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February 19, 1981

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Director of Nuclear Reactor Regulation
Attention: D. M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Systematic Evaluation Program
Safe Shutdown Systems
San Onofre Nuclear Generating Station
Unit 1
SEE OVERSIZE DRAWINGS

On November 20, 1980, we were requested by Mr. S. Nowicki of the NRC and Mr. D. Webber of EG&G to provide certain drawings and information for use in evaluating San Onofre Unit 1 with respect to Safe Shutdown Systems.

Enclosure 1 of this letter is a list of drawings, five (5) copies of which are also enclosed. This set of drawings partially fulfills the request. The remainder of the requested drawings will be furnished by approximately March 15, 1981.

Enclosure 2 of this letter provides responses to the questions asked by Mr. Webber.

If you have any questions, please let me know.

Very truly yours,

K.P. Baskin

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Enclosures

SEND DRAWINGS to:

REG F/ES

BC (4)

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2. Item: Are there any interlocks that tie one control circuit to another or two systems together for the following systems:

a. Condensate/feedwater/auxiliary feedwater?

Response:

PS79 provides a "close" signal to all four (4) condensate pumps through the "63" relay. CV-71 and CV-72 are interlocked with all the condensate pump breaker contacts. SR contact directly interfaces with annunciator.

b. Pump G-28 and G-28S

Response:

No interlocks

c. Pumps G-11 and G-11S

Response:

No interlocks

d. Pump G-13A, B, C, G-43, G-43S, G4A and B

Response:

PS68 and PS62 contacts go to the annunciator

e. Pumps G-50A & B, G-3A & B, G-27N & S and G-45A & B

Response:

No interlocks

f. Pumps G8A & B

Response:

No interlocks except for temporary SFA modifications to pump control scheme.

g. Pumps G-15A, B & C

Response:

PC-605X is common to all three pumps. The control switch contact from the other two pumps in series with the other train under-voltage (27x) is interlocked with the control circuit.

Enclosure 1
List of Drawings for Safe Shutdown Systems

<u>Drawing Number</u>	<u>Title</u>
N-1542 Sh. 57 Rev. 1	Elementary Diagram, Reactor Auxiliaries
N-1542 Sh. 54 Rev. 1	Elementary Diagram, Reactor Auxiliaries
714431 Rev. 2	SEP Wiring Diagram, Misc. Controls & Devices
5150334 Rev. 3	Elementary Diagram, Pumps 6-28, G-38S, G-26, G-39
5149182 Rev. 7	Load Sequence Schedule, Load Train 2
5149890 Rev. 5	Elementary Diagram, Various Sphere Isolation Valves
5150353 Rev. 1	Elementary Diagram, Trash System and Aux. Air Compressor
5149927 Rev. 1	Elementary Diagram, Screen Wash Pump G-43 & G-43S
5149924 Rev. 1	Elementary Diagram, Instrument Air Compressors K1A, K1B & K1C
5149919 Rev. 3	Elementary Diagram, Salt Water Cooling Pumps G-13A & B
5150627 Rev. 3	Elementary Diagram, Screen Wash System Controls
5150345 Rev. 2	Elementary Diagram, Cir. Water Pumps
64351 Rev. 3	Elementary Diagram, CV Mtr. Feed CV-515 & CV-737A
64353 Rev. 3	Elementary Diagram, CV Mtr. Feed CV-516, CV-526, CV-528 & CV-737B
64369 Rev. 3	Elementary Diagram, Valve CV-737B & CV-518
64356 Rev. 4	Elementary Diagram, Sphere Spray Valve Control CV-82 & CV-114
64363 Rev. 4	Elementary Diagram, Valve CV-517
64350 Rev. 3	Elementary Diagram, CV Mtr. Feed, CV-517, CV-525 & CV-527
64362 Rev. 5	Elementary Diagram, Valves CV-525 & CV-527
64371 Rev. 4	Elementary Diagram, Valves CV-515, CV-526 & CV-528
455461 Rev. 2	Elementary Diagram, Seal Water Return PCV-1115A, B & C
455451 Rev. 2	Elementary Diagram, Solenoid Valves
449408 Rev. 6	Elementary Diagram, Sol. Valves FCV-456, 457 & 458, Feedwater Control & By-Pass
455462 Rev. 2	Elementary Diagram, Boric Acid Blend Sys. FCV-1102A & B
455450 Rev. 2	Elementary Diagram, Demin. Bypass Sol. Valve TCV-1105
455452 Rev. 2	Elementary Diagram, Letdown Isolation Sol. Valve LCV-1112
445116 Rev. 4	Elementary Diagram, Main Steam Dump to Cond. & Atmos.

Enclosure 2
Response to Questions

1. Item: Provide the following information about the safe shutdown panel.
- Location?
 - What devices are on the panel?
 - What are the power supplies for these devices?

Response

- The safe shutdown panel is located on the +20' level at the south end of the turbine building.

- Instrumentation:

Pressurizer level and pressure indicators LT430A and PT434A

Steam generator level LI450C, 451C & 452C

Primary system cold leg temperature

Loop A - TE402B

Loop B - TE412B

Loop C - TE422B

NIS combined source/intermediate range monitor

Controls:

Steam dump control to atmosphere-manual control for CV-76 and CV-77

Electric auxiliary feedwater pump control

Three feedwater valve controls FCV-456, 457 & 458

- All power for instrumentation and control circuits are provided from MCC 2A.