47(a)(1) and (b) or (c)(1) as regards:

* * * * *

- B. the means for notification and instruction to the populace within the plume exposure pathway Emergency Planning Zone, 10 C.F.R. ¶ 50.47(b)(5).

As will be discussed herein, Applicants have upgraded the siren system since the close of hearing September 29, 1981 and the tests of January 1982. It is Applicants' position that the existing siren system meets the requirements of 10 C.F.R. § 50.47(b)(5) and Appendix E, Part D.3. This compliance has been confirmed by actual system tests. Any minor shortcomings in the acoustic output of the siren system can and will be met by compensatory actions until such time as the necessary acoustic output has been achieved. Applicants do not consider supplementary systems to be either necessary or appropriate.

II.

THE EXISTING SIREN SYSTEM MEETS REGULATORY REQUIREMENTS

The existing siren system is installed and has been tested. Initial tests were conducted during the week of January 24, 1982. The detailed results of those tests are set forth in "Performance Test Report, Prompt Alerting System for San Onofre Nuclear Generating Station". A copy of said report is submitted herewith as Attachment A. As more particularly described in the "Affidavit of T. James DuBois in Support of Applicants' Comments on Adequacy of Existing Public Notification System in San Clemente, California," which is filed herewith, some deficiencies were determined to exist in the system as originally constructed. Subsequent to the discovery of such deficiencies, a remedial program was

commenced which included replacing 39 of the 40 sirens. On May 24, 1982 there was conducted a second test of the system. The results of that test are described in the above-referenced affidavit of Mr. DuBois and are more particularly described in "Acoustical Test and Prompt Alerting System for San Onofre Nuclear Generating System (Test Date: May 24, 1982)". A copy of said report is submitted herewith as Attachment B.

The guidance provided by Appendix 3 of NUREG-0654/FEMA - REP - 1 (Rev. 1), Criteria For Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants provides that the target level for the design of an adequate siren system is 10 dB above average daytime ambient background. Where no field surveys have been proposed, Appendix 3 provides that 50 dB should be used as a conservative estimate of average daytime ambient in areas with population below 2,000 people per square mile. At San Onofre, Applicants have based the signal-to-noise ratio on measured ambients at each location.

The map attached to Mr. DuBois' affidavit as Exhibit A shows two areas within San Clemente where a 60 dB(C) signal level was not achieved. At one location, where the signal level was recorded as 57 dB, the signal-to-noise ratio was 18 dB and this conforms with design guidance. There remains but one area within San Clemente that is not in full compliance. Having identified this area,

Applicants will arrange for special compensating action to remedy this deficiency until such time as the siren output can be improved to the required acoustic level.

Based on the results of the two tests, and recognizing that interim compensating measures may be necessary at one location in San Clemente, Applicants contend that the system meets regulatory requirements, especially within the City of San Clemente.

III.

ISOLATED DEFICIENCIES IN ACOUSTICAL OUTPUT WILL BE COMPENSATED FOR BY ALTERNATE INTERIM MEASURES

As previously stated and as described in Mr. DuBois' affidavit, pages 5-7, some deficiencies in acoustic output have been identified. For these areas, interim compensating action can and will be taken until the appropriate acoustic level has been achieved. Interim measures will be such as those described in Paragraph G 11 of the Initial Decision (ID, p. 172). Inasmuch as the deficient areas have been identified and are small, Applicants see no reason why appropriate interim measures cannot be implemented.

IV.

SUPPLEMENTARY NOTIFICATION SYSTEMS ARE UNNECESSARY AT SAN ONOFRE

In response to concerns first raised by the City of San Clemente as long ago as October, 1981, Applicants have extensively examined the NOAA-type tone alert system as an

alternative or supplement to the existing siren system in San Clemente. Applicants have no knowledge of ever informing the City of San Clemente that the NRC "would not allow" a NOAA-type tone alert system. Rather, it has been Applicants' consistent advice to San Clemente that such a system would neither replace the need for a siren system nor satisfy applicable NRC regulations and guidance due to the inherent coverage limitations and technical difficulties associated with such a system.

Applicants have prepared two separate studies of NOAA-type systems. The first report, "SONGS Evacuation Warning System Evaluation of Use of Radio Alert Systems" was compiled by Southern California Edison Company in October, 1981 and was subsequently submitted to the City of San Clemente in November, 1981. A copy of said report is submitted herewith as Attachment C. The key conclusions of this initial study were:

1. The system does not provide adequate coverage of the population of the EPZ. An additional transmitter must be installed in order to provide coverage throughout the EPZ, including San Clemente. Reception is affected by weather conditions, barriers, metal shielding and radio traffic. Further, the nature of the system is such that notification is limited to those who are indoors, in the room with the radio receiver and awake. Accordingly, the system is not adequate as a primary notification system in the EPZ.

2. The system is subject to false activation, by spurious signals such as ham operators, sonic garage door openers, etc.

No broadcast would be transmitted during false operation, but the receiver must be reset.

3. The system is not accessible to in-place testing, inspection and maintenance. To provide coverage for the EPZ, at least 15,000 tone alert receivers would be required. NUREG-0654 criteria would require periodic testing and inspection of these receivers in place. The logistical problems associated with scheduling appointments with residents could be increasingly complicated, expensive, ineffective, and could be viewed as an intrusion of privacy.

4. The life of tone alert receivers is dependent on the use or abuse of the receiver. To assure reliability, the receiver would be replaced or maintained every five to seven years. This would equate to the possible replacement of 15,000 receivers eight times in the life of San Onofre, or 3,000 receivers per year.

5. The system is not cost-effective for dense population areas. The cost of the radio receivers could run in excess of \$1.5 million but provide limited effectiveness for the reasons described above. For areas in which 36 residences or more are to be covered, sirens are the most cost-effective means of alerting the public.

Applicants have also conducted a follow-up survey of forty-five (45) utilities owning or operating 55 nuclear facilities throughout the United States to confirm the validity of its initial study. This informal survey, "Memorandum for File, Radio Tone Alert System" is submitted herewith as Attachment D. The results of this survey may be summarized as follows:

1. Only Georgia Power Company (HATCH) uses NOAA radio tone alert system as the exclusive means to alert the public within the EPZ.
2. Nine facilities use sirens with NOAA radio tone alert systems as the means to alert the public within the EPZ. The use of NOAA radio tone alert systems is limited to: a) areas with low population density or a limited number of structures to be covered; and b) selected institutions (i.e. hospitals, schools).
3. Existing NOAA broadcast facilities do not cover the entire cities of San Clemente or San Juan Capistrano within the 10 mile EPZ.
4. Additional transmitters would be required to cover the EPZ.
5. NOAA radio tone alert receivers cost between \$23 ad \$285.
6. The industry has no uniform maintenance program for the radio tone alert receivers or the overall alert systems.
7. There are no NRC-approved alert systems to date. Systems have been tested and reports submitted to various FEMA regions but no system has been approved.

Applicants have concluded that a NOAA-type radio alert system is not an appropriate or cost-effective means of public notification in San Clemente. By comparison with areas of less than 30 structures per square mile where such systems have been shown effective, San Clemente is an area of relatively dense population with well in excess of 35 structures per square mile.

San Clemente's concern regarding a "cablevision override system" is very recent. Applicants were first informed of this idea by letter dated March 11, 1982 from R. J. Coleman, a copy of which is submitted herewith as Attachment E. The letter concedes that cablevision override would not eliminate the need for sirens. The cablevision system provides very limited coverage since it requires that the television is turned on and is being watched. Such a system is currently not available in San Clemente. Applicants understand that such a system may require additional transmission equipment and FCC approval.

In view of the existence of an adequate siren system, Applicants see no physical or regulatory reason to construct additional, less effective systems. Additionally, the EBS System will provide equal or better information to a broader audience.

V.

CONCLUSION

Applicants contend that the existing siren system, as tested, meets the requirements of 10 C.F.R. § 50.47(b)(5) and Appendix E, Part D,3. Applicants recognize the presence of localized deficiencies and, as contemplated by the regulations (10 C.F.R. § 50.47(a)(1)), are taking appropriate interim compensating actions pending completion of corrective action.

Applicants consider the addition of NOAA-type or cablevision override systems to be redundant and unnecessary.

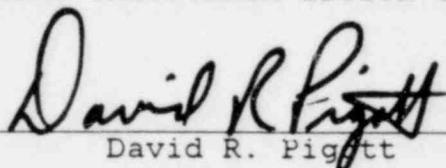
Applicants do not consider any of the items raised by the City of San Clemente to warrant this Board's further involvement. The NRC Staff is currently reviewing the siren system in order to make the confirmation required by this Board in its Initial Decision. Any deficiencies in the early warning system can be identified and remedied through NRC Staff audit and enforcement procedures. This Board should defer further review and action on this issue to the NRC Staff.

Dated: June 7, 1982

Respectfully submitted

DAVID R. PIGOTT
EDWARD B. ROGIN
SAMUEL B. CASEY
Of ORRICK, HERRINGTON & SUTCLIFFE
A Professional Corporation

CHARLES R. KOCHER
JAMES A. BEOLETTO
SOUTHERN CALIFORNIA EDISON COMPANY

By 
David R. Pigott

Attorneys for Applicants
Southern California Edison Company,
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