

INSERVICE TESTING PROGRAM PLAN

Revision 5

SAN ONOFRE NUCLEAR GENERATING STATION

Unit 2

Supersedes Per Rev. 11 TO
"Inservice Testing Plan
Unit 2"

Wk 14. 12/19/86

SOUTHERN CALIFORNIA EDISON COMPANY

8307070166 830705
PDR ADOCK 05000361
PDR

SUMMARY

Inservice inspection (ISI) of Class 1, Class 2, and Class 3 nuclear components in Unit 2 of the San Onofre Nuclear Generating Station (SONGS-2) will be performed in accordance with the requirements of Section XI of the ASME Boiler and Pressure Vessel Code, Rules for Inservice Inspection of Nuclear Power Plant Components, hereinafter referred to as the Code.

This inspection and testing program describes the areas to be examined, examination categories, examination methods, extent and schedules to be followed during the 1st ten-year inspection interval together with operational testing requirements. It is anticipated that the first 120-month inspection interval will begin with the start of commercial operation* in August 1982 and be completed in August 1992.

This document is a summary of the SONGS-2 ISI program. It is being submitted to the Nuclear Regulatory Commission for approval in accordance with the requirements of 10 CFR 50.55a (g)(5)(iii). This submittal also provides information in response to specific concerns in Section III.5 of Standard Review Plan (SRP) 5.2.4, SRP 3.9.6, FSAR questions 121.3, 121.8, and 121.17, and as outlined in Appendix A to FSAR question section 121.

* The Commercial Operation Date will be as defined by Federal Power Commission regulations, 18 CFR 101, Chapter 1, paragraph 9.D.

1.0 OBJECTIVE (continued)

Exclusions, exceptions, and appropriate relief requests are provided in Section 6.0 in those cases in which strict compliance with Code requirements is not practical.

Plant Technical Specifications implement various aspects of the SONGS-2 ISI program. A summary of applicable technical specifications is provided in Section 7.0 for information.

A summary of items requiring NRC approval is provided in Section 8.0.

NRC approval of the SONGS-2 ISI program is required prior to initiation of the first 120-month inspection interval, beginning in August 1982.

2.0 SCOPE

The SONGS-2 ISI program includes all examinations and tests required by Section XI of the ASME Code for pressure retaining components in Class 1, 2, and 3 systems. Other periodic examinations, not detailed in the Plant Technical Specifications but required to assure the integrity of plant fluid systems, are included in the scope of the ISI program.

Pressure boundary examinations which are covered in detail in the Plant Technical Specifications, will not be considered a part of the ISI program.

2.1 Items Included

- 2.1.1 Inspections - Section XI, Division 1, of the ASME Code describes inspections, including non-destructive examinations, to be followed in the Plant ISI program. Code examinations which are covered in the technical specifications, are not included in the pressure boundary examinations of the ISI program. See item 2.2.9.
- 2.1.2 Pump testing - Inservice testing of pumps is included in accordance with subsection IWP of the 1977 Edition of the Code, Summer 1979 Addenda. Safety-related Class 1, 2, and 3 pumps are tested which are powered by an emergency power source are covered by the program.
- 2.1.3 Valve testing - Inservice testing of valves is included in the ISI program. Subsection IWV will be followed for valves using the 1977 Edition of the Code through Summer 1979 Addenda.

INSERVICE TESTING PROGRAM
ASME-CLASS 1, 2 & 3 VALVES
SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 2

VALVE NUMBER	COORD.	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTR. TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME (Sec.)	RELIEF REQUEST	REMARKS
SAFETY INJECTION P & ID # 40112 (Continued)													
16-077-C-645	F-7	2	C	16"	CK	SA	C	O&C	CVT CVP	RR OP		VRR-12	
16-084-C-645	G-6	2	C	16"	CK	SA	C	O&C	CVT CVP	RR OP		VRR-12	
24-001-C-724	D-8	2	C	24"	SDCK	SA	C	O&C	CVT CVP	RR OP		VRR-2	Note 1
24-002-C-724	D-8	2	C	24"	SDCK	SA	C	O&C	CVT CVP	RR OP		VRR-2	Note 1
24-003-C-724	B-7	2	C	24"	SDCK	SA	C	O	CVT	RR		VRR-3	Notes 1 & 5
24-004-C-724	B-7	2	C	24"	SDCK	SA	C	O	CVT	RR		VRR-3	Notes 1 & 5
SAFETY INJECTION P & ID # 40113													
HV-9322	H-7	2	B	8"	GL	MO	C	O	BT PIT	OP RR	30		Notes 3 & 6
HV-9323	G-7	2	B	2"	GL	MO	C	O	BT PIT	OP RR	15		Notes 3 & 6
HV-9324	F-7	2	B	2"	GL	MO	C	O	BT PIT	OP RR	15		Notes 3 & 6
HV-9325	F-7	2	B	8"	GL	MO	C	O	BT PIT	OP RR	30		Notes 3 & 6
HV-9326	E-7	2	B	2"	GL	MO	C	O	BT PIT	OP RR	15		Notes 3 & 6
HV-9327	E-7	2	B	2"	GL	MO	C	O	BT PIT	OP RR	15		Notes 3 & 6
HV-9328	D-7	2	B	8"	GL	MO	C	O	BT PIT	OP RR	30		Notes 3 & 6
HV-9329	C-7	2	B	2"	GL	MO	C	O	BT PIT	OP RR	15		Notes 3 & 6

VALVE RELIEF REQUEST NO. 12

SYSTEM: Safety Injection

COMPONENT: 16-077-C-645 (Check Valve)
16-084-C-645 (Check Valve)
16-199-C-645 (Check Valve) (Unit 3 only)
16-201-C-645 (Check Valve) (Unit 3 only)

CATEGORY: C

CLASS: 2

FUNCTION: These valves open to allow a flow of water from the refueling water tank into the suction piping of the low pressure safety injection pumps.

TEST EQUIPMENT: Exercise these valves every three months.

BASIS FOR RELIEF: These check valves cannot be full stroke exercised during power operation because the low pressure safety injection pumps cannot overcome reactor coolant system pressure. During cold shutdown the LPSI pumps are used for the shutdown cooling system which bypasses these check valves by taking suction directly from the RCS.

ALTERNATE TESTING: These valves will be partial stroke exercised during periodic tests of the low pressure safety injection pumps during normal operation. Mini-flow tests will be conducted every three months. These valves will be full stroke exercised every refueling outage as the LPSI pumps fill the refueling water canal.

PUMP RELIEF REQUEST NO. 4

SYSTEM: Safety Related Systems

COMPONENT: All pumps in the program

CLASS: Class 2 and 3

FUNCTION: To provide flow to safety systems

TEST REQUIREMENT: An inservice test shall be run on each pump nominally each month during normal plant operation.

BASIS FOR RELIEF: Relief is requested from the requirements of Sub-Article IWP-2300(a) regarding monthly testing of each pump. The experience of the industry has shown that the statistical failure rate of these pumps is such that monthly surveillance testing is not justified. The statistics do, however justify testing on a quarterly basis. Later editions of the Code allow surveillance testing on a quarterly basis.

ALTERNATE TESTING : Inservice testing shall be accomplished on each pump at least once every 3 months. The exception to this will be the Auxiliary Feedwater pumps which will be tested monthly per Technical Specification requirements.