April 30, 2002

Mr. Harold B. Ray
Executive Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, CA 92674-0128

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3 - ISSUANCE OF AMENDMENTS ON VENTILATION SYSTEM FILTER TESTING PROGRAM (TAC NOS. MB4219 AND MB4220)

Dear Mr. Ray:

The Commission has issued the enclosed Amendment No. 187 to Facility Operating License No. NPF-10 and Amendment No. 178 to Facility Operating License No. NPF-15 for San Onofre Nuclear Generating Station, Units 2 and 3, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated March 21, 2001, and as supplemented by letters dated October 24, 2001, and March 14, 2002. Your October 24, 2001, application superseded in its entirety your initial application dated March 21, 2001.

The amendments revise TS 5.5.2.12, “Ventilation Filter Testing Program.” Specifically the revision changes reference to the American Society of Mechanical Engineers (ASME) Code ASME N510-1989 to the American National Standards Institute (ANSI) Standard ANSI N510-1975. You requested this change to clarify the methodology used to test the Control Room Emergency Air Cleanup System and Post-Accident Cleanup Filter System High Efficiency Particulate Air filters.

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

Alan Wang, Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-361 and 50-362

Enclosures: 1. Amendment No. 187 to NPF-10
2. Amendment No. 178 to NPF-15
3. Safety Evaluation

cc w/encls: See next page

April 30, 2002

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Executive Vice President
Southern California Edison Company
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P.O. Box 128
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Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-361 and 50-362
Enclosures: 1. Amendment No. 187 to NPF-10
2. Amendment No. 178 to NPF-15
3. Safety Evaluation

TS: ML021210010 (AMD 187)
ML021230021 (AMD 178)
PKG: ML021200304

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DATE	4/13/02	4/17/02	04/03/02	04/08/02	04/15/02	4/26/02

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SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2

DOCKET NO. 50-361

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 187
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Southern California Edison Company, et al. (SCE or the licensee), dated March 21, 2001, and as supplemented by letters dated October 24, 2001, and March 14, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-10 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 187 are hereby incorporated in the license. Southern California Edison Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/
Stephen Dembek, Chief, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: April 30, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 187

FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE	INSERT
5.0-19c	5.0-19c

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

DOCKET NO. 50-362

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 178
License No. NPF-15

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Southern California Edison Company, et al. (SCE or the licensee) dated March 21, 2001, and as supplemented by letters dated October 24, 2001, and March 14, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-15 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 178, are hereby incorporated in the license. Southern California Edison Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Stephen Dembek, Chief, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: April 30, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 178

FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE	INSERT
5.0-19c	5.0-19c

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 187 TO FACILITY OPERATING LICENSE NO. NPF-10

AND AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE NO. NPF-15

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3

DOCKET NOS. 50-361 and 50-362

1.0 INTRODUCTION

By application dated March 21, 2001, as supplemented by letters dated October 24, 2001, and March 14, 2002, the Southern California Edison Company et al., (SCE or the licensee), requested an amendment to technical specification (TS), Section 5.5.2.12, "Ventilation Filter Testing Program (VFTP)," for the San Onofre Nuclear Generating Station (SONGS), Units 2 and 3. The licensee's October 24, 2001, application superseded in its entirety its initial application dated March 21, 2001, which was noticed in the *Federal Register* (FR) 66 FR 20010 dated April 18, 2001. The licensee's letter dated October 24, 2001, was noticed in 67 FR 7421 dated February 19, 2002. The licensee's letter dated March 14, 2002, provided supplemental information that was within the scope of the application and FR notice and did not change the NRC staff's initial no significant hazards consideration determination.

Currently, TS Section 3.7.11, "Control Room Emergency Air Cleanup System," and TS 3.7.14, "Fuel Handling Building Post-Accident Cleanup Filter System," require the Control Room Emergency Air Cleanup System (CREACUS) and Fuel Handling Building Post-Accident Cleanup Filter System (PACU) filters to be tested in accordance with the VFTP established in TS 5.5.2.12. TS Section 5.5.2.12 requires that certain aspects of the filter testing shall be in accordance with the U.S. Nuclear Regulatory Comission (NRC) Regulatory Guide (RG) 1.52, Revision 2 (Design, Inspection and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants); and American Society of Mechanical Engineers (ASME) N510-1989. However, the licensee states that the high efficiency particulate air (HEPA) filters for CREACUS and the fuel handling building PACU filters are tested in accordance with American National Standards Institute (ANSI) N510-1975. Therefore, the licensee proposed TS changes to clarify its VFTP, and to reflect its current filter testing practice.

Specifically, the licensee proposed the following TS changes:

(a) in TS 5.5.2.12 lead paragraph, delete reference to RG 1.52 and ASME N510-1989; the testing frequency will continue to be in accordance with RG 1.52, Revision 2;

(b) in TS 5.5.2.12a and TS 5.5.2.12b, refer to ANSI N510-1975 instead of ASME N510-1989, and add a clarification note regarding HEPA filter qualification and testing methodology;

(c) in TS 5.5.2.12c, include specific temperature and relative humidity for laboratory testing of charcoal adsorber samples;

(d) in TS 5.5.2.12d delete reference to RG 1.52 and ASME N510-1989.

2.0 EVALUATION

Atmosphere cleanup systems are included as engineered safety features (ESFs) in the design of light-water-cooled nuclear power plants to mitigate the radiological consequences of postulated accidents, primarily to remove radioactive iodine (both elemental iodine and organic iodides) and particulate matter (aerosols). ESF atmosphere cleanup systems are designed to operate under the environmental conditions that would be generated during and after design-basis accidents (DBAs). Typical ESF atmosphere cleanup systems (CREACUS and PACU) include prefilters, and HEPA filters, medium-efficiency postfilters, and iodine adsorption units. These filters are installed to remove particulate matter from the air stream.

The environmental operating conditions preceding postulated DBA conditions may affect the performance of ESF atmosphere cleanup systems during and following a DBA. The effects of environmental factors on the performance of the ESF atmosphere cleanup system are determined by scheduled periodic inspection and testing during operation. Such periodic inspection and testing during operation ensure that the ESF atmosphere cleanup system would function in a reliable manner and as designed during an accident.

RG 1.52 provides guidance and criteria acceptable to the NRC staff for implementing the NRC's regulations in Appendix A to 10 CFR Part 50 with regard to the design, inspection, and testing of air filtration and iodine adsorption units of ESF atmosphere cleanup systems. RG 1.52, Revision 2 incorporates by reference ANSI N510-1975 standard for the design and testing of ESF atmospheric cleanup systems. ANSI N510-1975 describes the methods for the field in-place testing of the nuclear air cleaning systems. The standard provides the basis for establishing that air flow and air flow characteristics of the system are adequate to achieve the desired air cleaning function and there is no bypass or leak which could compromise the desired function. The standard was approved by the ANSI on June 19, 1975, and designated as ANSI N510-1975. ASME N510-1989 is a later version of ANSI N510-1975.

ANSI N510-1975 Standard was the standard at the time of initial licensing of SONGS, Units 2 and 3. The plants' TSs issued with the original operating licenses were amended over the years. In 1996, as part of its conversion to an improved standard TSs, the licensee changed the laboratory testing method for the carbon samples from the charcoal adsorbers of the ventilation systems from ASTM D3803-1979 to ASTM D3803-1989. ASTM D3803-1989 provides specific guidance for the testing of charcoal filters using Dioctyle Phthalate (DOP).

The licensee also changed the in-place testing standard for the HEPA filters from ANSI N510-1975 to ASME N510-1989. NRC Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," recommended licensees adopt the ASTM D3803-1989 methodology for charcoal filter laboratory testing. The GL did not recommend adoption of the ASME N510-1989 Standard at that time for HEPA in-place filter testing. Thus, SONGS' TS change in 1996 for adopting ASME N510-1989 code for HEPA in-place filter testing was not based on the NRC's GL recommendation.

As discussed before, currently, SONGS tests the CREACUS and PACU HEPA filters to the ANSI N510-1975 Standard, instead of ASME N510-1989 Standard as required by the TSs. The licensee requested a TS change to eliminate this discrepancy between the TS requirements and the actual testing practice. The NRC staff had telephone discussions with the licensee on June 4, and 6, 2001, to obtain technical details regarding filter testing and to understand how testing performed in accordance with the ANSI N510-1975 Standard would satisfy the scope and intent of the ASME N510-1989 Standard. As a result of these discussions, by letter dated October 24, 2001, the licensee revised and superseded its initial application dated March 21, 2001.

SONGS' VFTP is documented in its Procedure 5023-V-9 and used DOP leak test methodology to satisfy the requirements of ANSI N510-1975, as required by TS 5.5.2.12.a, which was the current standard during plant startup. During that era of DOP testing, the DOP generator flow rates were lower than can be achieved today, thus requiring the use of the Alternate Shroud Method for large flow rate units such as the CREACUS. As a result, the licensee tested the HEPA filters using the Alternate Shroud Method (Shroud Method). The shroud method was omitted from ASME N510-1980, and its later versions, since it was no longer necessary as the high DOP generation rate needed for the units with high flow rate had become available. However, SONGS continued to use the shroud method per ANSI N510-1975 Standard Section 10.6. The alternate shroud test is the in-place testing of the bank by shrouding individual filters (or groups of filters) in the bank and subjecting only that portion of the bank to the DOP test one at a time. As each section of the bank is shown to be satisfactory, the shroud is moved from filter to filter until all the filters in the bank are tested. The shroud is designed so that the total filter (or groups of filters), including the gaskets, are subject to the test. Both ANSI N510-1975 Standard and ASME N510-1989 Methods use the same acceptance criteria for bypass leakage through the adsorber section of the HEPA filters. The ANSI N510-1975 Standard is actually more conservative in that ANSI N510-1975 Standard tests individual filters (or groups of filters), instead of testing the entire bank permitted by the ASME N510-1989 Standard. As both methods use the same acceptance criteria, the 1975 standard is actually more conservative. That is, if all the filters in the bank pass the 0.05 percent acceptance criterion, the entire bank is therefore going to pass the 0.05 percent criterion as well.

In its October 24, 2001 submittal, the licensee also stated it used the ANSI N510-1975 Standard for the following reasons:

- Testing the entire bank would require performing an air-aerosol mixing uniformity test, that would require an extensive back-fit of a distribution plenum to enable this testing. The test was found unnecessary since the existing system and test methods adequately demonstrate system operability.

- The original startup tests used the methodology outlined in the ANSI N510-1975 Standard to qualify the test method. The PACU filter units were qualified to and are tested to ANSI N510-1975.

- The new methods specified in ASME N510-1989 would require installation of new equipment and qualification of new test points which are currently not part of the SONGS design. Deviating from the ANSI N510-1975 Standard would require procedure changes and re-training of the staff.

- The TS testing is currently performed according to the ANSI N510-1975 Standard. The change reflects the established plant practice in testing HEPA filters for CREACUS and PACU units.

Based on its review of the licensee's submittal and RG 1.52 guidance, the NRC staff has determined that both ANSI N510-1975 Standard and ASME N510-1989 Methods use the same acceptance criteria for bypass leakage through the adsorber section of the HEPA filters. The ANSI N5-10-1975 Standard is actually more conservative in that ANSI N510-175 Standard tests individual filters (or groups of filters) instead of testing the entire bank permitted by the ASME N510-1989 Standard. As both methods use the same acceptance criteria, the 1975 standard is actually more conservative. The NRC staff's review finds that based on the fact that both methods use the same acceptance criteria, the ANSI N510-1975 Standard is reliable for the testing. Further, the testing frequency will continue to be in accordance with RG 1.52, Revision 2. Therefore, the NRC staff finds that filter testing in accordance with ANSI N510-1975 Standard provides reasonable assurance that SONGS' ESF atmospheric systems would mitigate the radiological consequences of postulated accidents and, therefore, the licensee's proposed TS change to change reference from ASME N510-1989 to ANSI N510-1975 Standard is acceptable.

The licensee's proposed change in TS 5.5.2.12 lead paragraph to delete reference to RG 1.52 and ASME N510-1989 is only editorial because each subsection in TS 5.5.2.12 contains the specific reference to the ANSI Standard, and including the ANSI Standard in the lead paragraph of TS 5.5.2.12 is redundant and not required.

With respect to the licensee's proposal to revise TS 5.5.2.12c for including specific temperature and relative humidity for laboratory testing of charcoal adsorber samples, the licensee follows the guidance in the NRC staff's GL 99-02 and the values specified are consistent with ASTM Standard D3803-1989. Therefore, the proposed change is acceptable.

The proposed Note 1 to TS 5.5.2.12 concerns sample and injection points qualification for in-place testing of HEPA filters and charcoal adsorbers in CREACUS and PACU. Based on the provisions of Section 10.4 of ASME N510-1989, the note allows replacement of DOP with a suitable alternate. The note is considered to be a clarification regarding the applicable standard for testing methodology and therefore is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (67 FR 7421 dated February 19, 2002). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Jin-Sien Guo

Date: April 30, 2002