April 12, 1982

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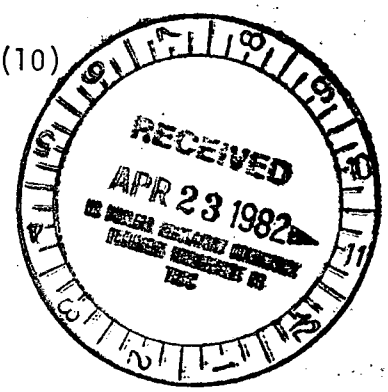

Docket No. 50-206
LS05-82-04-024

Mr. R. Dietch, Vice President
Nuclear Engineering and Operations
Southern California Edison Company
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

Dear Mr. Dietch:

SUBJECT: STEAM GENERATOR INSPECTIONS

RE: San Onofre Nuclear Generating Station Unit 1

I am enclosing, for your information, a tabulation of data on steam generator inspection and maintenance. This table reflects operating experience with Westinghouse PWR Steam Generators through January 1982.

Sincerely,

Original signed by

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

SE01
S.11
DSU USE Ltr(08)

8204260052

OFFICE	DL: ORB #5	DL: ORB #5	DL: ORB #5				
SURNAME	HSmith:cc	WPaulson	DCrutchfield				
DATE	4/6/82	4/7/82	4/12/82				

NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY USGPO: 1981—335-960

cc
Charles R. Kocher, Assistant
General Counsel
James Beoletto, Esquire
Southern California Edison Company
Post Office Box 800
Rosemead, California 91770

David R. Pigott
Orrick, Herrington & Sutcliffe
600 Montgomery Street
San Francisco, California 94111

Harry B. Stoehr
San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

Resident Inspector/San Onofre NPS
c/o U. S. NRC
P. O. Box 4329
San Clemente, California 92672

Mayor
City of San Clemente
San Clemente, California 92672

Chairman
Board of Supervisors
County of San Diego
San Diego, California 92101

California Department of Health
ATTN: Chief, Environmental
Radiation Control Unit
Radiological Health Section
714 P Street, Room 498
Sacramento, California 95814

U. S. Environmental Protection Agency
Region IX Office
ATTN: Regional Radiation Representative
215 Freemont Street
San Francisco, California 94111

Robert H. Engelken, Regional Administrator
Nuclear Regulatory Commission, Region V
1450 Maria Lane
Walnut Creek, California 94596

SAN ONOFRE UNIT 1

STEAM GENERATOR TUBE LICENSING ACTIONS

Date	Type
07/18/74	Letter transmitting Regulatory Guide 1.83 and requesting proposed change to the Technical Specifications (TS).
04/01/77	Amendment No. 25 to license requires steam generator to be reinspected within 12 months from the date of the amendment.
10/06/77	Order requiring that the licensee submit information needed to confirm the rate of growth of steam generator tube degradation in the vicinity of the old anti-vibration bars.
12/20/77	Amendment No. 29 pertains to eddy current test on steam generator tube degradation and requires steam generator inspections.
03/24/78	Amendment No. 32 clarifies when the twelve-month inspections of steam generators must be made, which is in reference to Amendment No. 25.
04/20/78	Amendment No. 34 acknowledges that the results of the steam generator denting inspection program satisfy license requirements and, therefore, approved resumption of power operation, in reference to Amendment Nos. 25 and 32.
10/31/82	Amendment No. 37 acknowledges that inspection results indicate that the steam generator tube denting and support plate cracking have been connected. We, therefore, found performance of subsequent steam generator inspections in accordance with ISI, TS 4.16 acceptable.
06/08/81	Amendment No. 55 approves steam generator tube sleeving

SAN ONOFRE UNIT 1

STEAM GENERATOR TUBE INSPECTION AND PLUGGING HISTORY

Date	No. Tubes Inspected		Primary to Secondary Leakage, gpm	Total Defects	Type of Degrad.	No. Defects Requiring Repair	No. Tubes Plugged/Sleeved/Pulled		
							A	B	C
S.G. Number	A/B/C Hot	A/B/C Cold		A/B/C					
Factory							-/-/-	4/-/-	-/-/-
10/70			0.01 B S/G				-/-/-	-/-/-	1/-/-
02/72	-/-/677		0.33 C S/G	-/-/1 •		-/-/1	-/-/-	0/0/0	-/-/[redacted]
01/72	-/920/-	-/98/-		-/0/-		-/0/-	-/-/-	-/-/-	9/-/[redacted]
07/72	-/-/818		0.07 C S/G	-/-/9		-/-/9	-/-/-	-/-/-	-/-/-
01/73			0.066 A S/G	1/-/-		1/-/-	1/-/-	-/-/-	6/-/-
06/73	2700/1273/721	1156/544/351		4/5/6	h	2/5/6	4/0/2	5/-/-	12/-/-
03/75	788/721/900	891/1408/344		4/2/12	h	1/2/6	4/-/-	2/-/-	1/-/-
06/75							-/-/-	-/-/-	1/-/-
07/76							-/-/-	-/-/-	1/-/-
10/76	1397/1050/590	385/0/0		34/18/51	h	22/13/41	34/-/-	18/-/-	51/-/-
09/77	2550/2550/2480	0/0/0		10/19/12		8/11/12	10/-/-	19/-/3	12/-/-
10/73	42/-/75						7/-/-	-/-/-	8/-/-
4/74	71/-/-		0.028 S/G				4/-/-	1/-/-	1/-/-
4/78	697/0/746	-/-/-		7/-/7	g,a	7/-/7	7/-/-	-/-/-	7/-/-
9/78	630/685/523	458/226/226		24/9/25		-/-/1	-/-/-	-/-/-	1/-/-
(Gen. Insp.)					h	-/-/3	-/-/-	-/-/-	3/-/-
9/78	671/683/548	-/-/-			g	-/1/1	-/-/-	1/-/-	1/-/-
(AVB)									
9/78	314/44/432	18/-/31							
(Denting)					a	21/-/-	21/-/-	-/-/-	-/-/-
6/79	639/0/215	-/-/-	0/07 A S/G	21/-/-	a,h,g,other	143/60/20	143/-/3	60/-/-	20/-/-
4/80	3699/3744/3670	1998/652/360	0.180 S/G	178/141/178	c/a	655/466/718	102/2244/7	185/2141/-	
6/80	2315/2145/2787	104/-/-		658/466/718					169/[redacted]
			TOTALS	941/660/1019 or 24.8%/17.4%/26.9%		860/558/825 or 22.7%/14.2%/21.8%	339/2244/12 or 8.9%	294/2141/3 or 7.8%	321/2141 or 8.5%

Type of Degradation

a-Wastage
b-Cracking
c-IGA
d-Pitting
e-Fatigue
f-Erosion/Corrosion
g-Denting
h-Wear against anti-vibration bar (AVB)