

11(1183

ERRATA
UNIT 1

- ✓ 1. Line 5, Page E, of Appendix E, should be changed from Figure 14 to Figure 8.
- ✓ 2. Line 1, Part II-A.10 (Page 8) of the report, Results and Discussion, reads: "Rabbits were caught north and northeast of the site...." It should be corrected to read: "Rabbits were caught east of the site...."
- ✓ 3. Bottom of Page H-0, Appendix H should include the following:

"LEGEND

Asterisks (*) in the data tables indicate analyses not performed or not required."

- ✓ 4. Results of jackrabbit sampling data, although evaluated and summarized in Part II-A.10 (page 8) of the report were not included in Appendix A (Program Data Summary) and in Appendix H (raw data). That data is attached to this letter and should be included in the report. (Pages A-63, and H-44)

8. Local Crops

Local crops collected semi-annually at harvest time, were analyzed for tritium, strontium and underwent gamma spectral analyses. All measurements were below the lower limits of detection levels except for very small quantities of strontium-90 observed at a control location (south southeast of Oceanside). Kale analyzed from this location had an activity level of 0.27 nCi/kg wet in the month of June. December analysis showed Sr-90 activity of 0.014 nCi/kg wet for SSE of Oceanside (control) and 0.007 nCi/kg wet in cauliflower taken from San Clemente Ranch. The Sr-90 activity can be attributed to fallout and is not a result of plant operations.

The cosmically-produced Be-7 was observed in the above-described samples. The activities were 0.07 and 0.06 nCi/kg wet for kale from SSE of Oceanside and tomato from San Clemente Ranch respectively. The potassium-40 level was 1.6 to 1.8 nCi/kg wet in all samples. The results show that the plant operation has minimal effect on this environment.

9. Soil

Soil was sampled at five locations annually. Gamma spectral and strontium analyses were performed on all samples. The analyses showed small levels of cesium-137 in 3 of 5 samples (0.02 nCi/kg dry at Camp San Onofre, 0.03 nCi/kg dry at old Route 101 South East, and 0.12 nCi/kg dry for Huntington Beach control). These Cesium-137 activity levels were much lower than the reporting level. Small levels of Sr-90 were observed in all 5 samples (0.02-0.05) nCi/kg dry, probably the results of fallout. The range of the naturally-occurring K-40 was 7-23 nCi/kg dry. The maximum activities of naturally-occurring Ra-226 and Th-228 were 0.76 and 1.37 nCi/kg dry respectively. The results showed no significant difference in the levels of Cs-137 at the control and indicator stations, therefore indicating no plant effect. It is felt that there is no plant effect on the soil in the environment.

10. Jackrabbit

Rabbits were caught ^(east) ~~north and northeast~~ of the site during the year and analyzed by gamma spectrometry. Spectral analysis was performed on the flesh portion. Radioiodine analysis was conducted on the thyroid glands and Sr-89 and Sr-90 analyses were performed on the femur. No detectable levels of radioiodine, Sr-89, Sr-90, or Cs-137 were observed in any of the above organs, thus indicating no plant effect. The LLD for Cs-137 was 0.06 pCi/g flesh. The LLD for I-131 was 0.05 pCi/g in flesh.

11. Kelp

Kelp samples were collected semi-annually at three indicator stations and one control stations. Gamma spectral and tritium analyses were performed. No measurable activities were detected in all samples. Tritium analysis, bound and aqueous, yielded no detectable activity in any of the samples. Gamma spectral analysis did show the presence of K-40 in the range of 2.1 to 5.5 nCi/kg wet. For I-131, Cs-58, Cs-60, Ag-110m, and Cs-137, a radiochemical method was also used for verification of the presence of these radionuclides. The results showed no positive values. It is concluded that there are no detectable effects in kelp due to operation of San Onofre.

12. Marine Species

Edible marine species (sheepshead, black perch, spiny lobster, giant keyhole, bay mussel, and sea hare) were collected by the Ocean Science Laboratories of the Lockheed Corporation, and submitted to EAL Corporation for analysis. Radionuclides, such as Co-58, Co-60, Cs-134, Cs-137, and Ag-110m were observed in small quantities in a few species. Naturally-occurring K-40 ranged from 1.0 to 3.7 nCi/kg wet in flesh portion of the species. All the analyses meet the LLD requirements of the Environmental Technical Specifications (Appendix A). Cesium-137 level in different marine species varied from 0.003 to 0.012 nCi/kg wet weight basis. The highest value of 0.021 was found in spiny lobster caught around the SONGS Unit 1 outfall in the month of March. This value is approximately one percent of the ETS value (reporting level for Cs-137 is 2 nCi/kg wet). No detectable Cs-137 was observed in the shell or cartilage (bone) of the marine species analyzed. Cobalt-60 level in the marine species varied from 0.006 to 0.086 nCi/kg wet. The highest value of 0.086 was found in black perch caught around SONGS Unit 1 outfall in June 1982. This value is less than one percent of the ETS value (reporting level for Co-60 is 10 nCi/kg wet). The shell fraction of spiny lobster caught around SONGS 1 outfall showed maximum Co-60 concentration of 0.35 nCi/kg wet which is one percent of the reporting level. Co-58 was found in one of the spiny lobster species at a level of 0.01 nCi/kg which does not exceed the background (control) value of 0.014 nCi/kg wet weight. This value is less than 0.05 percent of the ETS reporting level (reporting level for Co-58 is 30 nCi/kg wet). Radiosilver-110m was found in some species and crustaceans (spiny lobster) in detectable level. The concentration level of Ag-110m ranged from 0.003 to 0.062 nCi/kg wet. The highest value of 0.062 was found in spiny lobster flesh caught around SONGS 1 outfall in the month of August. This value is less than one percent of the ETS

value (reporting level for Ag-110m is 8 nCi/kg wet). Silver-110m in bone and shell fraction varied from 0.016 to 0.064 nCi/kg wet. The maximum value of 0.064 was observed in spiny lobster shell caught around SONGS 1 outfall in the month of March, where the control location sample showed an activity of 0.014 nCi/kg wet. There were no other gamma emitters detected.

The bone fraction of the marine species did not contain any detectable Sr-90 activity. The lower limit of detection was 0.04 nCi/kg dry weight.

The marine species were analyzed for both aqueous and bound tritium. The two false positive values observed for bound tritium in black perch caught at SONGS 1 and 2/3 outfalls, in March, are believed to be attributable to chemical bioluminescence. The analytical method for measurement of bound tritium was changed partially and applied to subsequent analysis of marine species. None of the marine samples showed any positive activity after this modification. Aqueous tritium in the wet flesh of sheepshead varied from 0.08 to 0.14 nCi/kg. Black perch had an activity in the range 0.10 to 0.35 nCi/kg and in spiny lobster, it varied from 0.07 to 0.18 nCi/kg. Sea hare and bay mussel had 0.05 and 0.13 nCi/kg of aqueous tritium respectively. The maximum value found for aqueous tritium was 0.35 nCi/kg wet which is 0.01% of the ETS value (reporting level for tritium is 4,400 nCi/kg wet). It is concluded that the plant had minor impact on the marine environment and no significant difference was noted between the control and the indicator stations.

B. Conclusions

The variability of the levels of radioactivity in environmental media depend on many factors. These factors include site release rates; meteorology; number, location, and size of nuclear weapons testing; seasonal variability of fallout; soil conditions; local terrain; and variability in the natural environment.

Radiological environmental data, collected throughout 1982 have been evaluated to determine the environmental significance, if any, of San Onofre Operations. The following methods of evaluation were employed:

Compilation and verification of all data. A special listing and review were made of all data determined to be two times greater as compared to the background levels (control samples).

Graphical display and examination of time-dependent variations of the various pertinent radioisotopes and sample species throughout the year.

Graphical comparison of gross beta radioactivity and specific long-lived gamma emitters in various media in 1982 against the levels and annual variation in the pre-operational years 1965 and 1966.

Comparison of data against reportability levels contained in the plant Technical Specifications.

The question of the environmental significance of the radiological environmental findings is addressed by considering not only the existence and concentration of specific radionuclides in the various sample media, but also any evidence which would indicate that a buildup is in progress which could lead to future environmentally- significant levels.

By consideration of the findings relative to the conservatively-defined limits of the facility operating license, it is concluded that the radiological environmental impact of San Onofre Operations through 1982 has been negligible. In addition, no evidence indicating a pattern of significant buildup due to long-term operations was found.

REFERENCES

- (1) SONGS Unit 1 Radiological Environmental Monitoring Program, Annual Operating Reports (1978-1982)
- (2) SONGS 1 Annual Effluent Report (January 1981 - December 1982)
- (3) SONGS Unit 1 Radiological Environmental Monitoring Program, Supplement to the Annual Operating Report 1981
- (4) Draft ODCM, "Offsite Dose Calculation Manual for SONGS Unit 1," August 1982
- (5) USNRC Draft Regulatory Guide 4.8, "Standard Format and Principal Content of Environmental Technical Specifications," December 1975
- (6) USNRC Regulatory Guide 4.13, "Performance, Testing, and Procedural Specifications for Thermoluminescent Dosimetry - Environmental Applications," 1977
- (7) USNRC Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs," 1979
- (8) SONGS Unit 1 Provisional Operating License, DPR-13, Appendix B, Section 3.2, June 1977
- (9) Environmental Monitoring Program Plan and Procedures Manual (EMPP) for SONGS, Rev. 1982
- (10) "Drinking Water," SCE Technical Reports, Nuclear Analysis, NA1, 2, and 3, EM-01, September 1982
- (11) EAL Technical Procedures Manual, EAL Corporation, 1982
- (12) Study of Recent Trends of Cs-137 and Co-60 in Ocean Bottom Sediments in San Onofre Vicinity, SCE Technical Reports, Nuclear Analysis, NA1, EM-02, February 1983

APPENDIX A

PROGRAM DATA SUMMARY

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ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY
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Table no. 1a
Direct Radiation
Quarterly Composite
(millirem)

Gamma Exposure	236	5.0000	22.725(232/232) (13.700-38.200)	San Onofre State Beach (Unit 1) 0.2 mi. W	34.825(4/ 4) (30.100-38.200)	27.925(4/ 4) (25.600-29.600)	0
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Table no. 1b
Direct Radiation
Annual Composite
(millirem)

Gamma Exposure	59	5.0000	88.478(58/ 58) (63.700- 117.7)	San Onofre State Beach (Unit 1) 0.2 mi. W	117.7(1/ 1) (117.7- 117.7)	109.4(1/ 1) (109.4- 109.4)	0
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Table no. 2
Airborne
Weekly Composite
(pCi/cu. m)

Gross Beta	312	0.0010	0.0198(258/260) (0.003- 0.063)	Units 2/3 Switchyard 0.13 mi. ESE	0.0226(52/ 52) (0.010- 0.063)	0.0217(51/ 52) (0.005- 0.064)	0
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Table no. 3
Airborne
Weekly Composite
(pCi/cu. m)

I-131	312	0.0400	<LLD (0/260) ALL <LLD	-----	<LLD (0/ 52)	0
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Table no. 4a Airborne Quarterly Composite (pCi/cu. m)							
Ag-110m	24	0.0020	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Be-7	24	0.0060	0.0828(20/ 20) (0.055- 0.188)	Units 2/3 Switchyard 0.13 mi. ESE	0.1025(4/ 4) (0.061- 0.188)	0.0642(4/ 4) (0.034- 0.085)	0
Ce-141	24	0.0040	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Ce-144	24	0.0050	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Co-58	24	0.0020	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Co-60	24	0.0020	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Cs-134	24	0.0010	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Cs-137	24	0.0010	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
K-40	24	0.0200	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 4a
Airborne
Quarterly Composite
(pCi/cu. m)

Ru-103	24	0.0040	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0
Zr(Nb)-95	24	0.0040	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 4c Airborne Quarterly Composite (pci/cu. m)							
Gross Alpha	24	0.0003	0.0025(20/ 20) (0.001- 0.004)	Units 2/3 Switchyard 0.13 mi. ESE	0.0030(4/ 4) (0.002- 0.004)	0.0024(4/ 4) (0.001- 0.004)	0
Sr-90	24	0.0010	<LLD (0/ 20)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 5 Ocean Water Monthly Composite (pCi/l)							
Ag-110m	44	10	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Ce-141	44	15	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Ce-144	44	20	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Co-57	44	6.0000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Co-58	44	6.0000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Co-60	44	6.0000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Cs-134	44	6.0000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Cs-137	44	6.0000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Fe-59	44	20	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0

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Table no. 5 Ocean Water Monthly Composite (pCi/l)							
K-40	44	20	361.85(27/ 33) (280- 540)	Outfall - Unit 2 0.7 mi. SW	380(9/ 11) (320- 490)	345.56(9/ 11) (280- 510)	0
Mn-54	44	6.0000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Mo(Tc)-99m	44	2000	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Ra-226	44	15	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Ru-103	44	15	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Ru-106	44	30	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Th-228	44	20	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Zn-65	44	20	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0
Zr(Nb)-95	44	15	<LLD (0/ 33)	ALL <LLD	-----	<LLD (0/ 11)	0

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Table no. 6
Ocean Water
Bi-Monthly Composite
(pci/l)

Gross Beta	24	100	786.11(18/ 18) (640- 990)	Neuport Beach 30 mi. NW	841.67(6/ 6) (710- 1010)	841.67(6/ 6) (710- 1010)	0
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Table no. 7
Ocean Water
Quarterly Composite
(pci/l)

Tritium	12	100	<LLD (0/ 9)	ALL <LLD	-----	<LLD (0/ 3)	0
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Table no. 9a Drinking Water Monthly Composite (pci/l)							
Ag-110m	24	10	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Be-7	24	50	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Ce-141	24	15	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Ce-144	24	20	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Co-58	24	6.0000	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Co-60	24	6.0000	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Cs-134	24	6.0000	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Cs-137	24	6.0000	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
H-3	24	100	200(1/ 16) (200- 200)	Tri-Cities Munic. Water Dist. Res. 8.7 mi. NW	200(1/ 8) (200- 200)	<LLD (0/ 8)	0

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Table no. 9a
Drinking Water
Monthly Composite
(pCi/l)

Ru-103	24	15	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0
Zr(Nb)-95	24	15	<LLD (0/ 16)	ALL <LLD	-----	<LLD (0/ 8)	0

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Table no. 9b Drinking Water Monthly Composite (pCi/l)							
Gross Alpha	36	0.2000	0.4000(1/ 24) (0.400- 0.400)	Tri-Cities Munic. Water Dist. Res. 8.7 mi. NW	0.4000(1/ 12) (0.400- 0.400)	<LLD (0/ 12)	0
Gross Beta	36	0.1000	0.9917(24/ 24) (0.600- 2.000)	Tri-Cities Munic. Water Dist. Res. 8.7 mi. NW	1.1333(12/ 12) (0.600- 2.000)	1.0250(12/ 12) (0.600- 1.400)	0

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Table no. 9c Drinking Water Monthly Composite (pci/l)							
Gross Alpha	36	3.0000	<LLD (0/ 24)	Huntington Beach 37 mi. NW	3.0000(1/ 12) (3.000- 3.000)	3.0000(1/ 12) (3.000- 3.000)	0
Gross Beta	36	0.5000	13.792(24/ 24) (7.000-21.000)	Tri-Cities Munic. Water Dist. Res. 8.7 mi. NW	14.5(12/ 12) (8.000-21.000)	9.5833(12/ 12) (5.000-21.000)	0

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Table no. 9d
Drinking Water
Quarterly Composite
(pci/l)

Gross Alpha	12	0.2000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Gross Beta	12	0.1000	0.9625(8/ 8) (0.500- 2.400)	Tri-Cities Munic. Water Dist. Res. 8.7 mi. NW	1.3000(4/ 4) (0.500- 2.400)	0.9750(4/ 4) (0.800- 1.500)	0

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Table no. 9e Drinking Water Quarterly Composite (pCi/l)							
Ag-110m	12	15	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Be-7	12	100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Ce-141	12	60	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Ce-144	12	20	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Co-58	12	10	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Co-60	12	6.0000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Cs-134	12	6.0000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Cs-137	12	6.0000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Gross Alpha	12	3.0000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 9e
Drinking Water
Quarterly Composite
(pCi/l)

Gross Beta	12	0.5000	14.75(8/ 8) (11.000-20.000)	Tri-Cities Munic. Water Dist. Res. 8.7 mi. NW	15.75(4/ 4) (12.000-20.000)	9.7500(4/ 4) (7.000-12.000)	0
H-3	12	100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
RU-103	12	25	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
Zr(Nb)-95	12	30	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 10 Shoreline Sediment Semi-Annual Composite (pci/g)							
Ag-110m	8	0.0700	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Ce-141	8	0.0100	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Ce-144	8	0.2000	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Co-57	8	0.0500	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Co-58	8	0.0500	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Co-60	8	0.0500	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Cs-134	8	0.0500	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Cs-137	8	0.0500	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0
Fe-59	8	0.2000	<LLD (0/ 6) ALL <LLD		-----	<LLD (0/ 2)	0

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Table no. 10 Shoreline Sediment Semi-Annual Composite (pCi/g)							
I-131	8	0.0500	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
K-40	8	2.0000	15.667(6/ 6) (13.000-18.000)	Newport Beach (North End) 30 mi. NW	17.5(2/ 2) (15.000-20.000)	17.5(2/ 2) (15.000-20.000)	0
Mn-54	8	0.0500	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
Mo(Tc)-99m	8	300	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
Ra-226	8	0.0100	0.2800(6/ 6) (0.140- 0.570)	Newport Beach (North End) 30 mi. NW	0.9050(2/ 2) (0.540- 1.270)	0.9050(2/ 2) (0.540- 1.270)	0
RU-103	8	0.0100	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
RU-106	8	0.3000	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
Th-228	8	0.0100	0.3067(6/ 6) (0.120- 0.870)	Newport Beach (North End) 30 mi. NW	2.6650(2/ 2) (1.530- 3.800)	2.6650(2/ 2) (1.530- 3.800)	0
Zn-65	8	0.2000	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 10
Shoreline Sediment
Semi-Annual Composite
(pci/g)

Zr(Nb)-95	8	0.0100	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
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Table no. 11 Ocean Bottom Sediments Semi-Annual Composite (pCi/g)							
Ag-110m	10	0.0500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Ce-141	10	0.0800	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Ce-144	10	0.1500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Co-57	10	0.0400	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Co-58	10	0.0400	0.0900(1/ 8) (0.090- 0.090)	Unit 2 Outfall 0.8 mi. SSW	0.0900(1/ 2) (0.090- 0.090)	<LLD (0/ 2)	0
Co-60	10	0.0400	0.2867(3/ 8) (0.130- 0.580)	Unit 1 Outfall 0.5 mi. W	0.3550(2/ 2) (0.130- 0.580)	<LLD (0/ 2)	0
Cs-134	10	0.0400	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Cs-137	10	0.0400	0.0833(3/ 8) (0.050- 0.130)	Unit 1 Outfall 0.5 mi. W	0.1000(2/ 2) (0.070- 0.130)	<LLD (0/ 2)	0
Fe-59	10	0.1500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 11 Ocean Bottom Sediments Semi-Annual Composite (pCi/g)							
I-131	10	0.0400	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
K-40	10	1.5000	15.125(8/ 8) (14.000-19.000)	Unit 1 Outfall 0.6 mi. W	16.5(2/ 2) (14.000-19.000)	15(2/ 2) (13.000-17.000)	0
Mn-54	10	0.0400	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Mo(Tc)-99m	10	230	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Ra-226	10	0.0800	0.3500(8/ 8) (0.130- 0.670)	Unit 1 Outfall 0.5 mi. W	0.5150(2/ 2) (0.450- 0.580)	0.2850(2/ 2) (0.160- 0.410)	0
Ru-103	10	0.0800	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Ru-106	10	0.2000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
Th-228	10	0.0800	0.4075(8/ 8) (0.190- 0.810)	Unit 1 Outfall 0.5 mi. W	0.5650(2/ 2) (0.480- 0.650)	0.4300(2/ 2) (0.200- 0.660)	0
Zn-65	10	1.5000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 11
Ocean Bottom Sediments
Semi-Annual Composite
(pCi/g)

Zr(Nb)-95	10	0.0800	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 2)	0
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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
bay mussel	Ag-110m	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ce-141	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ce-144	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Co-57	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Co-58	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Co-60	4	0.0070	0.0133(3/ 4) (0.007- 0.021)	Units 2/3 Outfall 0.7 mi. SSW	0.0133(3/ 4) (0.007- 0.021)	<LLD (0/ 0)	0
bay mussel	Cs-134	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Cs-137	4	0.0030	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Fe-59	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
bay mussel	H-3 Aqueous	4	0.0500	0.1300(1/ 4) (0.130- 0.130)	Units 2/3 Outfall 0.7 mi. SSW	0.1300(1/ 4) (0.130- 0.130)	<LLD (0/ 0)	0
bay mussel	H-3 Bound	4	3.0000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	I-131	4	0.2000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	K-40	4	0.2000	1.5667(3/ 4) (1.400- 1.900)	Units 2/3 Outfall 0.7 mi. SSW	1.5667(3/ 4) (1.400- 1.900)	<LLD (0/ 0)	0
bay mussel	Mn-54	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Mo(Tc)-99m	4	10	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ra-226	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ru-103	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ru-106	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
bay mussel	Th-228	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Zn-65	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Zr(Nb)-95	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
black perch	Ag-110m	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Ce-141	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Ce-144	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Co-57	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Co-58	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Co-60	12	0.0070	0.0070(1/ 8) (0.007- 0.007)	Unit 1 Outfall 0.6 mi. WSW	0.0070(1/ 4) (0.007- 0.007)	<LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
black perch	Cs-134	12	0.0100	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Cs-137	12	0.0030	0.0070(8/ 8) (0.003- 0.013)	Units 2/3 Outfall 0.7 mi. SSW	0.0072(4/ 4) (0.003- 0.013)	0.0062(4/ 4) (0.004- 0.008)	0
black perch	Fe-59	12	0.0700	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	H-3 Aqueous	12	0.0500	0.1967(3/ 8) (0.100- 0.350)	Units 2/3 Outfall 0.7 mi. SSW	0.2250(2/ 4) (0.100- 0.350)	0.1100(1/ 4) (0.110- 0.110)	0
black perch	H-3 Bound	12	3.0000	75(2/ 8) (70.000-80.000)	Unit 1 Outfall 0.6 mi. WSW	80(1/ 4) (80.000-80.000)	<LLD (0/ 4)	0
black perch	I-131	12	0.2000	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	K-40	12	0.2000	2.9833(6/ 8) (2.500- 3.500)	Units 2/3 Outfall 0.7 mi. SSW	3.0333(3/ 4) (2.500- 3.500)	2.7333(3/ 4) (2.500- 2.900)	0
black perch	Mn-54	12	0.0100	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Mo(Tc)-99m	12	10	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)							
black perch	Ra-226	12	0.0300	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0
black perch	Ru-103	12	0.0300	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0
black perch	Ru-106	12	0.0700	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0
black perch	Th-228	12	0.0300	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0
black perch	Zn-65	12	0.0700	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0
black perch	Zr(Nb)-95	12	0.0300	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Ag-110m	4	0.0700	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Ce-141	4	0.0700	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Ce-144	4	0.0700	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pci/g) (flesh type)							
keyhole limpet	Co-57	4	0.0100	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Co-58	4	0.0100	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Co-60	4	0.0070	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Cs-134	4	0.0100	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Cs-137	4	0.0030	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Fe-59	4	0.0700	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	H-3 Aqueous	4	0.0500	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	H-3 Bound	4	3.0000	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	I-131	4	0.2000	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)							
keyhole limpet	K-40	4	0.2000	<LLD (0/ 0)	Newport Beach 30 mi. NW 1.0667(3/ 4) (1.000- 1.100)	1.0667(3/ 4) (1.000- 1.100)	0
keyhole limpet	Mn-54	4	0.0100	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Mo(Tc)-99m	4	10	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Ra-226	4	0.0300	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Ru-103	4	0.0300	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Ru-106	4	0.0700	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Th-228	4	0.0300	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Zn-65	4	0.0700	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0
keyhole limpet	Zr(Nb)-95	4	0.0300	<LLD (0/ 0)	ALL <LLD	----- <LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
sea hare	Ag-110m	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Ce-141	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Ce-144	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Co-57	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Co-58	4	0.0100	0.0230(2/ 4) (0.015- 0.031)	Unit 1 Outfall 0.6 mi. WSW	0.0230(2/ 4) (0.015- 0.031)	<LLD (0/ 0)	0
sea hare	Co-60	4	0.0070	0.0745(4/ 4) (0.067- 0.091)	Unit 1 Outfall 0.6 mi. WSW	0.0745(4/ 4) (0.067- 0.091)	<LLD (0/ 0)	0
sea hare	Cs-134	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Cs-137	4	0.0030	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Fe-59	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
sea hare	H-3 Aqueous	4	0.0500	0.0500(1/ 4) (0.050- 0.050)	Unit 1 Outfall 0.6 mi. WSW	0.0500(1/ 4) (0.050- 0.050)	<LLD (0/ 0)	0
sea hare	H-3 Bound	4	3.0000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	I-131	4	0.2000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	K-40	4	0.2000	1.5000(3/ 4) (1.200- 1.700)	Unit 1 Outfall 0.6 mi. WSW	1.5000(3/ 4) (1.200- 1.700)	<LLD (0/ 0)	0
sea hare	Mn-54	4	0.0100	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Mo(Tc)-99m	4	10	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Ra-226	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Ru-103	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Ru-106	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
sea hare	Th-228	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Zn-65	4	0.0700	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sea hare	Zr(Nb)-95	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
sheepshead	Ag-110m	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ce-141	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ce-144	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Co-57	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Co-58	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Co-60	12	0.0070	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
sheepshead	Cs-134	12	0.0100	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
sheepshead	Cs-137	12	0.0030	0.0081(8/ 8) (0.006- 0.011)	Units 2/3 Outfall 0.7 mi. SSW	0.0090(4/ 4) (0.008- 0.011)	0.0060(4/ 4) (0.005- 0.007)	0
sheepshead	Fe-59	12	0.0700	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
sheepshead	H-3 Aqueous	12	0.0500	0.0800(1/ 8) (0.080- 0.080)	Newport Beach 30 mi. NW	0.1250(2/ 4) (0.110- 0.140)	0.1250(2/ 4) (0.110- 0.140)	0
sheepshead	H-3 Bound	12	3.0000	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
sheepshead	I-131	12	0.2000	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
sheepshead	K-40	12	0.2000	3.3333(6/ 8) (3.100- 3.700)	Units 2/3 Outfall 0.7 mi. SSW	3.4667(3/ 4) (3.300- 3.700)	3.0333(3/ 4) (2.800- 3.300)	0
sheepshead	Mn-54	12	0.0100	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
sheepshead	Mo(Tc)-99m	12	10	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	

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Table no. 12a Non-Migratory Marine Quarterly Composite (pci/g) (flesh type)								
sheepshead	Ra-226	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ru-103	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ru-106	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Th-228	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Zn-65	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Zr(Nb)-95	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ag-110m	12	0.0700	0.1150(1/ 8) (0.115- 0.115)	Units 2/3 Outfall 0.7 mi. SSW	0.1150(1/ 4) (0.115- 0.115)	<LLD (0/ 4)	0
spiny lobster	Ce-141	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ce-144	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
spiny lobster	Co-57	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Co-58	12	0.0100	0.0180(1/ 8) (0.018- 0.018)	Unit 1 Outfall 0.6 mi. WSW	0.0180(1/ 4) (0.018- 0.018)	<LLD (0/ 4)	0
spiny lobster	Co-60	12	0.0070	0.0199(8/ 8) (0.007- 0.050)	Unit 1 Outfall 0.6 mi. WSW	0.0247(4/ 4) (0.012- 0.050)	<LLD (0/ 4)	0
spiny lobster	Cs-134	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Cs-137	12	0.0030	0.0076(5/ 8) (0.004- 0.012)	Newport Beach 30 mi. NW	0.0100(1/ 4) (0.010- 0.010)	0.0100(1/ 4) (0.010- 0.010)	0
spiny lobster	Fe-59	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	H-3 Aqueous	12	0.0500	0.0850(2/ 8) (0.070- 0.100)	Newport Beach 30 mi. NW	0.1800(1/ 4) (0.180- 0.180)	0.1800(1/ 4) (0.180- 0.180)	0
spiny lobster	H-3 Bound	12	3.0000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	I-131	12	0.2000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12a Non-Migratory Marine Quarterly Composite (pCi/g) (flesh type)								
spiny lobster	K-40	12	0.2000	3.0833(6/ 8) (2.600- 3.600)	Units 2/3 Outfall 0.7 mi. SSW	3.1000(3/ 4) (2.600- 3.600)	3.0000(3/ 4) (2.800- 3.100)	0
spiny lobster	Mn-54	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Mo(Tc)-99m	12	10	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ra-226	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ru-103	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ru-106	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Th-228	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Zn-65	12	0.0700	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Zr(Nb)-95	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)							
bay mussel	Ag-110m	4	0.0100	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ce-141	4	0.1000	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ce-144	4	0.1000	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Co-57	4	0.0300	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Co-58	4	0.0300	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Co-60	4	0.0100	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Cs-134	4	0.0300	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Cs-137	4	0.0300	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Fe-59	4	0.1000	<LLD (0/ 4) ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
bay mussel	I-131	4	0.3000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	K-40	4	0.2000	0.2500(2/ 4) (0.200- 0.300)	Units 2/3 Outfall 0.7 mi. SSW	0.2500(2/ 4) (0.200- 0.300)	<LLD (0/ 0)	0
bay mussel	Mn-54	4	0.0300	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Mo(Tc)-99m	4	60	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ra-226	4	0.0500	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ru-103	4	0.0500	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Ru-106	4	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Th-228	4	0.0500	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
bay mussel	Zn-65	4	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
bay mussel	Zr(Nb)-95	4	0.0600	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 0)	0
black perch	Ag-110m	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Ce-141	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Ce-144	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Co-57	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Co-58	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Co-60	12	0.0100	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Cs-134	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Cs-137	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
black perch	Fe-59	12	0.1000	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	I-131	12	0.3000	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	K-40	12	0.2000	0.8167(6/ 8) (0.500- 1.100)	Newport Beach 30 mi. NW	0.9667(3/ 4) (0.600- 1.600)	0.9667(3/ 4) (0.600- 1.600)	0
black perch	Mn-54	12	0.0300	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Mo(Tc)-99m	12	60	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Ra-226	12	0.0500	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Ru-103	12	0.0500	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Ru-106	12	0.1000	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	
black perch	Th-228	12	0.0500	<LLD (0/ 8)	ALL <LLD	----- <LLD (0/ 4)	0	

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
black perch	Zn-65	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
black perch	Zr(Nb)-95	12	0.0600	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Ag-110m	4	0.0100	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Ce-141	4	0.1000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Ce-144	4	0.1000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Co-57	4	0.0300	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Co-58	4	0.0300	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Co-60	4	0.0100	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Cs-134	4	0.0300	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
keyhole limpet	Cs-137	4	0.0300	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Fe-59	4	0.1000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	I-131	4	0.3000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	K-40	4	0.2000	<LLD (0/ 0)	Newport Beach 30 mi. NW	0.3000(1/ 4) (0.300- 0.300)	0.3000(1/ 4) (0.300- 0.300)	0
keyhole limpet	Mn-54	4	0.0300	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Mo(Tc)-99m	4	60	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Ra-226	4	0.0500	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Ru-103	4	0.0500	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Ru-106	4	0.1000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)							
keyhole limpet	Th-228	4	0.0500	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Zn-65	4	0.1000	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
keyhole limpet	Zr(Nb)-95	4	0.0600	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ag-110m	12	0.0100	<LLD (0/ 8) ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ce-141	12	0.1000	<LLD (0/ 8) ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Ce-144	12	0.1000	<LLD (0/ 8) ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Co-57	12	0.0300	<LLD (0/ 8) ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Co-58	12	0.0300	<LLD (0/ 8) ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Co-60	12	0.0100	<LLD (0/ 8) ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
sheepshead	Cs-134	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
sheepshead	Cs-137	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
sheepshead	Fe-59	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
sheepshead	I-131	12	0.3000	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
shcepshead	K-40	12	0.2000	0.8333(6/ 8) (0.400- 1.200)	Units 2/3 Outfall 0.7 mi. SSW	1.0333(3/ 4) (0.900- 1.200)	0.8000(3/ 4) (0.500- 1.000)	0
sheepshead	Mn-54	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
sheepshead	Mo(Tc)-99m	12	60	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
sheepshead	Ra-226	12	0.0500	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	
sheepshead	Ru-103	12	0.0500	<LLD (0/ 8)	ALL <LLD	-----<LLD (0/ 4)	0	

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Table no. 12b Non-Migratory Marine Quarterly Composite (pci/g) (bone type)								
sheepshead	Ru-106	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Th-228	12	0.0500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Zn-65	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
sheepshead	Zr(Nb)-95	12	0.0600	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ag-110m	12	0.0100	0.0542(8/ 8) (0.025- 0.100)	Units 2/3 Outfall 0.7 mi. SSW	0.0630(4/ 4) (0.034- 0.100)	<LLD (0/ 4)	0
spiny lobster	Ce-141	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ce-144	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Co-57	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Co-58	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b Non-Migratory Marine Quarterly Composite (pCi/g) (bone type)								
spiny lobster	Co-60	12	0.0100	0.0240(6/ 8) (0.015- 0.040)	Unit 1 Outfall 0.6 mi. WSW	0.0247(3/ 4) (0.015- 0.040)	<LLD (0/ 4)	0
spiny lobster	Cs-134	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Cs-137	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Fe-59	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	I-131	12	0.3000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	K-40	12	0.2000	2.2667(6/ 8) (1.700- 2.800)	Unit 1 Outfall 0.6 mi. WSW	2.3333(3/ 4) (2.100- 2.700)	2.0000(3/ 4) (1.500- 2.300)	0
spiny lobster	Mn-54	12	0.0300	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Mo(Tc)-99m	12	60	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ra-226	12	0.0500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 12b
Non-Migratory Marine
Quarterly Composite
(pci/g) (bone type)

spiny lobster	Ru-103	12	0.0500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Ru-106	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Th-228	12	0.0500	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Zn-65	12	0.1000	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0
spiny lobster	Zr(Nb)-95	12	0.0600	<LLD (0/ 8)	ALL <LLD	-----	<LLD (0/ 4)	0

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Table no. 13a Local Crops Semi-Annual Composite (pCi/g)								
cauliflower	Ag-110m	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Be-7	1	0.0400	0.0600(1/ 1) (0.060- 0.060)	San Mateo Canyon 2.6 mi. NW	0.0600(1/ 1) (0.060- 0.060)	<LLD (0/ 0)	0
cauliflower	Ce-141	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Ce-144	1	0.0200	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Co-58	1	0.0070	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Co-60	1	0.0070	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Cs-134	1	0.0050	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Cs-137	1	0.0050	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	I-131	1	0.0030	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 13a Local Crops Semi-Annual Composite (pCi/g)								
cauliflower	K-40	1	0.0700	2.8000(1/ 1) (2.800- 2.800)	San Mateo Canyon 2.6 mi. NW	2.8000(1/ 1) (2.800- 2.800)	<LLD (0/ 0)	0
cauliflower	Ru-103	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Zr(Nb)-95	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Ag-110m	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Ba-7	1	0.0400	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Ce-141	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Ce-144	1	0.0200	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Co-58	1	0.0070	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Co-60	1	0.0070	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0

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Table no. 13a Local Crops Semi-Annual Composite (pCi/g)								
cucumber	Cs-134	1	0.0050	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Cs-137	1	0.0050	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	I-131	1	0.0030	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	K-40	1	0.0700	1.8000(1/ 1) (1.800- 1.800)	San Mateo Canyon 2.6 mi. NW	1.8000(1/ 1) (1.800- 1.800)	<LLD (0/ 0)	0
cucumber	Ru-103	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Zr(Nb)-95	1	0.0100	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
kale	Ag-110m	2	0.0100	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 2)	0
kale	Be-7	2	0.0400	<LLD (0/ 0)	SE of Oceanside 22 mi. SE	0.0700(1/ 2) (0.070- 0.070)	0.0700(1/ 2) (0.070- 0.070)	0
kale	Ce-141	2	0.0100	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 13a Local Crops Semi-Annual Composite (pci/g)							
kale	Ce-144	2	0.0200	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	Co-58	2	0.0070	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	Co-60	2	0.0070	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	Cs-134	2	0.0050	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	Cs-137	2	0.0050	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	I-131	2	0.0030	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	K-40	2	0.0700	<LLD (0/ 0) SE of Oceanside 22 mi. SE	1.8500(2/ 2) (1.600- 2.100)	1.8500(2/ 2) (1.600- 2.100)	0
kale	Ru-103	2	0.0100	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0
kale	Zr(Nb)-95	2	0.0100	<LLD (0/ 0) ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 13a Local Crops Semi-Annual Composite (pCi/g)							
tomato	Ag-110m	4	0.0100	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Be-7	4	0.0400	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Ce-141	4	0.0100	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Ce-144	4	0.0200	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Co-58	4	0.0070	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Co-60	4	0.0070	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Cs-134	4	0.0050	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Cs-137	4	0.0050	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0
tomato	I-131	4	0.0030	<LLD (0/ 2) ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 13a Local Crops Semi-Annual Composite (pCi/g)								
tomato	K-40	4	0.0700	2.1500(2/ 2) (2.100- 2.200)	San Mateo Canyon 2.6 mi. NW	2.1500(2/ 2) (2.100- 2.200)	1.8500(2/ 2) (1.800- 1.900)	0
tomato	Ru-103	4	0.0100	<LLD (0/ 2)	ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Zr(Nb)-95	4	0.0100	<LLD (0/ 2)	ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 13b Local Crops Semi-Annual Composite (pCi/g)								
cauliflower	H-3 Aqueous	1	0.5000	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	H-3 Bound	1	0.5000	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cauliflower	Sr-90	1	0.0040	0.0070(1/ 1) (0.007- 0.007)	San Mateo Canyon 2.6 mi. NW	0.0070(1/ 1) (0.007- 0.007)	<LLD (0/ 0)	0
cucumber	H-3 Aqueous	1	0.5000	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	H-3 Bound	1	0.5000	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
cucumber	Sr-90	1	0.0040	<LLD (0/ 1)	ALL <LLD	-----	<LLD (0/ 0)	0
kale	H-3 Aqueous	2	0.5000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 2)	0
kale	H-3 Bound	2	0.5000	<LLD (0/ 0)	ALL <LLD	-----	<LLD (0/ 2)	0
kale	Sr-90	2	0.0040	<LLD (0/ 0)	SE of Oceanside 22 mi. SE	0.0205(2/ 2) (0.014- 0.027)	0.0205(2/ 2) (0.014- 0.027)	0

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Table no. 13b
Local Crops
Semi-Annual Composite
(pCi/g)

tomato	H-3 Aqueous	4	0.5000	<LLD (0/ 2)	ALL <LLD	-----	<LLD (0/ 2)	0
tomato	H-3 Bound	4	0.5000	<LLD (0/ 2)	ALL <LLD	-----	<LLD (0/ 2)	0
tomato	Sr-90	4	0.0040	<LLD (0/ 2)	ALL <LLD	-----	<LLD (0/ 2)	0

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Table no. 14 Soil Samples Annual Composite (pCi/g)							
Ag-110m	5	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
Be-7	5	0.3000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
Ce-141	5	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
Ce-144	5	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
Co-58	5	0.0500	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
Co-60	5	0.0500	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
I-131	5	0.5000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0
K-40	5	2.0000	14.375(4/ 4) (7.000-23.000)	Camp San Onofre MCB CAMPEN 2.5 mi. NE	23(1/ 1) (23.000-23.000)	21(1/ 1) (21.000-21.000)	0
Ru-103	5	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0

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Table no. 14
Soil Samples
Annual Composite
(pCi/g)

Sr-90	5	0.0100	0.0325(4/ 4) (0.020- 0.050)	Old Route 101 SE 3.0 mi. SE	0.0500(1/ 1) (0.050- 0.050)	0.0200(1/ 1) (0.020- 0.020)	0
Zr(Nb)-95	5	0.1000	<LLD (0/ 4)	ALL <LLD	-----	<LLD (0/ 1)	0

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Table no. 15 Kelp Semi-Annual Composite (pCi/g)							
macrocystis p.	Ag-110m	8	0.0200	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Ce-141	8	0.0200	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Ce-144	8	0.0200	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Co-57	8	0.0050	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Co-58	8	0.0040	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Co-60	8	0.0040	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Cs-134	8	0.0040	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Cs-137	8	0.0040	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0
macrocystis p.	Fe-59	8	0.0200	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0

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ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY
SAN ONOFRE NUCLEAR GENERATING STATION

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Docket No. 50-206
San Diego County, California

Reporting period: January 01, 1982 to December 31, 1982

Medium or Pathway Sampled (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean(f) Range	Location with Highest Annual Mean Name, Distance and Direction	Mean Mean(f) Range	Control Locations Mean(f) Range	Number of Nonroutine Reported Measurements	
Table no. 15 Kelp Semi-Annual Composite (pCi/g)								
macrocystis p.	H-3 Aqueous	8	0.0500	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	H-3 Bound	8	0.5000	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	I-131	8	0.0100	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	K-40	8	0.0400	4.1833(6/ 6) (2.100- 5.500)	San Onofre Kelp Bed 1.5 mi. S	5.3500(2/ 2) (5.200- 5.500)	3.5500(2/ 2) (2.400- 4.700)	0
macrocystis p.	Mn-54	8	0.0050	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	Mo(Tc)-99m	8	2.0000	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	Ra-226	8	0.0090	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	Ru-103	8	0.0090	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	
macrocystis p.	Ru-106	8	0.0200	<LLD (0/ 6)	ALL <LLD	----- <LLD (0/ 2)	0	

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ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY
SAN ONOFRE NUCLEAR GENERATING STATION

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Reporting period: January 01, 1982 to December 31, 1982

Medium or Pathway Sampled (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean(f) Range	Location with Highest Annual Mean Name, Distance and Direction	Mean(f) Range	Control Locations Mean(f) Range	Number of Nonroutine Reported Measurements
---	--	---	--	---	------------------	---------------------------------------	---

Table no. 15

Kelp
Semi-Annual Composite
(pCi/g)

macrocystis p.	Th-228	8	0.0090	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
macrocystis p.	Zn-65	8	0.0200	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0
macrocystis p.	Zr(Nb)-95	8	0.0100	<LLD (0/ 6)	ALL <LLD	-----	<LLD (0/ 2)	0

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY
SAN ONOFRE NUCLEAR GENERATING STATION

Docket No. 90-206
San Diego County, California

Reporting period: January 1, 1982 to December 31, 1982

Medium or Pathway (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Means (f) Range	Location with Highest Annual Mean Name, Distance and Direction	Mean (f) Range	Control Locations Mean (f) Range	Number of Nonroutine Reported Measurements
Table 16							
Blackrabbit							
pCi/g)							
Femur	Sr-89	2	(3)	<LLD (2/2)	A11 <LLD	----	0
	Sr-90	2	(2)	<LLD (2/2)	A11 <LLD	----	0
Thyroid	I-131	2	(5)	<LLD (2/2)	A11 <LLD	----	0
Flesh	Be-7	2	(0.3)	<LLD (2/2)	A11 <LLD	----	0
	Co-58	2	(0.06)	<LLD (2/2)	A11 <LLD	----	0
	Co-60	2	(0.06)	<LLD (2/2)	A11 <LLD	----	0
	Zr-Nb-95	2	(0.1)	<LLD (2/2)	A11 <LLD	----	0
	Ru-103	2	(0.06)	<LLD (2/2)	A11 <LLD	----	0
	Ag-110m	2	(0.06)	<LLD (2/2)	A11 <LLD	----	0
	I-131	2	(0.05)	<LLD (2/2)	A11 <LLD	----	0
	Cs-134	2	(0.06)	<LLD (2/2)	A11 <LLD	----	0
	Cs-137	2	(0.06)	<LLD (2/2)	A11 <LLD	----	0
	Ce-141	2	(0.2)	<LLD (2/2)	A11 <LLD	----	0
	Ce-144	2	(0.2)	<LLD (2/2)	A11 <LLD	----	0

11/1/83

APPENDIX-B

SAMPLE TYPE AND LOCATION

RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Type of Sample and Sampling Location	Distance* (Miles)	Direction*
Direct Radiation		
1 City of San Clemente (SDG&E Offices)	5.6	NW
2 Camp San Mateo	3.5	N
3 Camp San Onofre	2.6	NE
4 Camp Horno	4.5	E
5 Camp Las Pulgas	8.5	ESE
6 Old Route 101 - ESE	3.0	ESE
7 Old Route 101 - ESE	0.5	ESE
8 Noncommissioned Officers Beach Club	1.2	NW
9 Basilone Road/I-5 Freeway Offramp	2.0	NW
10 Bluff	0.8	NW
11 Visitors Center	0.2	NNE
12 South Edge of Switchyard	0.2	NE
13 Site Boundary	0.13	SE
14 Huntington Beach Generating Station	37	NW
15 ESE Site Boundary	0.2	ESE
16 East Site Boundary	0.5	E
17 Transit Dose	-	-
18 Transit Dose	-	-
19 San Clemente Highlands	5.0	NNW
20 San Clemente Pier	5.0	NW

* Distance (miles) and direction (sector) are measured relative to Units 2&3 midpoint. Direction is determined from degrees true north.

TABLE 5-1 (cont.)
RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Type of Sample and Sampling Location		Distance* (Mi)	Direction*
21	Concordia Elementary School - San Clemente	3.5	NW
22	Coast Guard Station - San Mateo Point	2.7	WNW
23	San Clemente General Hospital	8.2	NW
24	San Clemente High School	6.0	NW
25	Convalescent Home - San Clemente	8.0	NW
26	Dana Hills High School	11.0	NW
27	U.S. Post Office - Dana Point	10.5	NW
28	Doheny Fire Station - Capistrano Beach	9.5	NW
29	San Juan Capistrano Fire Station	10.8	NW
30	Laguna Beach Fire Station	17.5	NW
31	Aurora Park Mission Viejo	18.6	NNW
32	Santa Ana Police Department	32.0	NW
33	Camp Talega	5.7	N
34	San Onofre School	1.7	NW
35	Range 312 (Marine Corps Base, Camp Pendleton)	4.7	NNE
36	Range 208C (Marine Corps Base, Camp Pendleton)	4.0	NE
37	Laguna Niguel Fire Station	13.5	NW
38	San Onofre State Beach Park	3.6	SE
39	Basilone Road Trailer Park	1.4	NNW
40	SCE Training Center - Japanese Mesa	0.8	NW

* Distance (miles) and direction (sector) are measured relative to Units 2&3 midpoint. Direction is determined from degrees true north.

TABLE 5-1 (cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Type of Sample and Sampling Location		Distance* (Mi)	Direction*
41	Old Route 101 - East	0.3	E
42	Horno Canyon	4.6	E
43	Edson Range (Marine Corps Base, Camp Pendleton)	10.6	SE
44	Fallbrook Fire Station	18.0	E
45	Interstate 5 Weigh Station	2.0	ESE
46	San Onofre State Beach Park	1.4	SE
47	Camp Las Flores	8.6	SE
48	Mainside (Marine Corps Base, Camp Pendleton)	15.0	ESE
49	Camp Chappo	12.8	ESE
50	Oceanside Fire Station	15.5	SE
51	Carlsbad Fire Station	18.6	SE
52	Vista Fire Station	21	ESE
53	San Diego County Operations Center	45	SE
54	Escondido Fire Station	32	ESE
55	San Onofre State Beach (Unit 1)	0.2	W
56	San Onofre State Beach (Unit 1)	0.1	W
57	San Onofre State Beach (Unit 2)	0.1	SSW
58	San Onofre State Beach (Unit 3)	0.1	S
59	SONGS Meteorological Tower	0.3	NW

* Distance (miles) and direction (sector) are measured relative to Units 2&3 midpoint. Direction is determined from degrees true north.

TABLE 5-1 (cont.)
 RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Type of Sample and Sampling Location	Distance* (Mi)	Direction*
Airborne		
1 City of San Clemente (SDG&E Offices)	5.5	NW
2 Camp San Onofre	1.8	NE
3 Huntington Beach Generating Station	37	NW
4 Northeast Site Boundary	0.2	NNE
5 Units 2&3 Switchyard	0.13	ESE
6 SONGS Meteorological Tower	0.3	NW
Soil Samples		
1 Camp San Onofre	2.5	NE
2 Old Route 101 - SE	3.0	SE
3 Basilone Road/I-5 Freeway Offramp	2.0	NW
4 Huntington Beach Generating Station	37	NW
5 East Site Boundary	0.2	NNW
Ocean Water		
A Station Discharge Outfall - Unit 1	0.5	SW
B Outfall - Unit 2	0.7	SW
C Outfall - Unit 3	0.7	SW
D Newport Beach	30	NW

* Distance (miles) and direction (sector) are measured relative to Units 2&3 midpoint. Direction is determined from degrees true north.

TABLE 5-1 (cont.)
 RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Type of Sample and Sampling Location		Distance* (Mi)	Direction*
Drinking Water			
1	Tri-Cities Municipal Water District Reservoir	8.7	NW
2	San Clemente Golf Course Well	3.5	NNW
3	Huntington Beach	37	NW
Sediment from Shoreline (Beach Sand)			
1	San Onofre State Beach	0.6	SE
2	San Onofre Surfing Beach	0.9	NW
3	San Onofre State Beach	3.5	SE
4	Newport Beach (North End)	30	NW
Local Crops			
1	San Mateo Canyon	2.6	NW
2	Southeast of Oceanside	22	SE

* Distance (miles) and direction (sector) are measured relative to Units 2&3 midpoint. Direction is determined from degrees true north.

TABLE 5-1 (cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Type of Sample and Sampling Location		Distance* (Mi)	Direction*
Non-Migratory Marine Animals			
A	Unit 1 Outfall	0.6	WSW
B	Units 2&3 Outfall	0.7	SSW
C	Newport Beach	30	NW
Kelp			
A	San Onofre Kelp Bed	1.5	S
B	San Mateo Kelp Bed	3.5	WNW
C	Barn Kelp Bed	6.6	SSE
D	Newport Beach	30	NW
Ocean Bottom Sediments			
A	Unit 1 Outfall	0.5	W
B	Unit 1 Outfall	0.6	W
C	Unit 2 Outfall	0.8	SSW
D	Unit 3 Outfall	0.9	S
E	Newport Beach	30	NW
1	Jack Rabbit	0.5	E
2	Jack Rabbit	0.6	NW

* Distance (miles) and direction (sector) are measured relative to Units 2&3
 mi in Direction is determined from degrees true north.

TABLE 5-2

RADIOLOGICAL ENVIRONMENTAL MONITORING SAMPLE LOCATIONS

Pressurized Ion Chambers			Distance* (Miles)	Direction/Sector*	
S1	San Onofre Beach	- W	0.40	W	P
S2	Visitors Center	- NW	0.35	NW	Q
S3	Japanese Mesa	- NNW	0.44	NNW	R
S4	MCB - Camp Pendleton	- N	0.44	N	A
S5	MCB - Camp Pendleton	- NNE	0.41	NNE	B
S6	MCB - Camp Pendleton	- NE	0.36	NE	C
S7	MCB - Camp Pendleton	- ENE	0.35	ENE	D
S8	MCB - Camp Pendleton	- E	0.44	E	E
S9	San Onofre State Beach	- ESE	0.39	ESE	F

* Distance (miles) and direction (sector) are measured relative to Units 243 midpoint. Direction is determined from degrees true north.

TABLE 5-3

SECTOR AND DIRECTION DESIGNATION FOR RADIOLOGICAL
ENVIRONMENTAL MONITORING SAMPLE LOCATION MAP

Degrees True North from SONGS 2&3 Mid-Point			22.5°	Nomenclature
<u>Sector Limit</u>	<u>Center Line</u>	<u>Sector Limit</u>	<u>Sector*</u>	<u>Direction</u>
348.75 ⁰	0 & 360	11.25	A	N
11.25	22.5	33.75	B	NNE
33.75	45	56.25	C	NE
56.25	67.5	78.75	D	ENE
78.75	90	101.25	E	E
101.25	112	123.75	F	ESE
123.75	135	146.25	G	SE
146.25	157	168.75	H	SSE
168.75	180	191.25	J	S
191.25	202.5	213.75	K	SSW
213.75	225	236.25	L	SW
236.25	247.5	258.75	M	WSW
258.75	270	281.25	N	W
281.25	292.5	303.75	P	WNW
303.75	315	326.25	Q	NW
326.25	337.5	348.75	R	NNW

* The letters I and O have been omitted from these sector designators so as to eliminate possible confusion between numbers and letters.

APPENDIX C

TWICE-BACKGROUND TABLES

APPENDIX C

MEASUREMENTS EXCEEDING TWICE BACKGROUND LEVEL

<u>Medium</u>	<u>Analysis Performed</u>	<u>Location</u>	<u>Date of Collection</u>	<u>Indicator</u>	<u>Control(a)</u>
Quarterly Composite Air Filter (pCi/m ³)	Be-7(b)	Visitor Center	1/1/82	0.146	0.115
	Be-7	Units 2/3 Switchyard	1/1/82	0.188	0.115
	Gross Alpha	Units 2/3 Switchyard	12/28/82	0.0045	0.0038
Monthly Drinking Water Filtrate (pCi/l)	Gross Beta	Tri-Cities Municipal Reservoir	9/7/82	21	20
Ocean Bottom Sediment (nCi/kg dry)	Ra-226(b)	Unit 1 Outfall Upcoast	11/6/82	0.58	0.57
	Ra-226	Unit 1 Outfall Downcoast	11/6/82	0.67	0.57
	Co-58	Unit 2 Outfall	10/26/82	0.09	0.08
	Co-60	Unit 1 Upcoast	6/10/82	0.58	0.08
	Co-60	Unit 1 Upcoast	11/6/82	0.13	0.08
	Co-60	Unit 1 Downcoast	11/6/82	0.15	0.08
	Cs-137	Unit 2	10/26/82	0.13	0.08
Soil (nCi/kg dry)	Sr-90	Old Highway 101	12/8/82	0.05	0.04
Marine Animals (nCi/kg wet)	Co-60	Units 2/3 Outfall (Spiny Lobster)	3/4/82	0.024	0.014
	Co-60	Unit 1 (Spiny Lobster)	3/8/82	0.021	0.014
	Co-60	Unit 1 (Sea Hare)	3/5/82	0.071	0.014

<u>Medium</u>	<u>Analysis Performed</u>	<u>Location</u>	<u>Date of Collection</u>	<u>Indicator</u>	<u>Control (a)</u>
Marine Animals (nCi/kg wet)	Co-60	Units 2/3 (Bay Mussel)	3/4/82	0.021	0.014
	H-3 (bound)	Unit 1 (Black Perch)	3/8/82	23(c)	6
	H-3 (bound)	Units 2/3 (Black Perch)	3/4/82	18(c)	6
	Co-60	Unit 1 (Spiny Lobster)	6/9/82	0.016	0.014
	H-3 (aqueous)	Units 2/3 (Black Perch)	6/9/82	0.35	0.11
	Cs-137	Units 2/3 (Spiny Lobster)	6/10/82	0.011	0.010
	Co-60	Unit 1 (Sea Hare)	5/26/82	0.091	0.014
	Co-60	Unit 1 (Spiny Lobster)	8/5/82	0.050	0.014
	Co-60	Units 2/3 (Spiny Lobster)	8/6/82	0.017	0.014
	Co-60	Unit 1 (Sea Hare)	8/6/82	0.069	0.014
	Co-60	Unit 1 (Sea Hare)	11/31/82	0.067	0.014
	H-3 (aqueous)	Unit 1 (Black Perch)	10/26/82	0.14	0.10
	H-3 (aqueous)	Units 2/3 (Bay Mussel)	10/26/82	0.13	0.10

(a) Control values are average values of all individual measurements. For bases, please see part I.D of the report.

(b) Cosmogenic Be-7 and Ra-226 are naturally-occurring radionuclides.

(c) These values for bound tritium may be false due to chemical bioluminescence. Please see part II.A.12 of the report.

APPENDIX D

SUMMARY OF INTERLABORATORY COMPARISONS

APPENDIX D

RESULTS OF INTERLABORATORY COMPARISONS*

DATE	SAMPLE TYPE	ANALYSIS TYPE	EAL MEANS + s.d	EPA MEANS + s.d	ALL PARTICIPANTS MEANS + s.d
Mar. 1981	Water	Gross Alpha	27 + 4	19 + 5	18 + 5
May 1981	Water	Gross Alpha	15 + 2	28 + 7	25 + 7
July 1981	Water	Gross Alpha	26 + 2	22 + 6	18 + 5
Sept. 1981	Water	Gross Alpha	34 + 2	33 + 8	28 + 8
Nov. 1981	Water	Gross Alpha	26 + 2	21 + 5	20 + 5
July 1982	Water	Gross Alpha	19 + 2	16 + 5	16 + 5
Sept. 1982	Water	Gross Alpha	33 + 3	29 + 7	26 + 6
Nov. 1982	Water	Gross Alpha	15 + 3	19 + 5	17 + 4
June 1979	Air Filter	Gross Alpha	10 + 1	9 + 5	10 + 2
Mar. 1980	Air Filter	Gross Alpha	20 + 1	15 + 5	18 + 4
June 1980	Air Filter	Gross Alpha	30 + 2	24 + 6	28 + 5
Mar. 1981	Air Filter	Gross Alpha	33 + 1	30 + 8	32 + 5
June 1981	Air Filter	Gross Alpha	40 + 2	28 + 7	32 + 6
Mar. 1982	Air Filter	Gross Alpha	20 + 1	27 + 7	26 + 4
Sept. 1982	Air Filter	Gross Alpha	28 + 2	32 + 8	28 + 6
Mar. 1981	Water	Gross Beta	25 + 4	19 + 5	20 + 4
May 1981	Water	Gross Beta	21 + 1	14 + 5	16 + 4
July 1981	Water	Gross Beta	24 + 3	15 + 5	17 + 4
Sept. 1981	Water	Gross Beta	36 + 1	26 + 6	---
Nov. 1981	Water	Gross Beta	34 + 1	23 + 5	---
July 1982	Water	Gross Beta	20 + 2	23 + 5	21 + 5
Nov. 1982	Water	Gross Beta	27 + 1	24 + 5	24 + 3
Mar. 1982	Air Filter	Gross Beta	70 + 3	55 + 5	59 + 8
Sept. 1982	Air Filter	Gross Beta	66 + 5	67 + 5	61 + 8
Jan. 1979	Water	Sr-89	13 + 1	14 + 5	13 + 4
May 1979	Water	Sr-89	19 + 2	23 + 5	22 + 5
Sept. 1979	Water	Sr-89	<3	3 + 5	6 + 3
Jan. 1980	Water	Sr-89	9 + 1	10 + 5	9 + 3

DATE	SAMPLE TYPE	ANALYSIS TYPE	EAL	EPA	ALL
			MEANS $\pm$ s.d	MEANS $\pm$ s.d	PARTICIPANTS MEANS $\pm$ s.d
May 1981	Water	Sr-89	34 $\pm$ 2	36 $\pm$ 5	32 $\pm$ 10
Sept. 1981	Water	Sr-89	21 $\pm$ 1	23 $\pm$ 5	22 $\pm$ 3
Jan. 1982	Water	Sr-89	22 $\pm$ 1	21 $\pm$ 5	20 $\pm$ 4
May 1982	Water	Sr-89	21 $\pm$ 1	22 $\pm$ 5	22 $\pm$ 5
Jan. 1979	Water	Sr-90	5 $\pm$ 1	6 $\pm$ 2	6 $\pm$ 2
May 1979	Water	Sr-90	26 $\pm$ 0	30 $\pm$ 1	28 $\pm$ 4
Sept. 1979	Water	Sr-90	24 $\pm$ 1	28 $\pm$ 2	26 $\pm$ 4
Jan. 1980	Water	Sr-90	19 $\pm$ 1	20 $\pm$ 2	18 $\pm$ 4
Jan. 1981	Water	Sr-90	39 $\pm$ 1	34 $\pm$ 2	32 $\pm$ 5
May 1981	Water	Sr-90	22 $\pm$ 2	22 $\pm$ 2	22 $\pm$ 6
Sept. 1981	Water	Sr-90	10 $\pm$ 1	11 $\pm$ 2	11 $\pm$ 2
Jan. 1982	Water	Sr-90	13 $\pm$ 0	12 $\pm$ 2	11 $\pm$ 2
May 1982	Water	Sr-90	13 $\pm$ 1	13 $\pm$ 2	12 $\pm$ 2
Sept. 1982	Water	Sr-90	15 $\pm$ 1	15 $\pm$ 2	---
Aug. 1981	Water	H-3	2670 $\pm$ 44	2630 $\pm$ 354	2616 $\pm$ 361
Oct. 1981	Water	H-3	2080 $\pm$ 66	2210 $\pm$ 348	2133 $\pm$ 214
Dec. 1981	Water	H-3	2560 $\pm$ 90	2700 $\pm$ 355	2676 $\pm$ 224
Apr. 1981	Water	H-3	2960 $\pm$ 60	2860 $\pm$ 360	---
May 1982	Water	H-3	1470 $\pm$ 6	1330 $\pm$ 332	1348 $\pm$ 296
Aug. 1982	Water	H-3	2517 $\pm$ 50	2890 $\pm$ 360	2847 $\pm$ 270
Aug. 1980	Water	I-131	36 $\pm$ 3	36 $\pm$ 5	35 $\pm$ 6
Dec. 1980	Water	I-131	17 $\pm$ 0	22 $\pm$ 6	21 $\pm$ 4
July 1981	Water	I-131	68 $\pm$ 4	73 $\pm$ 7	72 $\pm$ 7
Dec. 1981	Water	I-131	77 $\pm$ 2	76 $\pm$ 8	69 $\pm$ 10
Apr. 1982	Water	I-131	55 $\pm$ 3	62 $\pm$ 6	63 $\pm$ 8
Aug. 1982	Water	I-131	92 $\pm$ 4	87 $\pm$ 9	86 $\pm$ 10
Mar. 1978	Air Filter	Sr-90	4 $\pm$ 1	8 $\pm$ 2	7 $\pm$ 2
Jan. 1979	Air Filter	Sr-90	6 $\pm$ 0	6 $\pm$ 2	6 $\pm$ 1
June 1979	Air Filter	Sr-90	10 $\pm$ 1	10 $\pm$ 2	10 $\pm$ 2
Mar. 1980	Air Filter	Sr-90	10 $\pm$ 0	10 $\pm$ 2	10 $\pm$ 2
June 1980	Air Filter	Sr-90	8 $\pm$ 1	8 $\pm$ 2	8 $\pm$ 1
Mar. 1981	Air Filter	Sr-90	18 $\pm$ 1	18 $\pm$ 2	17 $\pm$ 3

APPENDIX D (cont.)

D-3

DATE	SAMPLE TYPE	ANALYSIS TYPE	EAL MEANS $\pm$ s.d	EPA MEANS $\pm$ s.d	ALL PARTICIPANTS MEANS $\pm$ s.d
June 1981	Air Filter	Sr-90	19 $\pm$ 1	19 $\pm$ 2	19 $\pm$ 3
Mar. 1982	Air Filter	Sr-90	16 $\pm$ 0	16 $\pm$ 1	16 $\pm$ 3
June 1980	Water	Cr-51	<40	13 $\pm$ 5	21 $\pm$ 20
Feb. 1981	Water	Cr-51	<35	0	49 $\pm$ 11
Oct. 1982	Water	Cr-51	36 $\pm$ 2	34 $\pm$ 5	36 $\pm$ 9
Feb. 1982	Water	Cr-51	<30	0	5 $\pm$ 9
June 1982	Water	Cr-51	23 $\pm$ 1	23 $\pm$ 5	25 $\pm$ 13
June 1978	Water	Co-60	24 $\pm$ 0	22 $\pm$ 5	22 $\pm$ 3
Oct. 1978	Water	Co-60	24 $\pm$ 1	23 $\pm$ 5	23 $\pm$ 4
June 1979	Water	Co-60	43 $\pm$ 1	47 $\pm$ 5	47 $\pm$ 6
June 1980	Water	Co-60	7 $\pm$ 1	5 $\pm$ 5	6 $\pm$ 3
Feb. 1981	Water	Co-60	24 $\pm$ 2	25 $\pm$ 5	25 $\pm$ 4
June 1981	Water	Co-60	12 $\pm$ 1	17 $\pm$ 5	17 $\pm$ 3
Oct. 1981	Water	Co-60	23 $\pm$ 1	22 $\pm$ 5	23 $\pm$ 3
Feb. 1982	Water	Co-60	20 $\pm$ 1	20 $\pm$ 5	20 $\pm$ 5
June 1982	Water	Co-60	30 $\pm$ 1	29 $\pm$ 5	31 $\pm$ 4
June 1980	Water	Zn-65	25 $\pm$ 1	23 $\pm$ 5	24 $\pm$ 6
Feb. 1981	Water	Zn-65	87 $\pm$ 1	85 $\pm$ 5	89 $\pm$ 1
Oct. 1981	Water	Zn-65	21 $\pm$ 1	24 $\pm$ 5	24 $\pm$ 4
Feb. 1982	Water	Zn-65	17 $\pm$ 1	15 $\pm$ 5	15 $\pm$ 4
June 1982	Water	Zn-65	32 $\pm$ 2	26 $\pm$ 5	27 $\pm$ 6
June 1978	Water	Cs-134	24 $\pm$ 3	22 $\pm$ 5	21 $\pm$ 4
Oct. 1978	Water	Cs-134	22 $\pm$ 1	25 $\pm$ 5	25 $\pm$ 4
June 1979	Water	Cs-134	61 $\pm$ 3	71 $\pm$ 5	68 $\pm$ 7
June 1980	Water	Cs-134	10 $\pm$ 1	11 $\pm$ 5	11 $\pm$ 3
Feb. 1981	Water	Cs-134	34 $\pm$ 1	36 $\pm$ 5	33 $\pm$ 5
June 1981	Water	Cs-134	19 $\pm$ 1	21 $\pm$ 1	21 $\pm$ 5
Oct. 1981	Water	Cs-134	20 $\pm$ 1	21 $\pm$ 5	20 $\pm$ 4
Feb. 1982	Water	Cs-134	22 $\pm$ 1	22 $\pm$ 5	21 $\pm$ 3
June 1982	Water	Cs-134	31 $\pm$ 1	35 $\pm$ 5	34 $\pm$ 4
June 1978	Water	Cs-137	33 $\pm$ 2	30 $\pm$ 5	32 $\pm$ 4
Oct. 1978	Water	Cs-137	144 $\pm$ 2	125 $\pm$ 6	127 $\pm$ 11

DATE	SAMPLE TYPE	ANALYSIS TYPE	EAL MEANS + s.d	EPA MEANS + s.d	ALL PARTICIPANTS MEANS + s.d
June 1979	Water	Cs-137	<4	0	---
June 1980	Water	Cs-137	18 + 1	17 + 5	17 + 3
Feb. 1981	Water	Cs-137	<5	4 + 5	5 + 2
June 1981	Water	Cs-137	30 + 1	31 + 5	31 + 5
Oct. 1981	Water	Cs-137	34 + 1	32 + 5	33 + 4
Feb. 1982	Water	Cs-137	24 + 2	23 + 5	24 + 4
June 1982	Water	Cs-137	26 + 1	25 + 5	27 + 4
Dec. 1977	Air Filter	Cs-137	84 + 5	67 + 5	70 + 14
Mar. 1978	Air Filter	Cs-137	30 + 2	22 + 5	23 + 5
Jan. 1979	Air Filter	Cs-137	10 + 1	6 + 5	8 + 2
June 1979	Air Filter	Cs-137	21 + 1	10 + 5	12 + 4
Mar. 1980	Air filter	Cs-137	30 + 2	20 + 5	23 + 5
June 1980	Air Filter	Cs-137	14 + 1	12 + 5	14 + 3
Mar. 1981	Air Filter	Cs-137	17 + 1	14 + 5	16 + 4
June 1981	Air Filter	Cs-137	19 + 2	16 + 5	20 + 5
Mar. 1982	Air filter	Cs-137	37 + 1	23 + 5	27 + 6
June 1980	Water	Ru-106	<50	37 + 5	35 + 6
June 1981	Water	Ru-106	<15	15 + 6	12 + 9
Feb. 1982	Water	Ru-106	<20	20 + 5	19 + 8
Aug. 1979	Water	U-235	34 + 1	33 + 4	32 + 7
Oct. 1980	Water	U-235	25 + 2	27 + 3	26 + 3
Feb. 1982	Water	U-235	34 + 2	35 + 6	33 + 8
Aug. 1982	Water	U-235	24 + 1	23 + 6	23 + 4

*All the units are in pCi/l for water analysis and pCi/filter for air filter analysis.

APPENDIX E

COMPARISON OF OPERATIONAL DATA WITH PREOPERATIONAL

APPENDIX E

COMPARISON OF OPERATION DATA WITH PREOPERATIONAL

A. COMPARISON OF AVERAGE MONTHLY AIRBORNE PARTICULATES GROSS BETA ACTIVITY

In order to provide the preoperational data for SONGS, a number of studies were conducted from 1964 to 1967. One of these studies was devoted to the measurement of gross beta activity in air particulates. Air samples from different locations near the plant were collected on a weekly basis and analyzed. Figure 148 presents the monthly variation in the gross beta activity of the air particulates in San Clemente for preoperational and operational periods. As is seen, the 1982 operational levels are much lower than the preoperational ones (shaded area). The presence of many peaks in the preoperational phase is indicative of atmospheric nuclear weapons testing within the corresponding time period. The increase in the beta activity in air during the preoperational period is thought to be the result of Chinese nuclear tests of December 1966. The decrease in activity levels from 1965 to 1966 might be ascribed to the curtailment of nuclear testing in the atmosphere since 1962. Figure 8 also compares the operational data obtained during January to December 1982 with the preoperational data of 1965 and 1966. These data suggest that there is no plant-related activity released to the environment since the operational levels are significantly lower than the preoperational activity levels. Fig. 8

A comparison between the control location (Huntington Beach) and the indicator locations does not indicate any significant difference in activity levels. Therefore, it can be concluded that the rise in beta activity in March is not the result of plant operation and is the result of other environmental phenomena. It should be mentioned that the presence of weapons testing make the comparison difficult since the background level is affected.

B. COMPARISON OF QUARTERLY AVERAGE WATER FILTRATE GROSS BETA ACTIVITY

A comparison of drinking water filtrate gross beta activity in Tri-Cities Municipal Reservoir versus preoperational levels is made. In Figure 9, it can be seen that the activity levels of operational data are much lower than the preoperational. For example, in March 1966, the highest gross beta activity measured was 90.0 pCi/l where the highest value for the operational period (1981-1982) was 19.3 pCi/l in September. This is seven times lower than the preoperational value. The nuclear weapons testing and the resulting fallout can contribute to the higher preoperational activity levels. Figure 10 compares the operational data for water filtrate gross beta activity (1981-1982) in San Clemente with the 1965-1966 preoperational activity levels. It is seen that the preoperational levels are higher than the operational due to fallout contribution.

C. CONCLUSIONS

This assessment indicates that the variation of radioactivity level in environmental media will be affected by several sources. Meteorology, atmospheric nuclear weapon testing, fallout frequency, terrestrial conditions, coal and fuel processing plants, and the occurrence of earthquake and volcanic activities are among the factors which may affect, and lead to the elevation of the natural background levels in the environment. All activities noted during the operational phase are either at or below activity attributable to these sources. It is also seen that the variation in operational data is very small compared to the preoperational (Figures 9 and 10, shaded areas). For example, the gross beta activity in Tri-Cities Reservoir ranged 18-90 pCi/l during the preoperational time, where the operational levels varied between 11.3-19.3 pCi/l. For San Clemente, the preoperational activity varied between 5.2 and 45.8 pCi/l where the operational activity range was 9.7 to 14.0 pCi/l.

The results indicate that the plant's effect on the environment is minimal.

APPENDIX F

CORRELATION OF ENVIRONMENTAL CONCENTRATION WITH EFFLUENT RELEASE

APPENDIX FCORRELATION OF ENVIRONMENTAL CONCENTRATION
WITH LIQUID EFFLUENT RELEASEA. COBALT-60

1. SONGS 1 Outfall

The highest Co-60 activity released at SONGS 1 outfall was 232.0 mCi in the month of May 1982 (Figure 11). The highest Co-60 activity observed in marine species was 0.086 nCi/kg wet in sea hare caught at SONGS 1 outfall in June 1982. The sea hare species all had a concentration range of 0.068-0.086 nCi/kg wet throughout the year. The highest Co-60 activity found in spiny lobster was 0.052 nCi/kg wet (Figure 13-a). Sheepshead and black perch did not show any detectable Co-60 activity in May and June whereas the Co-60 activity in effluent reached its maximum.

Sea hare caught at SONGS 1 outfall had a Co-60 activity of 1.8 nCi/kg wet in March 1981 and 2.0 nCi/kg wet in June 1981, (Figure 13). The highest Co-60 activity was observed in June 1981, 1110 mCi (Figure 15). In general, a decreasing trend in Co-60 activity among the species was noted from 1981 to 1982. For example, highest Co-60 level found in sea hare in 1982 was 0.086 compared with 2.0 nCi/kg wet for 1981. Concentration range of all species was 0.006-0.086 nCi/kg wet in 1982. No correlation was observed between the liquid effluent Co-60 activity and the Co-60 level in the marine species.

2. SONGS 2/3 Outfall

Sheepshead and black perch showed no detectable level of Co-60, where bay mussel and spiny lobster showed Co-60 in their flesh. The highest Co-60 activity observed in spiny lobster was 0.024 nCi/kg wet in March, decreasing through December. There seems to be no direct correlation with the Unit 1 effluent Co-60 activity since it was highest in June. The bay mussel also had highest Co-60 activity in March 0.021 nCi/kg wet, decreasing through the year (0.006 nCi/kg wet) in December 1982, (Figure 14). The 1981 data (Figure 14) show the presence of Co-60 in some species. Bay mussel had the highest Co-60 activity in June (0.400 nCi/kg wet) and spiny lobster had 0.033 nCi/kg wet in March. The Co-60 levels are below the reporting level 10 nCi/kg wet. Concentration range of all species was 0.006-0.024 nCi/kg wet in 1982 and the highest Co-60 activity in 1982 was lower than the 1981 maximum activity, i.e., 0.024 compared with 0.40 nCi/kg wet. The results show no direct correlation between the effluent release and the environmental levels in the marine species.

B. CESIUM-137

1. SONGS 1 Outfall

The highest Cs-137 activity in SONGS 1 effluent was observed in September 1982 (298.0 mCi). The comparison between the Cs-137 activity in the liquid effluent (Figure 11) and Cs-137 in the marine species (Figure 17) indicated the presence of some activity in the flesh portion (0.003-0.021 nCi/kg wet). The Cs-137 activity in the effluent peaked 298.0 mCi in September and 58.0 mCi in October, whereas the marine species of SONGS 1 showed a low and steady level of Cs-137. Spiny lobster had the highest Cs-137 level (0.021 nCi/kg wet) in March with a decreasing trend throughout the year (Figure 17-a). All other species showed zero activity or very low levels. It is worth noting that the highest Cs-137 activity of 0.021 nCi/kg is 100 times below the reporting level (2 nCi/kg wet). No direct correlation could be observed between the liquid effluent release and the concentration levels in the above medium.

2. SONGS 2/3 Outfall

A comparison between the Cs-137 activity in the Unit 1 liquid effluent and the marine species did not show any direct correlation with the release. All the species had an activity range of 0.004-0.013 nCi/kg wet. The highest value of 0.013 was found in sheepshead, spiny lobster and black perch (Figure 18). The highest Cs-137 activity in the liquid effluent was 298.0 mCi in September where the species had low and steady levels of Cs-137. In general, no correlation between the effluent release and the environmental levels was observed.

C. OCEAN BOTTOM SEDIMENT

Buildup of radionuclides in the ocean bottom sediment was studied to investigate the effect of the plant operation, if any, on the marine species. The measurement of sediment activity is not considered to be of major importance as a critical pathway to man. However, a potential exist for long-term buildup of radionuclides in the sediment especially the plant-specific ones, such as Cs-137 and Co-60. Figure 12 and 16 show the Co-60 and Cs-137 levels in the sediments and their variation with time (1978-1982). The results of the 5-year study show no accumulation pattern for these radionuclides in the sediments. Species such as sea hare and spiny lobster (bottom dwellers) showed some very low levels of these radionuclides in their flesh, but no accumulation pattern was observed in the species and all the activity levels are many times below the reporting level (Part II.A-7 and A-12).

D. CONCLUSIONS

Even though, higher-than twice background activity levels of radionuclides such as Co-60 and Cs-137 may be attributable to the effluent release of these radionuclides to the ocean and deposition to the bottom sediments, no direct positive correlation has been observed, to date, between the high effluent values, the bottom sediments, and the marine biota.

It should be noted that the presence of the Co-60 or Cs-137 in the bottom sediments may not necessarily affect the marine species since the accumulation or uptake of these radionuclides depends on many factors. Type or age of species, biological half life of the radionuclides in different species, availability to the species, solubility of the radionuclides and their chemical forms in ocean water and the digestive fluids of the organisms, uptake rate, and the presence of other substances that could affect the uptake rate will all contribute to the accumulation mechanism. It should be noted that the Co-60 and Cs-137 activities of the liquid effluent were much lower than the technical specifications requirements and are shown below:

1st quarter	2nd quarter	3rd quarter	4th quarter
$<4.05 \times 10^{-1}\%$	$<1.68 \times 10^{-6}\%$	$<3.65 \%$	$<5.92 \times 10^{-1}\%$

It is important to mention that no correlation between the gaseous effluent release and the environmental activity levels was observed. All the plant-specific radionuclides in the gaseous effluent were not observed in any of the environmental samples and their concentration activity was below the limit of detection and were reported as zero. Therefore, it is concluded that the effluent release has minor impact on the environment.

APPENDIX G

FIGURES

MONTHLY AIRBORNE PARTICULATES GROSS BETA ACTIVITY

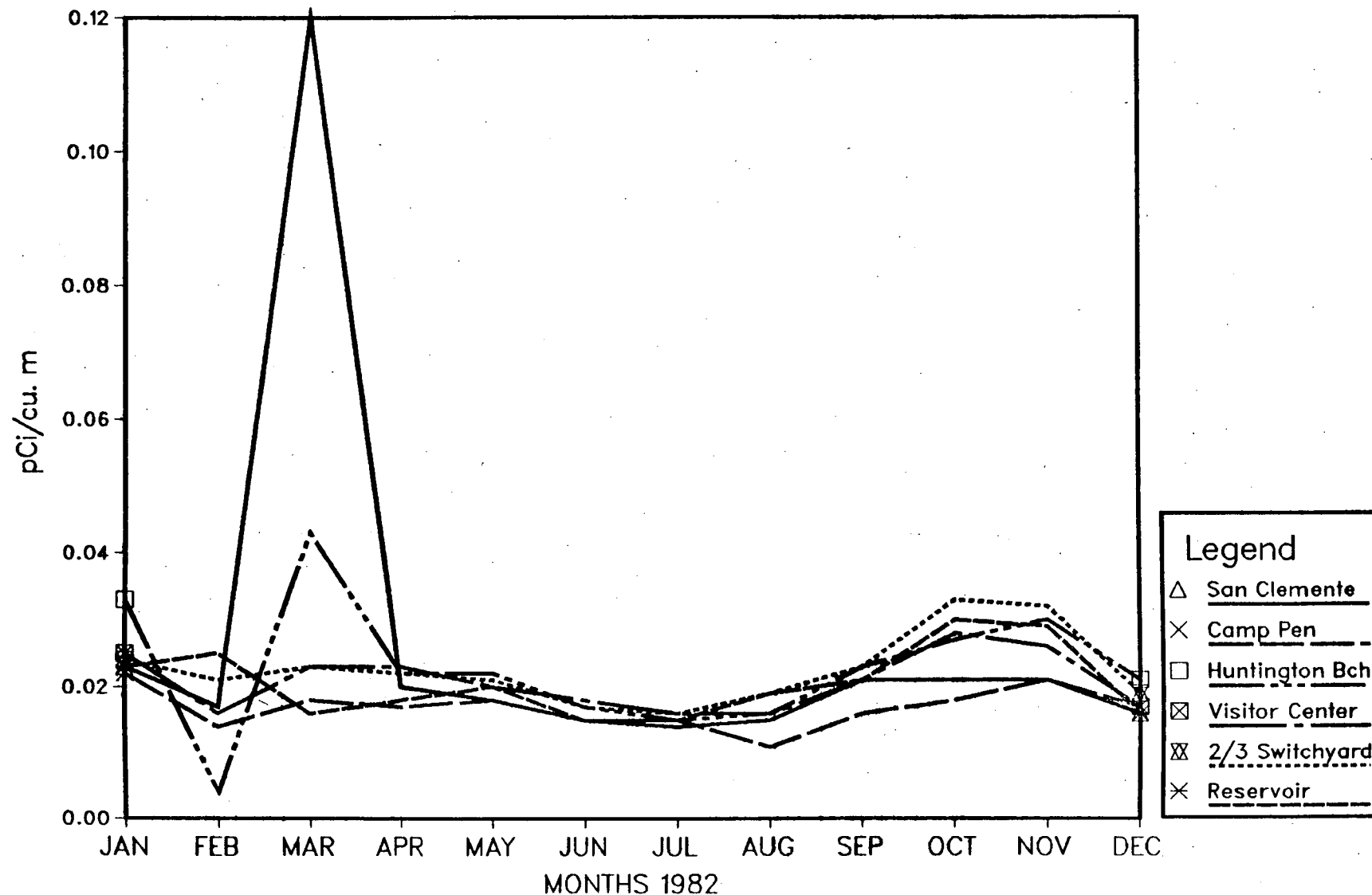


Figure 1

MONTHLY AIRBORNE PARTICULATES GROSS BETA ACTIVITY SAN CLEMENTE

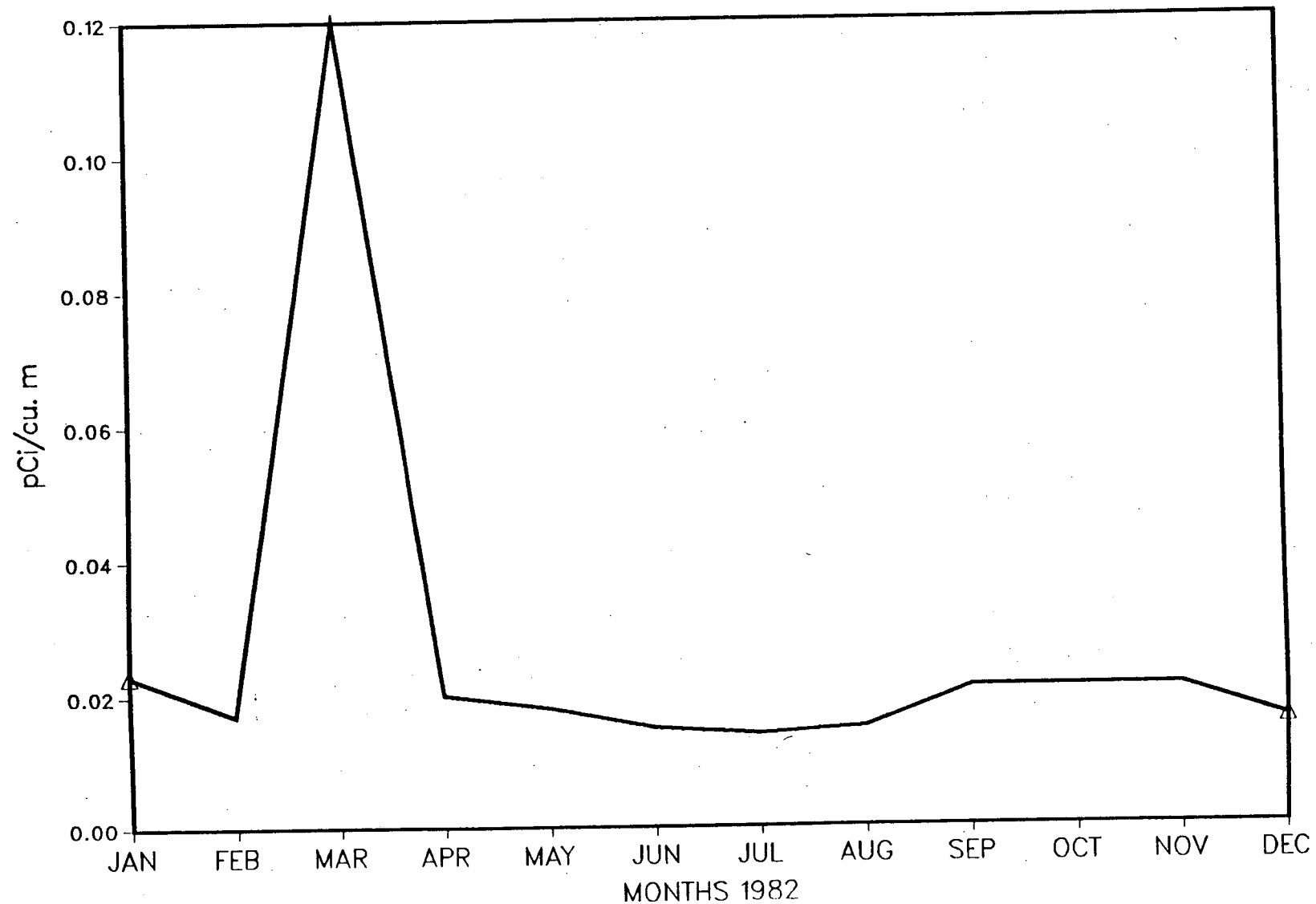


Figure 2

MONTHLY AIRBORNE PARTICULATES
GROSS BETA ACTIVITY
CAMP PENDELTON

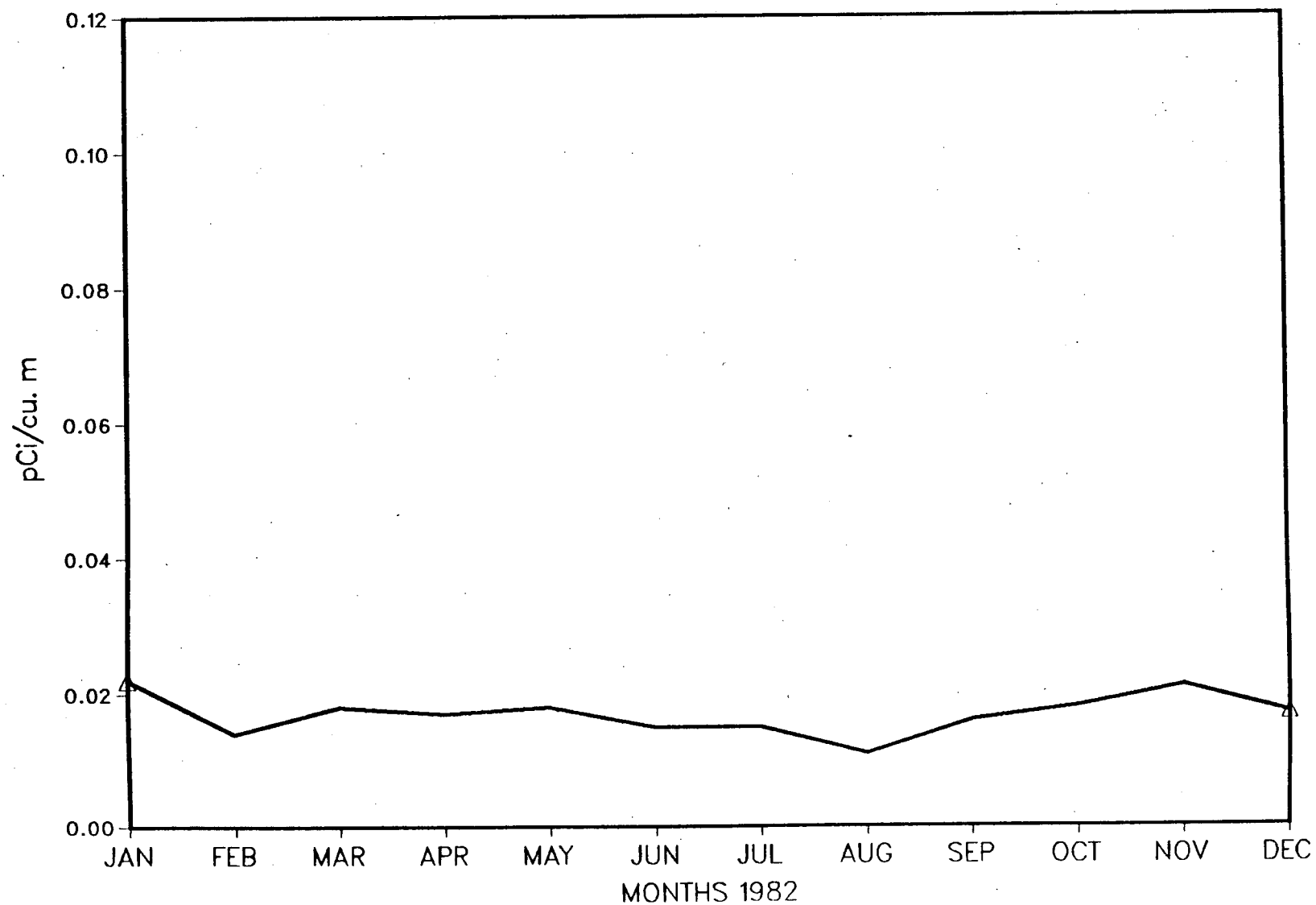


Figure 3

MONTHLY AIRBORNE PARTICULATES
GROSS BETA ACTIVITY
VISITOR CENTER

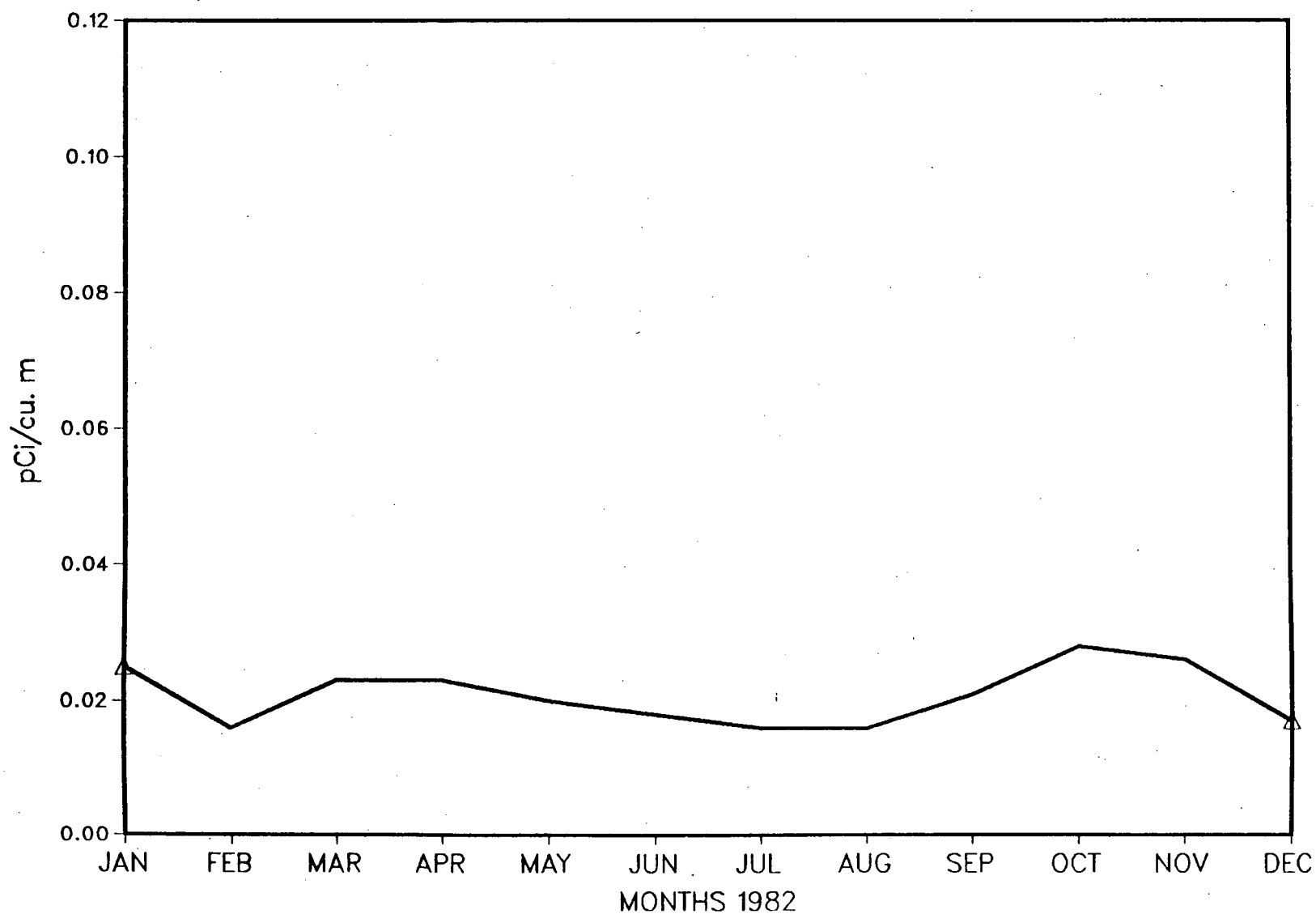


Figure 4

MONTHLY AIRBORNE PARTICULATES
GROSS BETA ACTIVITY
UNITS 2/3 SWITCHYARD

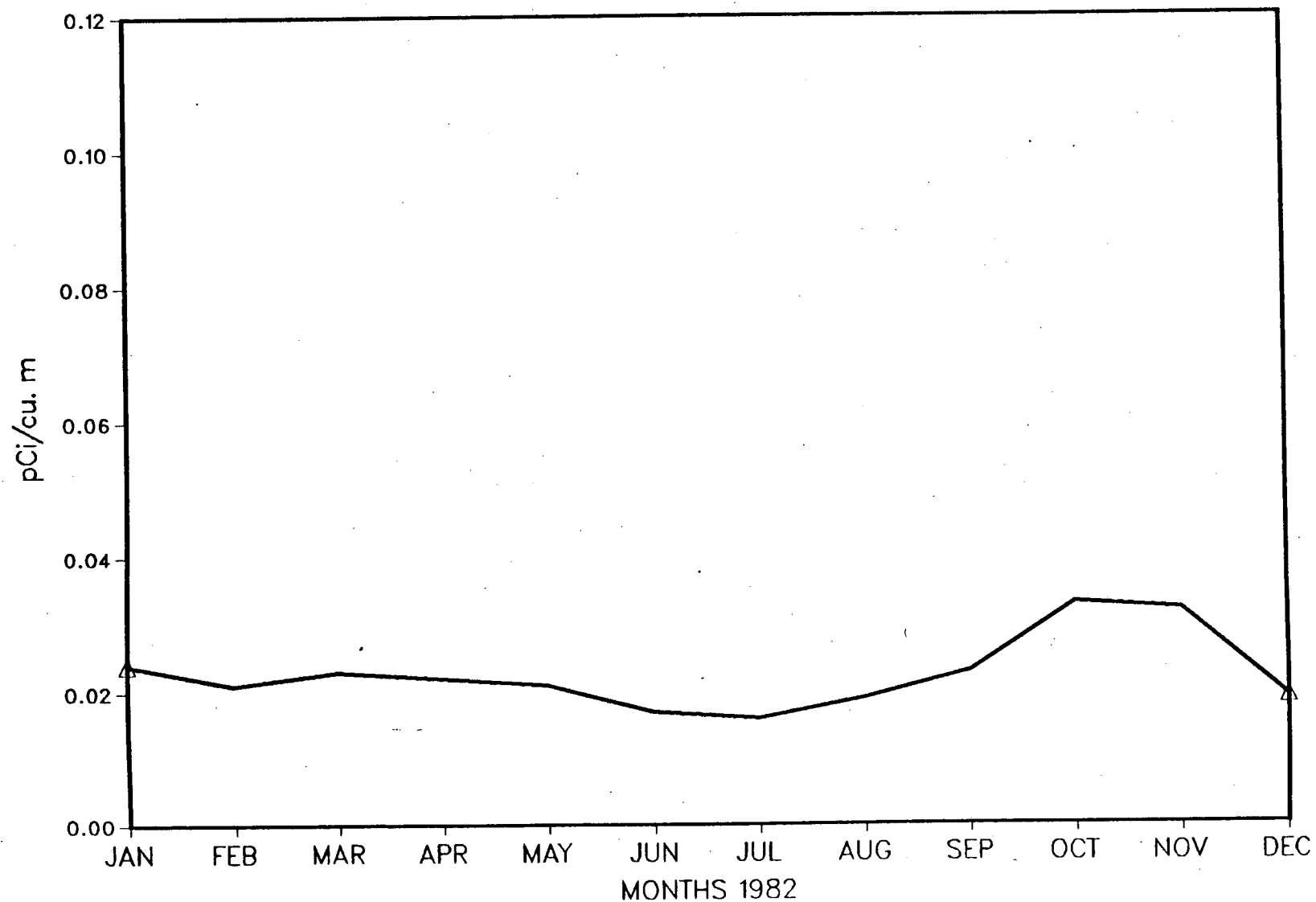


Figure 5

MONTHLY AIRBORNE PARTICULATES GROSS BETA ACTIVITY RESEVOIR

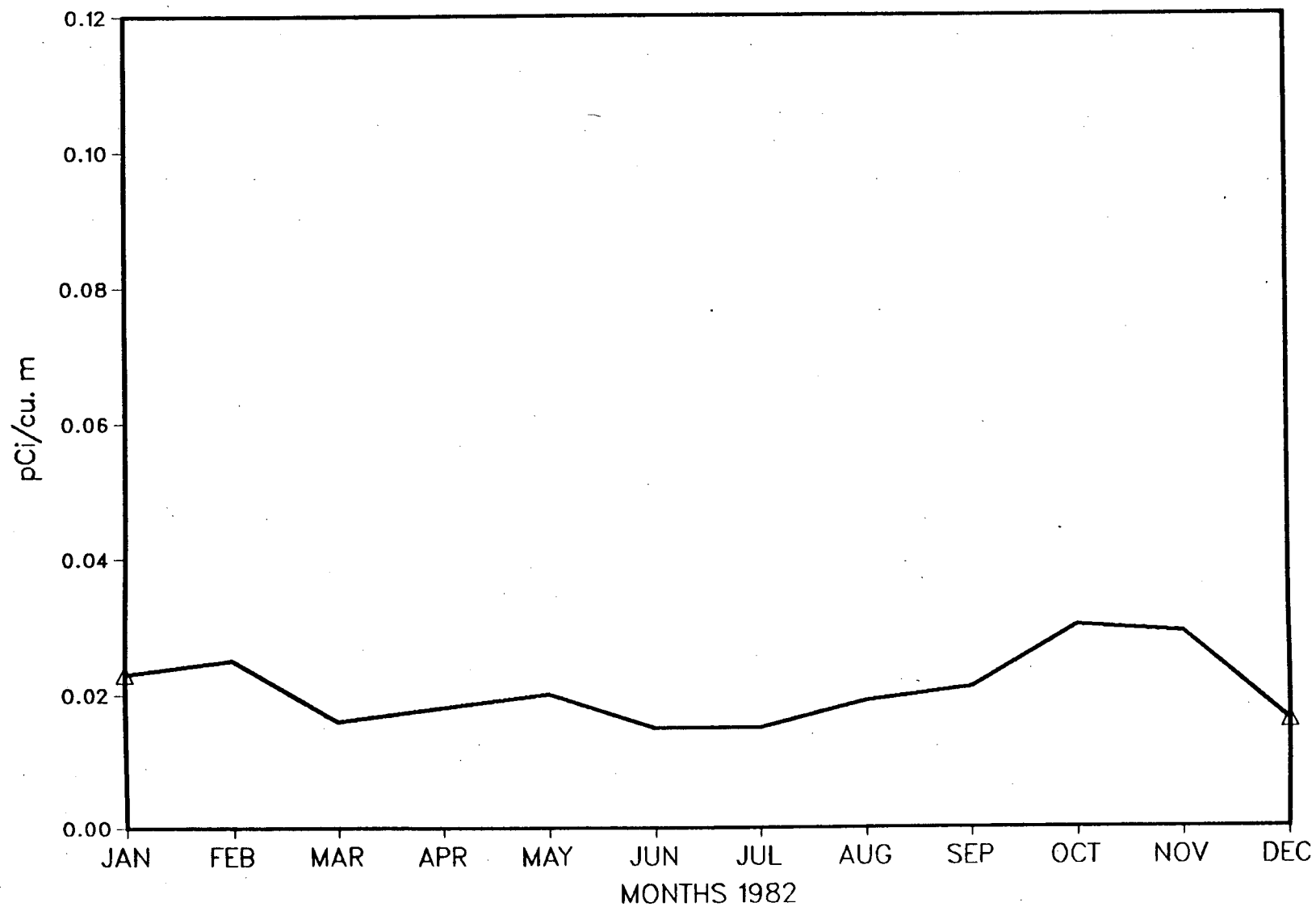


Figure 6

MONTHLY AIRBORNE PARTICULATES
GROSS BETA ACTIVITY
HUNTINGTON BEACH

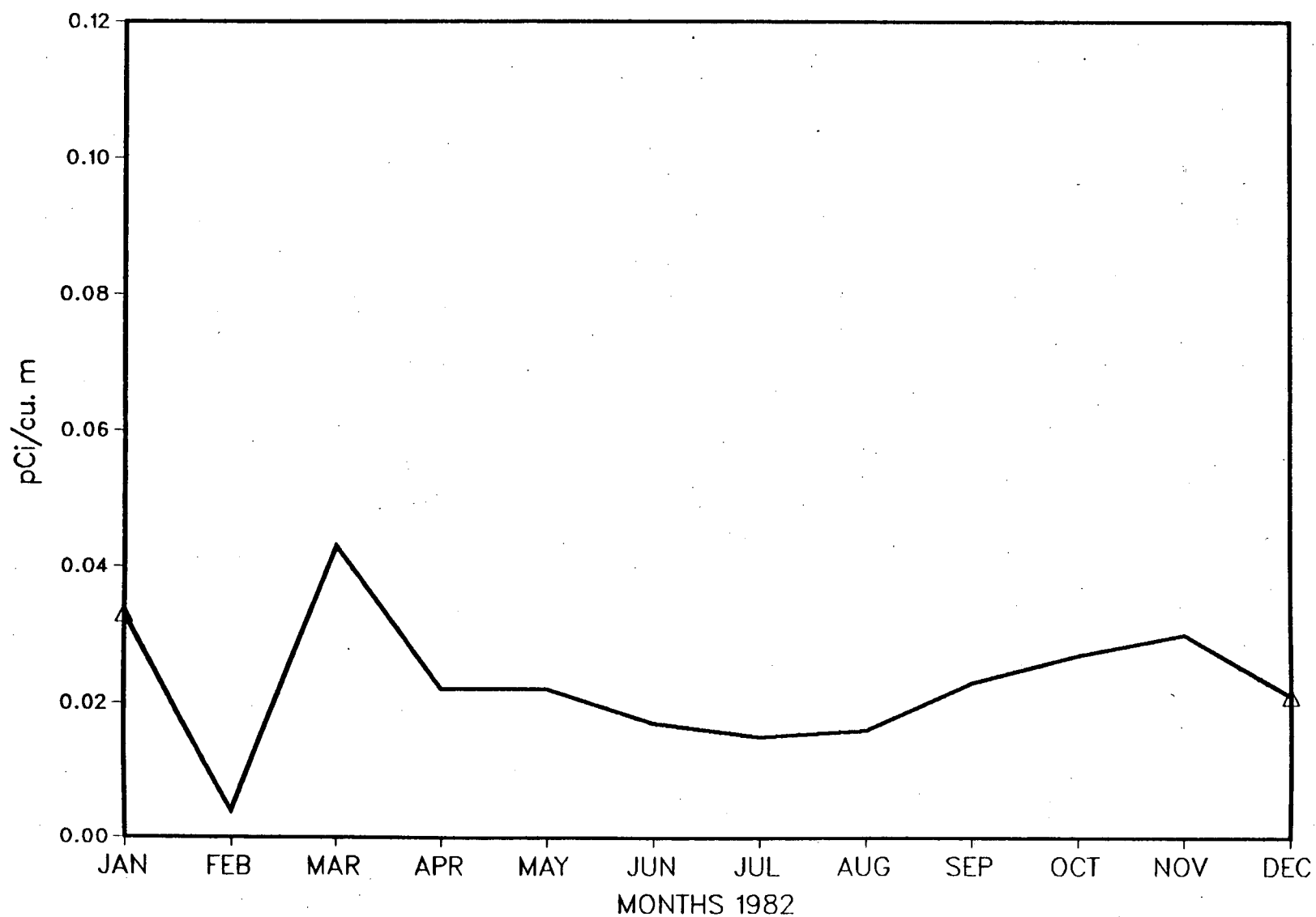


Figure 7

AVERAGE MONTHLY AIRBORNE PARTICULATES
GROSS BETA ACTIVITY
PRE-OP vs OPERATIONAL
SAN CLEMENTE

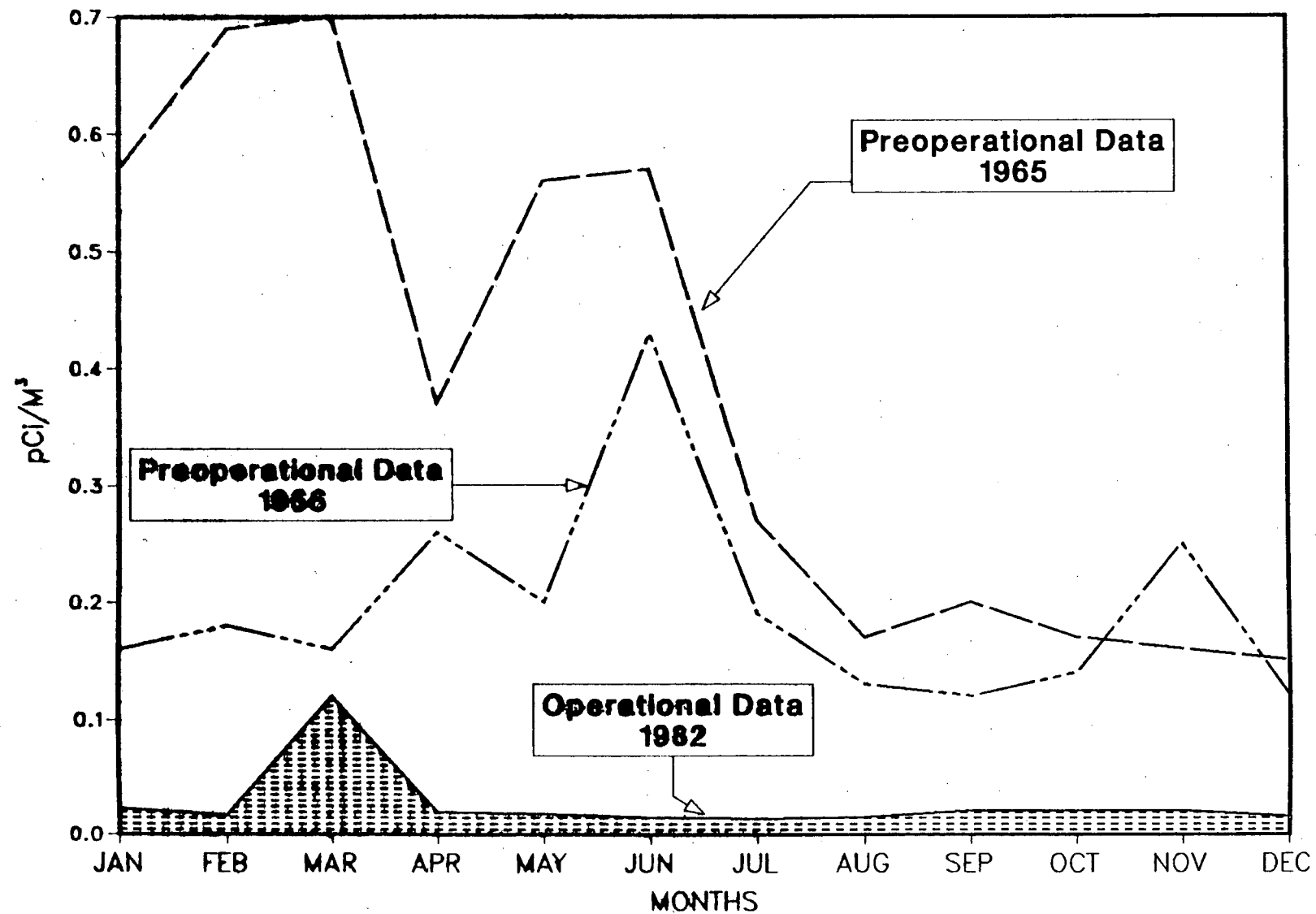


Figure 8

AVERAGE QUARTERLY WATER FILTRATE
GROSS BETA ACTIVITY
PRE-OP vs OPERATIONAL
TRI-CITIES

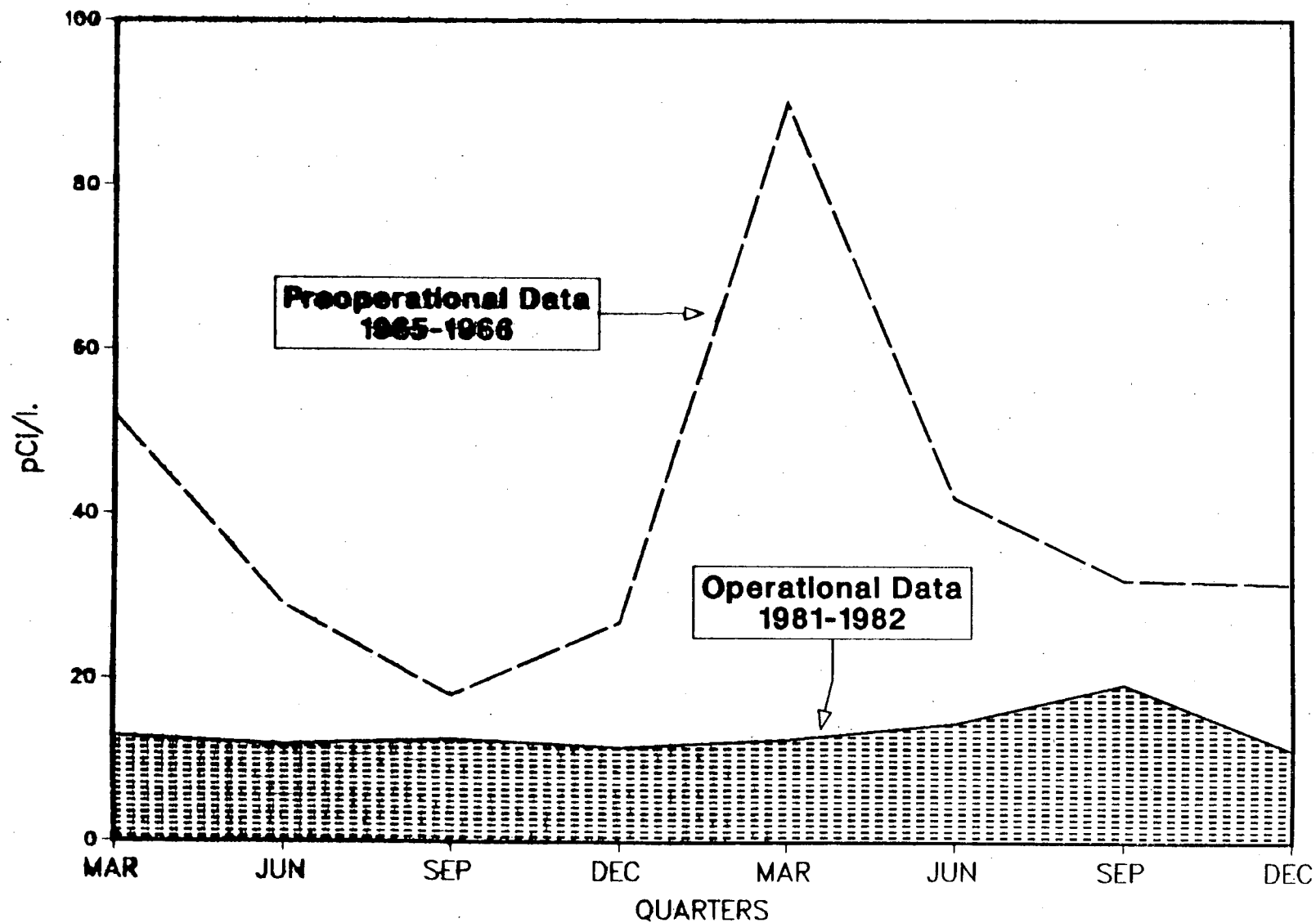


Figure 9

AVERAGE QUARTERLY WATER FILTRATE
GROSS BETA ACTIVITY
PRE-OP vs OPERATIONAL
SAN CLEMENTE

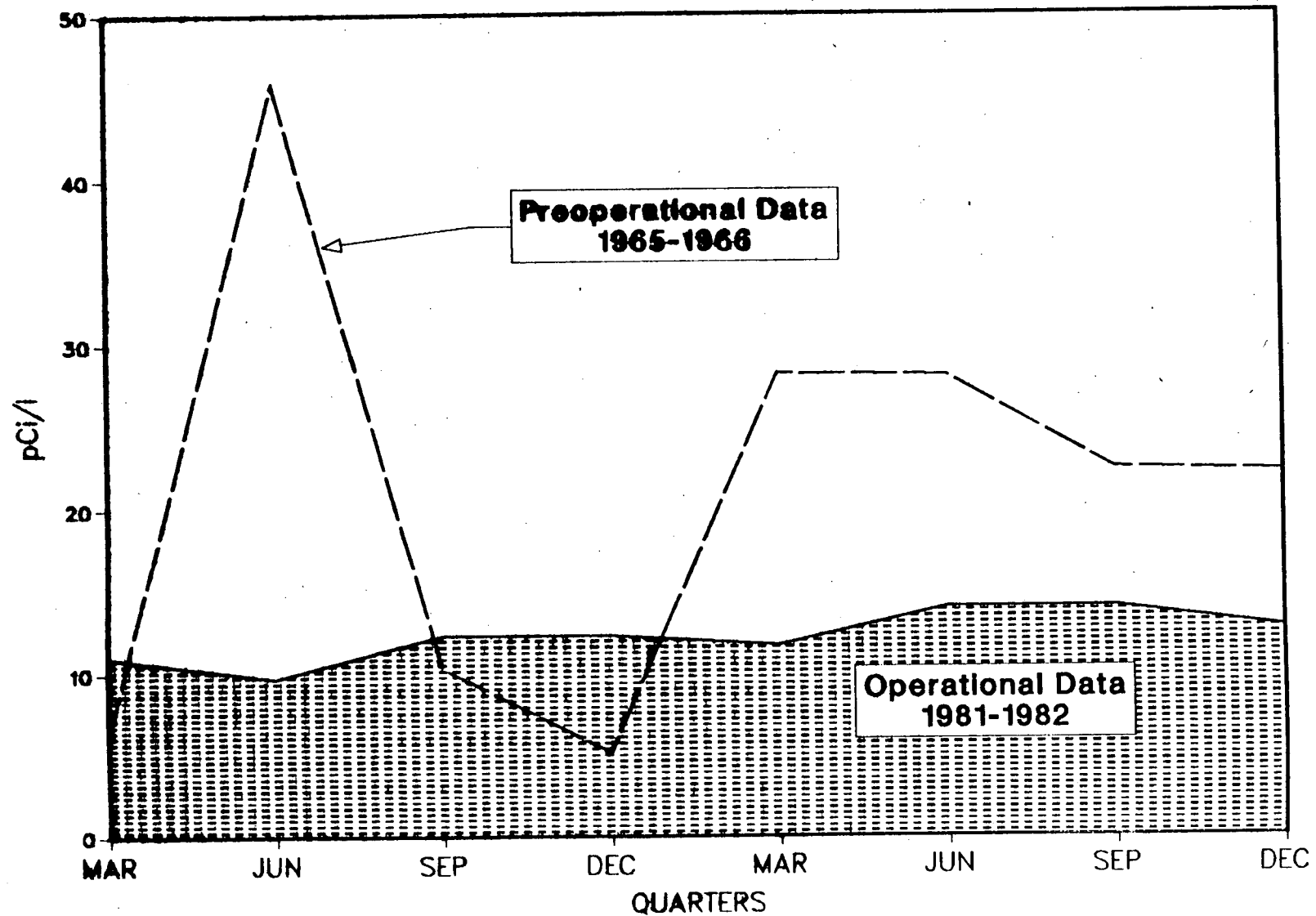


Figure 10

MONTHLY LIQUID EFFLUENT RELEASES SONGS1

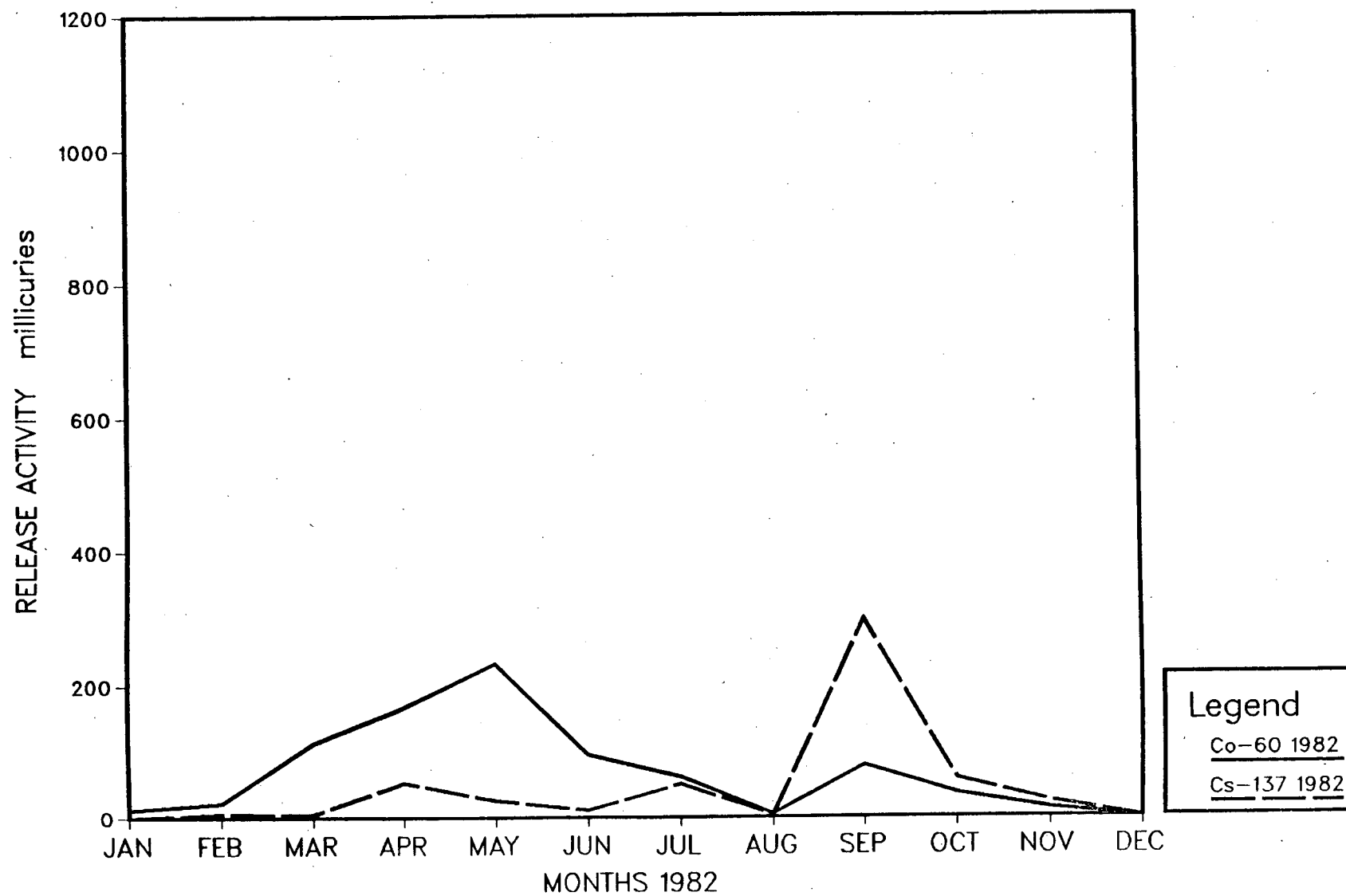


Figure 11

COBALT-60 ACTIVITY IN OCEAN BOTTOM SEDIMENT.

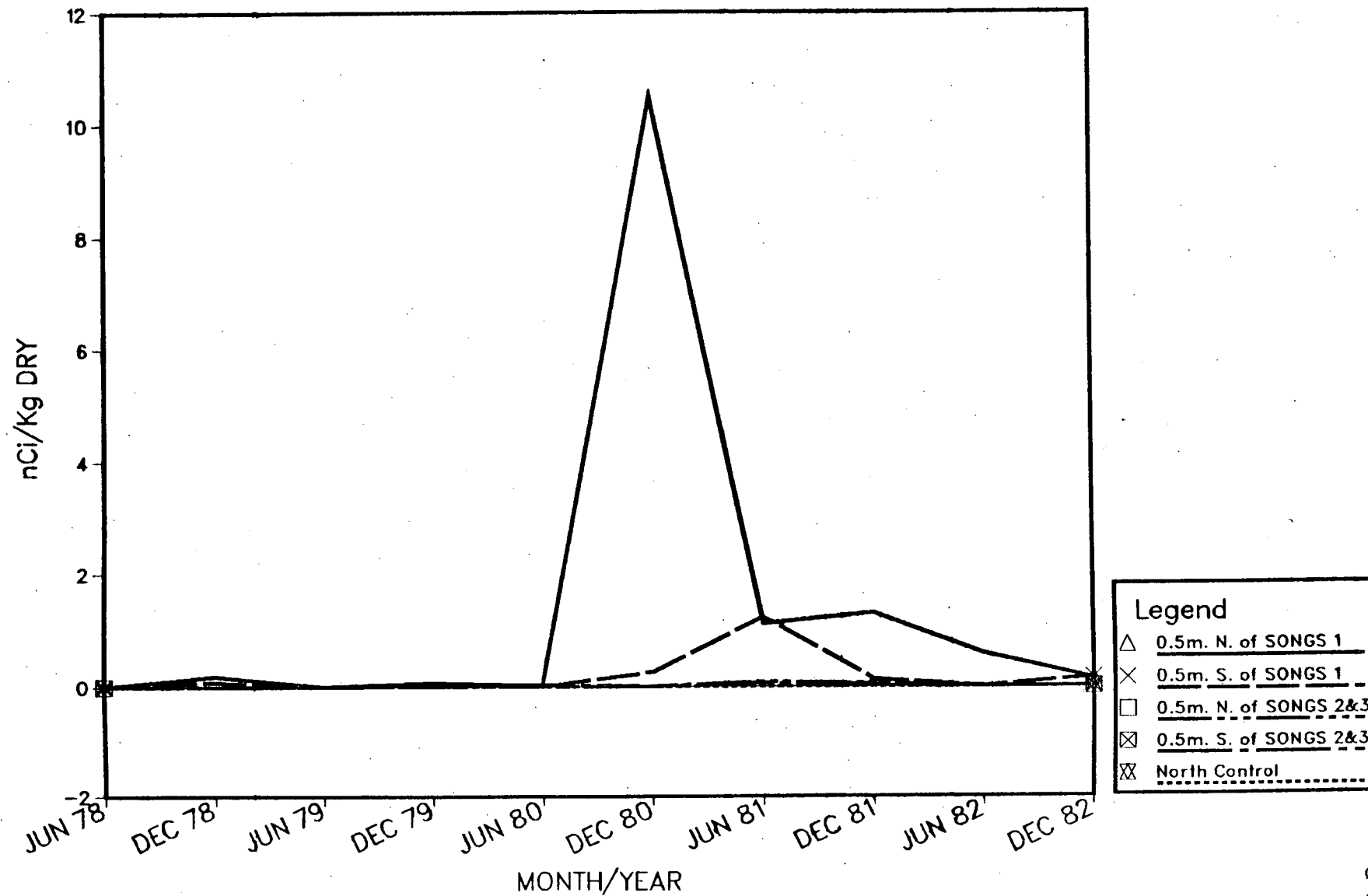


Figure 12

QUARTERLY EVALUATION OF Co-60
in
MARINE SPECIES
SONGS 1

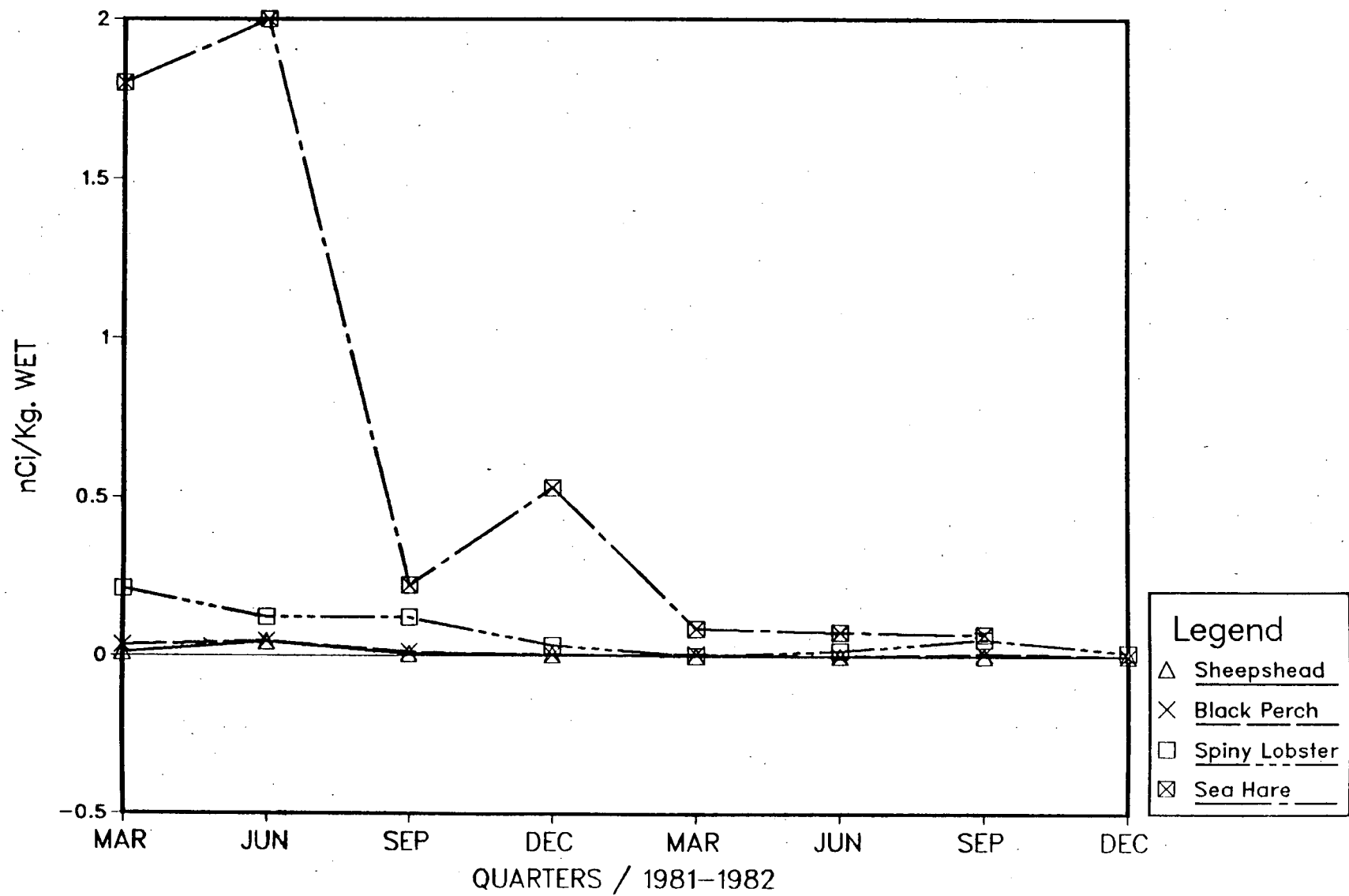


Figure 13

QUARTERLY EVALUATION OF Co-60
in
MARINE SPECIES
SONGS 1

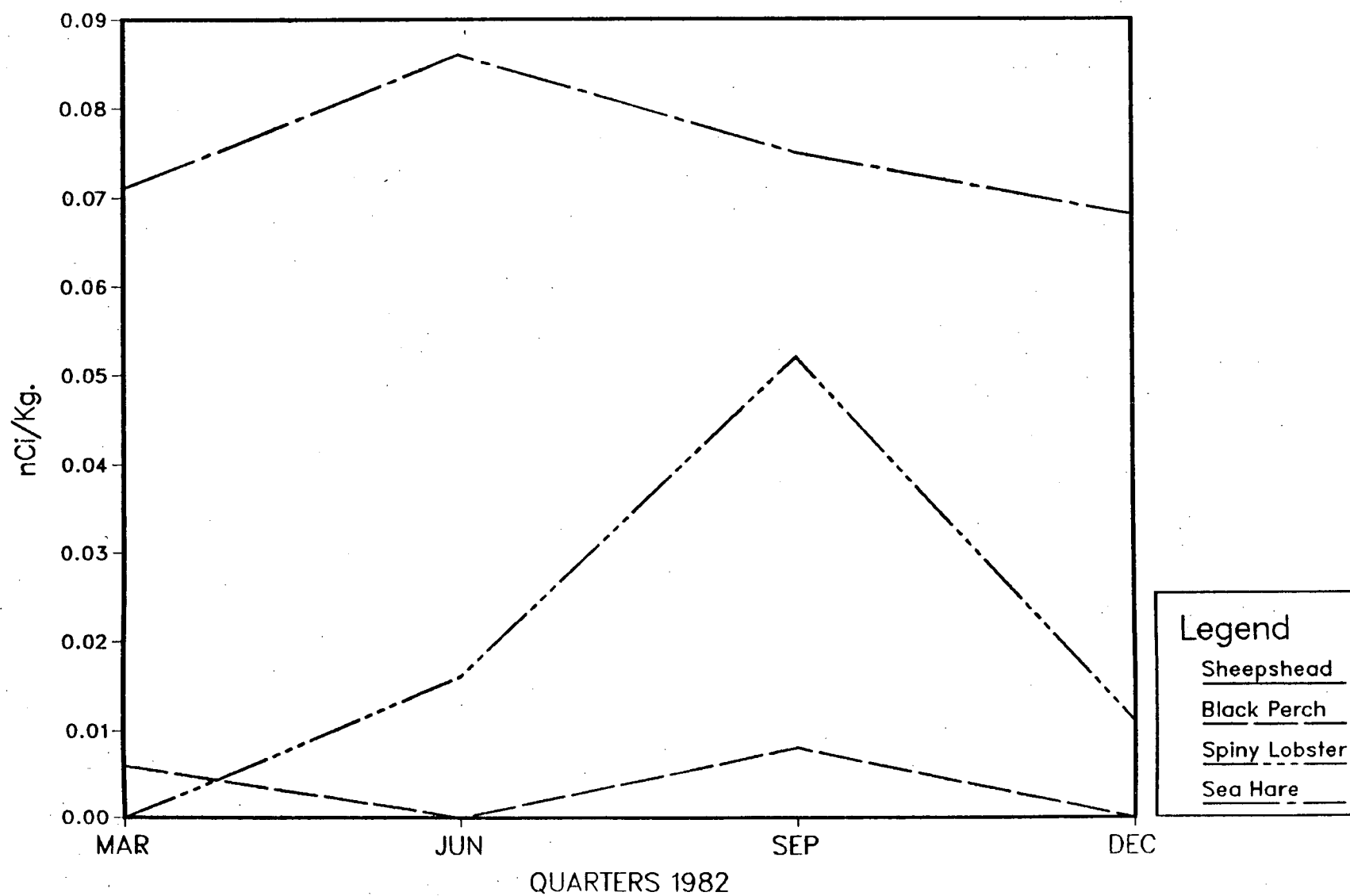


Figure 13a

QUARTERLY EVALUATION OF Co-60
in
MARINE SPECIES
SONGS 2/3

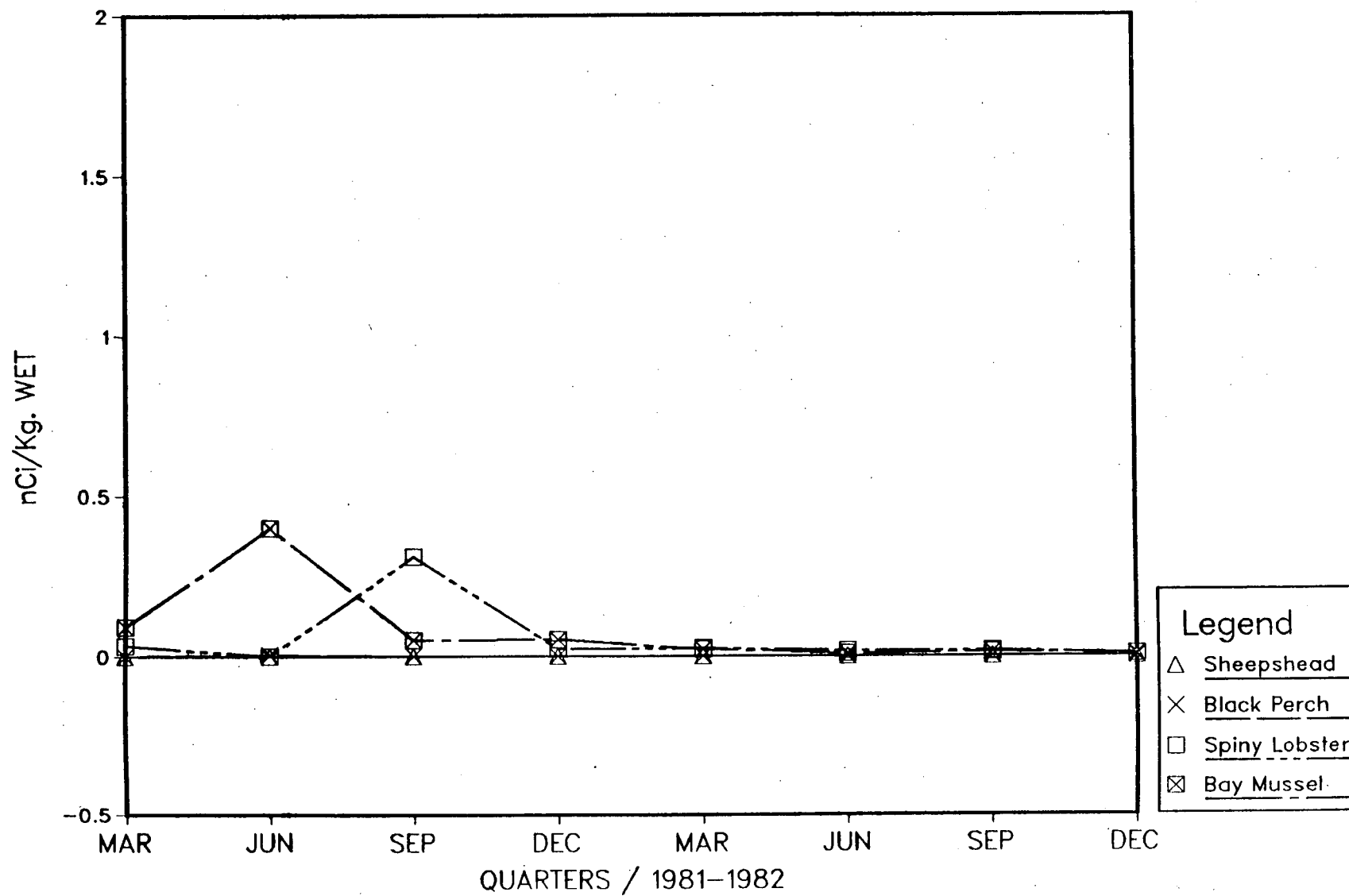


Figure 14

MONTHLY LIQUID EFFLUENT RELEASES SONGS1

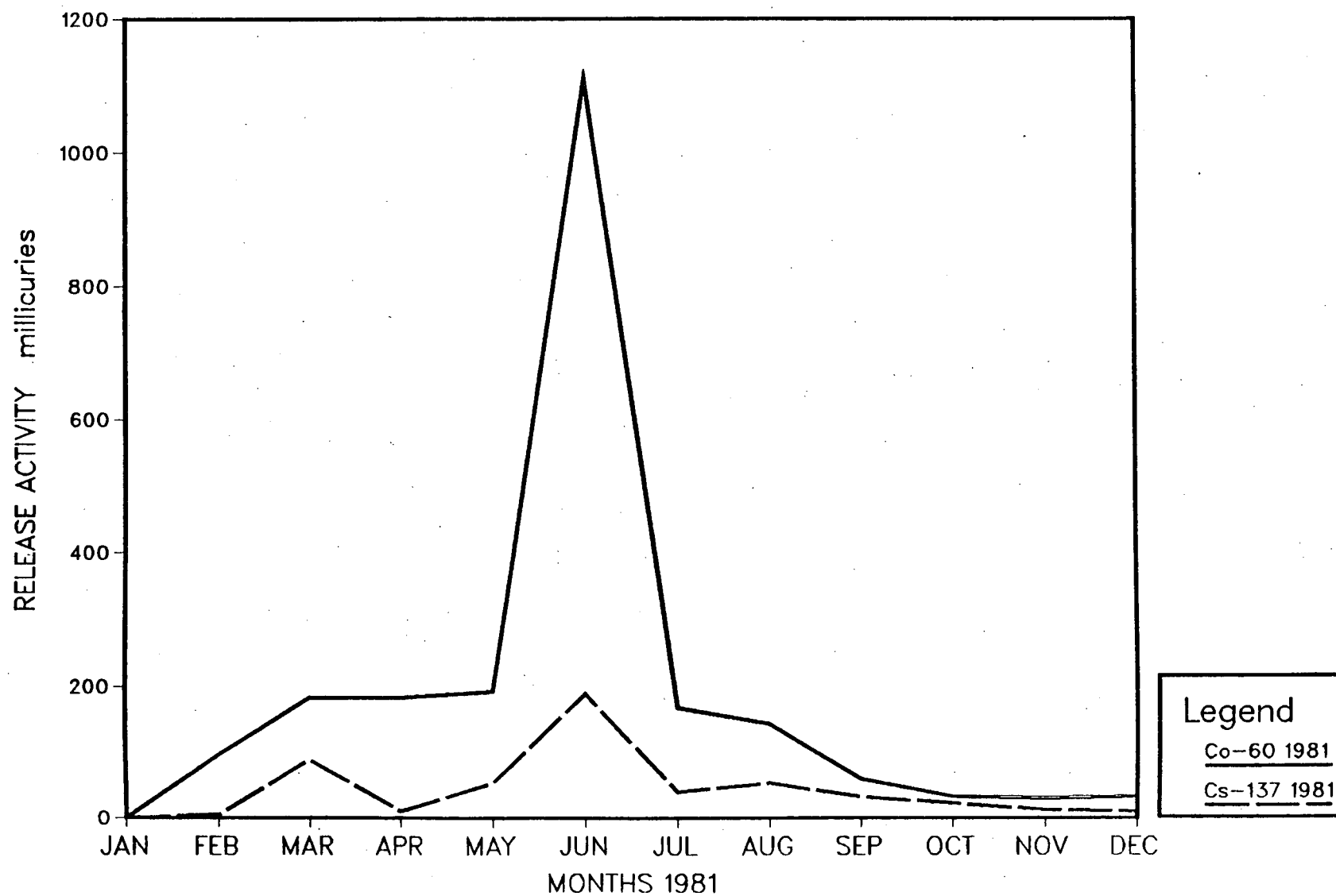


Figure 15

CESIUM-137 Activity in Ocean Bottom Sediment

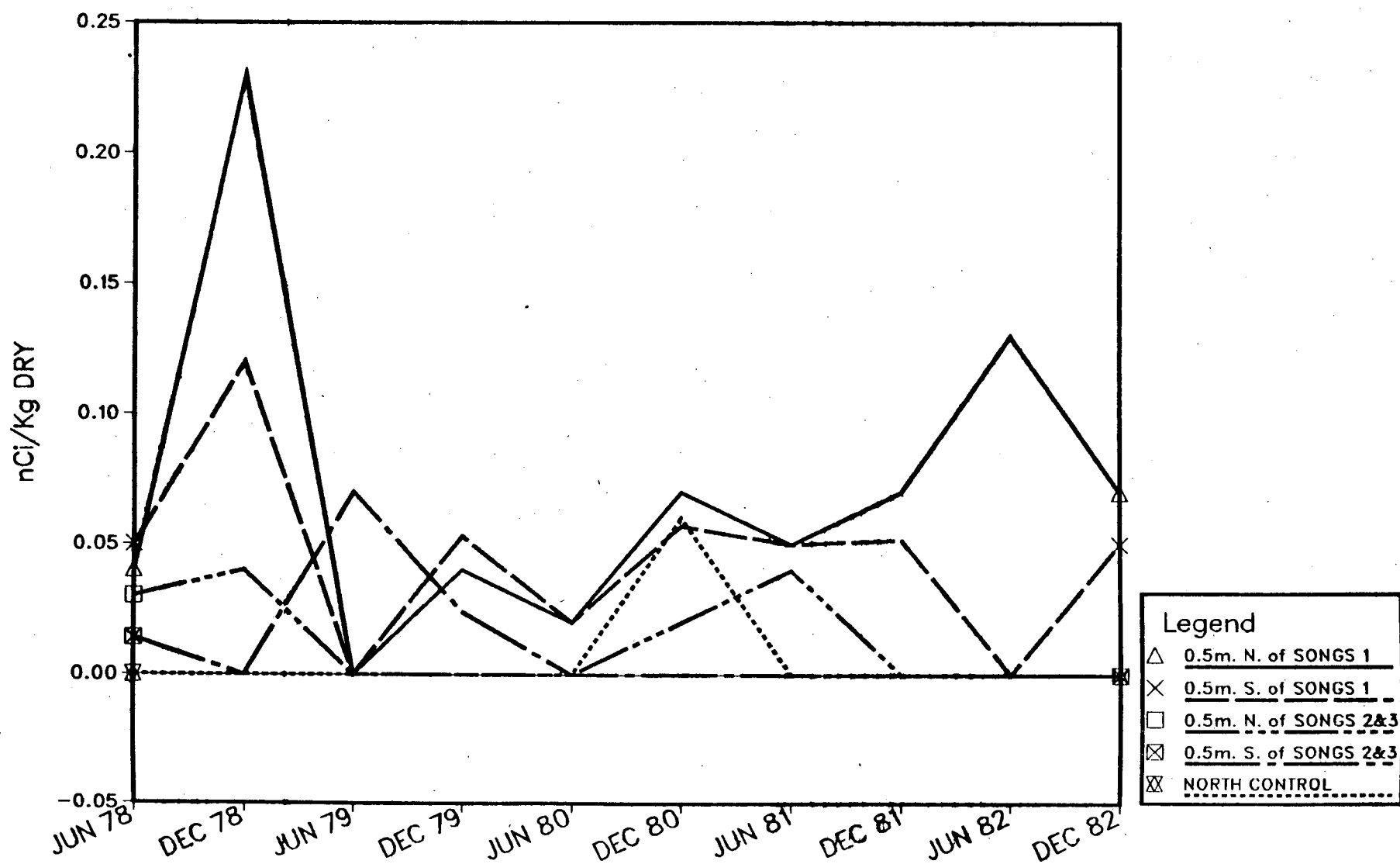


Figure 16

QUARTERLY EVALUATION OF Cs-137
in
MARINE SPECIES
SONGS 1

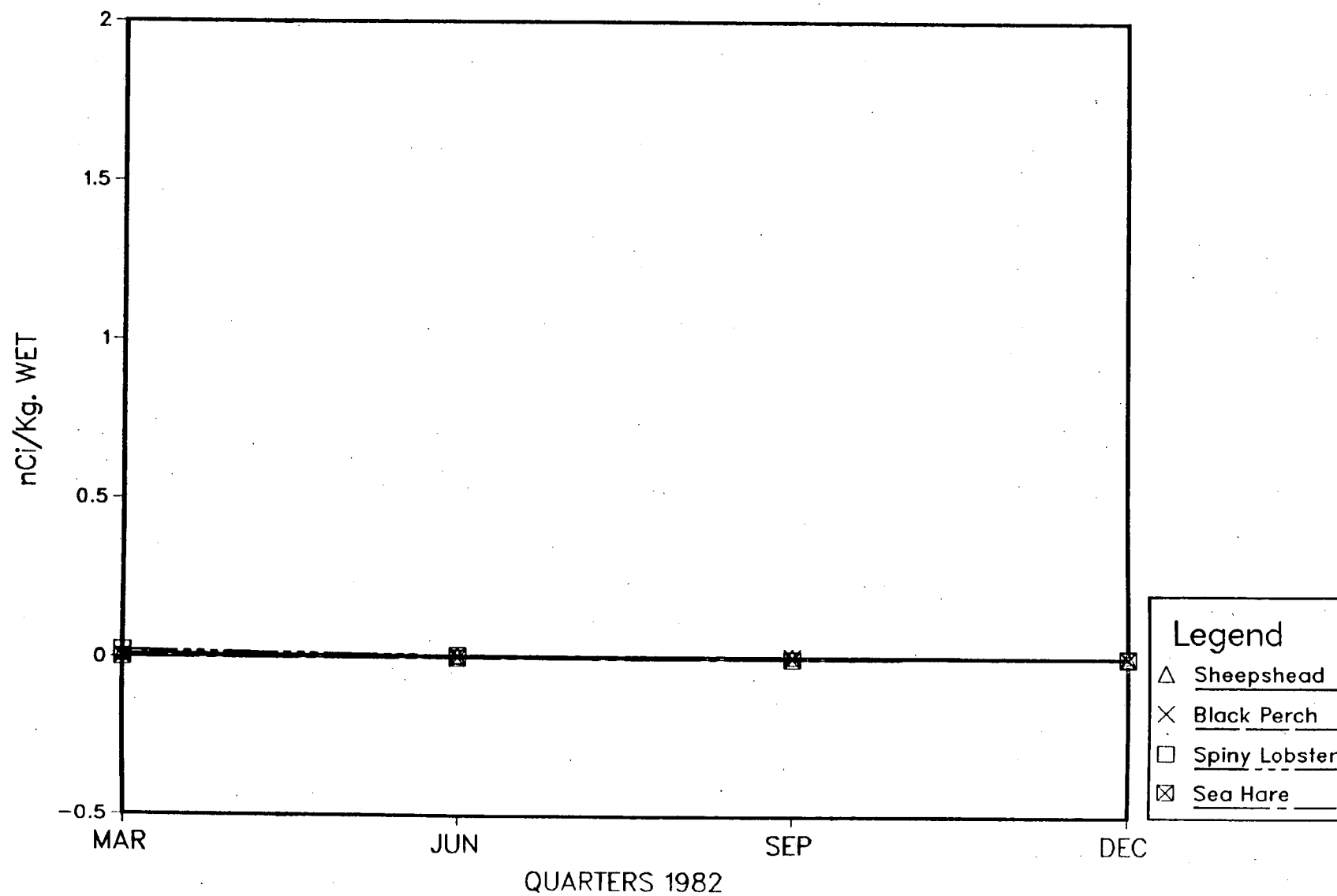


Figure 17

QUARTERLY EVALUATION OF Cs-137
in
MARINE SPECIES
SONGS 1

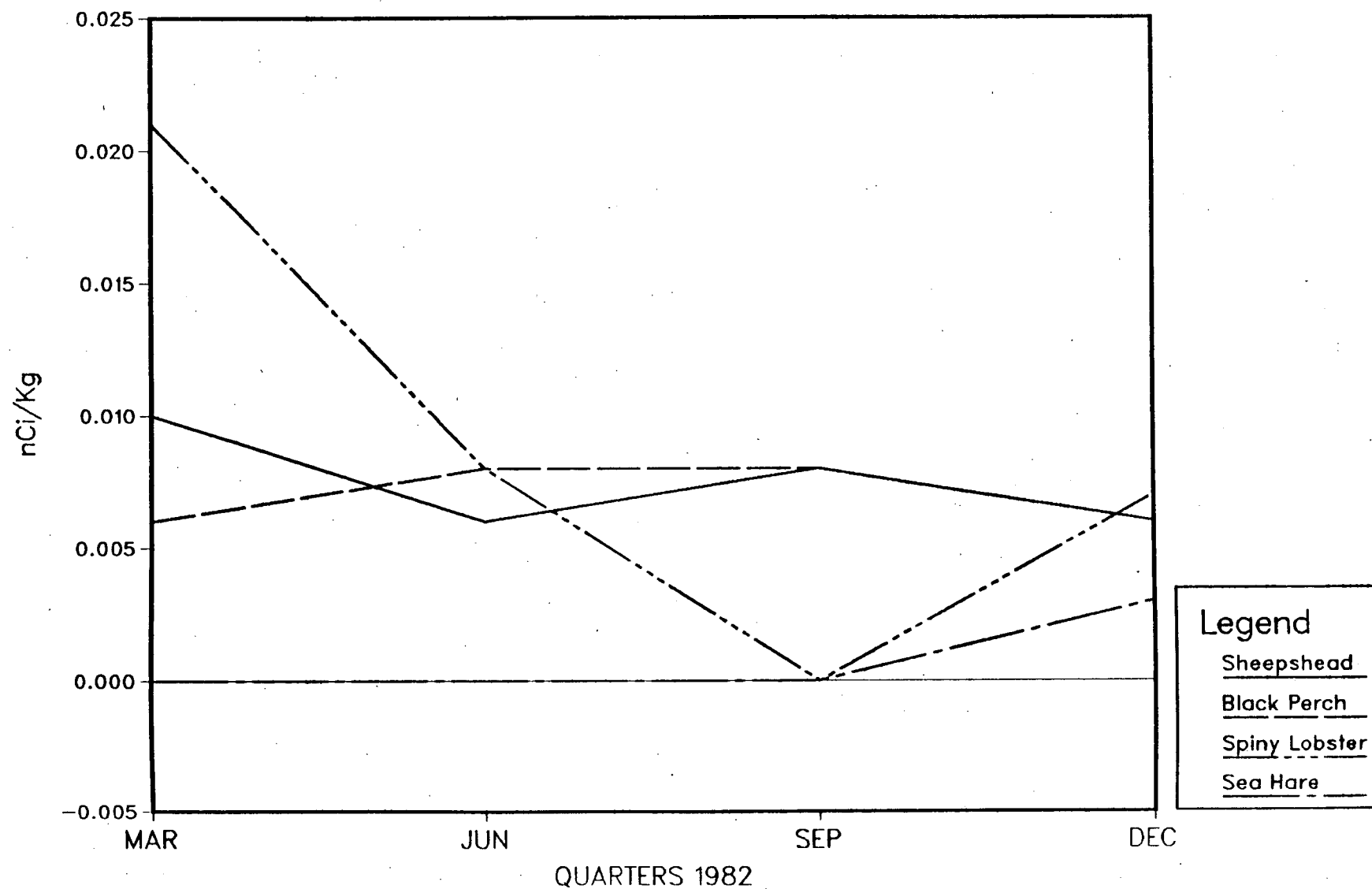


Figure 17a

QUARTERLY EVALUATION OF Cs-137
in
MARINE SPECIES
SONGS 2/3

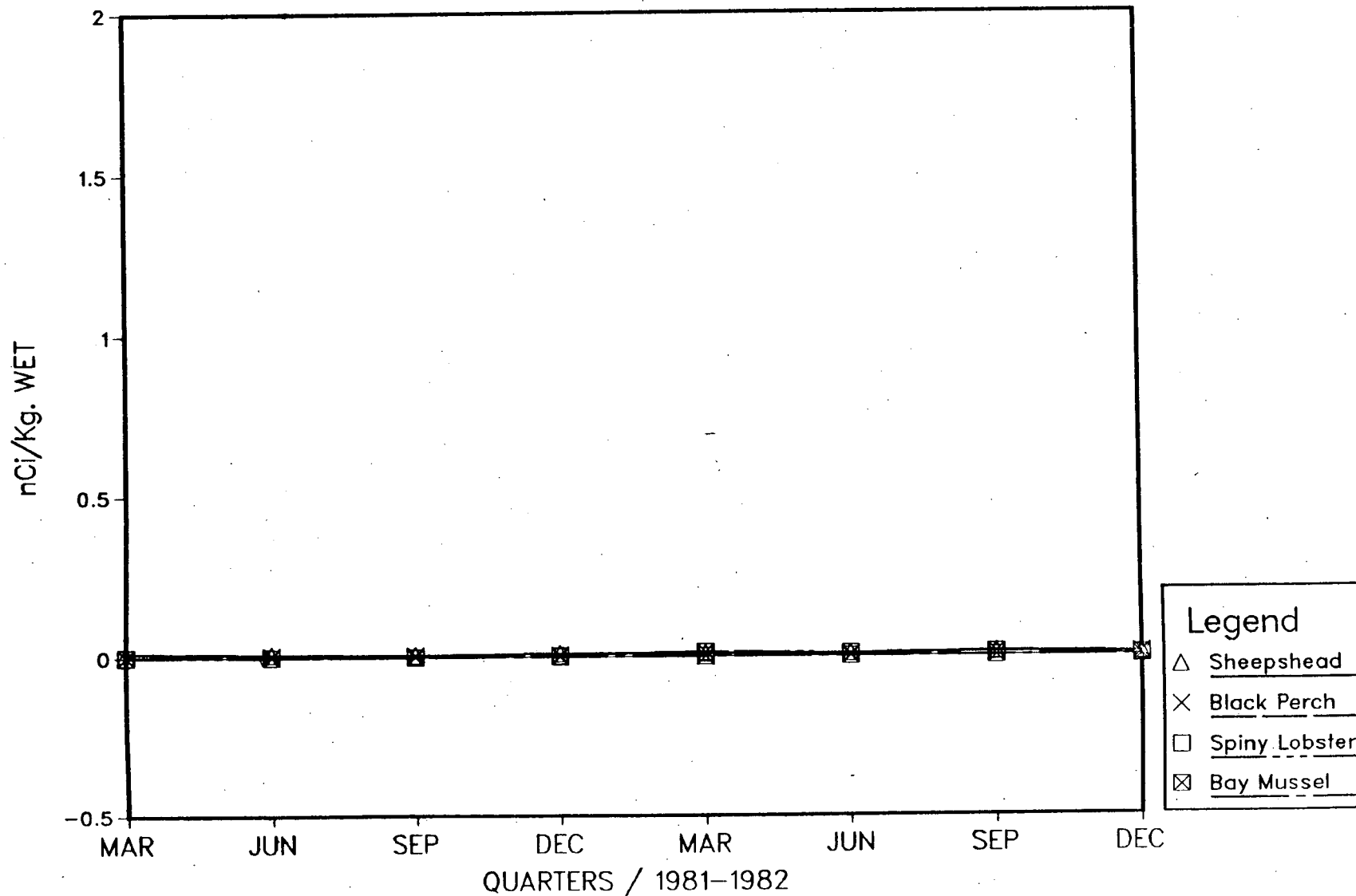


Figure 18

APPENDIX H

DATA TABLES

ACTION LEVELS

The following ETS action levels are used as guidelines for further analysis requirements:

Air Particulates - If gross beta in the indicator sample is equal or greater than 1.0 pCi/m^3 , then gamma spectral analysis must be performed.

Ocean Water - If Cesium-137 in the indicator sample is greater than twice the background level (control), then strontium analysis must be performed.

Drinking Water - If Cesium-137 in the indicator sample is equal or greater than 200 pCi/l , then strontium analysis must be performed.

If gross beta in composite filtrate is equal or greater than 30 pCi/l , then gamma spectral analysis must be performed.

Marine Species - If Cesium-137 is equal or greater than 6 nCi/kg wet weight of the edible tissue, then strontium analysis must be performed.

LEGEND

Asterisks (*) in the data tables indicate analyses not performed or not required.

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Minor Gaudery*Date: *March 25, 1983*

Table 1A: Quarterly Gamma Exposure

Control Location: #14

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #2	Location #3	Location #4	Location #5	Location #6	Location #7	Location #8
1	03/31/82	3	82	31	21.9	26.4	23.4	24.0	26.6	19.2	22.9	23.7
2	06/30/82	6	82	30	20.7	27.2	23.8	27.0	27.6	21.0	22.4	21.0
3	09/30/82	9	82	30	21.7	27.2	25.3	27.1	22.1	19.4	23.8	25.0
4	12/31/82	12	82	31	21.7	31.2	25.6	26.8	24.0	20.2	24.0	24.8
Observation Number	Calendar Date	Location #9	Location #10	Location #11	Location #12	Location #13	Location #14	Location #15	Location #16	Location #17	Location #18	Location #19
1	03/31/82	25.6	23.9	20.2	21.5	19.8	25.6	23.1	21.4	15.7	16.1	24.0
2	06/30/82	26.4	24.2	22.7	21.3	19.8	28.1	26.5	22.2	14.2	14.2	24.5
3	09/30/82	24.7	22.6	22.7	20.6	19.3	28.4	20.0	22.4	13.7	14.1	25.8
4	12/31/82	24.6	25.6	25.2	22.4	22.1	29.6	23.0	22.2	14.9	14.6	27.0
Observation Number	Calendar Date	Location #20	Location #21	Location #22	Location #23	Location #24	Location #25	Location #26	Location #27	Location #28	Location #29	Location #30
1	03/31/82	23.1	23.9	21.0	25.2	23.7	23.0	23.2	20.9	23.6	23.5	20.9
2	06/30/82	23.9	22.6	24.2	25.5	25.2	24.9	22.9	20.7	23.9	24.0	22.0
3	09/30/82	23.8	21.5	22.9	26.0	27.0	23.9	24.5	21.2	24.4	24.6	22.1
4	12/31/82	25.6	25.1	23.6	28.4	24.1	25.1	25.0	23.6	26.5	25.9	23.0
Observation Number	Calendar Date	Location #31	Location #32	Location #33	Location #34	Location #35	Location #36	Location #37	Location #38	Location #39	Location #40	Location #41
1	03/31/82	20.6	21.9	21.7	20.5	21.4	23.8	23.2	17.8	22.1	20.7	21.3
2	06/30/82	22.9	23.8	23.5	21.5	23.4	26.1	26.6	16.4	22.3	20.5	20.6
3	09/30/82	24.7	24.7	25.5	23.9	24.4	26.5	26.4	17.2	23.5	22.4	22.6
4	12/31/82	25.5	24.8	24.9	23.9	23.4	26.5	26.4	18.0	24.3	23.2	22.5
Observation Number	Calendar Date	Location #42	Location #43	Location #44	Location #45	Location #46	Location #47	Location #48	Location #49	Location #50	Location #51	Location #52
1	03/31/82	23.7	21.4	20.6	20.6	18.0	19.1	21.3	20.0	20.2	19.7	20.5
2	06/30/82	25.9	18.3	19.6	21.0	17.8	20.3	20.7	21.0	19.3	18.8	21.2
3	09/30/82	30.4	21.2	19.8	20.7	16.8	20.0	21.8	22.1	19.6	20.1	19.9
4	12/31/82	28.5	21.8	21.8	22.1	19.4	22.4	22.8	23.3	20.7	19.4	21.7
Observation Number	Calendar Date	Location #53	Location #54	Location #55	Location #56	Location #57	Location #58	Location #59				
1	03/31/82	19.8	21.0	30.1	25.8	19.4	19.9	22.2				
2	06/30/82	21.1	20.6	36.7	26.7	18.5	18.5	24.3				
3	09/30/82	19.5	22.2	34.3	26.7	18.9	19.5	24.5				
4	12/31/82	21.3	23.0	38.2	27.8	19.7	20.5	25.2				

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Nina Gauders Date: 3/25/83

Table 1b: Annual Gamma Exposure

Control Location: #14

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #2	Location #3	Location #4	Location #5	Location #6	Location #7	Location #8
1	12/31/82	12	82	31	86.2	107	97.8	95	97.2	76.8	86.7	92.8
Observation Number	Calendar Date	Location #9	Location #10	Location #11	Location #12	Location #13	Location #14	Location #15	Location #16	Location #17	Location #18	Location #19
1	12/31/82	100.5	95.3	92.2	91.9	80.8	109.4	90.7	82.4	64.6	63.7	95.3
Observation Number	Calendar Date	Location #20	Location #21	Location #22	Location #23	Location #24	Location #25	Location #26	Location #27	Location #28	Location #29	Location #30
1	12/31/82	94.9	89.8	89.2	102.6	93.8	90.3	88.7	83.2	95	95.2	91.7
Observation Number	Calendar Date	Location #31	Location #32	Location #33	Location #34	Location #35	Location #36	Location #37	Location #38	Location #39	Location #40	Location #41
1	12/31/82	88.9	85.5	86.8	87.3	87	96.7	100.5	74.3	93.1	84	86.6
Observation Number	Calendar Date	Location #42	Location #43	Location #44	Location #45	Location #46	Location #47	Location #48	Location #49	Location #50	Location #51	Location #52
1	12/31/82	105.7	80.5	80.7	83.6	70.4	79.3	86.3	84.4	81.7	80.4	80.6
Observation Number	Calendar Date	Location #53	Location #54	Location #55	Location #56	Location #57	Location #58	Location #59				
1	12/31/82	78.2	88.5	117.7	101	76.7	80.4	93.6				

N=1

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *A. Nina Goeters*Date: *3/25/83*

Table 2: Weekly Airborne Particulates Gross Beta Activity

Control Location: #3

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #1 (sigma)	Location #2	Location #2 (sigma)	Location #3
1	01/04/82	1	82	4	0.022	0.003	0.017	0.001	0.0280
2	01/11/82	1	82	11	0.025	0.001	0.026	0.001	0.0048
3	01/18/82	1	82	18	0.030	0.002	0.028	0.002	0.0410
4	01/25/82	1	82	25	0.014	0.001	0.016	0.001	0.0570
5	02/01/82	2	82	1	0.010	0.001	0.018	0.001	0.0050
6	02/08/82	2	82	8	0.025	0.001	0.014	0.001	0.0070
7	02/16/82	2	82	16	0.019	0.001	0.017	0.001	0.0050
8	02/23/82	2	82	23	0.013	0.001	0.009	0.001	0.0000
9	03/02/82	3	82	2	0.000	0.001	0.035	0.002	0.0200
10	03/09/82	3	82	9	0.013	0.001	0.010	0.001	0.0170
11	03/16/82	3	82	16	0.035	0.004	0.018	0.002	0.0370
12	03/23/82	3	82	23	0.012	0.001	0.012	0.001	0.0100
13	03/30/82	3	82	30	0.038	0.002	0.017	0.001	0.0420
14	04/06/82	4	82	6	0.007	0.001	0.008	0.001	0.0100
15	04/13/82	4	82	13	0.022	0.002	0.015	0.001	0.0220
16	04/20/82	4	82	20	0.012	0.001	0.011	0.001	0.0130
17	04/27/82	4	82	27	0.038	0.001	0.035	0.001	0.0410
18	05/04/82	5	82	4	0.015	0.001	0.018	0.001	0.0230
19	05/11/82	5	82	11	0.022	0.001	0.017	0.001	0.0220
20	05/18/82	5	82	18	0.012	0.001	0.012	0.001	0.0170
21	05/25/82	5	82	25	0.024	0.002	0.023	0.001	0.0250

Observation Number	Calendar Date	Location #3 (sigma)	Location #4	Location #4 (sigma)	Location #5	Location #5 (sigma)	Location #6	Location #6 (sigma)
1	01/04/82	0.0030	0.018	0.002	0.016	0.002	*	*
2	01/11/82	0.0006	0.027	0.001	0.028	0.001	0.024	0.001
3	01/18/82	0.0030	0.034	0.002	0.032	0.002	0.032	0.002
4	01/25/82	0.0040	0.022	0.001	0.022	0.001	0.029	0.002
5	02/01/82	0.0010	0.016	0.001	0.020	0.001	0.017	0.001
6	02/08/82	0.0010	0.017	0.002	0.032	0.001	0.018	0.001
7	02/16/82	0.0010	0.018	0.001	0.019	0.001	0.014	0.001
8	02/23/82	0.0010	0.011	0.001	0.013	0.001	0.011	0.001
9	03/02/82	0.0010	0.032	0.002	0.036	0.002	0.021	0.001
10	03/09/82	0.0010	0.016	0.001	0.015	0.001	0.018	0.001
11	03/16/82	0.0040	0.020	0.002	0.023	0.002	0.007	0.001
12	03/23/82	0.0010	0.015	0.001	0.015	0.001	0.014	0.001
13	03/30/82	0.0020	0.031	0.002	0.024	0.001	0.020	0.001
14	04/06/82	0.0010	0.013	0.001	0.014	0.001	0.012	0.001
15	04/13/82	0.0020	0.022	0.001	0.021	0.002	0.013	0.001
16	04/20/82	0.0010	0.017	0.001	0.012	0.001	0.015	0.001
17	04/27/82	0.0020	0.041	0.002	0.043	0.002	0.034	0.001
18	05/04/82	0.0010	0.020	0.001	0.023	0.001	0.023	0.001
19	05/11/82	0.0010	0.021	0.001	0.025	0.001	0.019	0.001
20	05/18/82	0.0010	0.018	0.001	0.015	0.001	0.020	0.002
21	05/25/82	0.0020	0.022	0.002	0.022	0.002	0.018	0.001

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Maria Gooders*Date: *3/25/83*

Table 2: Weekly Airborne Particulates Gross Beta Activity

Control Location: #3

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #1 (sigma)	Location #2	Location #2 (sigma)	Location #3
22	06/01/82	6	82	1	0.012	0.001	0.016	0.001	0.022
23	06/08/82	6	82	8	0.025	0.002	0.018	0.001	0.022
24	06/15/82	6	82	15	0.015	0.001	0.017	0.001	0.018
25	06/22/82	6	82	22	0.009	0.001	0.009	0.001	0.010
26	06/29/82	6	82	29	0.013	0.001	0.013	0.001	0.013
27	07/06/82	7	82	6	0.012	0.001	0.015	0.001	0.013
28	07/13/82	7	82	13	0.012	0.001	0.012	0.001	0.012
29	07/20/82	7	82	20	0.016	0.001	0.017	0.001	0.017
30	07/27/82	7	82	27	0.014	0.001	0.017	0.001	0.017
31	08/03/82	8	82	3	0.018	0.001	0.018	0.001	0.017
32	08/10/82	8	82	10	0.012	0.001	0.014	0.001	0.016
33	08/17/82	8	82	17	0.013	0.001	0.013	0.001	0.017
34	08/24/82	8	82	24	0.015	0.001	0.003	0.001	0.011
35	08/31/82	8	82	31	0.019	0.001	0.016	0.001	0.020
36	09/07/82	9	82	7	0.020	0.002	0.014	0.001	0.020
37	09/14/82	9	82	14	0.023	0.001	0.018	0.001	0.018
38	09/21/82	9	82	21	0.013	0.001	0.011	0.001	0.016
39	09/28/82	9	82	28	0.026	0.002	0.021	0.001	0.037
40	10/05/82	10	82	5	0.015	0.001	0.006	0.001	0.013
41	10/12/82	10	82	12	0.024	0.002	0.022	0.002	0.036
42	10/19/82	10	82	19	0.023	0.003	0.021	0.002	0.028
Observation Number	Calendar Date	Location #3 (sigma)	Location #4	Location #4 (sigma)	Location #5	Location #5 (sigma)	Location #6	Location #6 (sigma)	
22	06/01/82	0.001	0.022	0.001	0.018	0.001	0.020	0.001	
23	06/08/82	0.001	0.025	0.002	0.025	0.002	0.015	0.001	
24	06/15/82	0.001	0.019	0.001	0.019	0.001	0.019	0.001	
25	06/22/82	0.001	0.009	0.001	0.010	0.001	0.008	0.001	
26	06/29/82	0.001	0.016	0.001	0.015	0.001	0.014	0.001	
27	07/06/82	0.001	0.014	0.001	0.014	0.001	0.012	0.001	
28	07/13/82	0.001	0.015	0.001	0.010	0.001	0.016	0.001	
29	07/20/82	0.001	0.018	0.001	0.022	0.002	0.016	0.001	
30	07/27/82	0.001	0.017	0.001	0.017	0.001	0.017	0.001	
31	08/03/82	0.001	0.017	0.001	0.021	0.001	0.021	0.001	
32	08/10/82	0.001	0.013	0.001	0.015	0.001	0.019	0.001	
33	08/17/82	0.001	0.014	0.001	0.018	0.001	0.016	0.001	
34	08/24/82	0.001	0.018	0.001	0.015	0.001	0.019	0.001	
35	08/31/82	0.001	0.018	0.001	0.024	0.001	0.021	0.001	
36	09/07/82	0.002	0.020	0.002	0.018	0.001	0.023	0.002	
37	09/14/82	0.001	0.021	0.002	0.022	0.001	0.021	0.001	
38	09/21/82	0.001	0.016	0.001	0.010	0.001	0.013	0.001	
39	09/28/82	0.002	0.028	0.002	0.043	0.003	0.026	0.002	
40	10/05/82	0.001	0.014	0.001	0.013	0.001	0.020	0.001	
41	10/12/82	0.003	0.027	0.002	0.037	0.003	0.013	0.001	
42	10/19/82	0.003	0.046	0.002	0.036	0.002	0.052	0.002	

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by:

Dr. Nina Goeders

Date:

3/25/83

Table 2: Weekly Airborne Particulates Gross Beta Activity

Control Location: #3

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #1 (sigma)	Location #2	Location #2 (sigma)	Location #3
43	10/26/82	10	82	26	0.021	0.001	0.021	0.002	0.029
44	11/02/82	11	82	2	0.016	0.001	0.013	0.001	0.016
45	11/09/82	11	82	9	0.033	0.002	0.027	0.002	0.045
46	11/16/82	11	82	16	0.014	0.001	0.012	0.001	0.013
47	11/23/82	11	82	23	0.030	0.002	0.031	0.002	0.064
48	11/30/82	11	82	30	0.010	0.001	0.023	0.001	0.014
49	12/07/82	12	82	7	0.010	0.001	0.015	0.001	0.013
50	12/14/82	12	82	14	0.017	0.001	0.018	0.001	0.013
51	12/21/82	12	82	21	0.021	0.002	0.024	0.001	0.050
52	12/28/82	12	82	28	0.014	0.001	0.009	0.001	0.009

Observation Number	Calendar Date	Location #3 (sigma)	Location #4	Location #4 (sigma)	Location #5	Location #5 (sigma)	Location #6	Location #6 (sigma)
43	10/26/82	0.002	0.025	0.002	0.046	0.003	0.030	0.002
44	11/02/82	0.001	0.021	0.002	0.016	0.001	0.021	0.003
45	11/09/82	0.002	0.039	0.002	0.043	0.002	0.039	0.002
46	11/16/82	0.001	0.017	0.001	0.020	0.001	0.013	0.001
47	11/23/82	0.004	0.031	0.002	0.063	0.005	0.045	0.003
48	11/30/82	0.001	0.021	0.002	0.018	0.002	0.029	0.002
49	12/07/82	0.001	0.013	0.001	0.017	0.001	0.018	0.001
50	12/14/82	0.001	0.018	0.001	0.018	0.001	0.020	0.001
51	12/21/82	0.007	0.025	0.002	0.032	0.003	0.022	0.002
52	12/28/82	0.001	0.010	0.001	0.010	0.001	0.004	0.001

N=52

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Greders*Date: *3/25/83*

Table 3: Weekly Radioiodine I-131 Activity

Control Location: #3

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #1 (sigma)	Location #2	Location #2 (sigma)	Location #3
1	01/04/82	1	82	4	0	0.04	0	0.04	0
2	01/11/82	1	82	11	0	0.04	0	0.04	0
3	01/18/82	1	82	18	0	0.04	0	0.04	0
4	01/25/82	1	82	25	0	0.04	0	0.04	0
5	02/01/82	2	82	1	0	0.04	0	0.04	0
6	02/08/82	2	82	8	0	0.04	0	0.04	0
7	02/16/82	2	82	16	0	0.04	0	0.04	0
8	02/23/82	2	82	23	0	0.04	0	0.04	0
9	03/02/82	3	82	2	0	0.04	0	0.04	0
10	03/09/82	3	82	9	0	0.04	0	0.04	0
11	03/16/82	3	82	16	0	0.04	0	0.04	0
12	03/23/82	3	82	23	0	0.04	0	0.04	0
13	03/30/82	3	82	30	0	0.04	0	0.04	0
14	04/06/82	4	82	6	0	0.04	0	0.04	0
15	04/13/82	4	82	13	0	0.04	0	0.04	0
16	04/20/82	4	82	20	0	0.04	0	0.04	0
17	04/27/82	4	82	27	0	0.04	0	0.04	0
18	05/04/82	5	82	4	0	0.04	0	0.04	0
19	05/11/82	5	82	11	0	0.04	0	0.04	0
20	05/18/82	5	82	18	0	0.04	0	0.04	0
21	05/25/82	5	82	25	0	0.04	0	0.04	0

Observation Number	Calendar Date	Location #3 (sigma)	Location #4	Location #4 (sigma)	Location #5	Location #5 (sigma)	Location #6	Location #6 (sigma)
1	01/04/82	0.04	0	0.04	0	0.04	0	0.04
2	01/11/82	0.04	0	0.04	0	0.04	0	0.04
3	01/18/82	0.04	0	0.04	0	0.04	0	0.04
4	01/25/82	0.04	0	0.04	0	0.04	0	0.04
5	02/01/82	0.04	0	0.04	0	0.04	0	0.04
6	02/08/82	0.04	0	0.04	0	0.04	0	0.04
7	02/16/82	0.04	0	0.04	0	0.04	0	0.04
8	02/23/82	0.04	0	0.04	0	0.04	0	0.04
9	03/02/82	0.04	0	0.04	0	0.04	0	0.04
10	03/09/82	0.04	0	0.04	0	0.04	0	0.04
11	03/16/82	0.04	0	0.04	0	0.04	0	0.04
12	03/23/82	0.04	0	0.04	0	0.04	0	0.04
13	03/30/82	0.04	0	0.04	0	0.04	0	0.04
14	04/06/82	0.04	0	0.04	0	0.04	0	0.04
15	04/13/82	0.04	0	0.04	0	0.04	0	0.04
16	04/20/82	0.04	0	0.04	0	0.04	0	0.04
17	04/27/82	0.04	0	0.04	0	0.04	0	0.04
18	05/04/82	0.04	0	0.04	0	0.04	0	0.04
19	05/11/82	0.04	0	0.04	0	0.04	0	0.04
20	05/18/82	0.04	0	0.04	0	0.04	0	0.04
21	05/25/82	0.04	0	0.04	0	0.04	0	0.04

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by:

Dr. Mina Greders

Date:

3/25/83

Table 3: Weekly Radiiodine I-131 Activity

Control Location: #3

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #1 (sigma)	Location #2	Location #2 (sigma)	Location #3
22	06/01/82	6	82	1	0	0.04	0	0.04	0
23	06/08/82	6	82	8	0	0.04	0	0.04	0
24	06/15/82	6	82	15	0	0.04	0	0.04	0
25	06/22/82	6	82	22	0	0.04	0	0.04	0
26	06/29/82	6	82	29	0	0.04	0	0.04	0
27	07/06/82	7	82	6	0	0.04	0	0.04	0
28	07/13/82	7	82	13	0	0.04	0	0.04	0
29	07/20/82	7	82	20	0	0.04	0	0.04	0
30	07/27/82	7	82	27	0	0.04	0	0.04	0
31	08/03/82	8	82	3	0	0.04	0	0.04	0
32	08/10/82	8	82	10	0	0.04	0	0.04	0
33	08/17/82	8	82	17	0	0.04	0	0.04	0
34	08/24/82	8	82	24	0	0.04	0	0.04	0
35	08/31/82	8	82	31	0	0.04	0	0.04	0
36	09/07/82	9	82	7	0	0.04	0	0.04	0
37	09/14/82	9	82	14	0	0.04	0	0.04	0
38	09/21/82	9	82	21	0	0.04	0	0.04	0
39	09/28/82	9	82	28	0	0.04	0	0.04	0
40	10/05/82	10	82	5	0	0.04	0	0.04	0
41	10/12/82	10	82	12	0	0.04	0	0.04	0
42	10/19/82	10	82	19	0	0.04	0	0.04	0

Observation Number	Calendar Date	Location #3 (sigma)	Location #4	Location #4 (sigma)	Location #5	Location #5 (sigma)	Location #6	Location #6 (sigma)
22	06/01/82	0.04	0	0.04	0	0.04	0	0.04
23	06/08/82	0.04	0	0.04	0	0.04	0	0.04
24	06/15/82	0.04	0	0.04	0	0.04	0	0.04
25	06/22/82	0.04	0	0.04	0	0.04	0	0.04
26	06/29/82	0.04	0	0.04	0	0.04	0	0.04
27	07/06/82	0.04	0	0.04	0	0.04	0	0.04
28	07/13/82	0.04	0	0.04	0	0.04	0	0.04
29	07/20/82	0.04	0	0.04	0	0.04	0	0.04
30	07/27/82	0.04	0	0.04	0	0.04	0	0.04
31	08/03/82	0.04	0	0.04	0	0.04	0	0.04
32	08/10/82	0.04	0	0.04	0	0.04	0	0.04
33	08/17/82	0.04	0	0.04	0	0.04	0	0.04
34	08/24/82	0.04	0	0.04	0	0.04	0	0.04
35	08/31/82	0.04	0	0.04	0	0.04	0	0.04
36	09/07/82	0.04	0	0.04	0	0.04	0	0.04
37	09/14/82	0.04	0	0.04	0	0.04	0	0.04
38	09/21/82	0.04	0	0.04	0	0.04	0	0.04
39	09/28/82	0.04	0	0.04	0	0.04	0	0.04
40	10/05/82	0.04	0	0.04	0	0.04	0	0.04
41	10/12/82	0.04	0	0.04	0	0.04	0	0.04
42	10/19/82	0.04	0	0.04	0	0.04	0	0.04

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. M. G. GodelsDate: 3/25/83

Table 3: Weekly Radioiodine I-131 Activity

Control Location: #3

Observation Number	Calendar Date	Calendar Month	Calendar Year	Calendar Day	Location #1	Location #1 (sigma)	Location #2	Location #2 (sigma)	Location #3
43	10/26/82	10	82	26	0	0.04	0	0.04	0
44	11/02/82	11	82	2	0	0.04	0	0.04	0
45	11/09/82	11	82	9	0	0.04	0	0.04	0
46	11/16/82	11	82	16	0	0.04	0	0.04	0
47	11/23/82	11	82	23	0	0.04	0	0.04	0
48	11/30/82	11	82	30	0	0.04	0	0.04	0
49	12/07/82	12	82	7	0	0.04	0	0.04	0
50	12/14/82	12	82	14	0	0.04	0	0.04	0
51	12/21/82	12	82	21	0	0.04	0	0.04	0
52	12/28/82	12	82	28	0	0.04	0	0.04	0

Observation Number	Calendar Date	Location #3 (sigma)	Location #4	Location #4 (sigma)	Location #5	Location #5 (sigma)	Location #6	Location #6 (sigma)
43	10/26/82	0.04	0	0.04	0	0.04	0	0.04
44	11/02/82	0.04	0	0.04	0	0.04	0	0.04
45	11/09/82	0.04	0	0.04	0	0.04	0	0.04
46	11/16/82	0.04	0	0.04	0	0.04	0	0.04
47	11/23/82	0.04	0	0.04	0	0.04	0	0.04
48	11/30/82	0.04	0	0.04	0	0.04	0	0.04
49	12/07/82	0.04	0	0.04	0	0.04	0	0.04
50	12/14/82	0.04	0	0.04	0	0.04	0	0.04
51	12/21/82	0.04	0	0.04	0	0.04	0	0.04
52	12/28/82	0.04	0	0.04	0	0.04	0	0.04

N=52

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Nina Gooders*Date: *3/25/83*

Table 4a: Quarterly Composite Airborne Particulates Gamma Spectral Analysis

Control Location: #3

Observation Number	Calendar Date	Location	Calendar Year	Quarter	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-134	Cs-134 (sigma)	K-40	K-40 (sigma)	Ru-103	Ru-103 (sigma)
1	01/01/82	1	82	1	0.062	0.006	*	*	*	*	*	*	*	*
2	01/01/82	2	82	1	0.070	0.004	*	*	*	*	*	*	*	*
3	01/01/82	3	82	1	0.034	0.003	*	*	*	*	*	*	*	*
4	01/01/82	4	82	1	0.146	0.008	*	*	*	*	*	*	*	*
5	01/01/82	5	82	1	0.188	0.009	*	*	*	*	*	*	*	*
6	01/01/82	6	82	1	0.064	0.004	*	*	*	*	*	*	*	*
7	04/01/82	1	82	2	0.088	0.008	0	0.004	0	0.001	*	*	0	0.004
8	04/01/82	2	82	2	0.067	0.004	0	0.004	0	0.001	*	*	0	0.004
9	04/01/82	3	82	2	0.075	0.004	0	0.004	0	0.001	*	*	0	0.004
10	04/01/82	4	82	2	0.093	0.006	0	0.004	0	0.001	*	*	0	0.004
11	04/01/82	5	82	2	0.083	0.005	0	0.004	0	0.001	*	*	0	0.004
12	04/01/82	6	82	2	0.087	0.005	0	0.004	0	0.001	*	*	0	0.004
13	07/01/82	1	82	3	0.055	0.003	0	0.004	0	0.001	*	*	0	0.004
14	07/01/82	2	82	3	0.062	0.004	0	0.004	0	0.001	*	*	0	0.004
15	07/01/82	3	82	3	0.063	0.004	0	0.004	0	0.001	*	*	0	0.004
16	07/01/82	4	82	3	0.060	0.005	0	0.004	0	0.001	*	*	0	0.004
17	07/01/82	5	82	3	0.061	0.005	0	0.004	0	0.001	*	*	0	0.004
18	07/01/82	6	82	3	0.059	0.005	0	0.004	0	0.001	*	*	0	0.004
19	10/01/82	1	82	4	0.080	0.006	0	0.004	0	0.001	*	*	0	0.004
20	10/01/82	2	82	4	0.071	0.004	0	0.004	0	0.001	*	*	0	0.004
21	10/01/82	3	82	4	0.085	0.005	0	0.004	0	0.001	*	*	0	0.004

Observation Number	Calendar Date	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m	Ag-110m (sigma)	Ce-141	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131	I-131 (sigma)	Ce-144	Ce-144 (sigma)
1	01/01/82	0	0.001	*	*	*	*	*	*	*	*	*	*	*	*
2	01/01/82	0	0.001	*	*	*	*	*	*	*	*	*	*	*	*
3	01/01/82	0	0.001	*	*	*	*	*	*	*	*	*	*	*	*
4	01/01/82	0	0.001	*	*	*	*	*	*	*	*	*	*	*	*
5	01/01/82	0	0.001	*	*	*	*	*	*	*	*	*	*	*	*
6	01/01/82	0	0.001	*	*	*	*	*	*	*	*	*	*	*	*
7	04/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
8	04/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
9	04/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
10	04/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
11	04/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
12	04/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
13	07/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
14	07/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
15	07/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
16	07/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
17	07/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
18	07/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
19	10/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
20	10/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
21	10/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mina GoodersDate: 3/25/83

Table 4a: Quarterly Composite Airborne Particulates Gamma Spectral Analysis

Control Location: #3

Observation Number	Calendar Date	Location	Calendar Year	Quarter	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-134	Cs-134 (sigma)	K-40	K-40 (sigma)	Ru-103	Ru-103 (sigma)
22	10/01/82	4	82	4	0.090	0.004	0	0.004	0	0.001	*	*	0	0.004
23	10/01/82	5	82	4	0.078	0.006	0	0.004	0	0.001	*	*	0	0.004
24	10/01/82	6	82	4	0.093	0.005	0	0.004	0	0.001	*	*	0	0.004

Observation Number	Calendar Date	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m	Ag-110m (sigma)	Ce-141	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131	I-131 (sigma)	Ce-144	Ce-144 (sigma)
22	10/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
23	10/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005
24	10/01/82	0	0.001	0	0.002	*	*	0	0.004	0	0.002	*	*	0	0.005

N=24

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Gredler*Date: *3/25/83*

Table 4c: Quarterly Composite Airborne Particulates Gross Alpha and Strontium Activities

Control Location: #3

Observation Number	Calendar Date	Calendar Year	Quarter	Location 1 Sr-89	Location 1 Sr-89(sigma)	Location 1 Sr-90	Location 1 Sr-90(sigma)	Location 1 Gross Alpha	Location 1 Gross Alpha (sigma)
1	01/01/82	82	1	*	*	0	0.001	0.0021	0.0002
2	04/01/82	82	2	*	*	0	0.001	0.0024	0.0002
3	07/01/82	82	3	*	*	0	0.001	0.0016	0.0001
4	10/01/82	82	4	*	*	0	0.001	0.0038	0.0006
Observation Number	Calendar Date	Location 2 Sr-89	Location 2 Sr-89(sigma)	Location 2 Sr-90	Location 2 Sr-90(sigma)	Location 2 Gross Alpha	Location 2 Gross Alpha (sigma)	Location 3 Sr-89	Location 3 Sr-89(sigma)
1	01/01/82	*	*	0	0.001	0.0022	0.0002	*	*
2	04/01/82	*	*	0	0.001	0.0021	0.0001	*	*
3	07/01/82	*	*	0	0.001	0.0015	0.0001	*	*
4	10/01/82	*	*	0	0.001	0.0018	0.0001	*	*
Observation Number	Calendar Date	Location 3 Sr-90	Location 3 Sr-90(sigma)	Location 3 Gross Alpha	Location 3 Gross Alpha (sigma)	Location 4 Sr-89	Location 4 Sr-89(sigma)	Location 4 Sr-90	Location 4 Sr-90(sigma)
1	01/01/82	0	0.001	0.0010	0.0001	*	*	0	0.001
2	04/01/82	0	0.001	0.0026	0.0001	*	*	0	0.001
3	07/01/82	0	0.001	0.0021	0.0001	*	*	0	0.001
4	10/01/82	0	0.001	0.0040	0.0002	*	*	0	0.001
Observation Number	Calendar Date	Location 4 Gross Alpha	Location 4 Gross Alpha (sigma)	Location 5 Sr-89	Location 5 Sr-89(sigma)	Location 5 Sr-90	Location 5 Sr-90(sigma)	Location 5 Gross Alpha	Location 5 Gross Alpha (sigma)
1	01/01/82	0.0023	0.0003	*	*	0	0.001	0.0021	0.0003
2	04/01/82	0.0028	0.0001	*	*	0	0.001	0.0030	0.0001
3	07/01/82	0.0018	0.0001	*	*	0	0.001	0.0023	0.0001
4	10/01/82	0.0025	0.0002	*	*	0	0.001	0.0045	0.0002
Observation Number	Calendar Date	Location 6 Sr-89	Location 6 Sr-89(sigma)	Location 6 Sr-90	Location 6 Sr-90(sigma)	Location 6 Gross Alpha	Location 6 Gross Alpha (sigma)		
1	01/01/82	*	*	0	0.001	0.0018	0.0004		
2	04/01/82	*	*	0	0.001	0.0030	0.0001		
3	07/01/82	*	*	0	0.001	0.0033	0.0001		
4	10/01/82	*	*	0	0.001	0.0022	0.0002		

N=4

Southern California Edison Company Environmental Monitoring Program Database Listings

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Table 5: Monthly Ocean Water Gamma Spectral Analysis

Control Location: D

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	Mn-54 (sigma)	Zr(Nb)-95
1	01/05/82	D	1	5	82	*	*	*	*	*	*	*	*	*
2	01/14/82	A	1	14	82	*	*	*	*	*	*	*	*	*
3	01/14/82	B	1	14	82	*	*	*	*	*	*	*	*	*
4	01/14/82	C	1	14	82	*	*	*	*	*	*	*	*	*
5	03/01/82	D	3	1	82	*	*	*	*	*	*	*	*	*
6	03/08/82	A	3	8	82	*	*	*	*	*	*	*	*	*
7	03/08/82	B	3	8	82	*	*	*	*	*	*	*	*	*
8	03/08/82	C	3	8	82	*	*	*	*	*	*	*	*	*
9	04/23/82	A	4	23	82	490	40	0	20	0	6	0	6	0
10	04/23/82	B	4	23	82	470	50	0	20	0	6	0	6	0
11	04/23/82	C	4	23	82	410	60	0	20	0	6	0	6	0
12	04/26/82	D	4	26	82	510	40	0	20	0	6	0	6	0

Observation Number	Calendar Date	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144
1	01/05/82	*	0	2	*	*	*	*	*	*	*	*	*	*	*
2	01/14/82	*	0	4	*	*	*	*	*	*	*	*	*	*	*
3	01/14/82	*	0	3	*	*	*	*	*	*	*	*	*	*	*
4	01/14/82	*	0	3	*	*	*	*	*	*	*	*	*	*	*
5	03/01/82	*	0	3	*	*	*	*	*	*	*	*	*	*	*
6	03/08/82	*	0	3	*	*	*	*	*	*	*	*	*	*	*
7	03/08/82	*	0	3	*	*	*	*	*	*	*	*	*	*	*
8	03/08/82	*	0	4	*	*	*	*	*	*	*	*	*	*	*
9	04/23/82	15	0	6	0	6	0	20000	0	15	0	6	0	15	0
10	04/23/82	15	0	6	0	6	0	20000	0	15	0	6	0	15	0
11	04/23/82	15	0	6	0	6	0	20000	0	15	0	6	0	15	0
12	04/26/82	15	0	6	0	6	0	9000	0	15	0	6	0	15	0

Observation Number	Calendar Date	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)
1	01/05/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2	01/14/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3	01/14/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4	01/14/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	03/01/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6	03/08/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	03/08/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	03/08/82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	04/23/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
10	04/23/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
11	04/23/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
12	04/26/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by:

Dr. Nina Goedeke

Date: 3/25/83

Table 5: Monthly Ocean Water Gamma Spectral Analysis

Control Location: D

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	Mn-54 (sigma)	Zr(Nb)-95
13	05/03/82	D	5	3	82	390	40	0	20	0	6	0	6	0
14	05/05/82	A	5	5	82	410	40	0	20	0	6	0	6	0
15	05/05/82	B	5	5	82	490	30	0	20	0	6	0	6	0
16	05/05/82	C	5	5	82	540	50	0	20	0	6	0	6	0
17	06/01/82	A	6	1	82	320	30	0	20	0	6	0	6	0
18	06/01/82	B	6	1	82	400	40	0	20	0	6	0	6	0
19	06/01/82	C	6	1	82	290	30	0	20	0	6	0	6	0
20	06/02/82	D	6	2	82	340	30	0	20	0	6	0	6	0
21	07/09/82	A	7	9	82	300	30	0	20	0	6	0	6	0
22	07/09/82	B	7	9	82	320	30	0	20	0	6	0	6	0
23	07/09/82	C	7	9	82	300	30	0	20	0	6	0	6	0
24	07/09/82	D	7	9	82	310	30	0	20	0	6	0	6	0

Observation Number	Calendar Date	Zr(Nb)-95 (sigma)	Cs-137 (sigma)	Cs-137 (sigma)	Co-57 (sigma)	Co-57 (sigma)	Mo(Tc)-99 (sigma)	Mo(Tc)-99 (sigma)	Ce-141 (sigma)	Ce-141 (sigma)	Co-58 (sigma)	Co-58 (sigma)	Ru-103 (sigma)	Ru-103 (sigma)	Ce-144
13	05/03/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
14	05/05/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
15	05/05/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
16	05/05/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
17	06/01/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
18	06/01/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
19	06/01/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
20	06/02/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
21	07/09/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
22	07/09/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
23	07/09/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
24	07/09/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0

Observation Number	Calendar Date	Ce-144 (sigma)	Fe-59 (sigma)	Fe-59 (sigma)	Ru-106 (sigma)	Ru-106 (sigma)	Ra-226 (sigma)	Ra-226 (sigma)	Co-60 (sigma)	Co-60 (sigma)	Ag-110m (sigma)	Ag-110m (sigma)	Th-228 (sigma)	Th-228 (sigma)	I-131 (sigma)	I-131 (sigma)
13	05/03/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
14	05/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
15	05/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
16	05/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
17	06/01/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
18	06/01/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
19	06/01/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
20	06/02/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
21	07/09/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
22	07/09/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
23	07/09/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
24	07/09/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Peders*Date: *3/25/83*

Table 5: Monthly Ocean Water Gamma Spectral Analysis

Control Location: D

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	K-40 (sigma)	K-40 (sigma)	Zn-65 (sigma)	Zn-65 (sigma)	Cs-134 (sigma)	Cs-134 (sigma)	Mn-54 (sigma)	Mn-54 (sigma)	Zr(Nb)-95
25	08/05/82	A	8	5	82	360	30	0	20	0	6	0	6	0
26	08/05/82	B	8	5	82	330	30	0	20	0	6	0	6	0
27	08/05/82	C	8	5	82	280	30	0	20	0	6	0	6	0
28	08/05/82	D	8	5	82	320	30	0	20	0	6	0	6	0
29	09/01/82	A	9	1	82	320	40	0	20	0	6	0	6	0
30	09/01/82	B	9	1	82	360	30	0	20	0	6	0	6	0
31	09/01/82	C	9	1	82	330	30	0	20	0	6	0	6	0
32	09/07/82	D	9	7	82	300	30	0	20	0	6	0	6	0
33	10/04/82	D	10	4	82	280	50	0	20	0	6	0	6	0
34	10/08/82	A	10	8	82	400	40	0	20	0	6	0	6	0
35	10/08/82	B	10	8	82	370	40	0	20	0	6	0	6	0
36	10/08/82	C	10	8	82	330	40	0	20	0	6	0	6	0

Observation Number	Calendar Date	Zr(Nb)-95 (sigma)	Cs-137 (sigma)	Co-57 (sigma)	Co-57 (sigma)	Mo(Tc)-99 (sigma)	Mo(Tc)-99 (sigma)	Ce-141 (sigma)	Ce-141 (sigma)	Co-58 (sigma)	Co-58 (sigma)	Ru-103 (sigma)	Ru-103 (sigma)	Ce-144
25	08/05/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
26	08/05/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
27	08/05/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
28	08/05/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
29	09/01/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
30	09/01/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
31	09/01/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
32	09/07/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
33	10/04/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
34	10/08/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
35	10/08/82	15	0	6	6	0	2000	0	15	0	6	0	15	0
36	10/08/82	15	0	6	6	0	2000	0	15	0	6	0	15	0

Observation Number	Calendar Date	Ce-144 (sigma)	Fe-59 (sigma)	Fe-59 (sigma)	Ru-106 (sigma)	Ru-106 (sigma)	Ra-226 (sigma)	Ra-226 (sigma)	Co-60 (sigma)	Co-60 (sigma)	Ag-110m (sigma)	Ag-110m (sigma)	Th-228 (sigma)	Th-228 (sigma)	I-131 (sigma)	I-131 (sigma)
25	08/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
26	08/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
27	08/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
28	08/05/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
29	09/01/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
30	09/01/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
31	09/01/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
32	09/07/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
33	10/04/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
34	10/08/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
35	10/08/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
36	10/08/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mima Guedes*Date: *3/25/83*

Table 5: Monthly Ocean Water Gamma Spectral Analysis

Control Location: D

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	Mn-54 (sigma)	Zr(Nb)-95
37	11/03/82	D	11	3	82	340	30	0	20	0	6	0	6	0
38	11/06/82	A	11	6	82	350	40	0	20	0	6	0	6	0
39	11/06/82	B	11	6	82	350	40	0	20	0	6	0	6	0
40	11/06/82	C	11	6	82	290	30	0	20	0	6	0	6	0
41	12/07/82	D	12	7	82	320	20	0	20	0	6	0	6	0
42	12/10/82	A	12	10	82	280	30	0	20	0	6	0	6	0
43	12/10/82	B	12	10	82	330	40	0	20	0	6	0	6	0
44	12/10/82	C	12	10	82	350	30	0	20	0	6	0	6	0

Observation Number	Calendar Date	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144
37	11/03/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
38	11/06/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
39	11/06/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
40	11/06/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
41	12/07/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
42	12/10/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
43	12/10/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0
44	12/10/82	15	0	6	0	6	0	2000	0	15	0	6	0	15	0

Observation Number	Calendar Date	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)
37	11/03/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
38	11/06/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
39	11/06/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
40	11/06/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
41	12/07/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
42	12/10/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
43	12/10/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*
44	12/10/82	20	0	20	0	30	0	15	0	6	0	10	0	20	*	*

N=44

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Muma Coeders*Date: *3/25/83*

Table 6: Bi-Monthly Ocean Water Gross Beta Activity

Control Location: #1

Observation Number	Calendar Date	Calendar Month	Calendar Day	Calendar Year	Location #1	Location #1 (sigma)	Location #2
1	01/14/82	1	14	82	780	60	740
2	03/08/82	3	8	82	930	80	960
3	05/05/82	5	5	82	860	70	810
4	07/09/82	7	9	82	760	70	770
5	09/01/82	9	1	82	1010	80	990
6	11/06/82	11	6	82	710	70	750

Observation Number	Calendar Date	Location #2 (sigma)	Location #3	Location #3 (sigma)	Location #4	Location #4 (sigma)
1	01/14/82	50	720	70	700	50
2	03/08/82	90	900	80	800	80
3	05/05/82	80	810	70	720	70
4	07/09/82	70	770	70	720	70
5	09/01/82	90	770	70	820	90
6	11/06/82	70	640	60	760	70

N=6

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Nina GredesDate: 3/25/83

Table 7: Quarterly Composite Ocean Water Tritium Activity

Control Location: #1

Observation Number	Calendar Date	Calendar Month	Calendar Day	Calendar Year	Location #1	Location #1 (sigma)	Location #2
1	06/01/82	6	1	82	0	100	0
2	09/01/82	9	1	82	0	100	0
3	12/10/82	12	10	82	0	100	0
Observation Number	Calendar Date	Location #2 (sigma)	Location #3	Location #3 (sigma)	Location #4	Location #4 (sigma)	
1	06/01/82	100	0	100	0	100	
2	09/01/82	100	0	100	0	100	
3	12/10/82	100	0	100	0	100	

N=3

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Minor GaudersDate: 3/25/83

Table 8: Ocean Water Strontium Action Level Analysis

Control Location: D

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	Cs-137	Cs-137 (sigma)	Sr-89	Sr-89 (sigma)	Sr-90	Sr-90 (sigma)
1	01/05/82	D	1	5	82	0	2	*	*	*	*
2	01/14/82	A	1	14	82	0	4	*	*	*	*
3	01/14/82	B	1	14	82	0	3	*	*	*	*
4	01/14/82	C	1	14	82	0	3	*	*	*	*
5	03/01/82	D	3	1	82	0	3	*	*	*	*
6	03/03/82	A	3	8	82	0	3	*	*	*	*
7	03/08/82	B	3	8	82	0	3	*	*	*	*
8	03/08/82	C	3	8	82	0	3	*	*	*	*
9	04/23/82	A	4	23	82	0	6	*	*	*	*
10	04/23/82	B	4	23	82	0	6	*	*	*	*
11	04/23/82	C	4	23	82	0	6	*	*	*	*
12	04/26/82	D	4	26	82	0	6	*	*	*	*
13	05/03/82	D	5	3	82	0	6	*	*	*	*
14	05/05/82	A	5	5	82	0	6	*	*	*	*
15	05/05/82	B	5	5	82	0	6	*	*	*	*
16	05/05/82	C	5	5	82	0	6	*	*	*	*
17	06/01/82	A	6	1	82	0	6	*	*	*	*
18	06/01/82	B	6	1	82	0	6	*	*	*	*
19	06/01/82	C	6	1	82	0	6	*	*	*	*
20	06/02/82	D	6	2	82	0	6	*	*	*	*
21	07/09/82	A	7	9	82	0	6	*	*	*	*
22	07/09/82	B	7	9	82	0	6	*	*	*	*
23	07/09/82	C	7	9	82	0	6	*	*	*	*
24	07/09/82	D	7	9	82	0	6	*	*	*	*
25	08/05/82	A	8	5	82	0	6	*	*	*	*
26	08/05/82	B	8	5	82	0	6	*	*	*	*
27	08/05/82	C	8	5	82	0	6	*	*	*	*
28	09/01/82	A	9	1	82	0	6	*	*	*	*
29	09/01/82	B	9	1	82	0	6	*	*	*	*
30	09/01/82	C	9	1	82	0	6	*	*	*	*
31	09/07/82	D	9	7	82	0	6	*	*	*	*
32	10/04/82	D	10	4	82	0	6	*	*	*	*
33	10/08/82	A	10	8	82	0	6	*	*	*	*
34	10/08/82	B	10	8	82	0	6	*	*	*	*
35	10/08/82	C	10	8	82	0	6	*	*	*	*
36	11/03/82	D	11	3	82	0	6	*	*	*	*
37	11/06/82	A	11	6	82	0	6	*	*	*	*
38	11/06/82	B	11	6	82	0	6	*	*	*	*
39	11/06/82	C	11	6	82	0	6	*	*	*	*
40	12/07/82	D	12	7	82	0	6	*	*	*	*
41	12/10/82	A	12	10	82	0	6	*	*	*	*
42	12/10/82	B	12	10	82	0	6	*	*	*	*
43	12/10/82	C	12	10	82	0	6	*	*	*	*

N=43

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mima Gordels*Date: *3/25/83*

Table 9a: Monthly Drinking Water Analysis

Control Location: #3

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-134
1	05/06/82	1	5	6	82	0	50	0	15	0
2	05/06/82	2	5	6	82	0	50	0	15	0
3	05/06/82	3	5	6	82	0	50	0	15	0
4	06/09/82	1	6	9	82	0	50	0	15	0
5	06/09/82	2	6	9	82	0	50	0	15	0
6	06/09/82	3	6	9	82	0	50	0	15	0
7	07/06/82	1	7	6	82	0	50	0	15	0
8	07/06/82	2	7	6	82	0	50	0	15	0
9	07/06/82	3	7	6	82	0	50	0	15	0
10	08/10/82	1	8	10	82	0	50	0	15	0
11	08/10/82	2	8	10	82	0	50	0	15	0
12	08/10/82	3	8	10	82	0	50	0	15	0

Observation Number	Calendar Date	Cs-134 (sigma)	K-40	K-40 (sigma)	Ru-103	Ru-103 (sigma)	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m
1	05/06/82	6	*	*	0	15	0	6	0	6	0
2	05/06/82	6	*	*	0	15	0	6	0	6	0
3	05/06/82	6	*	*	0	15	0	6	0	6	0
4	06/09/82	6	*	*	0	15	0	6	0	6	0
5	06/09/82	6	*	*	0	15	0	6	0	6	0
6	06/09/82	6	*	*	0	15	0	6	0	6	0
7	07/06/82	6	*	*	0	15	0	6	0	6	0
8	07/06/82	6	*	*	0	15	0	6	0	6	0
9	07/06/82	6	*	*	0	15	0	6	0	6	0
10	08/10/82	6	*	*	0	15	0	6	0	6	0
11	08/10/82	6	*	*	0	15	0	6	0	6	0
12	08/10/82	6	*	*	0	15	0	6	0	6	0

Observation Number	Calendar Date	Ag-110m (sigma)	Ce-141	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131	I-131 (sigma)	Ce-144	Ce-144 (sigma)	H-3	H-3 (sigma)
1	05/06/82	10	0	15	0	6	0	2	0	20	0	100
2	05/06/82	10	0	15	0	6	0	2	0	20	0	100
3	05/06/82	10	0	15	0	6	0	2	0	20	0	100
4	06/09/82	10	0	15	0	6	0	2	0	20	200	100
5	06/09/82	10	0	15	0	6	0	2	0	20	0	100
6	06/09/82	10	0	15	0	6	0	2	0	20	0	100
7	07/06/82	10	0	15	0	6	0	2	0	20	0	100
8	07/06/82	10	0	15	0	6	0	2	0	20	0	100
9	07/06/82	10	0	15	0	6	0	2	0	20	0	100
10	08/10/82	10	0	15	0	6	0	2	0	20	0	100
11	08/10/82	10	0	15	0	6	0	2	0	20	0	100
12	08/10/82	10	0	15	0	6	0	2	0	20	0	100

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Nina Goodus*Date: *3/25/83*

Table 9a: Monthly Drinking Water Analysis

Control Location: #3

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-134		
13	09/07/82	1	9	7	82	0	50	0	15	0		
14	09/07/82	2	9	7	82	0	50	0	15	0		
15	09/07/82	3	9	7	82	0	50	0	15	0		
16	10/05/82	1	10	5	82	0	50	0	15	0		
17	10/05/82	2	10	5	82	0	50	0	15	0		
18	10/05/82	3	10	5	82	0	50	0	15	0		
19	11/02/82	1	11	2	82	0	50	0	15	0		
20	11/02/82	2	11	2	82	0	50	0	15	0		
21	11/02/82	3	11	2	82	0	50	0	15	0		
22	12/07/82	1	12	7	82	0	50	0	15	0		
23	12/07/82	2	12	7	82	0	50	0	15	0		
24	12/07/82	3	12	7	82	0	50	0	15	0		
Observation Number	Calendar Date	Cs-134 (sigma)	K-40	K-40 (sigma)	Ru-103	Ru-103 (sigma)	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m	
13	09/07/82	6	*	*	0	15	0	6	0	6	0	
14	09/07/82	6	*	*	0	15	0	6	0	6	0	
15	09/07/82	6	*	*	0	15	0	6	0	6	0	
16	10/05/82	6	*	*	0	15	0	6	0	6	0	
17	10/05/82	6	*	*	0	15	0	6	0	6	0	
18	10/05/82	6	*	*	0	15	0	6	0	6	0	
19	11/02/82	6	*	*	0	15	0	6	0	6	0	
20	11/02/82	6	*	*	0	15	0	6	0	6	0	
21	11/02/82	6	*	*	0	15	0	6	0	6	0	
22	12/07/82	6	*	*	0	15	0	6	0	6	0	
23	12/07/82	6	*	*	0	15	0	6	0	6	0	
24	12/07/82	6	*	*	0	15	0	6	0	6	0	
Observation Number	Calendar Date	Ag-110m (sigma)	Ce-141	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131	I-131 (sigma)	Ce-144	Ce-144 (sigma)	H-3	H-3 (sigma)
13	09/07/82	10	0	15	0	6	0	2	0	20	0	100
14	09/07/82	10	0	15	0	6	0	2	0	20	0	100
15	09/07/82	10	0	15	0	6	0	2	0	20	0	100
16	10/05/82	10	0	15	0	6	0	2	0	20	0	100
17	10/05/82	10	0	15	0	6	0	2	0	20	0	100
18	10/05/82	10	0	15	0	6	0	2	0	20	0	100
19	11/02/82	10	0	15	0	6	0	2	0	20	0	100
20	11/02/82	10	0	15	0	6	0	2	0	20	0	100
21	11/02/82	10	0	15	0	6	0	2	0	20	0	100
22	12/07/82	10	0	15	0	6	0	2	0	20	0	100
23	12/07/82	10	0	15	0	6	0	2	0	20	0	100
24	12/07/82	10	0	15	0	6	0	2	0	20	0	100

N=24

H-20

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Gooders*Date: *3/25/83*

Table 9b: Monthly Drinking Water Solids Gross Alpha and Gross Beta Activities

Control Location: #1

Observation Number	Calendar Date	Calendar Month	Calendar Day	Calendar Year	Location 1 Gross Alpha	Location 1 Gross Alpha (sigma)	Location 1 Gross Beta	Location 1 Gross Beta (sigma)	Location 2 Gross Alpha
1	01/01/82	1	1	82	0	0.1	1.2	0.1	0.4
2	02/01/82	2	1	82	0	0.1	0.8	0.1	0.0
3	03/01/82	3	1	82	0	0.1	1.0	0.2	0.0
4	04/01/82	4	1	82	0	0.1	1.4	0.2	0.0
5	05/06/82	5	6	82	0	0.1	0.9	0.1	0.0
6	06/09/82	6	9	82	0	0.2	1.1	0.2	0.0
7	07/06/82	7	6	82	0	0.2	0.8	0.1	0.0
8	08/10/82	8	10	82	0	0.1	1.2	0.2	0.0
9	09/07/82	9	7	82	0	0.1	1.3	0.2	0.0
10	10/05/82	10	5	82	0	0.2	1.3	0.2	0.0
11	11/02/82	11	2	82	0	0.1	0.7	0.1	0.0
12	12/08/82	12	8	82	0	0.2	0.6	0.1	0.0

Observation Number	Calendar Date	Location 2 Gross Alpha (sigma)	Location 2 Gross Beta	Location 2 Gross Beta (sigma)	Location 3 Gross Alpha	Location 3 Gross Alpha (sigma)	Location 3 Gross Beta	Location 3 Gross Beta (sigma)
1	01/01/82	0.1	1.0	0.1	0	0.1	0.6	0.1
2	02/01/82	0.1	1.1	0.1	0	0.1	0.6	0.1
3	03/01/82	0.1	1.1	0.2	0	0.2	0.6	0.1
4	04/01/82	0.1	1.2	0.2	0	0.1	1.0	0.1
5	05/06/82	0.1	1.2	0.2	0	0.1	0.9	0.1
6	06/09/82	0.2	1.7	0.2	0	0.2	0.9	0.1
7	07/06/82	0.2	0.6	0.1	0	0.2	1.5	0.2
8	08/10/82	0.1	2.0	0.2	0	0.1	1.1	0.2
9	09/07/82	0.2	1.2	0.2	0	0.1	0.8	0.1
10	10/05/82	0.1	1.0	0.2	0	0.1	0.8	0.1
11	11/02/82	0.1	0.7	0.1	0	0.1	0.8	0.1
12	12/08/82	0.1	0.8	0.1	0	0.1	0.6	0.1

N=12

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mima GaudesDate: 3/25/83

Table 9c: Monthly Drinking Water Filtrate Gross Alpha and Gross Beta Activities

Control Location: #1

Observation Number	Calendar Date	Calendar Month	Calendar Day	Calendar Year	Location 1 Gross Alpha	Location 1 Gross Alpha (sigma)	Location 1 Gross Beta	Location 1 Gross Beta (sigma)	Location 2 Gross Alpha
1	01/01/82	1	1	82	0	2	7	1	0
2	02/01/82	2	1	82	0	2	5	1	0
3	03/01/82	3	1	82	0	1	7	1	0
4	04/01/82	4	1	82	0	1	7	1	0
5	05/06/82	5	6	82	3	1	8	1	0
6	06/09/82	6	9	82	0	4	21	2	0
7	07/06/82	7	6	82	0	2	9	1	0
8	08/10/82	8	10	82	0	3	11	1	0
9	09/07/82	9	7	82	0	3	13	1	0
10	10/05/82	10	5	82	0	2	9	1	0
11	11/02/82	11	2	82	0	1	8	1	0
12	12/08/82	12	8	82	0	1	10	1	0

Observation Number	Calendar Date	Location 2 Gross Alpha (sigma)	Location 2 Gross Beta	Location 2 Gross Beta (sigma)	Location 3 Gross Alpha	Location 3 Gross Alpha (sigma)	Location 3 Gross Beta	Location 3 Gross Beta (sigma)
1	01/01/82	5	14	1	0	2	13	1
2	02/01/82	2	11	1	0	1	12	1
3	03/01/82	2	13	1	0	1	10	1
4	04/01/82	2	10	1	0	1	7	1
5	05/06/82	3	15	1	0	2	16	1
6	06/09/82	5	19	1	0	2	19	2
7	07/06/82	2	17	2	0	3	16	1
8	08/10/82	2	20	1	0	3	16	1
9	09/07/82	2	21	1	0	2	10	1
10	10/05/82	2	15	1	0	2	15	1
11	11/02/82	2	11	1	0	1	13	1
12	12/08/82	1	8	1	0	1	10	1

N=12

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mina G. PetersDate: 3/25/83

Table 9d: Quarterly Composite Drinking Water Solids Gross Alpha and Gross Beta Activities

Control Location: #1

Observation Number	Calendar Date	Calendar Year	Quarter	Location 1 Gross Alpha	Location 1 Gross Alpha (sigma)	Location 1 Gross Beta	Location 1 Gross Beta (sigma)	Location 2 Gross Alpha
1	01/01/82	82	1	0	0.1	0.8	0.1	0
2	04/01/82	82	2	0	0.2	1.5	0.2	0
3	07/01/82	82	3	0	0.1	0.8	0.1	0
4	10/01/82	82	4	0	0.1	0.8	0.1	0
Observation Number	Calendar Date	Location 2 Gross Alpha (sigma)	Location 2 Gross Beta	Location 2 Gross Beta (sigma)	Location 3 Gross Alpha	Location 3 Gross Alpha (sigma)	Location 3 Gross Beta	Location 3 Gross Beta (sigma)
1	01/01/82	0.3	1.0	0.1	0	0.1	0.6	0.1
2	04/01/82	0.2	1.3	0.2	0	0.2	0.7	0.1
3	07/01/82	0.2	2.4	0.2	0	0.1	0.6	0.1
4	10/01/82	0.1	0.5	0.2	0	0.1	0.6	0.1

N=4

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Gauders*Date: *3/25/83*

Table 9e: Quarterly Composite Drinking Water Filtrate Analysis

Control Location: #3

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-134	Cs-134 (sigma)	K-40	K-40 (sigma)
1	03/31/82	1	3	31	82	*	*	*	*	*	*	*	*
2	03/31/82	2	3	31	82	*	*	*	*	*	*	*	*
3	03/31/82	3	3	31	82	*	*	*	*	*	*	*	*
4	06/30/82	1	6	30	82	*	*	*	*	*	*	*	*
5	06/30/82	2	6	30	82	*	*	*	*	*	*	*	*
6	06/30/82	3	6	30	82	*	*	*	*	*	*	*	*
7	09/30/82	1	9	30	82	*	*	*	*	*	*	*	*
8	09/30/82	2	9	30	82	*	*	*	*	*	*	*	*
9	09/30/82	3	9	30	82	*	*	*	*	*	*	*	*
10	12/07/82	1	12	7	82	*	*	*	*	*	*	*	*
11	12/07/82	2	12	7	82	*	*	*	*	*	*	*	*
12	12/07/82	3	12	7	82	*	*	*	*	*	*	*	*

Observation Number	Calendar Date	RU-103	RU-103 (sigma)	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m	Ag-110m (sigma)	Ce-141	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131
1	03/31/82	*	*	*	*	*	*	*	*	*	*	*	*	*
2	03/31/82	*	*	*	*	*	*	*	*	*	*	*	*	*
3	03/31/82	*	*	*	*	*	*	*	*	*	*	*	*	*
4	06/30/82	*	*	*	*	*	*	*	*	*	*	*	*	*
5	06/30/82	*	*	*	*	*	*	*	*	*	*	*	*	*
6	06/30/82	*	*	*	*	*	*	*	*	*	*	*	*	*
7	09/30/82	*	*	*	*	*	*	*	*	*	*	*	*	*
8	09/30/82	*	*	*	*	*	*	*	*	*	*	*	*	*
9	09/30/82	*	*	*	*	*	*	*	*	*	*	*	*	*
10	12/07/82	*	*	*	*	*	*	*	*	*	*	*	*	*
11	12/07/82	*	*	*	*	*	*	*	*	*	*	*	*	*
12	12/07/82	*	*	*	*	*	*	*	*	*	*	*	*	*

Observation Number	Calendar Date	I-131 (sigma)	Ce-144	Ce-144 (sigma)	Gross Alpha	Gross Alpha (sigma)	Gross Beta	Gross Beta (sigma)	H-3	H-3 (sigma)
1	03/31/82	*	*	*	0	4	13	1	0	200
2	03/31/82	*	*	*	0	2	13	1	0	200
3	03/31/82	*	*	*	0	2	7	1	0	200
4	06/30/82	*	*	*	0	2	18	2	*	*
5	06/30/82	*	*	*	0	2	16	1	*	*
6	06/30/82	*	*	*	0	3	10	1	*	*
7	09/30/82	*	*	*	0	2	20	1	0	100
8	09/30/82	*	*	*	0	2	15	1	0	100
9	09/30/82	*	*	*	0	2	12	1	0	100
10	12/07/82	*	*	*	0	1	12	1	0	100
11	12/07/82	*	*	*	0	1	11	1	0	100
12	12/07/82	*	*	*	0	2	10	1	0	100

N=12

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mina GuedelsDate: 3/25/83

Table 9f: Drinking Water Strontium Action Level Analysis

Control Location: #3

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	Cs-137	Cs-137 (sigma)	Sr-89	Sr-89 (sigma)	Sr-90	Sr-90 (sigma)
1	05/06/82	1	5	6	82	0	6	*	*	*	*
2	05/06/82	2	5	6	82	0	6	*	*	*	*
3	05/06/82	3	5	6	82	0	6	*	*	*	*
4	06/09/82	1	6	9	82	0	6	*	*	*	*
5	06/09/82	2	6	9	82	0	6	*	*	*	*
6	06/09/82	3	6	9	82	0	6	*	*	*	*
7	07/06/82	1	7	6	82	0	6	*	*	*	*
8	07/06/82	2	7	6	82	0	6	*	*	*	*
9	07/06/82	3	7	6	82	0	6	*	*	*	*
10	08/10/82	1	8	10	82	0	6	*	*	*	*
11	08/10/82	2	8	10	82	0	6	*	*	*	*
12	08/10/82	3	8	10	82	0	6	*	*	*	*
13	09/07/82	1	9	7	82	0	6	*	*	*	*
14	09/07/82	2	9	7	82	0	6	*	*	*	*
15	09/07/82	3	9	7	82	0	6	*	*	*	*
16	10/05/82	1	10	5	82	0	6	*	*	*	*
17	10/05/82	2	10	5	82	0	6	*	*	*	*
18	10/05/82	3	10	5	82	0	6	*	*	*	*
19	11/02/82	1	11	2	82	0	6	*	*	*	*
20	11/02/82	2	11	2	82	0	6	*	*	*	*
21	11/02/82	3	11	2	82	0	6	*	*	*	*
22	12/07/82	1	12	7	82	0	6	*	*	*	*
23	12/07/82	2	12	7	82	0	6	*	*	*	*
24	12/07/82	3	12	7	82	0	6	*	*	*	*

N=24

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mina GaudyDate: 3/25/83

Table 10: Semi-Annual Shoreline Sediment Gamma Spectral Analysis

Control Location: #4

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	Mn-54 (sigma)	Zr(Nb)-95
1	04/09/82	1	4	9	82	18	1	0	0.2	0	0.05	0	0.05	0
2	04/09/82	2	4	9	82	17	1	0	0.2	0	0.05	0	0.05	0
3	04/09/82	3	4	9	82	15	1	0	0.2	0	0.05	0	0.05	0
4	04/09/82	4	4	9	82	20	1	0	0.2	0	0.05	0	0.05	0
5	10/05/82	4	10	5	82	15	1	0	0.2	0	0.05	0	0.05	0
6	10/06/82	1	10	6	82	13	1	0	0.2	0	0.05	0	0.05	0
7	10/06/82	2	10	6	82	15	1	0	0.2	0	0.05	0	0.05	0
8	10/06/82	3	10	6	82	16	1	0	0.2	0	0.05	0	0.05	0

Observation Number	Calendar Date	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144
1	04/09/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
2	04/09/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
3	04/09/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
4	04/09/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
5	10/05/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
6	10/06/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
7	10/06/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0
8	10/06/82	0.1	0	0.05	0	0.05	0	5	0	0.1	0	0.05	0	0.1	0

Observation Number	Calendar Date	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)
1	04/09/82	0.2	0	0.2	0	0.3	0.18	0.05	0	0.05	0	0.1	0.18	0.05	0	0.5
2	04/09/82	0.2	0	0.2	0	0.3	0.57	0.05	0	0.05	0	0.1	0.87	0.05	0	0.5
3	04/09/82	0.2	0	0.2	0	0.3	0.14	0.05	0	0.05	0	0.1	0.12	0.05	0	0.5
4	04/09/82	0.2	0	0.2	0	0.3	0.54	0.05	0	0.05	0	0.1	1.53	0.08	0	0.5
5	10/05/82	0.2	0	0.2	0	0.3	1.27	0.06	0	0.05	0	0.1	3.80	0.20	0	0.5
6	10/06/82	0.2	0	0.2	0	0.3	0.45	0.02	0	0.05	0	0.1	0.33	0.02	0	0.5
7	10/06/82	0.2	0	0.2	0	0.3	0.18	0.01	0	0.05	0	0.1	0.20	0.01	0	0.5
8	10/06/82	0.2	0	0.2	0	0.3	0.16	0.01	0	0.05	0	0.1	0.14	0.01	0	0.5

N=8

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Nina Breders Date: 3/25/83

Table 11: Semi-Annual Ocean Bottom Sediment Gamma Spectral Analysis

Control Location: E

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	Mn-54 (sigma)	Zr(Nb)-95
1	06/10/82	A	6	10	82	15	1	0	0.2	0	0.05	0	0.05	0
2	06/10/82	B	6	10	82	19	1	0	0.2	0	0.05	0	0.05	0
3	06/10/82	C	6	10	82	16	1	0	0.2	0	0.05	0	0.05	0
4	06/10/82	D	6	10	82	15	1	0	0.2	0	0.05	0	0.05	0
5	06/10/82	E	6	10	82	13	1	0	0.2	0	0.05	0	0.05	0
6	10/26/82	C	10	26	82	14	1	0	0.2	0	0.05	0	0.05	0
7	10/26/82	D	10	26	82	14	1	0	0.2	0	0.05	0	0.05	0
8	10/27/82	E	10	27	82	17	1	0	0.2	0	0.05	0	0.05	0
9	11/06/82	A	11	6	82	14	1	0	0.2	0	0.05	0	0.05	0
10	11/06/82	B	11	6	82	14	1	0	0.2	0	0.05	0	0.05	0

Observation Number	Calendar Date	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144
1	06/10/82	0.1	0.13	0.05	0	0.05	0	200	0	0.1	0.00	0.05	0	0.1	0
2	06/10/82	0.1	0.00	0.05	0	0.05	0	100	0	0.1	0.00	0.05	0	0.1	0
3	06/10/82	0.1	0.00	0.05	0	0.05	0	100	0	0.1	0.00	0.05	0	0.1	0
4	06/10/82	0.1	0.00	0.05	0	0.05	0	200	0	0.1	0.00	0.05	0	0.1	0
5	06/10/82	0.1	0.00	0.05	0	0.05	0	200	0	0.1	0.00	0.05	0	0.1	0
6	10/26/82	0.1	0.00	0.05	0	0.05	0	300	0	0.1	0.09	0.05	0	0.1	0
7	10/26/82	0.1	0.00	0.05	0	0.05	0	300	0	0.1	0.00	0.05	0	0.1	0
8	10/27/82	0.1	0.00	0.05	0	0.05	0	400	0	0.1	0.00	0.05	0	0.1	0
9	11/06/82	0.1	0.07	0.05	0	0.05	0	200	0	0.1	0.00	0.05	0	0.1	0
10	11/06/82	0.1	0.05	0.05	0	0.05	0	200	0	0.1	0.00	0.05	0	0.1	0

Observation Number	Calendar Date	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)
1	06/10/82	0.2	0	0.2	0	0.3	0.45	0.05	0.58	0.05	0	0.07	0.48	0.05	0	0.5
2	06/10/82	0.2	0	0.2	0	0.3	0.13	0.05	0.00	0.05	0	0.07	0.19	0.05	0	0.5
3	06/10/82	0.2	0	0.2	0	0.3	0.16	0.05	0.00	0.05	0	0.07	0.20	0.05	0	0.5
4	06/10/82	0.2	0	0.2	0	0.3	0.25	0.05	0.00	0.05	0	0.07	0.26	0.05	0	0.5
5	06/10/82	0.2	0	0.2	0	0.3	0.16	0.05	0.00	0.05	0	0.07	0.20	0.05	0	0.5
6	10/26/82	0.2	0	0.2	0	0.3	0.33	0.05	0.00	0.05	0	0.07	0.34	0.05	0	0.5
7	10/26/82	0.2	0	0.2	0	0.3	0.23	0.05	0.00	0.05	0	0.07	0.33	0.05	0	0.5
8	10/27/82	0.2	0	0.2	0	0.3	0.41	0.05	0.00	0.05	0	0.07	0.66	0.05	0	0.5
9	11/06/82	0.2	0	0.2	0	0.3	0.58	0.05	0.13	0.05	0	0.07	0.65	0.05	0	0.5
10	11/06/82	0.2	0	0.2	0	0.3	0.67	0.05	0.15	0.05	0	0.07	0.81	0.05	0	0.5

N=10

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mimi GaudierDate: 3/25/83

Table 12a: Quarterly Non-Migratory Marine Animals Analysis (Flesh Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54
1	03/03/82	sheepshead	C	3	3	82	*	*	*	*	*	*	*
2	03/03/82	black perch	C	3	3	82	*	*	*	*	*	*	*
3	03/03/82	spiny lobster	C	3	3	82	*	*	*	*	*	*	*
4	03/03/82	keyhole limpet	C	3	3	82	*	*	*	*	*	*	*
5	03/04/82	sheepshead	B	3	4	82	*	*	*	*	*	*	*
6	03/04/82	black perch	B	3	4	82	*	*	*	*	*	*	*
7	03/04/82	spiny lobster	B	3	4	82	*	*	*	*	*	*	*
8	03/04/82	bay mussel	B	3	4	82	*	*	*	*	*	*	*

Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58
1	03/03/82	*	*	*	0.006	0.003	*	*	*	*	*	*	0.000
2	03/03/82	*	*	*	0.008	0.002	*	*	*	*	*	*	0.000
3	03/03/82	*	*	*	0.000	0.007	*	*	*	*	*	*	0.000
4	03/03/82	*	*	*	0.000	0.003	*	*	*	*	*	*	0.000
5	03/04/82	*	*	*	0.009	0.002	*	*	*	*	*	*	0.000
6	03/04/82	*	*	*	0.013	0.003	*	*	*	*	*	*	0.000
7	03/04/82	*	*	*	0.000	0.010	*	*	*	*	*	*	0.000
8	03/04/82	*	*	*	0.000	0.002	*	*	*	*	*	*	0.000

Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
1	03/03/82	0.004	*	*	*	*	*	*	*	*	*	*	0.000	0.005
2	03/03/82	0.005	*	*	*	*	*	*	*	*	*	*	0.000	0.005
3	03/03/82	0.008	*	*	*	*	*	*	*	*	*	*	0.000	0.008
4	03/03/82	0.002	*	*	0.02	0.008	*	*	*	*	*	*	0.000	0.003
5	03/04/82	0.006	*	*	*	*	*	*	*	*	*	*	0.000	0.006
6	03/04/82	0.006	*	*	*	*	*	*	*	*	*	*	0.000	0.006
7	03/04/82	0.009	*	*	*	*	*	*	*	*	*	*	0.024	0.005
8	03/04/82	0.003	*	*	*	*	*	*	*	*	*	*	0.021	0.003

Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)
1	03/03/82	0.000	0.003	*	*	*	*	0	5.0	*	*
2	03/03/82	0.000	0.004	*	*	*	*	0	5.0	*	*
3	03/03/82	0.000	0.006	*	*	*	*	0	5.0	*	*
4	03/03/82	0.005	0.002	*	*	*	*	0	10.0	*	*
5	03/04/82	0.000	0.006	*	*	*	*	0	4.0	*	*
6	03/04/82	0.000	0.006	*	*	*	*	70	10.0	*	*
7	03/04/82	0.115	0.006	*	*	*	*	0	2.0	*	*
8	03/04/82	0.000	0.002	*	*	*	*	0	9.0	*	*

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Nina Sanders*Date: *3/25/83*

Table 12a: Quarterly Non-Migratory Marine Animals Analysis (Flesh Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54
9	03/05/82	sea hare	A	3	5	82	*	*	*	*	*	*	*
10	03/08/82	sheepshead	A	3	8	82	*	*	*	*	*	*	*
11	03/08/82	black perch	A	3	8	82	*	*	*	*	*	*	*
12	03/08/82	spiny lobster	A	3	8	82	*	*	*	*	*	*	*
13	05/26/82	sea hare	A	5	26	82	1.2	0.100	0	0.02	0	0.004	0
14	06/07/82	sheepshead	C	6	7	82	2.8	0.100	0	0.05	0	0.010	0
15	06/07/82	black perch	C	6	7	82	2.5	0.100	0	0.05	0	0.010	0
16	06/07/82	spiny lobster	C	6	7	82	2.8	0.100	0	0.05	0	0.010	0

Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58
9	03/05/82	*	*	*	0.0000	0.0050	*	*	*	*	*	*	0.000
10	03/08/82	*	*	*	0.0100	0.0020	*	*	*	*	*	*	0.000
11	03/08/82	*	*	*	0.0060	0.0030	*	*	*	*	*	*	0.000
12	03/08/82	*	*	*	0.0000	0.0030	*	*	*	*	*	*	0.000
13	05/26/82	0.004	0	0.01	0.0000	0.0020	0	0.004	0	2	0	0.02	0.031
14	06/07/82	0.010	0	0.03	0.0050	0.0010	0	0.010	0	5	0	0.05	0.000
15	06/07/82	0.010	0	0.03	0.0060	0.0010	0	0.010	0	20	0	0.05	0.000
16	06/07/82	0.010	0	0.02	0.0000	0.0030	0	0.010	0	5	0	0.05	0.000

Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
9	03/05/82	0.005	*	*	*	*	*	*	*	*	*	*	0.071	0.004
10	03/08/82	0.003	*	*	*	*	*	*	*	*	*	*	0.000	0.002
11	03/08/82	0.005	*	*	*	*	*	*	*	*	*	*	0.006	0.003
12	03/08/82	0.005	*	*	*	*	*	*	*	*	*	*	0.021	0.003
13	05/26/82	0.004	0	0.007	0	0.02	0	0.02	0	0.02	0	0.007	0.091	0.005
14	06/07/82	0.008	0	0.020	0	0.05	0	0.05	0	0.05	0	0.020	0.000	0.005
15	06/07/82	0.008	0	0.020	0	0.05	0	0.05	0	0.05	0	0.020	0.000	0.005
16	06/07/82	0.007	0	0.020	0	0.05	0	0.05	0	0.05	0	0.020	0.000	0.005

Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)
9	03/05/82	0.030	0.002	*	*	*	*	0	11.0	*	*
10	03/08/82	0.000	0.002	*	*	*	*	0	3.0	*	*
11	03/08/82	0.000	0.004	*	*	*	*	80	10.0	*	*
12	03/08/82	0.059	0.003	*	*	*	*	0	4.0	*	*
13	05/26/82	0.018	0.001	0	0.007	0	0.05	0	0.7	0.00	0.08
14	06/07/82	0.000	0.005	0	0.020	0	0.10	0	1.0	0.11	0.06
15	06/07/82	0.000	0.005	0	0.020	0	0.10	0	2.0	0.00	0.04
16	06/07/82	0.000	0.005	0	0.020	0	0.10	0	2.0	0.00	0.05

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Nina Eiders*Date: *3/25/83*

Table 12a: Quarterly Non-Migratory Marine Animals Analysis (Flesh Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
17	06/07/82	keyhole limpet	C	6	7	82	1.1	0.010	0	0.04	0	0.007	0	
18	06/09/82	sheepshead	A	6	9	82	3.1	0.200	0	0.06	0	0.010	0	
19	06/09/82	black perch	A	6	9	82	2.8	0.100	0	0.06	0	0.010	0	
20	06/09/82	spiny lobster	A	6	9	82	3.1	0.200	0	0.06	0	0.010	0	
21	06/09/82	sheepshead	B	6	9	82	3.4	0.200	0	0.05	0	0.010	0	
22	06/09/82	black perch	B	6	9	82	2.5	0.100	0	0.05	0	0.010	0	
23	06/10/82	spiny lobster	B	6	10	82	2.6	0.100	0	0.05	0	0.010	0	
24	06/10/82	bay mussel	B	6	10	82	1.4	0.100	0	0.04	0	0.008	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
17	06/07/82	0.007	0	0.02	0.0000	0.0030	0	0.007	0	4	0	0.04	0.000	
18	06/09/82	0.010	0	0.03	0.0060	0.0010	0	0.010	0	6	0	0.06	0.000	
19	06/09/82	0.010	0	0.03	0.0070	0.0010	0	0.010	0	6	0	0.06	0.000	
20	06/09/82	0.010	0	0.03	0.0060	0.0010	0	0.010	0	6	0	0.06	0.000	
21	06/09/82	0.010	0	0.02	0.0080	0.0010	0	0.010	0	5	0	0.05	0.000	
22	06/09/82	0.010	0	0.03	0.0030	0.0010	0	0.010	0	6	0	0.05	0.000	
23	06/10/82	0.010	0	0.02	0.0110	0.0020	0	0.010	0	5	0	0.05	0.000	
24	06/10/82	0.008	0	0.02	0.0000	0.0020	0	0.008	0	4	0	0.04	0.000	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
17	06/07/82	0.006	0	0.01	0	0.04	0	0.04	0	0.04	0	0.01	0.000	0.004
18	06/09/82	0.009	0	0.02	0	0.06	0	0.06	0	0.06	0	0.02	0.000	0.006
19	06/09/82	0.009	0	0.02	0	0.06	0	0.06	0	0.06	0	0.02	0.000	0.009
20	06/09/82	0.009	0	0.02	0	0.06	0	0.06	0	0.06	0	0.02	0.016	0.002
21	06/09/82	0.008	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
22	06/09/82	0.008	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
23	06/10/82	0.008	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.014	0.002
24	06/10/82	0.006	0	0.02	0	0.04	0	0.04	0	0.04	0	0.02	0.005	0.002
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
17	06/07/82	0.000	0.004	0	0.010	0	0.10	0	2.0	0.00	0.06			
18	06/09/82	0.000	0.006	0	0.020	0	0.10	0	2.0	0.00	0.05			
19	06/09/82	0.000	0.006	0	0.020	0	0.10	0	3.0	0.00	0.04			
20	06/09/82	0.054	0.003	0	0.020	0	0.10	0	2.0	0.00	0.07			
21	06/09/82	0.000	0.005	0	0.002	0	0.10	0	2.0	0.00	0.08			
22	06/09/82	0.000	0.005	0	0.002	0	0.10	0	2.0	0.35	0.04			
23	06/10/82	0.055	0.002	0	0.002	0	0.10	0	1.0	0.00	0.06			
24	06/10/82	0.000	0.003	0	0.020	0	0.10	0	1.0	0.00	0.05			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Goeders*Date: *3/25/83*

Table 12a: Quarterly Non-Migratory Marine Animals Analysis (Flesh Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
25	08/04/82	sheepshead	C	8	4	82	3.0	0.200	0	0.05	0	0.010	0	
26	08/04/82	spiny lobster	C	8	4	82	3.1	0.200	0	0.05	0	0.010	0	
27	08/04/82	black perch	C	8	4	82	2.9	0.100	0	0.06	0	0.010	0	
28	08/04/82	keyhole limpet	C	8	4	82	1.0	0.050	0	0.03	0	0.006	0	
29	08/05/82	sheepshead	A	8	5	82	3.2	0.200	0	0.06	0	0.010	0	
30	08/05/82	black perch	A	8	5	82	2.7	0.100	0	0.06	0	0.010	0	
31	08/05/82	spiny lobster	A	8	5	82	3.3	0.200	0	0.05	0	0.010	0	
32	08/05/82	sea hare	A	8	5	82	1.7	0.080	0	0.03	0	0.006	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
25	08/04/82	0.010	0	0.02	0.0060	0.0010	0	0.010	0	5	0	0.05	0.000	
26	08/04/82	0.010	0	0.02	0.0000	0.0080	0	0.010	0	5	0	0.05	0.000	
27	08/04/82	0.010	0	0.03	0.0040	0.0020	0	0.010	0	6	0	0.06	0.000	
28	08/04/82	0.006	0	0.01	0.0000	0.0020	0	0.008	0	3	0	0.03	0.000	
29	08/05/82	0.010	0	0.03	0.0070	0.0010	0	0.010	0	6	0	0.06	0.000	
30	08/05/82	0.010	0	0.03	0.0070	0.0010	0	0.010	0	6	0	0.06	0.000	
31	08/05/82	0.010	0	0.03	0.0000	0.0060	0	0.010	0	5	0	0.05	0.018	
32	08/05/82	0.006	0	0.02	0.0000	0.0030	0	0.006	0	3	0	0.03	0.015	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
25	08/04/82	0.007	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
26	08/04/82	0.007	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.008
27	08/04/82	0.010	0	0.03	0	0.06	0	0.06	0	0.06	0	0.03	0.000	0.006
28	08/04/82	0.005	0	0.01	0	0.03	0	0.03	0	0.03	0	0.01	0.000	0.003
29	08/05/82	0.008	0	0.02	0	0.06	0	0.06	0	0.06	0	0.02	0.000	0.006
30	08/05/82	0.009	0	0.02	0	0.06	0	0.06	0	0.06	0	0.02	0.007	0.003
31	08/05/82	0.003	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.050	0.003
32	08/05/82	0.004	0	0.01	0	0.03	0	0.03	0	0.03	0	0.01	0.069	0.003
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
25	08/04/82	0.000	0.005	0	0.020	0	0.10	0	2.0	0.00	0.05			
26	08/04/82	0.000	0.002	0	0.020	0	0.10	0	2.0	0.00	0.05			
27	08/04/82	0.000	0.006	0	0.030	0	0.20	0	4.0	0.00	0.05			
28	08/04/82	0.004	0.001	0	0.010	0	0.08	0	1.0	0.00	0.05			
29	08/05/82	0.000	0.006	0	0.002	0	0.10	0	2.0	0.00	0.05			
30	08/05/82	0.000	0.006	0	0.002	0	0.10	0	3.0	0.00	0.05			
31	08/05/82	0.058	0.003	0	0.002	0	0.10	0	1.0	0.00	0.05			
32	08/05/82	0.014	0.002	0	0.010	0	0.06	0	2.0	0.00	0.05			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Gentry*Date: *3/25/83*

Table 12a: Quarterly Non-Migratory Marine Animals Analysis (Flesh Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
33	08/05/82	sheepshead	B	8	5	82	3.7	0.200	0	0.05	0	0.010	0	
34	08/05/82	black perch	B	8	5	82	3.1	0.200	0	0.07	0	0.010	0	
35	08/06/82	spiny lobster	B	8	6	82	3.6	0.200	0	0.05	0	0.010	0	
36	08/09/82	bay mussel	B	8	9	82	1.9	0.100	0	0.06	0	0.010	0	
37	10/26/82	sheepshead	A	10	26	82	3.3	0.200	0	0.05	0	0.010	0	
38	10/26/82	spiny lobster	A	10	26	82	2.8	0.100	0	0.05	0	0.010	0	
39	10/26/82	black perch	A	10	26	82	3.3	0.200	0	0.06	0	0.010	0	
40	10/26/82	sheepshead	B	10	26	82	3.3	0.200	0	0.05	0	0.010	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
33	08/05/82	0.010	0	0.03	0.0110	0.0010	0	0.010	0	5	0	0.05	0	
34	08/05/82	0.010	0	0.03	0.0080	0.0020	0	0.010	0	7	0	0.07	0	
35	08/06/82	0.010	0	0.02	0.0120	0.0010	0	0.010	0	5	0	0.05	0	
36	08/09/82	0.010	0	0.03	0.0000	0.0040	0	0.010	0	6	0	0.06	0	
37	10/26/82	0.010	0	0.03	0.0060	0.0010	0	0.010	0	5	0	0.05	0	
38	10/26/82	0.010	0	0.02	0.0050	0.0010	0	0.010	0	5	0	0.05	0	
39	10/26/82	0.010	0	0.03	0.0070	0.0010	0	0.010	0	6	0	0.06	0	
40	10/26/82	0.010	0	0.03	0.0080	0.0010	0	0.010	0	5	0	0.05	0	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
33	08/05/82	0.008	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
34	08/05/82	0.010	0	0.03	0	0.07	0	0.07	0	0.07	0	0.03	0.000	0.007
35	08/06/82	0.007	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.015	0.002
36	08/09/82	0.010	0	0.03	0	0.06	0	0.06	0	0.06	0	0.03	0.012	0.003
37	10/26/82	0.008	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
38	10/26/82	0.007	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.012	0.002
39	10/26/82	0.009	0	0.02	0	0.06	0	0.06	0	0.06	0	0.02	0.000	0.006
40	10/26/82	0.008	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.008
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
33	08/05/82	0.000	0.005	0	0.02	0	0.10	0	2.0	0.00	0.05			
34	08/05/82	0.000	0.007	0	0.03	0	0.20	0	2.0	0.00	0.05			
35	08/06/82	0.044	0.002	0	0.02	0	0.10	0	1.0	0.00	0.05			
36	08/09/82	0.000	0.006	0	0.03	0	0.20	0	2.0	0.00	0.05			
37	10/26/82	0.000	0.005	0	0.02	0	0.10	0	1.0	0.00	0.05			
38	10/26/82	0.032	0.002	0	0.02	0	0.10	0	1.0	0.10	0.05			
39	10/26/82	0.000	0.006	0	0.02	0	0.10	0	2.0	0.14	0.05			
40	10/26/82	0.000	0.005	0	0.02	0	0.10	0	2.0	0.08	0.05			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *DeMina Greders*Date: *3/25/83*

Table 12a: Quarterly Non-Migratory Marine Animals Analysis (Flesh Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
41	10/26/82	black perch	B	10	26	82	3.5	0.200	0	0.07	0	0.010	0	
42	10/26/82	bay mussel	B	10	26	82	1.4	0.007	0	0.04	0	0.008	0	
43	10/27/82	sheepshead	C	10	27	82	3.3	0.200	0	0.05	0	0.010	0	
44	10/27/82	spiny lobster	C	10	27	82	3.1	0.200	0	0.05	0	0.010	0	
45	10/27/82	black perch	C	10	27	82	2.8	0.200	0	0.05	0	0.010	0	
46	10/27/82	keyhole limpet	C	10	27	82	1.1	0.060	0	0.04	0	0.007	0	
47	10/31/82	spiny lobster	B	10	31	82	3.1	0.200	0	0.05	0	0.010	0	
48	11/03/82	sea hare	A	11	3	82	1.6	0.080	0	0.03	0	0.005	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
41	10/26/82	0.010	0	0.03	0.0050	0.0020	0	0.010	0	10	0	0.07	0	
42	10/26/82	0.008	0	0.02	0.0000	0.0030	0	0.008	0	4	0	0.04	0	
43	10/27/82	0.010	0	0.03	0.0070	0.0010	0	0.010	0	20	0	0.06	0	
44	10/27/82	0.010	0	0.02	0.0100	0.0020	0	0.010	0	5	0	0.05	0	
45	10/27/82	0.010	0	0.02	0.0070	0.0010	0	0.010	0	6	0	0.05	0	
46	10/27/82	0.007	0	0.02	0.0000	0.0020	0	0.007	0	4	0	0.04	0	
47	10/31/82	0.010	0	0.02	0.0040	0.0010	0	0.010	0	5	0	0.05	0	
48	11/03/82	0.005	0	0.01	0.0027	0.0006	0	0.005	0	3	0	0.03	0	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
41	10/26/82	0.010	0	0.03	0	0.07	0	0.07	0	0.07	0	0.03	0.000	0.007
42	10/26/82	0.006	0	0.02	0	0.04	0	0.04	0	0.04	0	0.02	0.007	0.002
43	10/27/82	0.070	0	0.02	0	0.06	0	0.05	0	0.05	0	0.05	0.000	0.008
44	10/27/82	0.007	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
45	10/27/82	0.010	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.000	0.005
46	10/27/82	0.006	0	0.01	0	0.04	0	0.04	0	0.04	0	0.01	0.006	0.002
47	10/31/82	0.007	0	0.02	0	0.05	0	0.05	0	0.05	0	0.02	0.007	0.002
48	11/03/82	0.004	0	0.01	0	0.03	0	0.03	0	0.03	0	0.01	0.067	0.003
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
41	10/26/82	0.000	0.007	0	0.03	0	0.20	0	2.0	0.10	0.05			
42	10/26/82	0.000	0.004	0	0.02	0	0.10	0	2.0	0.13	0.05			
43	10/27/82	0.000	0.006	0	0.05	0	0.10	0	2.0	0.14	0.05			
44	10/27/82	0.000	0.005	0	0.02	0	0.10	0	1.0	0.18	0.05			
45	10/27/82	0.000	0.005	0	0.02	0	0.10	0	1.0	0.11	0.05			
46	10/27/82	0.006	0.002	0	0.01	0	0.09	0	0.9	0.00	0.05			
47	10/31/82	0.028	0.006	0	0.02	0	0.10	0	1.0	0.07	0.05			
48	11/03/82	0.031	0.001	0	0.01	0	0.06	0	0.6	0.05	0.05			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Goodery*Date: *3/25/83*

Table 12b: Quarterly Non-Migratory Marine Animals Analysis (Bone Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
1	03/04/82	sheepshead	B	3	4	82	*	*	*	*	*	*	*	
2	03/04/82	black perch	B	3	4	82	*	*	*	*	*	*	*	
3	03/04/82	spiny lobster	B	3	4	82	*	*	*	*	*	*	*	
4	03/04/82	bay mussel	B	3	4	82	*	*	*	*	*	*	*	
5	03/04/82	sheepshead	C	3	4	82	*	*	*	*	*	*	*	
6	03/04/82	black perch	C	3	4	82	*	*	*	*	*	*	*	
7	03/04/82	spiny lobster	C	3	4	82	*	*	*	*	*	*	*	
8	03/04/82	keyhole limpet	C	3	4	82	*	*	*	*	*	*	*	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
1	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
2	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
3	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
4	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
5	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
6	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
7	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
8	03/04/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
1	03/04/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.010
2	03/04/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.030
3	03/04/82	0.010	*	*	*	*	*	*	*	*	*	*	0.019	0.005
4	03/04/82	0.010	*	*	*	*	*	*	*	*	*	*	0.000	0.020
5	03/04/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.020
6	03/04/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.020
7	03/04/82	0.007	*	*	*	*	*	*	*	*	*	*	0.000	0.007
8	03/04/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.020
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
1	03/04/82	0.000	0.020	*	*	*	*	*	*	*	*			
2	03/04/82	0.000	0.020	*	*	*	*	*	*	*	*			
3	03/04/82	0.100	0.010	*	*	*	*	*	*	*	*			
4	03/04/82	0.000	0.010	*	*	*	*	*	*	*	*			
5	03/04/82	0.000	0.020	*	*	*	*	*	*	*	*			
6	03/04/82	0.000	0.010	*	*	*	*	*	*	*	*			
7	03/04/82	0.000	0.007	*	*	*	*	*	*	*	*			
8	03/04/82	0.000	0.010	*	*	*	*	*	*	*	*			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Nina Gauders* Date: *3/25/83*

Table 12b: Quarterly Non-Migratory Marine Animals Analysis (Bone Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
9	03/08/82	sheepshead	A	3	8	82	*	*	*	*	*	*	*	
10	03/08/82	black perch	A	3	8	82	*	*	*	*	*	*	*	
11	03/08/82	spiny lobster	A	3	8	82	*	*	*	*	*	*	*	
12	06/07/82	sheepshead	C	6	7	82	0.50	0.10	0	0.10	0	0.02	0	
13	06/07/82	black perch	C	6	7	82	0.70	0.10	0	0.10	0	0.02	0	
14	06/07/82	keyhole limpet	C	6	7	82	0.14	0.03	0	0.10	0	0.02	0	
15	06/09/82	sheepshead	B	6	9	82	0.90	0.10	0	0.10	0	0.02	0	
16	06/09/82	black perch	B	6	9	82	0.60	0.10	0	0.10	0	0.02	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
9	03/08/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
10	03/08/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
11	03/08/82	*	*	*	*	*	*	*	*	*	*	*	0.000	
12	06/07/82	0.02	0	0.05	0	0.02	0	0.02	0	100	0	0.10	0.000	
13	06/07/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.10	0.000	
14	06/07/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.10	0.000	
15	06/09/82	0.02	0	0.06	0	0.02	0	0.02	0	10	0	0.10	0.000	
16	06/09/82	0.02	0	0.06	0	0.02	0	0.02	0	80	0	0.10	0.000	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
9	03/08/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.010
10	03/08/82	0.020	*	*	*	*	*	*	*	*	*	*	0.000	0.030
11	03/08/82	0.005	*	*	*	*	*	*	*	*	*	*	0.019	0.003
12	06/07/82	0.010	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.010
13	06/07/82	0.020	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.010
14	06/07/82	0.020	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.020
15	06/09/82	0.020	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0.000	0.020
16	06/09/82	0.020	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0.000	0.020
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
9	03/08/82	0.000	0.010	*	*	*	*	*	*	*	*			
10	03/08/82	0.000	0.020	*	*	*	*	*	*	*	*			
11	03/08/82	0.064	0.004	*	*	*	*	*	*	*	*			
12	06/07/82	0.000	0.010	0	0.04	0	0.20	*	*	*	*			
13	06/07/82	0.000	0.010	0	0.04	0	0.30	*	*	*	*			
14	06/07/82	0.000	0.010	0	0.04	0	0.20	*	*	*	*			
15	06/09/82	0.000	0.010	0	0.05	0	0.30	*	*	*	*			
16	06/09/82	0.000	0.010	0	0.05	0	0.30	*	*	*	*			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Mina EnderDate: 3/25/83

Table 12b: Quarterly Non-Migratory Marine Animals Analysis (Bone Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
17	06/09/82	spiny lobster	C	6	9	82	1.50	0.10	0	0.08	0	0.02	0	
18	06/10/82	sheepshead	A	6	10	82	0.40	0.10	0	0.10	0	0.02	0	
19	06/10/82	black perch	A	6	10	82	0.70	0.10	0	0.10	0	0.02	0	
20	06/10/82	spiny lobster	A	6	10	82	2.20	0.10	0	0.09	0	0.02	0	
21	06/10/82	spiny lobster	B	6	10	82	1.70	0.10	0	0.08	0	0.02	0	
22	06/10/82	bay mussel	B	6	10	82	0.16	0.04	0	0.10	0	0.02	0	
23	08/04/82	sheepshead	C	8	4	82	1.00	0.40	0	0.10	0	0.03	0	
24	08/04/82	black perch	C	8	4	82	1.60	0.20	0	0.10	0	0.02	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
17	06/09/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.08	0.000	
18	06/10/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.10	0.000	
19	06/10/82	0.02	0	0.06	0	0.02	0	0.02	0	70	0	0.10	0.000	
20	06/10/82	0.02	0	0.04	0	0.02	0	0.02	0	9	0	0.10	0.000	
21	06/10/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.08	0.000	
22	06/10/82	0.02	0	0.05	0	0.02	0	0.02	0	20	0	0.10	0.000	
23	08/04/82	0.03	0	0.06	0	0.03	0	0.03	0	10	0	0.10	0.000	
24	08/04/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.10	0.000	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
17	06/09/82	0.010	0	0.03	0	0.08	0	0.08	0	0.08	0	0.03	0.000	0.008
18	06/10/82	0.020	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.010
19	06/10/82	0.020	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0.000	0.020
20	06/10/82	0.010	0	0.03	0	0.10	0	0.09	0	0.10	0	0.03	0.000	0.020
21	06/10/82	0.010	0	0.03	0	0.08	0	0.08	0	0.08	0	0.03	0.031	0.006
22	06/10/82	0.002	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.002
23	08/04/82	0.030	0	0.05	0	0.10	0	0.10	0	0.20	0	0.05	0.000	0.030
24	08/04/82	0.020	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.020
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
17	06/09/82	0.000	0.008	0	0.03	0	0.20	*	*	*	*			
18	06/10/82	0.000	0.010	0	0.04	0	0.20	*	*	*	*			
19	06/10/82	0.000	0.020	0	0.05	0	0.30	*	*	*	*			
20	06/10/82	0.038	0.004	0	0.03	0	0.20	*	*	*	*			
21	06/10/82	0.072	0.006	0	0.03	0	0.21	*	*	*	*			
22	06/10/82	0.000	0.002	0	0.04	0	0.20	*	*	*	*			
23	08/04/82	0.000	0.020	0	0.05	0	0.30	*	*	*	*			
24	08/04/82	0.000	0.020	0	0.04	0	0.30	*	*	*	*			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Nina CordusDate: 3/25/83

Table 12b: Quarterly Non-Migratory Marine Animals Analysis (Bone Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
25	08/04/82	spiny lobster	C	8	4	82	2.2	0.1	0	0.08	0	0.02	0	
26	08/04/82	keyhole limpet	C	8	4	82	0.3	0.1	0	0.09	0	0.02	0	
27	08/05/82	sheepshead	A	8	5	82	0.7	0.3	0	0.10	0	0.03	0	
28	08/05/82	black perch	A	8	5	82	0.9	0.3	0	0.10	0	0.02	0	
29	08/05/82	spiny lobster	A	8	5	82	2.7	0.2	0	0.08	0	0.02	0	
30	08/05/82	sheepshead	B	8	5	82	1.2	0.1	0	0.10	0	0.02	0	
31	08/05/82	black perch	B	8	5	82	0.5	0.2	0	0.10	0	0.02	0	
32	08/05/82	spiny lobster	B	8	5	82	2.8	0.2	0	0.08	0	0.02	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
25	08/04/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.08	0.000	
26	08/04/82	0.02	0	0.05	0	0.02	0	0.02	0	9	0	0.09	0.000	
27	08/05/82	0.03	0	0.07	0	0.03	0	0.02	0	10	0	0.10	0.000	
28	08/05/82	0.02	0	0.06	0	0.03	0	0.02	0	10	0	0.10	0.000	
29	08/05/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.08	0.019	
30	08/05/82	0.02	0	0.06	0	0.02	0	0.02	0	10	0	0.10	0.000	
31	08/05/82	0.03	0	0.06	0	0.02	0	0.02	0	10	0	0.10	0.000	
32	08/05/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.08	0.000	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
25	08/04/82	0.010	0	0.03	0	0.08	0	0.08	0	0.08	0	0.03	0.000	0.008
26	08/04/82	0.030	0	0.04	0	0.09	0	0.09	0	0.10	0	0.04	0.000	0.020
27	08/05/82	0.030	0	0.05	0	0.20	0	0.10	0	0.30	0	0.06	0.000	0.030
28	08/05/82	0.020	0	0.05	0	0.10	0	0.10	0	0.20	0	0.05	0.000	0.030
29	08/05/82	0.008	0	0.10	0	0.08	0	0.08	0	0.10	0	0.03	0.040	0.005
30	08/05/82	0.020	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0.000	0.020
31	08/05/82	0.030	0	0.05	0	0.10	0	0.10	0	0.20	0	0.05	0.000	0.030
32	08/05/82	0.010	0	0.03	0	0.08	0	0.08	0	0.08	0	0.03	0.020	0.003
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
25	08/04/82	0.000	0.010	0	0.03	0	0.20	*	*	*	*			
26	08/04/82	0.000	0.020	0	0.04	0	0.20	*	*	*	*			
27	08/05/82	0.000	0.030	0	0.05	0	0.30	*	*	*	*			
28	08/05/82	0.000	0.020	0	0.05	0	0.03	*	*	*	*			
29	08/05/82	0.055	0.004	0	0.03	0	0.20	*	*	*	*			
30	08/05/82	0.000	0.020	0	0.05	0	0.30	*	*	*	*			
31	08/05/82	0.000	0.020	0	0.05	0	0.30	*	*	*	*			
32	08/05/82	0.046	0.004	0	0.03	0	0.20	*	*	*	*			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Gauders*Date: *3/25/83*

Table 12b: Quarterly Non-Migratory Marine Animals Analysis (Bone Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
33	08/09/82	bay mussel	B	8	9	82	0.3	0.1	0	0.09	0	0.02	0	
34	10/26/82	sheepshead	A	10	26	82	0.8	0.1	0	0.10	0	0.02	0	
35	10/26/82	black perch	A	10	26	82	1.1	0.2	0	0.10	0	0.02	0	
36	10/26/82	spiny lobster	A	10	26	82	2.1	0.1	0	0.09	0	0.02	0	
37	10/26/82	sheepshead	B	10	26	82	1.0	0.1	0	0.10	0	0.03	0	
38	10/26/82	black perch	B	10	26	82	1.1	0.1	0	0.10	0	0.03	0	
39	10/26/82	spiny lobster	B	10	26	82	2.1	0.1	0	0.09	0	0.02	0	
40	10/26/82	bay mussel	B	10	26	82	0.2	0.1	0	0.09	0	0.02	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
33	08/09/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.09	0	
34	10/26/82	0.02	0	0.06	0	0.02	0	0.02	0	10	0	0.10	0	
35	10/26/82	0.02	0	0.06	0	0.02	0	0.02	0	10	0	0.10	0	
36	10/26/82	0.02	0	0.05	0	0.02	0	0.02	0	9	0	0.09	0	
37	10/26/82	0.03	0	0.07	0	0.03	0	0.03	0	30	0	0.10	0	
38	10/26/82	0.02	0	0.05	0	0.03	0	0.02	0	40	0	0.10	0	
39	10/26/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.09	0	
40	10/26/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.09	0	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
33	08/09/82	0.03	0	0.04	0	0.09	0	0.09	0	0.09	0	0.04	0.000	0.020
34	10/26/82	0.02	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0.000	0.020
35	10/26/82	0.03	0	0.05	0	0.10	0	0.10	0	0.20	0	0.05	0.000	0.020
36	10/26/82	0.01	0	0.04	0	0.09	0	0.09	0	0.09	0	0.04	0.015	0.005
37	10/26/82	0.03	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0.000	0.030
38	10/26/82	0.01	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0.000	0.010
39	10/26/82	0.01	0	0.03	0	0.09	0	0.09	0	0.09	0	0.03	0.009	0.004
40	10/26/82	0.03	0	0.04	0	0.09	0	0.09	0	0.09	0	0.04	0.000	0.020
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
33	08/09/82	0.000	0.020	0	0.04	0	0.2	*	*	*	*			
34	10/26/82	0.000	0.020	0	0.05	0	0.3	*	*	*	*			
35	10/26/82	0.000	0.020	0	0.05	0	0.3	*	*	*	*			
36	10/26/82	0.025	0.005	0	0.04	0	0.2	*	*	*	*			
37	10/26/82	0.000	0.020	0	0.05	0	0.3	*	*	*	*			
38	10/26/82	0.000	0.010	0	0.04	0	0.3	*	*	*	*			
39	10/26/82	0.034	0.004	0	0.03	0	0.4	*	*	*	*			
40	10/26/82	0.000	0.020	0	0.04	0	0.2	*	*	*	*			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Goodery*Date: *3/25/83*

Table 12b: Quarterly Non-Migratory Marine Animals Analysis (Bone Type)

Control Location: C

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
41	10/27/82	sheepshead	C	10	27	82	0.9	0.1	0	0.10	0	0.03	0	
42	10/27/82	black perch	C	10	27	82	0.6	0.1	0	0.10	0	0.02	0	
43	10/27/82	spiny lobster	C	10	27	82	2.3	0.1	0	0.08	0	0.02	0	
44	10/27/82	keyhole limpet	C	10	27	82	0.0	0.1	0	0.10	0	0.02	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
41	10/27/82	0.03	0	0.06	0	0.03	0	0.03	0	60	0	0.10	0	
42	10/27/82	0.02	0	0.05	0	0.02	0	0.02	0	40	0	0.10	0	
43	10/27/82	0.02	0	0.04	0	0.02	0	0.02	0	8	0	0.08	0	
44	10/27/82	0.02	0	0.05	0	0.02	0	0.02	0	10	0	0.10	0	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
41	10/27/82	0.02	0	0.05	0	0.10	0	0.10	0	0.10	0	0.05	0	0.020
42	10/27/82	0.01	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0	0.010
43	10/27/82	0.01	0	0.03	0	0.08	0	0.08	0	0.08	0	0.03	0	0.008
44	10/27/82	0.03	0	0.04	0	0.10	0	0.10	0	0.10	0	0.04	0	0.020
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
41	10/27/82	0	0.010	0	0.05	0	0.3	*	*	*	*			
42	10/27/82	0	0.010	0	0.04	0	0.2	*	*	*	*			
43	10/27/82	0	0.008	0	0.03	0	0.2	*	*	*	*			
44	10/27/82	0	0.020	0	0.04	0	0.2	*	*	*	*			

N=44

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Dr. Anna GoedenDate: 3/25/83

Table 13a: Semi-Annual Local Crops Gamma Spectral Analysis

Control Location: #2

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)		
1	06/30/82	tomato	1	6	30	82	0.00	0.01	0	0.006		
2	06/30/82	cucumber	1	6	30	82	0.00	0.01	0	0.004		
3	06/30/82	tomato	2	6	30	82	0.00	0.01	0	0.005		
4	06/30/82	kale	2	6	30	82	0.00	0.03	0	0.010		
5	12/13/82	tomato	1	12	13	82	0.00	0.01	0	0.006		
6	12/13/82	cauliflower	1	12	13	82	0.06	0.03	0	0.008		
7	12/14/82	tomato	2	12	14	82	0.00	0.01	0	0.005		
8	12/14/82	kale	2	12	14	82	0.07	0.04	0	0.010		
Observation Number	Calendar Date	Cs-134	Cs-134 (sigma)	K-40	K-40 (sigma)	Ru-103	Ru-103 (sigma)	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m
1	06/30/82	0	0.002	2.2	0.1	0	0.006	0	0.002	0	0.002	0
2	06/30/82	0	0.002	1.8	0.1	0	0.004	0	0.002	0	0.002	0
3	06/30/82	0	0.002	1.8	0.1	0	0.005	0	0.002	0	0.002	0
4	06/30/82	0	0.005	2.1	0.1	0	0.010	0	0.005	0	0.005	0
5	12/13/82	0	0.002	2.1	0.1	0	0.006	0	0.002	0	0.002	0
6	12/13/82	0	0.004	2.8	0.1	0	0.008	0	0.004	0	0.004	0
7	12/14/82	0	0.002	1.9	0.1	0	0.005	0	0.002	0	0.002	0
8	12/14/82	0	0.007	1.6	0.1	0	0.010	0	0.007	0	0.007	0
Observation Number	Calendar Date	Ag-110m	Ce-141	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131	I-131 (sigma)	Ce-144	Ce-144 (sigma)		
1	06/30/82	0.005	0	0.006	0	0.002	0	0.002	0	0.010		
2	06/30/82	0.003	0	0.004	0	0.002	0	0.002	0	0.007		
3	06/30/82	0.005	0	0.005	0	0.002	0	0.003	0	0.010		
4	06/30/82	0.010	0	0.010	0	0.005	0	0.010	0	0.020		
5	12/13/82	0.005	0	0.006	0	0.002	0	0.001	0	0.009		
6	12/13/82	0.008	0	0.008	0	0.004	0	0.003	0	0.020		
7	12/14/82	0.005	0	0.005	0	0.002	0	0.001	0	0.009		
8	12/14/82	0.010	0	0.010	0	0.007	0	0.004	0	0.003		

N=8

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Mina Greders*Date: *3/25/83*

Table 13b: Semi-Annual Local Crops Tritium and Strontium Activities

Control Location: #2

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	Sr-89	Sr-89 (sigma)
1	06/30/82	tomato	1	6	30	82	*	*
2	06/30/82	cucumber	1	6	30	82	*	*
3	06/30/82	tomato	2	6	30	82	*	*
4	06/30/82	kale	2	6	30	82	*	*
5	12/13/82	tomato	1	12	13	82	*	*
6	12/13/82	cauliflower	1	12	13	82	*	*
7	12/14/82	tomato	2	12	14	82	*	*
8	12/14/82	kale	2	12	14	82	*	*

Observation Number	Calendar Date	Sr-90	Sr-90 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)
1	06/30/82	0.000	0.002	0	0.4	0	0.05
2	06/30/82	0.000	0.001	0	0.3	0	0.04
3	06/30/82	0.000	0.002	0	0.5	0	0.03
4	06/30/82	0.027	0.004	0	0.8	0	0.05
5	12/13/82	0.000	0.002	0	0.3	0	0.06
6	12/13/82	0.007	0.003	0	0.5	0	0.05
7	12/14/82	0.000	0.002	0	0.3	0	0.06
8	12/14/82	0.014	0.006	0	0.9	0	0.05

N=8

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: *Dr. Nina Goeders*Date: *3/25/83*

Table 14: Annual Soil Analysis

Control Location: #4

Observation Number	Calendar Date	Location	Calendar Month	Calendar Day	Calendar Year	Be-7	Be-7 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-134	Cs-134 (sigma)	
1	12/07/82	4	12	7	82	0	0.3	0	0.1	0	0.05	
2	12/08/82	1	12	8	82	0	0.3	0	0.1	0	0.05	
3	12/08/82	2	12	8	82	0	0.3	0	0.1	0	0.05	
4	12/08/82	3	12	8	82	0	0.3	0	0.1	0	0.05	
5	12/08/82	5	12	8	82	0	0.3	0	0.1	0	0.05	
Observation Number	Calendar Date	K-40	K-40 (sigma)	Ru-103	Ru-103 (sigma)	Cs-137	Cs-137 (sigma)	Co-58	Co-58 (sigma)	Ag-110m	Ag-110m (sigma)	Ce-141
1	12/07/82	21.0	1.0	0	0.1	0.12	0.01	0	0.05	0	0.1	0
2	12/08/82	23.0	1.0	0	0.1	0.02	0.01	0	0.05	0	0.1	0
3	12/08/82	7.0	0.3	0	0.1	0.03	0.01	0	0.05	0	0.1	0
4	12/08/82	16.2	0.8	0	0.1	0.00	0.01	0	0.05	0	0.1	0
5	12/08/82	11.3	0.6	0	0.1	0.00	0.01	0	0.05	0	0.1	0
Observation Number	Calendar Date	Ce-141 (sigma)	Co-60	Co-60 (sigma)	I-131	I-131 (sigma)	Ce-144	Ce-144 (sigma)	Sr-89	Sr-89 (sigma)	Sr-90	Sr-90 (sigma)
1	12/07/82	0.1	0	0.05	0	0.5	0	0.2	*	*	0.02	0.01
2	12/08/82	0.1	0	0.05	0	0.5	0	0.2	*	*	0.04	0.01
3	12/08/82	0.1	0	0.05	0	0.5	0	0.2	*	*	0.05	0.01
4	12/08/82	0.1	0	0.05	0	0.5	0	0.2	*	*	0.02	0.01
5	12/08/82	0.1	0	0.05	0	0.5	0	0.2	*	*	0.02	0.01

N=5

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by:

*Dr. Mina Goeder*Date: *3/25/83*

Table 15: Semi-Annual Kelp Analysis

Control Location: D

Observation Number	Calendar Date	Sample Type	Location	Calendar Month	Calendar Day	Calendar Year	K-40	K-40 (sigma)	Zn-65	Zn-65 (sigma)	Cs-134	Cs-134 (sigma)	Mn-54	
1	06/07/82	macrocystis p.	A	6	7	82	5.2	0.3	0	0.02	0	0.004	0	
2	06/07/82	macrocystis p.	B	6	7	82	4.2	0.2	0	0.01	0	0.003	0	
3	06/07/82	macrocystis p.	D	6	7	82	2.4	0.1	0	0.01	0	0.002	0	
4	06/09/82	macrocystis p.	C	6	9	82	2.1	0.1	0	0.01	0	0.002	0	
5	10/26/82	macrocystis p.	A	10	26	82	5.5	0.3	0	0.02	0	0.005	0	
6	10/26/82	macrocystis p.	B	10	26	82	4.4	0.2	0	0.02	0	0.004	0	
7	10/26/82	macrocystis p.	C	10	26	82	3.7	0.2	0	0.02	0	0.003	0	
8	10/26/82	macrocystis p.	D	10	26	82	4.7	0.2	0	0.02	0	0.003	0	
Observation Number	Calendar Date	Mn-54 (sigma)	Zr(Nb)-95	Zr(Nb)-95 (sigma)	Cs-137	Cs-137 (sigma)	Co-57	Co-57 (sigma)	Mo(Tc)-99	Mo(Tc)-99 (sigma)	Ce-141	Ce-141 (sigma)	Co-58	
1	06/07/82	0.004	0	0.010	0	0.004	0	0.004	0	2	0	0.02	0	
2	06/07/82	0.003	0	0.007	0	0.003	0	0.003	0	1	0	0.01	0	
3	06/07/82	0.002	0	0.005	0	0.002	0	0.002	0	1	0	0.01	0	
4	06/09/82	0.002	0	0.006	0	0.002	0	0.002	0	1	0	0.01	0	
5	10/26/82	0.005	0	0.010	0	0.005	0	0.005	0	2	0	0.02	0	
6	10/26/82	0.004	0	0.010	0	0.004	0	0.004	0	2	0	0.02	0	
7	10/26/82	0.003	0	0.008	0	0.003	0	0.003	0	2	0	0.02	0	
8	10/26/82	0.003	0	0.008	0	0.003	0	0.003	0	2	0	0.02	0	
Observation Number	Calendar Date	Co-58 (sigma)	Ru-103	Ru-103 (sigma)	Ce-144	Ce-144 (sigma)	Fe-59	Fe-59 (sigma)	Ru-106	Ru-106 (sigma)	Ra-226	Ra-226 (sigma)	Co-60	Co-60 (sigma)
1	06/07/82	0.004	0	0.008	0	0.02	0	0.02	0	0.02	0	0.008	0	0.004
2	06/07/82	0.003	0	0.006	0	0.01	0	0.01	0	0.01	0	0.006	0	0.003
3	06/07/82	0.002	0	0.004	0	0.01	0	0.01	0	0.01	0	0.004	0	0.002
4	06/09/82	0.002	0	0.005	0	0.01	0	0.01	0	0.01	0	0.005	0	0.002
5	10/26/82	0.003	0	0.009	0	0.02	0	0.02	0	0.02	0	0.009	0	0.003
6	10/26/82	0.003	0	0.009	0	0.02	0	0.02	0	0.02	0	0.009	0	0.002
7	10/26/82	0.002	0	0.006	0	0.02	0	0.02	0	0.02	0	0.006	0	0.003
8	10/26/82	0.002	0	0.006	0	0.02	0	0.02	0	0.02	0	0.006	0	0.002
Observation Number	Calendar Date	Ag-110m	Ag-110m (sigma)	Th-228	Th-228 (sigma)	I-131	I-131 (sigma)	Bound H-3	Bound H-3 (sigma)	Aqueous H-3	Aqueous H-3 (sigma)			
1	06/07/82	0	0.007	0	0.008	0	0.010	0	1.0	0	0.08			
2	06/07/82	0	0.005	0	0.006	0	0.007	0	0.7	0	0.07			
3	06/07/82	0	0.003	0	0.004	0	0.005	0	0.5	0	0.07			
4	06/09/82	0	0.004	0	0.005	0	0.006	0	0.6	0	0.07			
5	10/26/82	0	0.002	0	0.009	0	0.010	0	0.9	0	0.04			
6	10/26/82	0	0.002	0	0.009	0	0.010	0	1.0	0	0.04			
7	10/26/82	0	0.002	0	0.006	0	0.010	0	0.6	0	0.05			
8	10/26/82	0	0.002	0	0.006	0	0.010	0	0.6	0	0.04			

Southern California Edison Company Environmental Monitoring Program Database Listings

Verified by: Mina Gooding, Ph.D. Date: 10/20/83

Table 16: Semi-Annual Jackrabbit Analysis (pCi/g)

Observation Number	Calendar Date	Sample Type	Location	Sr-89	Sr-89 (Sigma)	Sr-90	Sr-90 (Sigma)	I-131	I-131 (Sigma)
1	5/20/82	Rabbit Femur	1	0	2	0	2	*	*
2	12/27/82	Rabbit Femur	1	0	2	0	2	*	*
1	5/20/82	Rabbit Thyroid	1	*	*	*	*	0	2
2	12/27/82	Rabbit Thyroid	1	*	*	*	*	0	5

Observation Number	Calendar Date	Sample Type	Location	Be-7	Be-7 (Sigma)	Co-58	Co-58 (Sigma)	Co-60	Co-60 (Sigma)	Zr-Nb-95	Zr-Nb-95 (Sigma)	Ru-103	Ru-103 (Sigma)
1	5/20/82	Rabbit Flesh	1	0	0.3	0	0.06	0	0.06	0	0.1	0	0.06
2	12/27/82	Rabbit Flesh	1	0	0.3	0	0.06	0	0.06	0	0.1	0	0.06

110m	Ag-110m (Sigma)	I-131	I-131 (Sigma)	Cs-134	Cs-134 (Sigma)	Cs-137	Cs-137 (Sigma)	Ce-141	Ce-141 (Sigma)	Ce-144	Ce-144 (Sigma)
0	0.06	0	0.05	0	0.06	0	0.06	0	0.2	0	0.2
0	0.06	0	0.05	0	0.06	0	0.06	0	0.2	0	0.2

11/1/83

HH-4