



Southern California Edison Company

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May 31, 1994

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C.

Subject: **Docket Nos. 50-361 and 50-362**
Proposed Changes for SONGS Units 2 and 3 NPDES Permit Renewals
San Onofre Nuclear Generating Station Units 2 and 3

Pursuant to Appendix B of the Units 2 and 3 Technical Specifications, Section 3.2, Environmental Protection Plan, to Operating License Nos. NPF-10 and NPF-15 for San Onofre Units 2 and 3, respectively, enclosed is a copy of the proposed changes to the NPDES Permit Renewals for SONGS Units 2 and 3.

As required by the Technical Specifications, this application is being submitted to the NRC at the same time it is submitted to the permitting Agency.

If you require any additional information, please let me know.

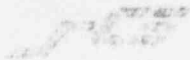
Sincerely,

cc: L. J. Callan, Regional Administrator, NRC Region IV
K. E. Perkins, Jr., Director, Walnut Creek Field Office, NRC Region IV
J. A. Sloan, NRC Senior Resident Inspector, San Onofre Units 2 & 3
M. B. Fields, NRC Project Manager, San Onofre Units 2 and 3

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Southern California Edison Company

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May 27, 1994

Mr. Arthur L. Coe, Executive Officer
California Regional Water Quality
Control Board, San Diego Region
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331

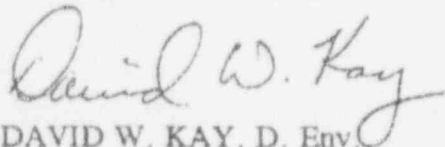
Dear Mr. Coe:

SUBJECT: COMMENTS ON TENTATIVE ORDER NOS. 94-49 AND 94-50 --
NPDES PERMIT RENEWALS FOR SAN ONOFRE NUCLEAR
GENERATING STATION (SONGS) UNITS 2 AND 3

We have reviewed the subject tentative draft permits and propose numerous changes which are attached. We notice the Unit 3 permit contains many changes over the previous permit, but these changes are not reflected in the Unit 2 permit, which should be nearly identical. We presume this is because the deadline to issue drafts for public comment arrived before your staff could complete their editing. Accordingly, many of our comments are minor editorial corrections aimed at consistency between the two permits and many of our comments can be applied to both of the permits. If a comment on the Unit 3 permit also applies to Unit 2, we provided a notation in parentheses. Text to be added is shown in *italics* and text to be deleted is shown in ~~strikethrough~~.

We look forward to an opportunity to discuss these comments with your staff prior to the June 9 Board meeting. Please call me at (818) 302-2149 if you have any questions.

Sincerely,



DAVID W. KAY, D. Env.
Sr. Environmental Specialist

Enclosure

cc: Ms. Debra Denton, U.S. EPA Region IX

bc: R.V.D. Reid (w/o att.)
H. W. Newton (w/c att.)
E. M. Goldin (w/o att.)
N. J. Mascolo
M. J. Johnson
R. S. Grove
K. T. Herbinson
K. C. Yhip
M. Goeders

SOUTHERN CALIFORNIA EDISON COMPANY
COMMENTS ON TENTATIVE ORDER NOS. 94-49 AND 94-50
NPDES PERMIT RENEWALS FOR
SAN ONOFRE NUCLEAR GENERATING STATION (SONGS) UNITS 2 AND 3

May 27, 1994

ORDER NO. 94-50, UNIT 3

1. **Finding No. 2, Page 1**

The finding should read the same as in the Unit 2 draft permit.

2. **Finding No. 3, Page 1**

The finding should contain the same language as the last paragraph for Finding No. 3 of the Unit 2 draft permit

3. **Finding No. 7, Page 2** (*comment also applies to Unit 2 permit*)

In the first sentence, insert the word "a" between the words "contain" and "fish". In the second sentence, change the word "consist" to "*consists*".

4. **Finding No. 11, Page 3** (*comment also applies to Unit 2 permit*)

At the end of the first sentence, change the Order No. "76-26" to "72-26".

5. **Finding Nos. 11-14, Page 3**

Delete the prefix "WQ" from the references to Order No. 73-5 throughout.

6. **Finding No. 18A, Page 4** (*comment also applies to Unit 2 permit*)

In this finding, reference is made to a report by SAIC under contract to EPA entitled "Review of Southern California Edison, San Onofre Nuclear Generating Station (SONGS) 316(b) demonstration". We obtained a copy of this report from EPA and were surprised to find SAIC's disclosure that it relied heavily on information from the Coastal Commission's Marine Review Committee (MRC) Final Report but completely excluded any review of the voluminous information submitted by SCE challenging the MRC's findings. Also, SAIC notes that the report is a draft which was apparently never finalized (copy of cover letter attached).

As you know, SCE provided the Regional Board with hundreds of pages of expert testimony which refuted many of the allegations made in the MRC report. Ultimately, the Regional Board agreed with SCE's arguments. Accordingly, we feel that reference to the SAIC report without the

above qualifications is a serious omission of facts. We propose that Finding 18A. be rewritten as follows to address this deficiency:

The general intent inherent to Section 316(b) appears to be satisfied by operations at Units 2 and 3. The available information indicates that the design, construction, location and operation of the intake reflects Best Available Technology (BAT). ~~However, information presented in the report "Review of Southern California Edison, San Onofre Nuclear Generating Station (SONGS) 316(b) demonstration" indicates that operations at SONGS do cause adverse impacts to organisms in not only the cooling water system of the facility but also various biological populations or communities in the vicinity of the intake/discharge locations for the station. These effects include mortality for fish, especially eggs and larvae, that are taken into the station with the cooling water, and creating a sometimes turbid plume that affects the kelp, fish, and invertebrates in the San Onofre kelp bed.~~

7. Finding No. 18.B(b), Page 4 (*comment also applies to Unit 2 permit*)

Change the last sentence to read as follows:

SCE shall meet the Coastal permit mitigation requirements **as presently constituted or as amended later** including (i) installing, ~~and~~ **maintaining, and evaluating** behavioral barriers ~~shall continue the current evaluation of the effect of mercury vapor lights at the fish evaluation location in the FRS,~~ (ii) restoring wetlands, and (iii) ~~construction~~ **constructing** an artificial kelp reef.

8. Finding No. 21, Page 5

In the first sentence, insert a comma (,) after the word "surfaces".

9. Finding No. 22, Page 5 (*comment also applies to Unit 2 permit*)

- (a) Item (b) should be changed from 'Component cooling water (24.5 MGD)' to "**Saltwater cooling system (49 MGD)**".
- (b) Item (g)(5) should read "Full flow condensate **polishing** demineralizer".
- (c) Delete the second sentence of the last paragraph which refers to the "flush hydrotest" system.

10. Finding No. 24, Page 6 (comment also applies to Unit 2 permit)

Change the paragraph to read as follows.

The component cooling water system (CCWS) is a closed loop system designed to remove heat from various reactor auxiliary systems. This system provides a radioactivity monitored intermediate barrier between the reactor auxiliary systems and the salt water cooling system. The salt water cooling system (SWCS) functions to remove heat from the CCWS, via a single-pass exchanger. An average flow rate of 24.5 49 MGD is discharged from the SWCS to Outfall 003 [002 in Unit 2 permit]. As shown in Attachment B, the CCWS, the system is withdrawn and returned (recirculated) to the condenser cooling water stream.

11. Finding No. 29, Page 7 (comment also applies to Unit 2 permit)

Delete the finding entirely. The flush and hydrotest waste stream no longer exists.

12. Finding No. 34, Page 8 (comment also applies to Unit 2 permit)

(a) Change the first sentence to read as follows:

The ~~coolant~~ radwaste system (CRS) provides radiological waste management.

(b) Change the last sentence to read as follows:

The maximum radiological wastewater discharge flow to Outfall 003 is ~~0.02~~ 0.2 MGD.

13. Finding No. 36, Page 8 (comment also applies to Unit 2 permit, Page 9)

(a) Change the fourth sentence to read as follows:

This system provides a radioactivity-monitored intermediate barrier between the closed loop CCWS and the SWCS, which removes heat from the CCWS, via a single-pass heat exchanger.

(b) Add the following sentence to the end of the paragraph:

During periods of discharge structure maintenance and emergencies, the SWCS may discharge through Outfall 005, the Across-the-Beach discharge point.

14. Finding No. 37, Page 8 (comment also applies to Unit 2 permit)

Change the word "grab" to "24-hour composite".

15. Finding No. 38, Pages 9-10 (Duplicate the table for Unit 2 permit)

(a) Label the table with the headings, "Parameter", "Monitored Use" and "Monitored Concentration, mg/l".

(b) Change the monitored use of Boric acid as follows:

used in the primary reactor coolant systems. ~~p~~Prior to discharge the borated water is treated to meet radiological and pH limits; steam generator corrosion control.

(c) Insert <0.1 as the monitored concentration of Ethylene glycol polymers.

(d) Add EDTA, a byproduct of mixed waste processing, at a concentration of <0.1 mg/l

(e) For the monitored use of Morpholine, delete the word "products" follows.

(f) For the monitored use and concentration of Phosphates, the word "steam" is misspelled.

(g) Change the monitored use of Potassium molybdate as follows follows:

water treatment for ~~high-voltage heat~~, ventilation, air conditioning system

(g) For the monitored use of Sodium hydroxide, the word "regenerants" is misspelled.

16. Finding No. 50.A., Page 13 (comment also applies to Unit 2 permit)

A balanced finding on the turbidity issue requires inclusion of SCE's position as well as that of the MRC. Change the paragraph in both permits to read as follows:

The Ocean Plan states that "natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste". The Marine Review Committee (MRC, 1989a) estimated that the average level of natural light at the bottom at stations downcoast from SONGS during a downcoast current was lowered by 6-16% relative to the level that would occur in the absence of SONGS ~~during a downcoast current~~. The results of the MRC study suggest that turbidity levels are increased by discharges from SONGS. SCE challenged the MRC assertions in its 1989 Annual Receiving Water Monitoring Report (SCE, 1990), contending that the measured differences in turbidity were not

significant and were due only to a redistribution of naturally occurring turbid water.

17. Finding No. 50.B, Page 13 (comment also applies to Unit 2 permit)

Change the finding to read as follows, for clarification:

Because of some remaining uncertainty as to the relative contribution of turbidity from operation of the SONGS ~~once through cooling systems intake structures~~. SCE shall perform a 1-year study to evaluate the impact of in-plant waste streams on the relative contribution of turbidity in the discharge. The study will consist of daily sampling from the station ~~in-plant intake and discharge structures~~ **conduits** and analysis of these samples for turbidity. The resulting data will be evaluated and submitted in a special report to the Executive Officer. Upon completion of this one-year study period, monitoring in the cooling water intake and combined discharge will revert to monthly sampling.

18. Finding No. 58, Page 14

This finding repeats Finding No. 52 and should be deleted and replaced with the language of Finding No. 66.

19. Finding No. 59, Page 15 (comment also applies to Unit 2 permit)

Add the following item (j):

(k) The results of SCE's annual receiving water monitoring studies.

20. Prohibition A.8., Page 16

Insert the word "/bromination" after the word "chlorination" in the last sentence.

21. Discharge Specification B.1., Page 16-18

(a) On Page 16 change the first sentence to read as follows:

The combined discharge, ~~discharge with~~ outfall 003, from SONGS Unit 3.....

(b) On Page 18, the table for acute and chronic toxicity limits should reference Endnote No. 13.

22. Discharge Specification B.7., Page 19

In the first sentence, the word "treatment" is missing the letter "t".

23. Discharge Specification B.12, Page 20 (comment also applies to Unit 2 permit, B.13, Page 21)

The word "polish" should be changed to "polishing".

24. Discharge Specification B.16., Page 22

The entire table should be deleted and replaced with that of Discharge Specification B.8, Page 22 of the Unit 2 draft permit.

25. Discharge Specification B (comment also applies to Unit 2 permit)

A new specification B.17 should be added to address the discharge for the Unit 1 and Mesa wastewater treatment plant effluents. Currently, the Unit 1 permit includes limits on Oil & Grease, Suspended Solids, Settleable Solids, Turbidity, pH and acute toxicity. Acute toxicity should be excluded since it is addressed elsewhere in the the new permit.

26. Heat Treatment Discharge Specification C.3, Page 23

In the third sentence, the degrees symbol (°) is illegible.

27. Receiving Water Limitation D.1.(c)(2), Page 25 (comment also applies to Unit 2 permit)

Change the sentence to read as follows:

The discharge shall not cause esthetically undesirable discoloration of the ocean surface **as a result of wastes added by the station.**

28. Receiving Water Limitation D.2., Page 27

Delete the radioactivity limits after the end of the table. They are addressed in D.1.(f).

29. Provision E.5(c), Page 28 (comment also applies to Unit 2 permit, E.4(c)), Page 30)

Delete this provision. SCE has withdrawn its 301(g) variance request.

30. Provision E.17.(a), Page 33 (comment also applies to Unit 2 permit, B.16.(a), Page 35)

In the last sentence, the word "careless" is missing a letter "e".

31. Provision E.18., Page 34 (comment also applies to Unit 2 permit, E.17., Page 36)

Change the paragraph to read as follows:

In accordance with Section 316(b) of the Clean Water Act (33 U.S.C. 1251 et seq.) the location, design, construction, and capacity of SONGS Unit F-2 3 cooling water intake structure ~~shall reflect~~ **reflects** the best technology available for minimizing adverse environmental impact. The discharger shall comply with any standards and guidelines which may be established by EPA pursuant to Section 316(b) of the Clean Water Act. The discharger shall conduct such ~~studies~~ **activities** as described in Finding ~~22~~ 18.B to demonstrate compliance with Section 316(b) of the Clean Water Act.

32. Reporting Requirement F.1.(f), Page 34 (comment also applies to Unit 2 permit, Page 37)

Change the sentence to read as follows:

Any planned physical alterations or additions to the permitted facility **which result in a material change of the character, amount or location of the waste discharge.**

33. Reporting Requirement F.4.(e), Page 36 (comment also applies to Unit 2 permit, Page 38)

Delete this requirement. The Regional Board staff has traditionally not required that SCE report within 24 hours minor exceedances of effluent limitations. Such exceedances are routinely reported in the monthly monitoring report along with an explanation of the cause of the exceedance and measures undertaken to prevent a recurrence. These instances are covered by Monitoring Provision A.13. in the Monitoring and Reporting Program.

34. Reporting Requirement F.5.(a)(1) and (2), Page 36

The unit abbreviation for micrograms per liter is $\mu\text{g/l}$, not mg/l .

35. Endnote 12, Page 42 (comment also applies to Unit 2 permit, Page 45)

Change the endnote to read as follows:

The monthly median in this case refers to a calendar month, except in cases where a TUC of greater than 10.0 is observed during a given month. In that case, the monthly median refers to a running month, or 30-day moving average.

36. **Endnote 13.b., Page 43** (*comment also applies to Unit 2 permit, Page 45*)

The last sentence should read as follows.

The chronic toxicity objective is expressed as $10.0 \pm TUC$ based on a monthly median.

37. **Endnote 17, Page 43** (*comment also applies to Unit 2 permit, Page 46*)

Change the sentence to read as follows:

A "significant difference" is defined as a **biological or physical impact causing degradation and a statistically significant difference** in the means of two distributions of sampling results at the 95 percent confidence level.

MONITORING AND REPORTING PROGRAM NO. 94-50, UNIT 3

1. **Monitoring Provision A.3., Page 1** (*comment also applies to Unit 2 permit*)

This provision is obsolete and should be deleted entirely. In response to your letter dated October 2, 1990 (attached) SCE conducted a thorough evaluation of flow measurement devices and methods at SONGS Units 1, 2 and 3 and provided a report to you on January 8, 1991 (also attached). We presume this report addressed to your satisfaction the accuracy of flow measurement techniques at SONGS. This provision therefore no longer serves any useful purpose.

2. **Monitoring Provision A.4., Page 2** (*comment also applies to Unit 2 permit*)

In the first sentence, add a letter "s" to the end of the word "State" and change the word "Protected" to "Protection".

3. **Monitoring Provision A.6., Page 2** (*comment also applies to Unit 2 permit*)

Monitoring results are also reported to EPA on preprinted DMR forms.

4. **Monitoring Provision A.8., Page 3** (*comment also applies to Unit 2 permit*)

In the last sentence, change the second and third uses of the word "of" to "or".

5. **Monitoring Provision A.12., Page 3** (*comment also applies to Unit 2 permit*)

Delete this provision. It is a duplicate of Provision A.25 on Page 7.

6. **Monitoring Provision A.13., Page 3** (*comment also applies to Unit 2 permit*)

The two references to "F.6" should be changed to "F.4".

7. **Monitoring Provision A.14., Page 3**

The reference to "F.15" should be changed to "F.10".

8. **Monitoring Provision A.17(b), Page 4** (*comment also applies to Unit 2 permit*)

Change the word "difference" to "differences".

9. **Monitoring Provision A.18., Page 5** (*comment also applies to Unit 2 permit*)

Insert the unit "MPN" after the value "16,000".

10. **Monitoring Provision A.20., Page 5** (*comment also applies to Unit 2 permit*)

In the second sentence, change the term "24-hour composite" to "grab". This is consistent with chronic toxicity sampling and with the requirements on other dischargers.

11. **Monitoring Provision A.21., Page 6** (*comment also applies to Unit 2 permit*)

Change the last sentence as follows:

The chronic toxicity limitation is: 1) a monthly median expressed as $10.0 \pm \text{Tuc}$ or....

12. **Monitoring Provision C. - Cooling Water Intake Monitoring, Page 8** (*comment also applies to Unit 2 permit*)

Change the footnote to read as follows.

* Turbidity may be measured more frequently during the first year, based on ~~the outcome of the study design as discussed in~~ ~~finding 51-B~~ 50.B of the Order. After the first year, turbidity shall be measured monthly.

13. **Monitoring Provision D. - Combined Discharge Monitoring, Page 9** (*comment also applies to Unit 2 permit*)

- (a) In the table, change the frequency of the Turbidity entry from Daily to Monthly for consistency with the associated footnote.
- (b) Change the first footnote to read as follows:

- * Turbidity may be measured more frequently during the first year, based on ~~the outcome of the study design as discussed in finding 51-B~~ 50.B of the Order. After the first year, turbidity shall be measured monthly.

In the second footnote, the word "reduction" is misspelled.

14. **Monitoring Provision E. - In-Plant Waste Streams Monitoring, Page 10** (*comment also applies to Unit 2 permit*)

- (a) Delete the first four parameters from the table (Flow, TSS, Oil & Grease, and pH). These parameters are analyzed monthly in each individual low volume waste stream under Monitoring Provision F, Low Volume Wastes Monitoring (Page 13). Therefore, their inclusion in the table under Provision E is duplicative.
- (b) The sample type for all remaining constituents in this table should be *a flow-weighted composite*, not a grab sample. This is the requirement under the current permit and will allow for adequate monitoring of the wastes through a single analysis, rather than ten individual analyses.

15. **Monitoring Provision F. - Low Volume Wastes Monitoring, Page 13** (*comment also applies to Unit 2 permit*)

Add pH to this table of analytical parameters.

16. **Monitoring Provision G. - Fish Handling System Monitoring, Page 13** (*comment also applies to Unit 2 permit*)

Change the term "fish handling systems" to "Fish Return System".

17. **Monitoring Provision H.1., Receiving Water Monitoring, Fish Populations, Page 13** (*comment also applies to Unit 2 permit*)

Change the term "thermographs" to "temperature recording devices".

18. **Monitoring Provision H.3., Receiving Water Monitoring, Fish Populations, Page 14** (*comment also applies to Unit 2 permit*)

The word "quarterly" is misspelled.

19. **Table 1, Page 17** (*comment also applies to Unit 2 permit*)

Include Kelp Density and Kelp Monitoring in this summary table.

20. Endnote No. 7, Page 18 (*comment also applies to Unit 2 permit*)

Change the paragraph to read as follows:

Samples shall be collected and analyzed for total residual chlorine/~~bromine and free available chlorine~~ at times when the concentration of total residual chlorine/~~bromine and free available chlorine~~ in the combined discharge is the greatest. The times of uninterrupted chlorine/~~bromine~~ discharges on the days the samples are collected and the times at which the samples are collected shall be reported.

References to free available chlorine need to be deleted since it is not possible to analyze for free available chlorine in seawater.

21. Endnote No. 8, Page 19 (*comment also applies to Unit 2 permit*)

The chronic toxicity limitation is: 1) a monthly median expressed as $10.0 \pm T_{uc}$ or....

22. Endnote No. 10, Page 19 (*comment also applies to Unit 2 permit*)

- (a) Delete entry No. 2 for flush hydrotest and storage tank draindown.
- (b) Entry No. 6 should read "full flow condensate polishing demineralizer".

ORDER NO. 94-49, UNIT 2

1. Finding No. 1, Page 1

Delete the reference to San Diego Gas and Electric Company and replace it with (hereinafter discharger).

2. Finding No. 3, Page 1

At the end of the third sentence, delete the words, "and cooling for certain maintenance".

3. Finding No. 22, Page 5

- (a) Item (a)(1), the "flush hydrotest" system, should be replaced with "thermophilic digester".

- (b) In the last paragraph, the fifth sentence should read as follows:

Domestic sewage generated at SONGS and the Mesa facility is treated at an activated sludge sewage treatment plant at SONGS Unit 1 *or the Mesa plant* prior to discharge thru Outfall 001, 002, or 003.

- (c) In the last paragraph, delete the last sentence that refers to a separate NPDES permit for outfall 004.

4. **Finding 23, Page 6**

Insert the words "or bromine" after the word "chlorine"

5. **Finding No. 36, Page 9**

This finding should read the same as that in the Unit 3 permit, including the changes noted above.

6. **Finding No. 38, Pages 9-10**

The table should exactly duplicate that in the Unit 3 permit including the changes noted above.

7. **Finding No. 65, Page 16**

Delete this finding entirely. It is not applicable to the Unit 2 permit.

8. **Prohibition A.8., Page 16**

The paragraph should read as follows for consistency with the Unit 3 Permit:

Total residual chlorine/*bromine* may not be discharged from any single generating unit for more than two hours per day unless the Discharger demonstrates to the permitting authority that discharge for more than two hours is required for macroinvertebrate control. *Simultaneous multi-unit chlorination/bromination is permitted.*

9. **Discharge Specification B.2., Page 19**

The first sentence should read the same as the Unit 3 permit:

As a result of wastes added by the station the SONGS Unit 3 discharge to the Pacific Ocean shall be essentially free of:

10. **Discharge Specification B.7., Page 20**

Replace the existing language with that from B.7 of the Unit 3 permit, Page 19.

11. Discharge Specification B.8., Page 22

This specification should be renumbered as 17

12. Discharge Specification B.10, Page 20

This and all following specifications need to be renumbered

13. Heat Treatment Discharge Specification C, Page 24

In the first sentence, change the section reference from B.9 to B.7

14. Heat Treatment Discharge Specification C.4, Page 24

Delete this specification. It applied to plant startup and is obsolete

15. Receiving Water Limitation D.2., Page 29

Replace the table with that from the Unit 3 permit, Receiving Water Limitation D.2., Page 26-27.

16. Reporting Requirement F.6.

There is no F.6. The requirements jump from F.5. to F.7.

MONITORING AND REPORTING PROGRAM NO. 94-49, UNIT 2

1. Title Page

On the title, change the EPA I.D. No. to CA0108073 and change from "Unit 3" to "Unit 2".

2. Monitoring Provision A.14., Page 3

The reference to "F.15" should be changed to "F.11".