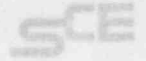


Southern California Edison Company



P. O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

M. O. MEDFORD
MANAGER, NUCLEAR LICENSING

April 1, 1985

TELEPHONE
(818) 302-1749

U.S. Nuclear Regulatory Commission
Director, Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Attention: Mr. George W. Knighton, Chief
Licensing Branch No. 3

Dear Sir:

Subject: Docket Nos. 50-361 and 50-362
Emergency Core Cooling System Outage Report - 1984
San Onofre Nuclear Generating Station, Units 2 and 3

Pursuant to Section II.K.3.17 of the NUREG-0660/0737 Volume of the San Onofre Nuclear Generating Station (SONGS), Units 2 and 3 FSAR, enclosed is the report concerning Emergency Core Cooling System (ECCS) outages. This report covers the period from January 1, 1984, to December 31, 1984, and includes the Unit ID, the ECCS component, cause of outage, duration of outage and corrective actions taken to return the component to operable status. For purposes of this report, the components of the ECCS have been subdivided into the following categories with SONGS system designators in parenthesis: Chemical and Volume Control System (Charging System only)(BGA), Boric Acid Mix Storage (components required for safety injection)(BGB), Safety Injection and Shutdown Cooling System (BHA), Refueling Water Storage Tanks (BHB), Containment Spray (BKA) and Emergency Diesel Generators (KJA and KJB).

The enclosed report contains 168 and 188 entries for SONGS 2 and 3, respectively. The outage causes can be summarized as follows:

UNIT 2

1.	Surveillance Testing (SV)	23.8%
2.	Corrective Maintenance (CM)	38.1%
3.	Preventive Maintenance (PM)	25.0%
4.	Design Change (DCP)	13.1%

UNIT 3

1.	Surveillance Testing (SV)	18.1%
2.	Corrective Maintenance (CM)	41.0%
3.	Preventive Maintenance (PM)	27.1%
4.	Design Change (DCP)	13.8%

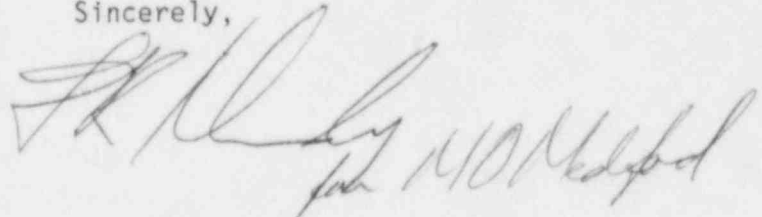
AOAB
/11

8504050249 850401
PDR ADOCK 05000361
R PDR

Most of the ECCS outages involved other than critical path work during plant shutdowns and therefore received a lower maintenance and paperwork priority. Since a portion of the time recorded as outage duration is a reflection of Maintenance Order disposition time, the reported outage durations exaggerate the amount of time that ECCS systems were technically inoperable. The increase of 181% in the total ECCS outage hours from that of the previous year was due to both the decreased Unit 2 availability from that of the previous year as a result of the Unit's first refueling outage and the fact that Unit 3 was not producing electricity until the last quarter of the previous year. Additionally, the percentage of corrective maintenance outage hours has been substantially reduced (48% for Unit 2 and 37% for Unit 3) from that of the previous year. It is our position that there is insufficient information to warrant changes in maintenance programs or Technical Specifications concerning the ECCS. We will re-evaluate this position following the next annual report to be submitted by March 31, 1986.

If there are any questions regarding this report, please contact me.

Sincerely,



cc: J. B. Martin (Regional Administrator, USNRC Region V)
F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)
H. Rood, (Project Manager, SONGS 2/3, USNRC, NRR)

U. S. Nuclear Regulatory Commission
Document Control Desk

Institute of Nuclear Power Operations (INPO)

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BGA 2HP172 CHARGING PUMP 83702721 CM 01/21/84 07:30:00 02/14/84 16:00:00 565

FUNC. DESCRIPTION: RMV & RPL PACKING
 PROBLEM DESCRIPTION: NOTIFIED OPERATIONS. OBTAINED CLEARANCE. ACTIVATED RFP #2076. DISASSEMBLED PUMP. INSPECTED PLUNGER PARTS AND PACKING. REPLACED PACKING #RS02-P-1198-P3, O-RINGS #RS02-P-1692-B2, PACKING RINGS (PRIMARY) #RS02-P-1153-B3, PACKING PLUNGER RING (SECONDARY) #RS02-P-1138-P3. REASSEMBLED THE PUMP AND TORQUED AS PER PROCEDURE S023-I-5.24 STEP 6.5.2.3 TO 200FT/LB PLUNGER ADAPTER AND

2 BGA 2FT6212 CHEM/VOL CNTRL CHARGING PMP 63707638 CM 06/23/84 07:30:00 07/05/84 16:00:00 297

FUNC. DESCRIPTION: REPAIR OR REPLACE SEALITE
 PROBLEM DESCRIPTION: OBTAINED APPROVAL. INVESTIGATED & FOUND THE PART OF THE SEALITE THAT THREADS INTO THE FLEX TUBING INTERNAL THREADING HAD COME UNSCREWED OR PULLED OUT. THE SEALITE FITTING TURBINE & CABLES ALL APPEARED IN GOOD CONDITION SO WE RESTORED TO PROPER CONFIGURATION. RELEASED APPROVAL.

2 BGA 2HWK4014 SEAL WTR SOLENOID VLV 83713249 CM 03/22/84 09:00:00 04/19/84 16:00:00 675

FUNC. DESCRIPTION: CLEAN/ADJUST/REWORK/REPLACE
 PROBLEM DESCRIPTION: LOCATED DRAWINGS & FEEDER BRKR TO SEAL WATER SYST. CHECKED BREAKER 20-31-13. FOUND BREAKER ON & VOT TRIPPED. TOOK LAB. IN SHIFT TO BRESS OUT & CHECK VALVE & RELAY IN CHARGING PUMP ROOM. TURNED OVER TO SWING SHIFT.
 WORK_DONE DESCRIPTION: HAVE OPERATIONS RETURN SYSTEM TO NORMAL OPERATING MODE. PROBLEM COULD BE HIGH LEVEL PROBE, RELAY OPENS & CLOSSES BUT MOTOR DOES NOT START AT HIGH LEVEL.

2 BGA 2HWK4018 SOLENOID VLV MP170 83713250 CM 01/11/84 07:30:00 02/01/84 16:00:00 993

FUNC. DESCRIPTION: VLV WILL NOT OPEN/INVRPBE
 PROBLEM DESCRIPTION: OBTAINED WRITTEN APPROVAL. DISCONNECTED LEADS. REMOVED OLD SOLENOID VALVE. CLEANED UP THREADS ON ALL ASSOCIATED FITTINGS. REINSTALLED NEW SOLENOID VALVE. CONNECTED ELECTRICAL LEADS. RELEASED APPROVAL. CANNOT VERIFY OPERABILITY UNTIL NEW SEAL WATER PUMP IS INSTALLED.
 WORK_DONE DESCRIPTION: RADWASTE OPERATOR STATES VALVE DOES NOT WORK. ON 2/1/84.

2 BGA S2120RMU064 CHG PMP 170 DISCH TO 0042 83714330 CM 01/17/84 07:30:00 02/09/84 16:00:00 561

FUNC. DESCRIPTION: DISASSEMBLE/PWK & REASSEMBLE
 PROBLEM DESCRIPTION: STEP 10-VERIFIED PARTS CLEANLINESS AND REASSEMBLED VALVE IN ACCORDANCE WITH
 WORK_DONE DESCRIPTION: S023-I-6.26.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. N.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BGA 2PSL0234Z 83714380 CM 01/19/84 07:30:00 02/05/84 16:00:00 417
 FUNC. DESCRIPTION: CHARGING PUMP P192 LOW FLOW
 PROBLEM DESCRIPTION: RECAL PRESSURE SWITCH-2PSL0234Z
 WORK_DONE DESCRIPTION: 1/11/84- INVESTIGATED AND DETERMINED SOURCE OF ALARM TO BE
 2PSH0235Z, AND 2PSL0234-Z ON P-192.
 1/19/84 CALIBRATED 2PSH0235Z + 2PSL0234-Z AS PER S023-11-9.82 REV. 4.

2 BGA MP280 84001462 CM 01/09/84 07:30:00 02/09/84 17:30:00 754
 FUNC. DESCRIPTION: CHARGING PP PACKING CLG PP
 PROBLEM DESCRIPTION: REPLACE PMP
 NEW PUMP LOCATED.
 MEGGERED MOTOR OK. NO SHORTED WINDINGS.

2 BGA 2MP190 84001505 CM 01/25/84 07:30:00 02/03/84 17:30:00 370
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPAIR PUMP & REPLACE CASING GASKET
 WORK_DONE DESCRIPTION: CUT GASKETS BEFORE ENTRY (2 PEICES).
 HAD CONSUMABLES APPROVED. REMOVED COVER, SCRAPED
 GASKET FROM COVER. SCRAPED LOWER GASKET SURFACE AND CLEANED WITH CLEANER. PLACE
 NEW GASKET ON AND CUT HOLES. REPLACED COVER AND INSTALLED BOLTS. TORQUED BOLTS.

2 BGA S21208MP191 84001509 CM 09/27/84 07:30:00 09/27/84 16:00:00 9
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPAIR INTERNALS OF OIL PHEATHER CAP.

2 BGA S21208RJ069 84001846 CM 01/16/84 07:30:00 02/03/84 16:00:00 343
 FUNC. DESCRIPTION: 2MP192 DISCH LN TO HI PRESS
 PROBLEM DESCRIPTION: RMV & REINSTL VLV OPERATOR GEAR BOX SUPPORT
 WORK_DONE DESCRIPTION: WELD SUPPORT BRACKETS BACK IN PLACE.
 REATTACH GEAR BOX IN PLACE @ 01:15.
 REWELDED SUPPORT BRACKETS BACK IN PLACE.
 ALL WELDS REPAIRED AND GEAR BOXES REINSTALLED.

2 BGA 2MP192 84002603 CM 02/21/84 07:30:00 02/27/84 16:00:00 153
 FUNC. DESCRIPTION: TRAIN B CHARGING PUMP
 PROBLEM DESCRIPTION: REMOVE/INSPECT FRONT CAP STUDS
 CLEANED UP GALLED THREADS ON 2 STUDS. LUBED THREADS WITH NEOLUBE#C.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGE

14:07 MONDAY, MARCH 18, 1985 3

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BGA 2MP192 84002958 CM 04/12/84 07:30:00 05/02/84 16:00:00 489

FUNC. DESCRIPTION: CHARGING PMP
 PROBLEM DESCRIPTION: INVESTIGATE CAUSE OF PP PACKING DLG RES OVERFLOW
 WORK_DONE DESCRIPTION: UNIT 2 CO GAVE VERBAL APPROVAL TO INVESTIGATE & DO WHAT I HAVE TO TO FIND PROBLEM. FOUND THAT SOLENOID VALVE LEAKING BY & THE LEVEL CONTROLLER MALFUNCTIONED. UNIT 2 CO GAVE CLEARANCE TO WORK ON CHARGING UNIT. FOUND SOLENOID VALVE NOT OPERATING. NEEDS TO BE REPLACED.

2 BGA MP190 84003215 CM 02/08/84 11:00:00 02/09/84 12:00:00 25

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPLACE INTERNAL CHECK VALVES
 PICKED UP TORQUE WRENCH & RETURNED TO SHOP. CLEARANCE NOT READY.
 DISASSEMBLED DOWN TO VALVES PER PROCEDURE.
 REMOVED VALVES AS PER PROCEDURE.

2 BGA MP191 84003226 CM 02/08/84 11:00:00 02/09/84 13:30:00 26

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPLACE INTERNAL CHECK VALVES
 DISASSEMBLED PUMP DOWN TO VALVES.
 REMOVED DISCHARGE & SUCTION VALVES. LAPPED VALVES PER TEMPORARY CHANGE NOTICE ON PROCEDURE.
 REPLACED VALVES USING ALL NEW PARTS. SOME NEW VALVES REQUIRED LAPPING.

2 BGA 2FT0212 84003537 CM 02/13/84 10:00:00 02/13/84 23:00:00 11

FUNC. DESCRIPTION: CHARGING PUMP FLOW TRANSMITTER
 PROBLEM DESCRIPTION: VERIFY STATIC ALIGNMENT/WORK/RECAL AS REQ'D
 WORK_DONE DESCRIPTION: 1. PERFORMED STATIC ALIGNMENT AND CALIBRATION PER PROCEDURE.
 2. NO PROBLEMS FOUND.
 AT 2270 PSI FOUND STATIC ALIGNMENT AT 4.26MA WITH METER FOULIZED. ADJUSTED STATIC ALIGNMENT AND ENDED UP WITH 4.00 AT ZERO PRESSURE AND 4.01 MA WITH 2270 PSIG ON METER.

2 BGA S21008MR095 84003712 CM 12/12/84 07:30:00 12/31/84 16:00:00 469

FUNC. DESCRIPTION: 2P191 DISCH CRN VLV
 PROBLEM DESCRIPTION: VLV LEAKS EXCESSIVELY

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER--TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BGA S21208MU059 84032191 CM 12/10/84 07:30:00 12/26/84 16:00:00 393
 FUNC. DESCRIPTION: H2/N2 ISO CHK VLV TO VCT
 PROBLEM DESCRIPTION: REPAIRED LEAK BY.

2 BGA MU392 84042613 CM 06/29/84 00:01:00 07/18/84 16:00:00 472
 FUNC. DESCRIPTION: SFTY INJ SYS TO HT EXCH
 PROBLEM DESCRIPTION: VLV HAS PACKING LEAKAGE/SOURCE OF GAS IN RWST
 WORK_DONE DESCRIPTION: LAPPED SEAT AND REPLACED DISC STEM AND DIAPHRAMS. REASSEMBLED AND PERFORMED
 LEAK CHECK TO COMPLETE.

2 BGA 2LV0227C 84062550 CM 06/21/84 07:30:00 06/21/84 16:00:00 9
 FUNC. DESCRIPTION: RWST OUTLT TO CHRQ PMPS SCTN
 PROBLEM DESCRIPTION: CORRECT FAILURE OF VLV TO OPERATE ELECTRICALLY
 WORK_DONE DESCRIPTION: UPON INVESTIGATION IT WAS DISCOVERED THAT THE 4-POVAC BREAKER IN CIRCUIT 2BJ43
 IS IN NEED OF REPLACEMENT. TESTED BAD.
 SQUARE D BREAKER-CAT#FAL36007-12 MVS 3600, 7 AMP, F0#12-11903.

2 BGA S21203MED01 84070486 CM 07/06/84 07:30:00 07/08/84 16:00:00 57
 FUNC. DESCRIPTION: TRN "A" CCM HX
 PROBLEM DESCRIPTION: CLW TUBE SIDE
 MADE INSPECTIONS & INITIATED AN NCR.
 TUBES & WATER BOX CONTAIN DEBRIS. EPOXY DAMAGE ON MANWAYS. CLOSED MANWAYS
 (1 1/4" WRENCH) USING RTV & NEW GASKETS STAGED. TIGHTENED MANWAYS.

2 BGA S21201MU107 84070566 CM 07/16/84 07:30:00 07/21/84 11:15:00 124
 FUNC. DESCRIPTION: CHARGING HDR BY-PASS VALVE
 PROBLEM DESCRIPTION: DUAL INDICATION/INVESTIGATE & REPAIR
 WORK_DONE DESCRIPTION: OBTAINED AUTHORIZATION. INVESTIGATED PROBLEM & FOUND INDICATION LIGHT SHOWING
 PROPER POSITION OF VALVE (MOV). UNABLE TO PERFORM FUNCTION PER OPERATIONS RE-
 QUEST. REQUESTED U-2 CO TO HAVE THE VALVE MU107 STROKED.
 WCC CAME TO WITNESS THE TEST. VALVE
 WAS IN CLOSED POSITION & THERE IS ONLY ONE INDICATION.

2 BGA MP191 84072183 CM 07/23/84 07:30:00 07/24/84 16:00:00 33
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPAIR HEAD LEAK
 WORK_DONE DESCRIPTION: REMOVED FRONT CAP STUD NUTS & FRONT CAP (CENTER).
 PULLED FRONT CAP PLUG, REMOVED OLD BACKUP & O-RINGS. CLEANED CAP PLUG. INSTALLED
 NEW BACKUP & O-RINGS. REINSTALLED PLUG CAP & FRONT CAP. TORQUED FRONT CAP STUD
 NUTS (CENTER) TO 900FT/LB.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

1:07 MONDAY, MARCH 18, 1985

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BGA S2120RMP191 CM 09/27/84 07:36:00 09/30/84 16:00:00 81
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: LKY PIPE PLUG IN SPOOL PIECE ON DISCH LN FR PUMP
 9/30/84--SWINGS-REMOVED PLUG & LEFT WHILE HE TOOK AIR SAMPLE. CLEANED PLUG &
 FEMALE THREAD & LET QC INSPECT. OKAY. COATED THREADS WITH NEO-LUBE & REINSTALLED.
 ED.

2 BGA 2PSV9224 CM 12/12/84 07:30:00 12/31/84 16:00:00 465
 FUNC. DESCRIPTION: CHG PMP P192 SUCT RLF
 PROBLEM DESCRIPTION: RW/BENCH TEST/REINSTALL

2 BGA 2MP192 DCP 12/27/84 07:30:00 12/31/84 16:00:00 105
 FUNC. DESCRIPTION: ANN WINDOWS 5849/45/55 CHG RP
 PROBLEM DESCRIPTION: OPEN LINKS IN 2L040/DETERM CABLE FOR REWORK

2 BGA 2MP190 DCP 12/27/84 07:30:00 12/31/84 16:00:00 105
 FUNC. DESCRIPTION: ANN WNDWS 5843B/45/55
 PROBLEM DESCRIPTION: OPEN LINKS IN 2L040/DETERM CABLES/REWORK/ACT/PM

2 BGA 58424 DCP 12/27/84 07:30:00 12/27/84 16:00:00 9
 FUNC. DESCRIPTION: BROMTR & PROCESS RAD MON ALARM
 PROBLEM DESCRIPTION: OPEN LINK IN 2L040 FOR 58424 WNDW/REWORK

2 BGA 2PSV9227 DCP 04/12/84 17:00:00 05/02/84 16:00:00 476
 FUNC. DESCRIPTION: CHARGING PUMP DISCH RLF
 PROBLEM DESCRIPTION: RW VLV LOCATED AT 2PSV9227 & INSTL AT 2PSV9227

2 BGA S2120RMP191 PM 12/15/84 07:50:00 12/31/84 16:00:00 393
 FUNC. DESCRIPTION: CROSS TIE FR ME074 TO 075
 PROBLEM DESCRIPTION: SEAL WELD VLV PACKING LK-OFF PLUS
 WORK DONE DESCRIPTION: REPACKED USING 1/2" JOHN CRANE, AFTER WELDING PLUG, REPLACE BONNET WITH NEW
 GASKET TORQUE BONNET.

2 BGA MP191 PM 04/05/84 07:30:00 04/15/84 16:00:00 225
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: CLEAN/INSPECT FOR LEAKAGE/REFILL OIL PRESSURE GAUGE
 WORK DONE DESCRIPTION: ALL BREAKERS VERIFIED ACCEPTABLE. CORRECTED MINOR HARDWARE DEFICIENCIES.

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 86A S21208MP192 84060447 PM 09/06/84 07:30:00 09/07/84 16:00:00 33

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: PERFORM MONTHLY INSP IAW S023-I-9.84/CLN UP OIL
 WORK_DONE DESCRIPTION: HAD OPERATIONS RUN PUMP. TIGHTENED LOOSE PACKING NUT. RAN PUMP 10 MINUTES WITH NO LEAKS. REPLACED WELL COVER. CLEANED AREA OF OIL.

2 86A S21208MP192 84080807 PM 09/06/84 07:30:00 09/10/84 16:00:00 105

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: PERFORM MONTHLY INSP IAW S023-I-9.84/CLN UP OIL
 CHECKED PRESURE & ADDED OIL AS NECESSARY.

2 86A MPI91 84081836 PM 09/10/84 07:30:00 09/14/84 11:30:00 100

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: MONTHLY INSPECTION S023-I-9.84
 OIL LEVEL OK. OIL WAS LEAKING FROM BREATHER CAP. URGAT. HQ 9/13/84
 OBTAINED APPROVAL. FOUND NO LOOSE BOLTS OR NUTS. CHECKED ROTARY WANE METER FOR FLOW. IT WAS NOT MOVING. MOVED REGULATING VALVE TO BYPASS. STILL DID NOT MOVE WANE. WATER PRESURE GAGE WAS 12PSIG. OIL PRESURE GAGE WAS 70PSIG. TRIED TO ADJUST OIL PRESURE. IT WENT FROM 70 TO 90 PSIG. NUT WOULD NOT DROP BELOW 70.

2 86A S24208MP191 84090495 PM 10/27/84 07:30:00 10/28/84 16:00:00 129

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: RECHK/CHARGE DISCH ACCUMULATOR USING A CAL GAUGE
 WORK_DONE DESCRIPTION: NEED NEW CALIBRATED GAGE FOR DISCHARGE SIDE. NEED 33 LBS & GAGE ONLY GOES TO 30 LBS.
 CHECKED & FILLED SUCTION ACCUMULATOR TO 134.5 & STOPPED.
 LOCATED 42 BOTTLE WITH 200PSI. MOVED IT TO CHARGING PUMP RM. CHARGED DISCHARGE ACCUMULATOR TO 140LBS. CHECKED FOR LEAKS WITH SNOOP. NONE FOUND. OK.

2 86A 2P192 84051674 SV 05/16/84 07:30:00 05/16/84 16:00:00 9

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: ISI TEST/S023-V-3.4.11

2 86A 2P191 84051674 SV 05/16/84 07:30:00 05/16/84 16:00:00 9

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: S023-V-3.4.11 ISI FCB PROCEDURE.

SAN GONDORE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 14, 1985 7

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (17) HOURS

.....
TOTAL MO FOR SYSTEM BGA IS : 36

SV : 2 ==> 05.6 %

CA : 24 ==> 66.7 %

PM : 4 ==> 11.1 %

DCP : 4 ==> 11.1 %

SYSTEM-DURATION : 4562 HRS UNIT-DURATION : 45421 HRS ==> 22.0 %
.....

SAN ONOFRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985

TESTS

UNIT-SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BGR 2FI9269 84032092 SV 03/29/84 08:00:00 04/03/84 11:00:00 123

FUNC. DESCRIPTION:

CHARGING PUMP RECIRC FI

PROBLEM DESCRIPTION:

REMOVE GAUGE FOR ISI TEST ON P174

WORK_DONE DESCRIPTION:

3/29/84: AS REQUESTED BY ENGINEERING DEPT., REMOVED 2FI-9269 AND 2FI9268;
AND INSTALLED 2FI9269 WHERE 2FI-9268 WAS CURRENTLY MOUNTED. PLACED
2FI9269 BACK IN SERVICE READY FOR USE.

SAN ONJERE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....

TOTAL MO FOR SYSTEM BGB IS : 1

SV :	1	====>	LU' X
CM :	0	====>	09.0 X
PM :	2	====>	01.0 X
DCP:	0	====>	03.0 X

SYSTEM-DURATION : 103 HRS UNIT-DURATION : 43461 HRS ==> 09.0 X

.....

TESTS

UNIT	SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
2	BHA	2FI9315	C187517	CM	03/07/84	07:30:00	03/29/84	16:00:00	537
FUNC. DESCRIPTION: HPSI PMP MINIFLOW BYPASS IND PROBLEM DESCRIPTION: REROUTE TUBING FROM ROOT VLV TO FLW XMITTER									
2	BHA	S21204MU024	83701321	CM	09/14/84	07:30:00	09/17/84	23:00:00	88
FUNC. DESCRIPTION: LPSI PP 015 DISCH VLV PROBLEM DESCRIPTION: TIGHTEN PACKING GLAND WORK DONE DESCRIPTION: TIGHTENED UP PACKING GLAND ON MU 024.									
2	BHA	MU060	83701478	CM	09/18/84	09:30:00	09/18/84	12:20:00	3
FUNC. DESCRIPTION: SUPPLY TO REFUELING WTR TK 005 PROBLEM DESCRIPTION: VLV LEAKING THROUGH STEM PASSAGE AT 4 DROP/SEC WORK DONE DESCRIPTION: TIGHTENED PACKING TO STOP LEAK.									
2	BHA	MR379	83703716	CM	05/29/84	07:30:00	06/02/84	16:00:00	105
FUNC. DESCRIPTION: P020 DISCH PRESS TAP PROBLEM DESCRIPTION: REWORK FITTINGS WORK DONE DESCRIPTION: FOUND UNION TO BE LOOSE, DISASSEMBLED, CLEANED AND REASSEMBLED.									
2	BHA	2PT0329	83712319	CM	11/26/84	07:30:00	02/14/85	16:00:00	1929
FUNC. DESCRIPTION: SAFETY IN TO LOOP IH PRESS PROBLEM DESCRIPTION: LEAKY FITTING WORK DONE DESCRIPTION: FOUND LEAK WITH LEAK DETECTOR AND 250PSI AIR, TIGHTENED FITTINGS, REPLACED ALL FITTINGS LEAK FIXED SAT. (DOVE IN CONJUNCTION WITH 3490 CAL. PROCEDURE S023-II-8.838 SAT).									
2	BHA	S21204MU029	83714144	CM	06/27/84	07:30:00	07/06/84	16:00:00	225
FUNC. DESCRIPTION: RCS INJECTION CHK VLV PROBLEM DESCRIPTION: INSP/CLN/FIND PT OF LKG/RETORQUE VLV STUDS TO NUT WORK DONE DESCRIPTION: HINGE COVER NUTS TORQUE TO 85FT#S PER ST. PROC. M.V. CONDUCTED 7/11/84 NO LEAKAGE NOTED AT THAT TIME.									
2	BHA	2MU011	84003115	CM	02/08/84	14:00:00	02/10/84	16:00:00	50
FUNC. DESCRIPTION: HPSI PUMP SUCTION VALVE PROBLEM DESCRIPTION: REWORK WORK DONE DESCRIPTION: CONSUMABLES ARE WITH THE SPARE PARTS PERSON. HOOKED UP AIR HOSES TO ASSIST IN DRAINING. RECEIVED PACKAGE, OBTAINED CLEARANCE, OBTAINED LIST OF TOOLS, THEY ARE IN BAG ON BENCH. RECEIVED ONE SLING FROM #1 TOOL RACK, INITIATED WORK.									

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1975 11

TESTS

 UNIT-SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BHA 2PI9438 84030353 CM 03/14/84 07:30:00 03/14/84 09:30:00 2
 FUNC. DESCRIPTION: HPSI PP P017 INLET PRESS
 PROBLEM DESCRIPTION: REPLACE DAMAGED TEST TEE
 WORK_DONE DESCRIPTION: REPLACED TEST *T* ON 2PI-9438.

2 BHA 2LI0342 84050107 CM 05/26/84 07:30:00 07/06/84 16:00:00 249
 FUNC. DESCRIPTION: SAFETY INJ. TANK #4 LEVEL
 PROBLEM DESCRIPTION: REWORK/RECALIB LEVEL INDICATOR
 WORK_DONE DESCRIPTION: CALIBRATED 2LT-0342 TO AGREE WITH 0343.

2 BHA 2LI0342 84050107 CM 05/09/84 07:30:00 05/11/84 16:00:00 57
 FUNC. DESCRIPTION: SAFETY INJ TK #4 LVL
 PROBLEM DESCRIPTION: REWORK/RECAL LVL IND
 WORK_DONE DESCRIPTION: CALIBRATED 2LT-0342 AS PER 5023-II-9.14 REV. 5 TCM 9-1. VERIFIED THAT
 REFERENCE LEG OF 2LT-0342 IS DRAINED AND VENTED HIGH SIDE OF 2LT-343
 AS NECESSARY. 2LT-0342 AND 343 STILL DISASSEMBLED. RECALIBRATED 342 UNDER
 ANOTHER MO.

2 BHA 2LI0341 84050747 CM 06/26/84 07:30:00 06/29/84 17:00:00 42
 FUNC. DESCRIPTION: SAFETY INJ. TANK #4 LEVEL
 PROBLEM DESCRIPTION: REWORK/RECALIB LEVEL INDICATION
 WORK_DONE DESCRIPTION: CALIBRATED AND TESTED 2LT-0341, 2LY-0341 AND RECALIBRATED 2LI-0341.

2 BHA 2HV9355 84062610 CM 06/22/84 07:30:00 06/24/84 15:30:00 56
 FUNC. DESCRIPTION: SIT T007 VENT VALVE
 PROBLEM DESCRIPTION: FAILED TO STROKE FROM C.R./INVESTIGATE & REPAIR
 WORK_DONE DESCRIPTION: OBTAINED APPROVAL. TROUBLESHOT SYSTEM & FOUND LOOSE WIRES ON
 RELAY VV TO 7X (IE, ID) IN CAB. RLO71-3F. TIGHTEND SCREWS WITH.
 NO NONCONFORMAN EXISTED. FUNCTIONED VALVE.

2 BHA 2HV9377 84062772 CM 06/26/84 07:30:00 07/07/84 15:00:00 273
 FUNC. DESCRIPTION: SHOWN COOLING FLOW FRM RC LOOP
 PROBLEM DESCRIPTION: INVESTIGATE PROBLEM
 WORK_DONE DESCRIPTION: CONTROL OPERATOR STATED HE IS UNABLE TO OPEN VALVE AT THIS TIME TO TROUBLE-
 SHOOT. (VIOLATE PROCEDURE). #1 OBTAIN WORK AUTH. #2 INVESTIGATED AND FOUND
 LOOSE RESISTOR. #3 NO NCR CONDITION. #4 TIGHTENED RESISTOR, OPEN LIGHT IS ON
 VALVE IS IN OPEN POSITION. NEED FUNCTION TEST OPS WILL NOT FUNCTION AT THIS
 TIME.

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER + TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BHA 2HV9326 84063107 CM 06/27/84 07:30:00 07/03/84 16:00:00 153
 FUNC. DESCRIPTION: HPSI INJECTION ISOLATION VALVE
 PROBLEM DESCRIPTION: CUT SEAL WELD ON VLV BONNET & REWORK INTERNALS
 WORK_DONE DESCRIPTION: MADE THIN CUT
 ALONG BASE OF SEAL WELD WITH GRINDER IAW SCE WELD PROCEDURE. NOTE: WHEN CUT THROUGH SEAL WELD, WATER STARTED DRAINING OUT OF CUT AREA.
 SET UP WELDING EQUIPMENT FOR WELDING & PERFORMED SEAL WELD ON 2HV9326 IAW SCE WELD RECORD WR2-84-486.

2 BHA 2HV9324 84070217 CM 07/06/84 15:00:00 07/06/84 17:30:00 2
 FUNC. DESCRIPTION: HPSI HDR #1 TO RC LOOP 1A
 PROBLEM DESCRIPTION: ADJUST POSITION INDICATOR AND TURBINE SWITCH
 WORK_DONE DESCRIPTION: OBTAINED WORK AUTHORIZATION. ADJUSTED TORQUE SWITCH IAW S023-1-4.11 SECTION 6.5.4. FOUND TORQUE SWITCH SET AT 2 3/4 OPEN AND 3.00 GOING CLOSED. SET TORQUE SWITCH TO 2 1/2 OPEN, 2 1/2 CLOSE. SIGMA INDICATOR PROPERLY SET. NO NCR NEEDED. SET UP, STROKED VALVE, TORQUED OUT AT 3 AMPS GOING CLOSED. RUNNING CURRENT WAS 2.25 AMPS BOTH OPENING & CLOSING.

2 BHA 2FT03412 84070819 CM 07/10/84 07:00:00 07/10/84 14:00:00 9
 FUNC. DESCRIPTION: HPSI TO RCS LOOP 2B
 PROBLEM DESCRIPTION: R/WK/RECALIB
 WORK_DONE DESCRIPTION: RECAL AS PER I.O. 84070819 I.A.W. S023-11-4.14 REV 5 TCM 151.

2 BHA 2HV9378 84071092 CM 07/11/84 07:30:00 07/22/84 16:00:00 273
 FUNC. DESCRIPTION: SHUTDOWN CLG FR RC LOOP
 PROBLEM DESCRIPTION: R-WORK & RETEST
 COMPLETED STEPS 1 & 2. VISUAL INSPECTION OF TORQUE SWITCH WAS GOOD, COULD NOT OPERATE VALVE, MOTOR WAS BURNT FROM OVERHEATING. PULLED MOTOR, PINION OFF
 LG MOTOR NEEDS TO BE INSTALLED ON NEW MOTOR & SHAFT DRILLED FOR SET SCREW.

2 BHA 2HV9376 84071494 CM 07/17/84 07:30:00 07/30/84 16:00:00 109
 FUNC. DESCRIPTION: S/D COOLING FRM RCS LOOP 1
 PROBLEM DESCRIPTION: CLEAN LIMIT SW CMPRIMNT/INSTR MISSILE SHIELD
 WORK_DONE DESCRIPTION: OBTAINED CLEARANCE. INSPECTED & CLEANED LIMIT SWITCH HOUSING. INSTALLED LIMITER PLATE ON TORQUE SWITCH. REINSTALLED LIMIT SWITCH HOUSING COVER. RELEASED CLEARANCE. OPS HAS TO DO ISI FUNCTION, WILL DO IT ON DAYS.
 DID NOT PERFORM FUNCTIONAL TEST, REFER TO OPERATOR SURVEILLANCE TEST 002-3-3.11 TCM-93.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 13

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BHA 2HV9374 84072293 CM 07/23/84 22:15:00 07/23/84 23:59:00 1
 FUNC. DESCRIPTION: SIT J10 N2 FILL VLV
 PROBLEM DESCRIPTION: INV FAILURE TO OPEN
 WORK_DONE DESCRIPTION: OBTAINED WORK AUTHORIZATION. CHECKED ALL AVAILABLE ELECTRICAL POINTS IN 2L071-2F, FOUND EVERYTHING NORMAL WHILE CLOSE AND WHILE OPENING EXCEPT: WIRES AT TERMINAL TX4-5 (POSITIVE BUS TO FUSE) WERE EXTREMELY LOOSE. TIGHTENED SAME. RE-LEASED WORK AUTHORIZATION. FUNCTIONALLY WORKED FINE.

2 BHA MU011 84080336 CM 08/10/84 07:30:00 08/13/84 15:00:00 60
 FUNC. DESCRIPTION: HPSI P010 SUCTION VALVE
 PROBLEM DESCRIPTION: ADJUST PACKING
 WORK_DONE DESCRIPTION: PERFORMED INSPECTION, CLEANING, PACKING GLAND ADJUSTMENT SAT. CLEANED BORIC ACID FROM VALVE. HAD OPERATIONS COME DOWN & STROKE THE VALVE TO VERIFY OPERABILITY.

2 BHA MU009 84080337 CM 08/10/84 07:30:00 08/13/84 15:00:00 61
 FUNC. DESCRIPTION: HPSI P019 SUCTION VALVE
 PROBLEM DESCRIPTION: ADJUST PACKING
 WORK_DONE DESCRIPTION: TIGHTENED PACKING NUTS DOWN 4 FLATS EACH. LEAK STOPPED. OPERATIONS STROKED VALVE, NO BINDING. CLEANED BORIC ACID OFF VALVE.

2 BHA S21004MR021 84082832 CM 09/11/84 07:30:00 09/16/84 16:00:00 139
 FUNC. DESCRIPTION: HPSI HDR VENT
 PROBLEM DESCRIPTION: CHASE THREAD TO RESTORE SEAL
 WORK_DONE DESCRIPTION: UNIT#2 PENETRATION #3. CHASED THREAD. REPLACED FINE CAP. TRASHED OLD ONE, IT WAS CROSS THREADED. RELEASED PERMISSION.

2 BHA 2LI0342 84091267 CM 09/17/84 07:30:00 09/17/84 16:00:00 4
 FUNC. DESCRIPTION: SAFETY INJ TANK #4 LEVEL
 PROBLEM DESCRIPTION: INVEC. GATE ERROR BETWN LVL INDCTR/EMAK/FICAL
 WORK_DONE DESCRIPTION: VENTED TRANSMITTERS 2LI0342 AND 2LI0343. THIS CORRECTED ERROR IN LEVEL INDICATION.

2 BHA VARIOUS DCR 11/03/84 07:30:00 12/11/84 16:00:00 921
 FUNC. DESCRIPTION: SHUTDOWN CLNG TKN #
 PROBLEM DESCRIPTION: DO VARIOUS CORRECTIVE & PREVENTIVE MAINT PROCEDURE

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 14, 1985 14

TESTS

UNIT	SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
2	BHA	CSP013	D1042.P	DCP	11/16/84	07:30:00	12/31/84	16:00:00	1089
FUNC. DESCRIPTION: CONT SPRAY PMP P013 PROBLEM DESCRIPTION: ADD MANUAL VENT VALVE ON CONT SPRAY PMP P013									
2	BHA	2HV9345/55/65	D1116.0R	DCP	11/06/84	07:30:00	11/06/84	16:00:00	57
FUNC. DESCRIPTION: SIT VENT VALVES PROBLEM DESCRIPTION: COMPLETE INTERNAL WIRING REV IN 2PL071									
2	BHA	2HV8150	D223.J	DCP	12/21/84	07:30:00	12/31/84	16:00:00	249
FUNC. DESCRIPTION: SD COOLING HX OUTLET VALVE PROBLEM DESCRIPTION: COMPLETE PULL/TERM & RETEST PER C1782245/145									
2	BHA	2AF-9383	D226.J	DCP	12/03/84	07:30:00	12/31/84	16:00:00	681
FUNC. DESCRIPTION: 3948 SAMPLE EXT OFF ML079 PROBLEM DESCRIPTION: ADD SD VLV/FUNNEL & DRN LN/ADD TUBING									
2	BHA	2PSV9387	D29N	DCP	12/24/84	07:30:00	12/31/84	16:00:00	177
FUNC. DESCRIPTION: SDC SUCTION LINE RELIEF VLV PROBLEM DESCRIPTION: REINSTALL VLV AFTER 544# HYDRD									
2	BHA	2MCCBJ	D629ISM	DCP	11/16/84	07:30:00	12/26/84	16:00:00	964
FUNC. DESCRIPTION: TRAIN B HPSI ISO VALVES PROBLEM DESCRIPTION: DISENGAGE LIMIT SWITCH/CLUTCH & DETERM VLVs									
2	BHA	2HV9327	83705845	PM	07/16/84	12:00:00	07/17/84	16:00:00	28
FUNC. DESCRIPTION: HPSI HDR TO RC LOOP 1B PROBLEM DESCRIPTION: INSP VLV IAW S023-I-6.46 WORK_DONE DESCRIPTION: PICKED UP APPROVAL, CLEANED BORIC FROM VALVE, ADJUSTED PACKING & HAD OPS STROKE VALVE, RELEASED APPROVAL.									
2	BHA	2HV9329	83705847	PM	07/17/84	07:30:00	07/17/84	16:00:00	9
FUNC. DESCRIPTION: HPSI HDR #2 PROBLEM DESCRIPTION: CLV BORON/INCP PACKING & ADJ WORK_DONE DESCRIPTION: PICKED UP APPROVAL, CLEANED BORIC FROM VALVE, ADJUSTED PACKING & HAD OPS STROKE VALVE, RELEASED APPROVAL.									

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BHA 2HV9333 84041850 PM 06/26/84 07:30:00 07/03/84 12:00:00 173
 FUNC. DESCRIPTION: HPSI HDR #1 TO RC LOOP 2B
 PROBLEM DESCRIPTION: ADJUST PACKING/ENSURE GLAND NOT RINGING
 WORK_DONE DESCRIPTION: ADJUSTED VALVE PACKING AND CLEANED BORON CRYSTALS FROM PACKING GLAND AND VALVE. RELEASED APPROVAL.

2 BHA 2HV9302/3 84053163 PM 11/11/84 07:30:00 12/31/84 16:00:00 1209
 FUNC. DESCRIPTION: CNTMNT EMERG SUMP OUTLET
 PROBLEM DESCRIPTION: INSPECT AND LUBRICATE OPERATOR.

2 BHA 2HV9304 84060035 PM 12/04/84 07:30:00 12/31/84 16:00:00 657
 FUNC. DESCRIPTION: CONT EMER SUMP OUTLET VLV
 PROBLEM DESCRIPTION: CLN/INSP/MEGGER
 WORK_DONE DESCRIPTION: PERFORMED MAINTENANCE IAW S023-I-9.5. INSPECTED, CLEANED AND MEGGERED MOTOR.

2 BHA 2HV9302 84060227 PM 07/19/84 07:30:00 07/19/84 16:00:00 105
 FUNC. DESCRIPTION: CO EMER SUMP OUTLET
 PROBLEM DESCRIPTION: CLN/INSP MOTOR & SW MEGGER MOTOR
 WORK_DONE DESCRIPTION: PERFORMED MOV INSPECTION IAW S023-I-9.5. FOUND MISSING COVER BASKET AND REPLACED. FUNCTIONALLY TESTED VALVE SAT.

2 BHA 2FI03112 84081575 PM 12/03/84 07:30:00 12/31/84 16:00:00 641
 FUNC. DESCRIPTION: SFTY INJ FLOW INSTRUMENTS
 PROBLEM DESCRIPTION: PERFORM 18 MONTH PM
 WORK_DONE DESCRIPTION: CALIBRATED AND PERFORMED LOOP VERIFICATION AND RESTORATION ALL INSTRUMENTS ON WORK LIST PER S023-II-9.5.43 REV 2.

2 BHA 2TY03511 84081584 PM 12/12/84 07:30:00 12/31/84 16:00:00 465
 FUNC. DESCRIPTION: SHUTDOWN COOL HT EXCH INLET TMP
 PROBLEM DESCRIPTION: PERFORM 18 MONTH PM
 WORK_DONE DESCRIPTION: CALIBRATED ALL INSTRUMENTS PER PROCEDURE. PERFORMED LOOP CHECK AS PER S023-II-8.10.

2 BHA 2FI03482 84081593 PM 10/30/84 07:30:00 12/31/84 16:00:00 1495
 FUNC. DESCRIPTION: CNTMNT SPRY PUMP DISCH FLOW
 PROBLEM DESCRIPTION: PERFORM 18 MONTH PM

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
2	BHA 2PT0311	B4083190	PM	11/26/84	07:30:00	11/26/84	16:00:00	1473
FUNC. DESCRIPTION: SFTY INJ TKS PRESSURE PROBLEM DESCRIPTION: PERFORM 36 MONTH PM WORK_DONE DESCRIPTION: PERFORMED 8023-II-R.383 REV 0 SAT.								
2	BHA 2FSL6488	B4091202	PM	09/23/84	09:00:00	09/23/84	16:00:00	7
FUNC. DESCRIPTION: CCW FR HP SFTY INJ PMP 018 PROBLEM DESCRIPTION: RWK VLVS WORK_DONE DESCRIPTION: OBTAINED CLEARANCE. INSPECTED BOTH OF THE VALVES. BOTH OF THEM WERE TIGHTENED DOWN HARD. BACK SEATED BOTH VALVES. DISASSEMBLED VALVES & INSPECTED SEATS. SEAT WERE OK. REASSEMBLED VALVES. PERFORMED LEAK CHECKS.								
2	BHA 2P016		SV	04/05/84	07:30:00	04/11/84	16:00:00	153
FUNC. DESCRIPTION: LPSI PMP/RELATED CHECK VALVES PROBLEM DESCRIPTION: INSERVICE TST								
2	BHA HPSI 2P017		SV	05/22/84	07:30:00	05/27/84	16:00:00	33
FUNC. DESCRIPTION: HIGH PRESSURE SAFETY INJ PUMP PROBLEM DESCRIPTION: ISI PUMP/RELATED CHECK VALVES								
2	BHA 2HV9332		SV	06/21/84	07:30:00	06/21/84	16:00:00	9
FUNC. DESCRIPTION: HPSI VALVE HV9332 PROBLEM DESCRIPTION: PERFORMED SPECIAL ENGINEERING TEST								
2	BHA 2HV9326		SV	06/21/84	07:30:00	06/21/84	16:00:00	9
FUNC. DESCRIPTION: HPSI VLV 2HV9326 PROBLEM DESCRIPTION: PERFORMED SPECIAL ENGINEERING TEST								
2	BHA 2HV9329		SV	06/21/84	07:30:00	06/21/84	16:00:00	9
FUNC. DESCRIPTION: HPSI VLV 2HV9329 PROBLEM DESCRIPTION: PERFORMED SPECIAL ENGINEERING TEST								
2	BHA 2P016		SV	07/12/84	07:30:00	07/12/84	16:00:00	9
FUNC. DESCRIPTION: LOW PRESSURE SAFETY INJECTION PROBLEM DESCRIPTION: ISI TESTING								

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY COOLING SYSTEM OUTAGE

14:07 MONDAY, MARCH 12, 1985 17

TESTS

UNIT	SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
2	BHA	2P015		SV	07/12/84	07:30:00	07/12/84	16:00:00	9
FUNC. DESCRIPTION: LSPI PUMP PROBLEM DESCRIPTION: ISI TESTING									
2	BHA	2MP017		SV	07/16/84	07:30:00	07/20/84	16:00:00	105
FUNC. DESCRIPTION: HPSI PUMP PROBLEM DESCRIPTION: ISI TESTING									
2	BHA	2P019		SV	08/17/84	07:30:00	08/17/84	16:00:00	9
FUNC. DESCRIPTION: HIGH PRESSURE SAFETY INJECTION PROBLEM DESCRIPTION: PERFORM ISI ON PUMP AND ASSOCIATED CHECK VALVES									
2	BHA	2P017		SV	08/20/84	07:30:00	08/21/84	16:00:00	33
FUNC. DESCRIPTION: HIGH PRESSURE SAFETY INJECTION PROBLEM DESCRIPTION: PERFORM ISI TEST									
2	BHA	HPSI P019		SV	02/11/84	07:30:00	02/11/84	16:00:00	9
FUNC. DESCRIPTION: HIGH PRESSURE SAFETY INJECTION PROBLEM DESCRIPTION: PERFORM ISI									
2	BHA	2MP017		SV	07/02/84	07:30:00	03/07/84	16:00:00	129
FUNC. DESCRIPTION: HPSI PP TRN "A" PROBLEM DESCRIPTION: ISI TESTING									
2	BHA	2P017		SV	04/12/84	07:30:00	04/12/84	16:00:00	9
FUNC. DESCRIPTION: HPSI PUMP PROBLEM DESCRIPTION: PERFORM ISI TEST									
2	BHA	2P018		SV	05/11/84	07:30:00	05/11/84	16:00:00	9
FUNC. DESCRIPTION: HPSI PP PROBLEM DESCRIPTION: ISI OF PP & RELATED CK VLVS									
2	BHA	HPSI 2P018		SV	08/21/84	07:30:00	08/22/84	16:00:00	33
FUNC. DESCRIPTION: HIGH PRESS SAFETY INJ TRN B PROBLEM DESCRIPTION: PERFORM ISI ON PUMP PER 0023-V-3.4.4 & CHK VLVS									

SAN ONDRE NUCLEAR GENERATION STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGE

14:07 MONDAY, MARCH 15, 1980 15

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BHA 2P018 SV 08/24/84 07:30:00 08/24/84 16:00:00 9
 FUNC. DESCRIPTION: TRN "A" CHK VLVS
 PROBLEM DESCRIPTION: CHK VLV USING PUMP ISI PROCEDURE S023-V-3.4.4

2 BHA 2P015 SV 04/01/84 07:30:00 04/02/84 16:00:00 33
 FUNC. DESCRIPTION: LPSI PMP/RELATED CHECK VALVES
 PROBLEM DESCRIPTION: INSERVICE TEST

2 BHA HPSI 19 C404039 SV 02/08/84 07:30:00 02/10/84 16:00:00 57
 FUNC. DESCRIPTION: GRIFICE 2F09315A
 PROBLEM DESCRIPTION: PULL/INSP THE HPSI 19 MINFLOW/REINSTR BYPASS

2 BHA 2HV9324 C4042080 SV 07/01/84 07:30:00 07/06/84 16:00:00 179
 FUNC. DESCRIPTION: HPSI HOR 1 TO RCS LOOP 1A
 PROBLEM DESCRIPTION: INSTL RCORR ON VLV CKT TO GATHER STROKE DATA

2 BHA 2FE9283 D37N SV 04/30/84 07:30:00 09/05/84 16:00:00 177
 FUNC. DESCRIPTION: CIT DRN LN FLOW TOTALIZER
 PROBLEM DESCRIPTION: PERFORM IN SERVICE LEAK TEST PER OT-200-13

2 BHA 2P019 B4003131 SV 02/08/84 07:30:00 02/08/84 16:00:00 9
 FUNC. DESCRIPTION: HPSI PMP
 PROBLEM DESCRIPTION: ISI TEST OF RP AND ASSC CK VLVS
 WORK_DONE DESCRIPTION: INSTALLED TEMPORARY TEST GAUGES, ONE ON PUMP SUCTION HEADR AND THE OTHER ON THE PUMP DISCHARGE, AS DIRECTED BY TEST ENGINEER. ASSISTED AS NECESSARY DURING TESTING AND THEN REMOVED TEST GAUGES AFTER COMPLETION.

2 BHA 2LT0330 B4070024 SV 07/05/84 10:00:00 07/06/84 16:00:00 30
 FUNC. DESCRIPTION: SIT 13 LVL
 PROBLEM DESCRIPTION: R/W/RECAL PER S023-II-15.3/9.14
 WORK_DONE DESCRIPTION: RECALIBRATED 2LT-0330 I.A. 4. S023-II-9.14 REV. 5.
 VENTED AND PLSCED THE TRANSMITTER IN OPERATION.
 THE SAFETY INJECTION TANK DID NOT HAVE A LEVEL HIGH ENOUGH TO BE INDICATED ON T HIS NARROW RANGE INSTRUMENT, THEREFORE A FUNCTIONAL CHECK WAS NOT POSSIBLE.
 S0123-II-15.3 IS INCLUDED.

SAN ONOFRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 14, 1983 19

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MO FOR SYSTEM BHA IS : 03

SV : 22 ==> 34.3 %

CM : 23 ==> 36.5 %

PM : 11 ==> 17.0 %

DCP: 7 ==> 11.1 %

SYSTEM-DURATION : 15968 HRS UNIT-DURATION : 43421 HRS ==> 36.8 %
.....

SAN ONOFRE NUCLEAR GENERATIVE STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 19, 1984 00

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BKA MR377 83305571 CM 05/24/84 07:30:00 06/28/84 16:00:00 115
 FUNC. DESCRIPTION: ROOT VLV FOR 2PI9406
 PROBLEM DESCRIPTION: INV CAUSE OF LEAK/REASSEMBL/RPL UNION
 WORK_DONE DESCRIPTION: PERMISSION OBTAINED. CLEANED HARDENED BOPIC ACID CRYSTALS, DISASSEMBLED COUPL-
 ING, SEEMED FAIRLY EASY TO LOOSEN, CLEANED THREADS & INSPECTED UNION, REASSEM-
 BLED WITH N-GRADE NEVER SEEZ. PERMISSION RELEASED. READY FOR LEAK CHECK BY NDC.

2 BKA MU192 83306594 CM 06/27/84 09:30:00 07/24/84 16:00:00 656
 FUNC. DESCRIPTION: CHR3 SUCTION RELIEF VALVE
 PROBLEM DESCRIPTION: REPAIR VALVE
 WORK_DONE DESCRIPTION: OBTAINED CLEARANCE & POSTED ON BOARD. HOWEVER A REP WAS NEVER SUBMITTED SO WORK
 CANNOT START UNTIL 6/28/84 A4. I SUBMITTED A REQUEST FOR A REP WHICH NUMBER IS
 2513. CONTACT D FOWLER FOR ANY TOOLING NEEDED. M PRICE 6/27/84
 REP OFFICE HAS NOT COMPLETED REP, ALSO ASSIGNED NEW #2525. J ESTAVILLO
 OBTAINED REP & DISASSEMBLED VALVE USING RAYMOND ENG. LOW PROFILE TOOLS. I FOUND

2 BKA 2LSHL0349/34B 84031471 CM 03/20/84 10:00:00 03/21/84 10:00:00 4
 FUNC. DESCRIPTION: CTMT SPRAY CHEM STORAGE TK LVL
 PROBLEM DESCRIPTION: RESET CURRENT LOW LEVEL ALARM SETPOINTS
 WORK_DONE DESCRIPTION: CAL'D IAW 5003-0-36 AS PER 5003-II-9.8 REV 4 FAT.

2 BKA 2LSHL0348/9 84041644 CM 04/20/84 07:30:00 4/21/84 16:00:00 3
 FUNC. DESCRIPTION: 2MT105 LEVEL ALARM SWITCH
 PROBLEM DESCRIPTION: RECAL LEVEL SWITCH TO PROPER ALARM SETPOINT
 WORK_DONE DESCRIPTION: RESET ALARM SETPOINT.

2 BKA 2FV0328 84060452 CM 05/05/84 07:00:00 06/05/84 14:15:00 7
 FUNC. DESCRIPTION: CHEM ADD PMP P021 FLW CNTL VLV
 PROBLEM DESCRIPTION: INV/RPR VLV/WILL NOT OPEN FROM CONTROL ROOM
 WORK_DONE DESCRIPTION: OBTAINED APPROVAL. INVESTIGATED CONTROL CIRCUIT IN 2SL71-58 AS PER PRINT#30601
 & "SCAY" RELAY IS FUNCTIONING PROPERLY. INITIATED "MANUAL" CIRCUIT AND VALVE
 DID NOT OPEN. VERIFIED 3FV0328 MOTOR CIRCUIT IS ENERGIZED. S.C. OASERVED. P.E.
 CAMPU 6/4/84 2M4.
 OBTAINED WORK AUTH. COULD FIND NO PROBLEM WITH RELAYS AND CONTACTS IN 2SL71.

2 BKA 2PI9420 84062272 CM 06/14/84 07:30:00 08/24/84 10:00:00 1:17
 FUNC. DESCRIPTION: CHEM SPRY PMP P012 INLT
 PROBLEM DESCRIPTION: RPLC TEST TEE IN GAUGE LINE/WRFY NO LEAKAGE
 WORK_DONE DESCRIPTION: REPLACED TEST "T" FITTING WITH LIKE KIND. NOT LEAK TESTED AS ROOT VALVE IS
 CLEARED AND PUMP NOT RUNNING.

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 HKA 2CC5033H004 84113064 CM 11/27/84 07:30:00 12/31/84 16:00:00 605
 FUNC. DESCRIPTION: MECH SNUBBERS
 PROBLEM DESCRIPTION: RMV SNUBBER
 WORK_DONE DESCRIPTION: A
 MODEL NO. PSA-1/2 R
 STROKE 2-1/2"
 DESIGN LOAD 650
 SERIAL 9169
 PSA-1/2
 2-1/2"
 650
 2364

2 HKA 2F1033R-1 015140J DCP 06/25/84 07:30:00 06/25/84 16:00:00 9
 FUNC. DESCRIPTION: CNTMT SPRAY PUMP DISCH FLOW
 PROBLEM DESCRIPTION: RMV EXISTING XMTTR/RPLC WITH A NEW QUALIFIED XMTR

2 HKA 2HV936R 0210J DCP 11/05/84 07:30:00 10/31/84 16:00:00 1453
 FUNC. DESCRIPTION: CONT SPRAY FOR #2 ISOL VALVE
 PROBLEM DESCRIPTION: PULL/TERMINATE CABLE & RETEST PER CWO17 2-4/1/81

2 HKA 2A0604 01398SE PM 06/23/84 07:30:00 07/09/84 16:00:00 393
 FUNC. DESCRIPTION: 2MPJ13 CNTMT SPRAY PUMP
 PROBLEM DESCRIPTION: ANTI-SHOCK SPRING & PM

2 HKA 2A0604 84003893 PM 06/23/84 07:30:00 06/23/84 16:00:00 9
 FUNC. DESCRIPTION: 2MPJ13 CNTMT SPRAY PUMP
 PROBLEM DESCRIPTION: ANTI-SHOCK SPRING & PM
 PERFORMED WORK I.A.W. PROCEEDURE.
 OBTAINED APPROVAL GREASED AND CLEANED BEARERS AND RAG REQUIRED TEST AS PER PROCEDURE AND RECORDED ON DATA SHEET.

2 HKA MPO20 84030520 PM 06/25/84 07:30:00 07/05/84 16:00:00 273
 FUNC. DESCRIPTION: SPRAY CHRM ADD PUMP
 PROBLEM DESCRIPTION: IMSP OIL/FITTINGS/PLUGS FOR TIGHTENING
 OBTAINED WORK CLEARANCE, INSPECTED & READ OIL ADJUSTMENT
 TIGHTENED PLUG ON OILER, TIGHTENED PIPE ON OILER, ADJUSTED OIL FLS TO DIM. "A"
 19/32". ADDED 4 OZ OIL GSTM54 CHV.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 00

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BKA 2HJ25 84051365 PM 06/24/84 07:30:00 06/29/84 16:00:00 129
 FUNC. DESCRIPTION: STARTER FOR 2HV9368
 PROBLEM DESCRIPTION: CLEAN/INSP/PM
 WORK_DONE DESCRIPTION: NO FLOW. REMOVED SAFETY VALVE AND DISASSEMBLED. RELAPPED SEAT, REPLACED DISC AND BELLOWS ASSEMBLY. VALVE PASSED BENCH TEST. LEAK TEST GOOD.

2 BKA 2BE29 84052838 PM 06/24/84 07:30:00 06/29/84 16:00:00 129
 FUNC. DESCRIPTION: STARTER FOR 2HV9367
 PROBLEM DESCRIPTION: CLEAN/ADJUST/PM
 WORK_DONE DESCRIPTION: PERFORMED GENERAL CLEANING & INSPECTION IAW 5023-I-9.13. NO NON-COMPLIANCE FOUND.

2 BKA 2BZ19 84052871 PM 06/25/84 07:30:00 06/29/84 16:00:00 81
 FUNC. DESCRIPTION: STARTER FOR MP021
 PROBLEM DESCRIPTION: CLEAN/INSP STARTER
 WORK_DONE DESCRIPTION: OBTAINED CLEARANCE ON LINESTARTER 2BZ19, PERFORMED PM AS PER 5023-I-9.13. FOUND NO PROBLEMS.

2 BKA S21204MP020 84053110 PM 07/28/84 19:00:00 07/28/84 19:00:00 4
 FUNC. DESCRIPTION: SPRAY CHEM ADD PUMP
 PROBLEM DESCRIPTION: LUKE COUPLING
 WORK_DONE DESCRIPTION: ACCEPTED WORK AUTHORIZATION. PERFORMED LUBRICATION OF COUPLER PER 5023-I-8.1.

2 BKA S21204MP021 84053011 PM 07/28/84 19:00:00 07/28/84 19:00:00 2
 FUNC. DESCRIPTION: SPRAY CHEM ADD PUMP
 PROBLEM DESCRIPTION: LUKE COUPLING/LUKE/INSPECT PUMP
 WORK_DONE DESCRIPTION: ACCEPTED WORK AUTHORIZATION. PERFORMED LUBRICATION OF FALK COUPLER PER 5023-I-8.1.

2 BKA 2F00315 84091622 PM 09/16/84 07:30:00 09/17/84 16:00:00 57
 FUNC. DESCRIPTION: SPRAY CHEM ADD #1 FLOW TR A
 PROBLEM DESCRIPTION: REPAIR LEAKY FITTING DOWNSTREAM OF MP369
 WORK_DONE DESCRIPTION: ELECT. REMOVED HEAT TRACE WIRE FROM TUNING & THERMOCOUPLE FOR HEAT TRACING 17A & 17H.
 PICKED UP PERMISSION, REPLACED FITTING WITH TAPPED FITTING #R002-P-2599-R3. RELEASED PERMISSION, LEAK CHECKED TUNING. NO LEAKS AFTER 2MIN AT FULL PRESSURE.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGE

14:07 MONDAY, MARCH 14, 1983 23

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-TIME DURATION (1/4 HOURS)

2 BKA 2P020/21 SV 06/04/84 07:30:00 06/11/84 16:00:00 177
 FUNC. DESCRIPTION: SPRAY CHEMICAL ADDITION PUMP
 PROBLEM DESCRIPTION: ISI 2P020/21 AND RELATED CHECK VALVES

2 HKA 20012 SV 06/14/84 07:30:00 06/16/84 16:00:00 105
 FUNC. DESCRIPTION: CONTAINMENT SPRAY PUMP
 PROBLEM DESCRIPTION: ISI 2P012 AND RELATED CHECK VALVES

2 BKA 20011 SV 09/01/84 07:30:00 09/01/84 16:00:00 9
 FUNC. DESCRIPTION: SPRAY CHEMICAL ADDITION PUMP
 PROBLEM DESCRIPTION: PERFORMED ISI ON PUMP

2 HKA 2P013 SV 09/25/84 07:30:00 09/26/84 16:00:00 33
 FUNC. DESCRIPTION: CONTAINMENT SPRAY PUMP
 PROBLEM DESCRIPTION: PERFORM ISI OF PUMP PER S023-V-3.4.9

2 BKA 2P021 SV 02/29/84 07:30:00 07/29/84 16:00:00 33
 FUNC. DESCRIPTION: SPRAY CHEM ADD PP AND CK VLVS
 PROBLEM DESCRIPTION: INSERVICE TEST OF SPRAY CHEM ADD PUMP & CK VLVS

2 HKA 2P020 SV 03/01/84 07:30:00 03/11/84 16:00:00 9
 FUNC. DESCRIPTION: MAOH SPRAY CHEM ADD PP
 PROBLEM DESCRIPTION: ISI TEST

2 BKA 2P012/2013 SV 07/14/84 07:30:00 07/14/84 16:00:00 9
 FUNC. DESCRIPTION: CONT SPRAY PMPS
 PROBLEM DESCRIPTION: ISI OF PP AND CK VLVS

2 HKA 2P013 SV 06/16/84 07:30:00 06/16/84 16:00:00 9
 FUNC. DESCRIPTION: CONTNMT SPRAY PUMP
 PROBLEM DESCRIPTION: INSERVICE TEST OF 2P013 & RELATED CK VLVS

2 HKA 2P012 SV 07/27/84 07:30:00 09/07/84 16:00:00 9
 FUNC. DESCRIPTION: CONTNMT SPRAY PUMP & PIPING
 PROBLEM DESCRIPTION: PERFORM ISI PER S023-V-3.4.5 & ASSOC CK VLVS

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 14, 1985 24

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 BKA MP20 092184 SV 09/21/84 07:30:00 09/21/84 16:00:00 9
 FUNC. DESCRIPTION: SPRAY CHEM ADD PUMP
 PROBLEM DESCRIPTION: IST PER S023-V-3.4.7

2 BKA 2MP013 84053645 SV 06/25/84 07:30:00 07/10/84 16:00:00 369
 FUNC. DESCRIPTION: CNTMNT SPRAY PUMP #2
 PROBLEM DESCRIPTION: MEGGER & MEASURE WINDING RESISTANCE ON 2MP013 MTR
 WORK_DONE DESCRIPTION: INSPECTED AND TESTED IAW S013-I-9.1.

2 BKA 2TT0503-1 84060046 SV 06/10/84 07:30:00 06/13/84 16:00:00 81
 FUNC. DESCRIPTION: SOC HX E004 OUTLET TEMP
 PROBLEM DESCRIPTION: 18 MONTH RECALIBRATION SURV. TEST

SAV OYDFRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE-COOLING SYSTEM OUTAGE

14:07 MONDAY, MARCH 14, 1965 20

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MO FOR SYSTEM BK4 IS : 30

SV : 12 ==> 40.0 %

CM : 7 ==> 23.3 %

PM : 9 ==> 30.0 %

DCP: 2 ==> 6.7 %

SYSTEM-DURATION : 5514 HRS UNIT-DURATION : 434.1 HRS ==> 7.8 %
.....

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORP. COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 16, 1995 16

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJA 2A40413/419 C2944001 CM 12/16/84 07:30:00 12/31/84 16:00:00 369

FUNC. DESCRIPTION: 4KV SWITCHGEAR CUBICLES
 PROBLEM DESCRIPTION: ADD INTERNAL WIRING/TERM BLOCKS/FUSES/RELAYS

2 KJA S21H05E58D 83305118 CM 12/16/84 07:30:00 12/31/84 16:00:00 369

FUNC. DESCRIPTION: 480 V MCC 2BD
 PROBLEM DESCRIPTION: DAMAGED INSUL AT STRIP HTR LOC LOWER LEFT HND COR
 WORK_DONE DESCRIPTION: STEP #1 OBTAINED WORK AUTHORIZATION.
 STEP #2 LOCATED PROBLEM ON MCC 2BD.
 STEP #3 TRIMED WIRE AND RETERMINATED WITH LUG.
 STEP #4 RELEASED CLEARANCE. VERIFIED OPERATION OF HEATER.

2 KJA 6002 84000229 CM 01/25/84 07:30:00 02/07/84 16:00:00 321

FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: REPAIR VIBRATION DAMPNER.
 WORK_DONE DESCRIPTION: REPLACED BROKEN BOLT OF WATER EXPANSION JOINT WITH GRADE F COMMERCIAL CLASS
 HEX CAP TYPE BOLT PER NCK 3-708.

2 KJA 6002 84000359 CM 01/25/84 07:30:00 02/07/84 16:00:00 321

FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHANGE VIBRATION DAMPNER AND CLEAN CRANKCASE.
 WORK_DONE DESCRIPTION: WORK COMPLETED AS DIRECTED.

2 KJA 2ME454 84004154 CM 02/27/84 07:30:00 04/15/84 16:00:00 1141

FUNC. DESCRIPTION: DIESEL GEN IMM HTRS
 PROBLEM DESCRIPTION: TROUBLESHOOT/PERFORM ROUTINE MAINTENANCE
 WORK_DONE DESCRIPTION: HEATER ELEMENTS CHECK OK: 18.3 AMP/PHASE. HEATER CYCLING ON AND OFF ABOUT
 EVERY 3 MINUTES. ANNUNCIATOR FOR LOW HEATER TEMP. IS ACTUATED. NEED TO HAVE
 I&C CHECK CALIBRATION OF TEMP CONTROLLER 3TC4594P-A1.
 INSPECTED TCH594AA1. FOUND TEMPERATURE SWITCH TO BE CONTROLLING
 THE IMMERSION HEATERS.

2 KJA 6002 84040047 CM 05/12/84 07:30:00 06/13/84 16:00:00 33

FUNC. DESCRIPTION: AIRSTART/VALVES
 PROBLEM DESCRIPTION: MODIFIED SWITCHES 2P5L5915/3419 A/H.

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 27

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJA 2TI5945A 84042543 CM 05/06/84 07:30:00 05/09/84 17:15:00 82
 FUNC. DESCRIPTION: DIESEL GEN 6002 20 CYL LUBE OIL
 PROBLEM DESCRIPTION: REWORK/RECAL INDICATOR
 WORK_DONE DESCRIPTION: INVESTIGATED AND FOUND 2TI5945A INDICATES 105F. REMOVED 2TI-5945A. PERFORMED CALIBRATION CHECK PER S023-II-09.41, REV 3, TCV 3-1. ALL DATA FOUND WITHIN SPEC. REINSTALLED 2TI-N-3-1. VERIFIED INDICATION OF 105F.

2 KJA S22420M6002 84083546 CM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN
 PROBLEM DESCRIPTION: DIESEL ENGINE #2 26002 LUBE OIL W/C STEPS LKS
 WORK_DONE DESCRIPTION: REMOVED AND INSPECTED Y STRAINERS FOR MD 84081062 INSPECTED THREADS AND REINSTALLED Y STRAINER CRJ 12/27/85

2 KJA S22420M6002 84091041 CM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: COOLANT LK ON EAST ENGINE/CHROMATES IN EGG #2
 WORK_DONE DESCRIPTION: PERFORMED STEP 2 AND FOUND REDUCER LOOSE. TIGHTENED REDUCER.

2 KJA 26002 DCP 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: TRN #4" DSL GEN
 PROBLEM DESCRIPTION: VARIOUS CORRECTIVE/PM/SURV ITEMS

2 KJA 2L160 D1116.0E DCP 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: 26002 DIESEL CONTROL PANEL
 PROBLEM DESCRIPTION: REPLACE W/FLAY & COMPLETE INTERNAL WIRING PER DCP

2 KJA 26002 D60700M DCP 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL FUEL TRANSFER LINE
 PROBLEM DESCRIPTION: INSTL 2" OS.W. ORIFICE FLANGE/CALIB AS REQ'D

2 KJA 2A0421 061205E DCP 12/16/84 07:30:00 12/31/84 16:00:00 297
 FUNC. DESCRIPTION: 2A04 LOSS OF VOLTAGE RELAYS
 PROBLEM DESCRIPTION: INSTALL 750 50 WATT RESISTORS IN 2A0421

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJA 26002 063210J DCP 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN PANELS 2L372/374
 PROBLEM DESCRIPTION: RELOCATE INSTRUMENT PANELS 2L372/374/MAKE MODCTNS

2 KJA 522420M6002 R3714316 DCP 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: REWORK LUB OIL PIPING
 WORK_DONE DESCRIPTION: O.C WANTS TO WITNESS INSTALLATION AND TIGHTNING OF WIRE TYPE STRAINER.
 RELOCATED Y STRAINER IN #1 AND#2 ENGINES ON 2GGFS OF CKID, INSTALLED NEW PIPING
 IN PLACE OF Y STRAINER.

2 KJA 2159FX25002 R4061557 DCP 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: PROTV 159/R1 PER CY RLY159/R1
 PROBLEM DESCRIPTION: 26002 RLY 159/R1 CKT 2A4841CCC/30333(RC)
 PERFORMED 50123-II-11.152 ON 26002 RLY

2 KJA 2TSL5968A/R R4071196 DCP 08/17/84 07:30:00 09/19/84 16:00:00 801
 FUNC. DESCRIPTION: 26002 ENGIN MOUNTED INSTRC
 PROBLEM DESCRIPTION: IMPLEMENT FCN S 219M/LUBE OIL LOW TEMP ALARM
 WORK_DONE DESCRIPTION: 1. LOWERED TEMP. SETPOINT FROM 10°F TO 8°F PER FCN #5019M AND 5023-II-9.123
 REV 1 ON 2TSL-5968A. LOWERED TEMP. SETPOINT FROM 10°F TO 8°F ON 2TSL-5968A
 PER FCN #5219M CAL. PER 5023-II-9.123 REV 2 ICM 2-1.

2 KJA 2FI-5920/5922 C291000B PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: OSL FUEL OIL-DAY TK FLOWMETERS
 PROBLEM DESCRIPTION: CALIBRATE 2FI-5920 & 5922 PER PROCEDURES

2 KJA 26002 R3305259 PM 06/12/84 13:00:00 06/13/84 14:00:00 25
 FUNC. DESCRIPTION: EMER DIESEL
 PROBLEM DESCRIPTION: NEED TO PERFORM CKT/RLY & METER PMS
 WORK_DONE DESCRIPTION: 1. OBTAINED WORK AUTHORIZATION.
 2. PERFORMED PM I.A.W. PROCEDURE 50123-II-11.151 REV. 0 AND ICM 0-1.
 WITNESSED STEP 6.4 OF 50123-II-11.151 REV. 0
 3. RELEASED WORK AUTHORIZATION.

SAN GVOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 29

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJA G002 83715093 PM 06/12/84 11:00:00 06/13/84 16:00:00 29
 FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHANGE OIL IN AIRSTART LUBRICATORS
 WORK_DONE DESCRIPTION: OBTAINED MACHINE OIL # 68 AND REPLACED OIL IN AIR LINE LUBRICATORS.

2 KJA MLG124/26002 84000056 PM 04/10/84 17:00:00 04/11/84 16:00:00 23
 FUNC. DESCRIPTION: DSL GEN AIR START
 PROBLEM DESCRIPTION: CHANGE OIL CLEAN AIR INLET FILTER.
 CHANGED OIL AS PER WORK PLAN. INSPECTED BELT & TENSION. NO
 ADJUSTMENT NECESSARY. INSPECTED AIR CLEANER. AIR CLEANER IS FELT. SHOULD
 BE CHANGED WHEN FELT MATERIAL IS AVAILABLE. NOT AVAILABLE NOW.

2 KJA S22420MC012B 84003398 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN AIR START
 PROBLEM DESCRIPTION: DIESEL GEN AIR COMPRESSOR ANNUAL MAINT

2 KJA G002 84030308 PM 06/12/84 07:30:00 06/13/84 15:00:00 32
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHECK DSL LUHE OIL CIRC PMP OPERATION
 WORK_DONE DESCRIPTION: 6/13/84-REMOVED COVER & OBSERVED OIL FLOW. REINSTALLED COVER & TORQUED TO 25FT/LB
 NO OIL FROM CAM BEARINGS. BOTH ENGS GOOD. OIL FLOW FROM GEAR TRAIN BOTH ENGS. JMB

2 KJA S22421MP095 84053682 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL FUEL TRANSFER PUMP
 PROBLEM DESCRIPTION: CLEAN AND INSPECT/MEGGER MOTOR
 WORK_DONE DESCRIPTION: COMPLETED IAW S023-I-9.1.

2 KJA S22421MP096 84053696 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL FUEL TRANSFER PUMP
 PROBLEM DESCRIPTION: CLEAN & INSPECT/MEGGER MOTOR
 WORK_DONE DESCRIPTION: MEGGERED MOTOR TO GROUND TOOK FLUKE READINGS FROM PHASE TO PHASE.
 CLEANED HEATERS WITH FLUKE ALL O.K. RELEASED CLEARANCE.

2 KJA MC012A 84061213 PM 06/03/84 07:30:00 04/10/84 17:40:00 34
 FUNC. DESCRIPTION: DIESEL GEN AIR START COMPRESOR
 PROBLEM DESCRIPTION: PERFORM PM IAW SP23-I-4.33

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 16, 1985 33

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJA S22420MG002 84071884 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: DIESEL GEN 6 YEAR MAINT
 NEW GROMETS AND HEAD TO LINER SEALS AND HEAD TO LINER NUTS ON ENG 1 WITH EXCEP
 TION OF CYLINDERS 6 AND 11 AND 1 RSO 5179-84 NEW SEAL KIT ENG I POWER PACK
 ASSY WITH EXCEPTION OF 6 AND 11 AND 1 CYLINDERS
 NEW UPPER AND LOWER BASKET BOLTS.

2 KJA S22420MG002 84080317 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: REFUEL OUTAGE ELECTRICAL PM
 1) PER. MAINT. I.A.W. LATEST REV. & TCN. S023-1-9.17
 2) PERFORMED 6.1.2.2.3 THRU 6.1.2.3.3 AND SECT. 6.1.2.3 THRU 6.1.4.5
 WITH THE EXCEPTIONS FOR MEGGERING AND CHECKING CONTINUITY OF SECT'S.

2 KJA S22420MG002 84091659 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN
 PROBLEM DESCRIPTION: 18 MO DIESEL GEN INSP
 WORK_DONE DESCRIPTION: WORK PERFORMED PER WORK PLAN.

2 KJA S22420MG002 84092472 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN
 PROBLEM DESCRIPTION: DIESEL AIR STARTER AIR LN LUB INSP
 WORK_DONE DESCRIPTION: PERFORMED SECTION 6.2 OF S023-F-8.37.

2 KJA S22420MG002 84100109 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN
 PROBLEM DESCRIPTION: CHK DIESEL LUPE OIL CIRC PUM OPERATION
 WORK_DONE DESCRIPTION: PERFORMED WORK AS PLANNED.

2 KJA S22420MG002 8412243 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GENERATOR 26000
 PROBLEM DESCRIPTION: EXCITER MEGGER READINGS FOUND LOW.

2 KJA 26002 84030041 SM 06/10/84 08:00:00 06/13/84 12:00:00 28
 FUNC. DESCRIPTION: ENGINE MOUNTED INSTRUMENTS
 PROBLEM DESCRIPTION: PERFORM 6 MONTH/12 HOUR RMO
 WORK_DONE DESCRIPTION: COMPLETED RMO PER S023-II-1.5

SAY OVER- NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY COOL COOLING SYSTEM OUTAGES

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJA S22420M6002 DIESEL GENERATOR SV 12/16/64 08:00:00 12/31/64 16:00:00 368

FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: PREPARE DIESEL GEN FOR HI POTENTIAL TESTING
 WORK_DONE DESCRIPTION: OPENED PANEL 2L376 DISCONNECTED
 NEUTRAL BUS BAR, 4KV LEADS TO GEN. FIELD LEADS ON GEN. F1 & F2.
 MYPOT OF 26002 COMPLETE ON GEN WINDING. FIELDS NEED HEAT LAMPS INSTALLED.
 LEADS AND NEUTRAL BUS READY FOR LAYDOWN.

2 KJA 26002 84091J03 SV 12/16/64 12:00:00 12/31/64 16:00:00 364

FUNC. DESCRIPTION: TRAIN & EMERG DIESEL
 PROBLEM DESCRIPTION: HIGH POTENTIAL TESTING OF GENERATOR
 WORK_DONE DESCRIPTION: PERFORMED HI-POT TEST PER SOL23-II-11.15 ON GENERATOR. TEST WAS SAT.

SAN ONDRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 16, 1985 32

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MO FOR SYSTEM KJA IS : 35

SV : 3 ==> 67.6 %

CM : 9 ==> 25.7 %

PM : 15 ==> 42.9 %

DCP : 8 ==> 22.7 %

SYSTEM-DURATION : 10691 HRS UNIT-DURATION : 434.1 HRS ==> 25.1 %
.....

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 13, 1984 33

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

2 KJR 2UA0063R24 84082327 CM 08/22/84 07:30:00 09/01/84 16:00:00 249

FUNC. DESCRIPTION: MECHANICAL TROUBLE ALARM
 PROBLEM DESCRIPTION: INVESTIGATE & REPAIR TROUBLE ALARM
 WORK_DONE DESCRIPTION: 1 OBTAINED WORK AUTHORIZATION
 2 INVESTIGATED ALARM PROBLEM, WINDOW 63R24 ALARM IN WITH NO LOCAL ALARM. FOUND LOCAL ALARM CARD 2-5-4 SWITCH IN WRONG POSITION (N.O.>N.C.) AND 2LSL5944C INSTALLED BACKWARDS, MOVED SWITCH TO CORRECT POSITION.

2 KJR 2L161 84071195 OCP 08/16/84 07:30:00 08/16/84 16:00:00 57

FUNC. DESCRIPTION: DIS GEN 0003 CYL-COOLING WTR
 PROBLEM DESCRIPTION: RESET SETPOINT
 WORK_DONE DESCRIPTION: CALIBRATED SWITCHED PER FCN 5-219M USING 5020-II-9.103 REV 2.

2 KJR 520420MC015A 83706775 PM 06/18/84 07:30:00 06/18/84 16:00:00 57

FUNC. DESCRIPTION: DSL AIR START COMP TRAIN B
 PROBLEM DESCRIPTION: OIL CHANGE
 WORK_DONE DESCRIPTION: OBTAINED CLEARANCE, LOCATED WORK AREA, CHANGED OIL, REPLACED WITH CHEVRON #150. CLEANED AIR FILTER, INSPECTED THE BELTS, FOUND THEM TO BE LOOSE, TIGHTENED SAME TO SPECS IN SECTION 6.2. USED FORCE GAUGE #M2-5677. REPLACED CHAIN GUARD.

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

TOTAL MO FOR SYSTEM KJB IS : 3

SV : 0 ==> 00.0 %

CM : 1 ==> 33.3 %

FM : 1 ==> 33.3 %

DCP : 1 ==> 33.3 %

SYSTEM-DURATION : 363 HRS UNIT-DURATION : 43421 HRS ==> 00.0 %

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
.....

<> TOTAL MO FOR UNIT 2 IS : 168 <>

SV : 40 ==> 23.6 %

CM : 64 ==> 38.1 %

PM : 42 ==> 25.0 %

DCP : 22 ==> 13.1 %

.....
.....

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 36

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BGA 3PIC0201 CM 04/10/84 07:30:00 04/10/84 16:00:00 9
 FUNC. DESCRIPTION: BACKPRESSURE CONTROLLER
 PROBLEM DESCRIPTION: INSTL NEW CARD IN AUTO CONTROL LOGIC & TEST

3 BGA 3LV02278 CM 06/01/84 07:30:00 06/01/84 16:00:00 9
 FUNC. DESCRIPTION: VCT OUTLET VLV
 PROBLEM DESCRIPTION: VLV DOES NOT IND FULLY CLOSED/INV/RPR

3 BGA 3PSV9220 83307362 CM 02/11/84 07:30:00 03/03/84 16:00:00 513
 FUNC. DESCRIPTION: VOL CNTRL TK T077
 PROBLEM DESCRIPTION: RMV PSV FR LN/CLN GASKET SURFACES/REIN STL
 2/14/84-OBTAINED PERMISSION. REMOVED 3PSV9220 FROM LINE & BAGGED UP WITH BOLTS

3 BGA 3PSL0234-2 83703465 CM 05/19/84 07:00:00 05/19/84 15:00:00 8
 FUNC. DESCRIPTION: 3MP192 PACKING COOLING PRESS
 PROBLEM DESCRIPTION: INVESTIGATE LOW PRESSURE AND OSCILLATION
 WORK_DONE DESCRIPTION: 1. CHECKED PRESSURE GAUGE-SAT (3PT02342).
 2. CHECKED 3PSH02352-SAT.
 3. CHECKED 3PSL02342-OUT OF TOLERANCE HIGH ADJUSTED PER 5023-II-9.82-SAT.
 4. TEST RUN PUMPS-ADJUSTED PRESSURE TO 11PSI OPERATION SAT.
 NO PARTS REQUIRED.

3 BGA 3MP191 83713427 CM 02/10/84 07:30:00 02/16/84 16:00:00 153
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: TIGHTEN OIL FITTINGS
 WORK_DONE DESCRIPTION: OBTAINED VERBAL APPROVAL. LUBRICATED MOTOR BOTH FORWARD & AFT BEARINGS ON
 MP191.

3 BGA 3MP191 83713924 CM 05/14/84 07:00:00 05/15/84 15:00:00 8
 FUNC. DESCRIPTION: CHARGING PP (C)
 PROBLEM DESCRIPTION: INVS/REPAIR CHG PP PACKING CLG WTR COMPONENTS
 WORK_DONE DESCRIPTION: INITIAL INVESTIGATION SHOWED ZERO SEAL WATER PRESSURE AND LOW PRESSURE
 ALARM WHEN PUMP WAS RUNNING. CALIBRATED PRESSURE SWITCHES AND GAUGE. GAUGE
 AND HIGH PRESSURE PRESSURE SWITCH WERE SATISFACTORY. LOW PRESSURE PRESSURE
 SWITCH REQUIRED MINOR ADJUSTMENT.
 OPERATION STATED PUMP, PRESSURE STILL ZERO. ADJUSTED PRESSURE REGULATOR.

SAN ONOFRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 19, 1985 74

TESTS

UNIT SYSTEM	EQUIPMENT - I.O.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	BGA 3PIC0201		CM	04/10/84	07:30:00	04/10/84	16:00:00	9
FUNC. DESCRIPTION:		BACKPRESSURE CONTROLLER						
PROBLEM DESCRIPTION:		INSTL NEW CARD IN AUTO CONTROL LOGIC & TEST						
3	BGA 3LV0227B		CM	06/01/84	07:30:00	06/01/84	16:00:00	9
FUNC. DESCRIPTION:		VCT OUTLET VLV						
PROBLEM DESCRIPTION:		VLV DOES NOT IND FULLY CLOSED/INV/RPR						
3	BGA 3PSV9226	83307362	CM	02/11/84	07:30:00	03/03/84	16:00:00	513
FUNC. DESCRIPTION:		VOL CNTRL TK T077						
PROBLEM DESCRIPTION:		RMV PSV FR LN/CLV GASKET SURFACES/REINSTL 2/14/84-OBTAINED PERMISSION. REMOVED 3PSV9220 FROM LINE & BAGGED UP WITH BOLTS						
3	BGA 3PSL0234-2	83703465	CM	05/19/84	07:00:00	05/19/84	15:00:00	8
FUNC. DESCRIPTION:		3MP192 PACKING COOLING PRESS						
PROBLEM DESCRIPTION:		INVESTIGATE LOW PRESSURE AND OSCILLATION						
WORK_DONE DESCRIPTION:		1. CHECKED PRESSURE GAUGE-SAT (3PI02342). 2. CHECKED 3PSH0235Z-SAT. 3. CHECKED 3PSL0234Z-OUT OF TOLERANCE HIGH ADJUSTED PER SUBS-II-9.82-SAT. 4. TEST RUN PUMPS-ADJUSTED PRESSURE TO 11PSI OPERATION SAT. NO PARTS REQUIRED.						
3	BGA 3MP191	83713427	CM	02/10/84	07:30:00	02/16/84	16:00:00	153
FUNC. DESCRIPTION:		CHARGING PUMP						
PROBLEM DESCRIPTION:		TIGHTEN OIL FITTINGS						
WORK_DONE DESCRIPTION:		OBTAINED VERBAL APPROVAL. LUBRICATED MOTORS WITH FORWARD & AFT BEARINGS ON MP191.						
3	BGA 3MP191	85713924	CM	05/18/84	07:00:00	05/18/84	15:00:00	4
FUNC. DESCRIPTION:		CHARGING PP (C)						
PROBLEM DESCRIPTION:		INVEST/REPAIR CHG PP PACKING CLG WTR COMPONENTS						
WORK_DONE DESCRIPTION:		INITIAL INVESTIGATION SHOWED ZERO SEAL WATER PRESSURE AND LOW PRESSURE ALARM WHEN PUMP WAS RUNNING. CALIBRATED PRESSURE SWITCHES AND GAUGE. GAUGE AND HIGH PRESSURE PRESSURE SWITCH WERE SATISFACTORY. LOW PRESSURE PRESSURE SWITCH REQUIRED MINOR ADJUSTMENT. OPERATION STATED PUMP, PRESSURE STILL ZERO. ADJUSTED PRESSURE REGULATOR.						

SAN ONDFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 37

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BGA S31208MP191 83714282 CM 02/10/84 07:30:00 02/18/84 16:00:00 201

FUNC. DESCRIPTION: CHRG PP
 PROBLEM DESCRIPTION: REPAIR PACKING LEAK
 WORK_DONE DESCRIPTION: REMOVED DISCHARGE VALVES FROM #1 & #2 CYLINDERS IAW SEC 6.3.2. M CAPLES 2/13/84 AND REPAIRED VALVE. WOODBRIDGE 2/13/84
 DISASSEMBLED PUMP IAW SEC 6.3 THRU SEC 6.3.1.5. ALL NEW PARTS ARE IN BAG IN CHARGING PUMP TOOL BOX & IN ROOM. NEED STRAP WRENCH TO REMOVE VALVE SEAT FROM PULLER WHEN FROZEN. M CAPLES 2/13/84

3 HGA P191 83714594 CM 02/09/84 07:30:00 02/20/84 16:00:00 273

FUNC. DESCRIPTION: CHRG PUMP
 PROBLEM DESCRIPTION: CALIBRATE 3PSL0234Y TO CLEAR ALARM
 WORK_DONE DESCRIPTION: RECAL 3PSL0234X PER S023-II-9.82 AND FOUND SWITCH TO BE LOW AND SLUGGISH. RESET SWITCH AND EXERCISED SWITCH. NO LONGER SLUGGLISH AND IS SET AT SETPOINT MWA 12/31/84.

3 BGA 3PCV9210 83714909 CM 02/08/84 07:30:00 02/08/84 16:00:00 9

FUNC. DESCRIPTION: PRESSURE CONTROL VALVE
 PROBLEM DESCRIPTION: IMPLEMENT APPROVED TEMPORARY MODIFICATION
 WORK_DONE DESCRIPTION: DISASSEMBLED VALVE, REMOVED PLUG AND SPRING, REASSEMBLED VALVE WITH PLUG AND SPRING REMOVED. VERIFIED NO LEAKAGE.

3 BGA MW218/3MP190 84000699 CM 02/14/84 07:30:00 02/24/84 16:00:00 249

FUNC. DESCRIPTION: CHARGING PUMP ACCUMULATOR
 PROBLEM DESCRIPTION: DISASSEM/REWORK/REASSEM/REPAIR OIL LEAKS
 WORK_DONE DESCRIPTION: DISASSEMBLED DAMPNER & INSTALLED A NEW BLADDER & 2 RINGS. REASSEMBLED AS PER PROCEDURE & PRESSURE TESTED TO 700LB. THEN REDUCED AND LEFT AT 200LB AS PER CONTROLLERS INSTRUCTIONS.

3 BGA MW218/3M190 84001600 CM 02/14/84 16:30:00 02/24/84 16:00:00 240

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPLACE PUMP PACKING
 DISASSEMBLED PUMP AS PER PROCEDURE. TURNED ROOM OVER TO DECUN TO BE CLEANED. CONTINUED WITH PACKING REPLACEMENT.

3 BGA 3PCV9214 84003437 CM 02/17/84 11:30:00 02/17/84 13:00:00 2

FUNC. DESCRIPTION:
 PROBLEM DESCRIPTION: DISASSEMBLE/REPAIR
 WORK_DONE DESCRIPTION: RECEIVED PERMISSION. DISASSEMBLED REGULATOR BONNET & BOTTOM PLUG. FOUND SMALL AMOUNT OF SCALE & RUST CONTAMINATION. NO APPARENT DIAPHRAM FAILURE OR INTERNAL PARTS BINDING. CLEANED WITH WIRT BRUSH. INSTALLED NEW DIAPHRAM PLATE & REASSEMBLED THE VALVE & RELEASED PERMISSION. VALVE IS READY FOR STROKE TEST BY OPERATOR. NO INTERNAL DAMAGE FOUND.

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 12, 1985 38

TESTS

UNIT	SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	HGA	3PSLK234X	84004575	CM	05/10/84	07:30:00	05/15/84	11:30:00	124
FUNC. DESCRIPTION: CHG PP P190 OIL PRESS LOW PROBLEM DESCRIPTION: REWORK/RECAL WORK_DONE DESCRIPTION: 1. INVESTIGATED PROBLEM FOUND 3XSH9292 TO BE IN GOOD WORKING ORDER. FOUND 3PSLK234X TO BE OUT OF CALIBRATION 18PSI DECREASING. ALSO FOUND PRESSURE INDICATION 3PI-K234X READ 26PSI WITH 0PSI APPLIED. WRITE MO #84051233 TO COVER GAUGE. 2. RECAL'D 3PSLK234X PER S023-II-9.82 REV 4.									
3	HGA	3PSV9227	84031831	CM	03/24/84	07:30:00	04/19/84	16:00:00	633
FUNC. DESCRIPTION: 3MP192 DISCH RELIEF VALVE PROBLEM DESCRIPTION: REMOVE VALVE & PRESSURE TEST. WORK_DONE DESCRIPTION: REMOVED VALVE FROM SYSTEM AND BENCH TESTED. UNSAT. DISASSEMBLED AND REPLACED INTERNALS AS DISC WAS BEYOND REPAIR. REASSEMBLED AND BENCH TESTED. SAT. DID VT-2. NO LEAKS.									
3	HGA	3PIK234X	84051233	CM	06/14/84	07:30:00	07/03/84	16:00:00	465
FUNC. DESCRIPTION: 3MP190 SEAL WTR PRESS IND PROBLEM DESCRIPTION: REWORK/RECAL WORK_DONE DESCRIPTION: REPLACED GAUGE WITH NEW ONE.									
3	HGA	S31208MW248	84051651	CM	06/17/84	07:30:00	06/26/84	16:00:00	225
FUNC. DESCRIPTION: CHARGING PUMP SUCTION ACCUM PROBLEM DESCRIPTION: DISASSEMBLE RPL BAG/GAS VLV									
3	HGA	3PSV9225	84051858	CM	06/05/84	07:30:00	06/06/84	16:00:00	33
FUNC. DESCRIPTION: 3MP191 DISCH RELIEF PROBLEM DESCRIPTION: VLV LIFTS/SHORT CYCLING WTR TO SUCTION OF PP/PWK ISOLATION VALVE LEAKING THRU.									
3	HGA	3FTF210-2	84052553	CM	06/10/84	07:30:00	06/27/84	16:00:00	417
FUNC. DESCRIPTION: CHARGING FLOW PROBLEM DESCRIPTION: RECAL. PER S023-II-9.14 WORK_DONE DESCRIPTION: CALIBRATED TRANSMITTER PER S023-II-9.14, REV 5.									
3	HGA	MU016	84061309	CM	06/17/84	07:30:00	06/23/84	16:00:00	153
FUNC. DESCRIPTION: INLET TO CHARGING PMP PROBLEM DESCRIPTION: DISASSEMBLE VLV/INS/REWORK VLV									

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BGA 3LCLK403Z 84062055 CM 07/15/84 07:30:00 07/24/84 09:03:00 018

FUNC. DESCRIPTION: CHG PUMP P192 DBL ELECTRODE PR
 PROBLEM DESCRIPTION: RWK/RECALIB
 WORK_DONE DESCRIPTION: INVESTIGATED CAUSE OF OVERFLOW AND FOUND THAT BYPASS VALVE IS LEAKING BY, THERE BY ALLOWING TANK TO FILL UP AND OVERFLOW. FOUND BOTH MAIN VALVE AND BYPASS VALVES CLOSED. VERIFIED THAT MAIN VALVE IS NOT LEAKING BY. VERIFIED THAT SOLENOID WORKS. ITS IS NOT HANGING UP (3HVK4012). (3LCLK4032) LEVEL SWITCH SEEMS TO BE WORKING PROPERLY.

3 BGA 3PSLK234Y 8407146H CM 07/16/84 07:30:00 07/19/84 16:00:00 01

FUNC. DESCRIPTION: CHG PMP P191 OIL PRESS LOW
 PROBLEM DESCRIPTION: INVEST CONSTANT ALARM REWORK/RECAL
 WORK_DONE DESCRIPTION: 1. FOUND CAUSE WAS HIGH SETPOINT.
 2. NO WIRES LIFTED.
 3. RECALIBRATED PER 5023-II-9.82 REV 4 TCM 4.
 4. NO REWORK PERFORMED.
 5. VERIFIED ALARM CLEAR.

3 BGA 3PCVK405Z 84082257 CM 08/28/84 07:30:00 09/05/84 15:00:00 000

FUNC. DESCRIPTION: CHG P192 SEAL WTR PRESS REG
 PROBLEM DESCRIPTION: INV OSCILLATING SEAL WATER PRESS/RWK/RECAL
 WORK_DONE DESCRIPTION: OBTAINED R.E.P., DOSIMETRY PARTS, HP SUPPORT, C.O. PERMISSION (APPROVAL) P-192 S/D, VENTILLATED D-106.MADE ENTRY VERIFIED ISOLATION VALVE AND BYPASS FROM NUC. SERVICE WATER TO SEAL WATERCOOLING TANK WERE ISOLATED. OBSERVED SIGHT GLASS ON SEAL WTR. WAS FULL(MAXIMUM). SEAL WTR. OVERFLOW WAS DUMPING TO RAD WASTE SUMP. INSTALLED REFERENCE TEST GAUGE AND TURNED ON SEAL WTR.PUMP.

3 BGA S31208MP192 84083508 CM 09/01/84 08:00:00 09/01/84 21:00:00 13

FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: REPAIR OIL SEALS
 WORK_DONE DESCRIPTION: CHECKED FOR WATER IN CRANKCASE.
 FOUND NONE. OIL LEVEL IN CENTER OF SIGHT GLASS. CHECKED OIL IN SPEED REDUCER GEAR BOX. IT WAS FULL. REMOVED PLEKIG-SS COVER. CLEAVED OUT OIL IN DRAIN PAN & TIGHTENED 3 PACKING NUTS APPROX 1/4 TURN EACH. RELEASED CLEARANCE. HAD OPERATIONS RUN PUMP FOR 1 HR TO CHECK FOR LEAKAGE. FOUND NO LEAKS.

3 BGA 3PIK234Z 84083551 CM 09/26/84 07:30:00 09/30/84 16:00:00 105

FUNC. DESCRIPTION: CHARGING PUMP P192
 PROBLEM DESCRIPTION: REPLACE OIL PRZR GAUGE/REWORK/RECALIB
 WORK_DONE DESCRIPTION: NO ISOLATION VALVE IN LINE TO GAUGE OR SWITCH.
 CALIBRATED GAUGE PER 5023-II-9.30(REPLACEMENT GAUGE AWAITING INSTALLATION). REPLACED GAGE(3PI-K234-Y).

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 40

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BGA S31208MP190 84090069 CM 09/06/84 01:00:00 09/06/84 16:00:00 15
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: RPR OIL FLUCTUATIONS & DO-MONTHLY PM ON PUMP
 WORK_DONE DESCRIPTION: VERIFIED LUHE OIL RIP-P-561-3
 CHECKED FOR LOOSE BOLTS AND NUTS, NONE FOUND.
 REMAINING CHECKS MUST BE PERFORMED AFTER CLEARANCE RELEASED WITH PUMP RUNNING.
 HAD OPS RUN PUMP, CHECKED COOLING WATER FLOW AND PRESSURE-WAS OK. CHECKED OIL.

3 BGA 3FIK404Y 84090083 CM 09/21/84 07:30:00 09/25/84 16:00:00 107
 FUNC. DESCRIPTION: CHG PUMP/PACKING COOLANT FLTR
 PROBLEM DESCRIPTION: DISASSEMBLE/CLN/RWK FLOWMETER/REASSEMBLE/ADJ
 WORK_DONE DESCRIPTION: RMOVED SIDE COVER FROM FLOW METER. NO OBSTRUCTION. VANE
 TURNED FREELY. CLENAED GLASS & REASSEMBLED FLOW METER.
 OBSERVED FLOWMETER RUNNING PROPERLY WHILE PUMP WAS RUNNING.

3 BGA MP192 84091153 CM 09/12/84 07:30:00 09/12/84 16:00:00 9
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: PUMP WOULD NOT START

3 BGA 3PCV9210 02607-02 DCP 02/14/84 07:30:00 02/24/84 16:00:00 489
 FUNC. DESCRIPTION: VCL CONT TK TO GAS SURGE HDR
 PROBLEM DESCRIPTION: RETEST PER DCP

3 BGA 3PCV9210 01034N DCP 02/04/84 07:30:00 02/26/84 16:00:00 393
 FUNC. DESCRIPTION: VCT TO WST GAS HDR
 PROBLEM DESCRIPTION: INSTL BYPASS LINE AROUND 3PCV9210 PER DCP

3 BGA 3LT0226 0236-1J DCP 02/04/84 07:30:00 02/07/84 16:00:00 81
 FUNC. DESCRIPTION: VCT LVL
 PROBLEM DESCRIPTION: RPLC EXISTING LVL XMR W/ENVIRONMENTLY QUALIFIED

3 BGA 3PV0201B 0353CE DCP 02/02/84 07:30:00 02/17/84 16:00:00 369
 FUNC. DESCRIPTION: LTDWN RACK PRESSURE VLV
 PROBLEM DESCRIPTION: RMV LIMIT SWITCHES & VLV POSITIONNER FOR DCP

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 16, 1985 41

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	BGA PV/PC0249/49	D6004SM	DCP	05/15/84	07:30:00	08/31/84	16:00:00	2601
FUNC. DESCRIPTION: REACTOR COOLANT SYS DEGAS PROBLEM DESCRIPTION: CALIB PER DCP								
3	BGA 3LV31104	D575.0-P	DCP	02/04/84	07:30:00	02/08/84	16:00:00	105
FUNC. DESCRIPTION: LETDOWN CONTROL VLV PROBLEM DESCRIPTION: RPL THE KEROTEST ISO VLV W/ROCKWELL UNI-VLV								
3	BGA 3MP191	83702719	PM	02/10/84	07:30:00	02/15/84	16:00:00	193
FUNC. DESCRIPTION: CHARGING PUMP PROBLEM DESCRIPTION: LUBE AND INSPECT MOTOR WORK_DONE DESCRIPTION: REMOVED TOP COVER & FOUND GASKET TO BE IN POOR CONDITION. DID NOT HAVE A REPLACEMENT AT THIS TIME. CLEANED GASKET MATINGS & PLACED RTV ON THEM & REINSTALLED COVER IAW S023-I-5.24. ADDED APPROX 7 GAL OF OIL TO BRING OIL LEVEL UP TO FULL.								
3	BGA MP190	84001602	PM	02/14/84	07:30:00	02/24/84	11:00:00	244
FUNC. DESCRIPTION: CHARGING PUMP ACCUMULATOR PROBLEM DESCRIPTION: CHANGE OIL REMOVED COVER & DRAINED OIL. CLEANED CRANKCASE. REMOVED & CLEANED STRAINER. OIL GASKET IN GOOD CONDITION. REPLACED GASKET WITH RTV SEALER. PLACED COVER & TORQUED TO 6FT/LBS. REFILLED CRANKCASE WITH GST100 OIL TO ABOUT 5/8 FULL IN BULLSEYE.								
3	BGA 3MP192	84031396	PM	03/21/84	07:30:00	03/25/84	15:30:00	32
FUNC. DESCRIPTION: CHARGING PMP PROBLEM DESCRIPTION: REPACK/REPLACE VLVS WORK_DONE DESCRIPTION: LAPPED 6 VALVES. DISASSEMBLED PUMP IAW STEP 5.3.1 THRU 5.3.3.11. REASSEMBLED PUMP AFTER CLEANING AND INSPECTION OF NEW PARTS.								
3	BGA S31208MP191	84940472	PM	04/13/84	16:19:00	4/14/84	16:00:00	24
FUNC. DESCRIPTION: CHARGING PUMP PROBLEM DESCRIPTION: PUMP OVERHAUL WORK_DONE DESCRIPTION: DISASSEMBLED AND FOUND BLOCKED MIDDLE VALVE STOP. PULLED AND REPLACED ALL VALVES. REASSEMBLED PUMP WITH NEW WEAR RINGS AND O-RINGS. RAN PUMP AND OBSERVED NO LEAKAGE.								

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BGA SPI9285 84041001 PM 09/16/84 17:30:00 09/20/84 16:00:00 35
 FUNC. DESCRIPTION: CHR9 PUMP P191 INLET PZR IND
 PROBLEM DESCRIPTION: RWK/RECALIB PER 5023-II-9.38
 WORK_DONE DESCRIPTION: INSTALLED AND CALIBRATED NEW GAUGE (0.5 GAUGE 1941) PER 5023-II-9.38 REV 4.
 FUNCTIONALLY VERIFIED PROPER OPERATION OF SPI-9285.

3 BGA 3MU017 84041064 PM 04/16/84 07:30:00 04/18/84 15:00:00 56
 FUNC. DESCRIPTION: P192 DISCHARGE CHECKVALVE
 PROBLEM DESCRIPTION: REWORK
 WORK_DONE DESCRIPTION: BLEED NEW DISC TO LAPPED SEAT & FOUND CONTINUOUS RING. INSTALLED NEW DISC,
 SPRING INTO VALVE BODY & STROKED VALVE WITH NO BINDING FOUND. REINSTALLED
 HONNET USING NEW GASKET. VALVE LEAK TESTED SATISFACTORILY.

3 BGA 3PSHL0201A 84061450 PM 05/25/84 07:30:00 06/27/84 16:00:00 57
 FUNC. DESCRIPTION: LETON HT EXCH TUBE SIDE OUTLET
 PROBLEM DESCRIPTION: CHG ALARM STPTS TO 400 PSIG HI & 250 PSIG LOW

3 BGA S31208MP190 84061741 PM 09/07/84 07:30:00 09/27/84 16:00:00 9
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: RPR OIL FLUCTUATIONS & 00 MONTHLY PM ON PUMP
 WORK_DONE DESCRIPTION: VERIFIED LUBE OIL R1P-P-361-83.
 ACCEPTED CLEARANCE, INITIATED REP.
 DRAINED OIL, REMOVED COVER & CLEANED SUMP & SUCTION STRAINER. REPLACED FILTER
 CARTRIDGE, & CLEANED FILLER CAP. DISASSEMBLED FLOW METER, CLEANED & REASSEMBLED

3 BGA MP191/192 84090070 PM 09/16/84 07:30:00 09/17/84 23:59:00 40
 FUNC. DESCRIPTION: CHARGING PUMP
 PROBLEM DESCRIPTION: MONTHLY INSP PER 5023-I-8.84
 WORK_DONE DESCRIPTION: 6.3.1 FLOW METER DOES NOT TURN. YOU CAN SEE WATER IN THE GLASS. 6.3.2 HAVE HIGH
 OIL PRESSURE, BUT COULD NOT ADJUST IT ANY LOWER. EITHER GAUGE IS BAD OR REGULA-
 TING VALVE.
 THE ABOVE DISCREPANCIES WILL BE ADDRESSED ON SEPERATE NO'S.

3 BGA MU046 SV 05/22/84 07:30:00 05/23/84 16:00:00 33
 FUNC. DESCRIPTION: H2OIC ACID MAKEUP CHECK VALVE
 PROBLEM DESCRIPTION: ISI/5023-V-3.5.4 ATTACH R.R

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 43

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BGA CHARGING C403761 SV 01/01/84 07:30:00 03/23/84 16:00:00 1977
 FUNC. DESCRIPTION: CHARGING PUMPS DISCH HDR
 PROBLEM DESCRIPTION: PERFORM ISI ON CHG PUMP

 3 BGA 3PVC9210 D1034N SV 02/04/84 07:30:00 02/23/84 16:00:00 465
 FUNC. DESCRIPTION: VCT TO WGST HDR
 PROBLEM DESCRIPTION: RETEST UPON COMPLETION OF DCP

SAV GROUPS NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:17 MONDAY, MARCH 10, 1965 44

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MO FOR SYSTEM 66A IS : 45

SV : 3 ==> 05.7 %
CM : 27 ==> 60.0 %
PM : 7 ==> 15.8 %
DCP : 6 ==> 13.5 %

SYSTEM-DURATION : 115.3 HRS OF IT-DURATION : 47.75 HRS ==> 24.9 %
.....

TESTS

UNIT	SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	BHA	3HV8152	C4039-68	CM	02/22/84	07:30:00	02/25/84	16:00:00	81
FUNC. DESCRIPTION: SDC INLET TO HX E004 PROBLEM DESCRIPTION: REPAIR VALVE MALFUNCTION/ADJ LIMIT SWITCHES									
3	BHA	3A0409/J40H	D1159E	CM	02/01/84	6:30:00	02/23/84	16:00:00	537
FUNC. DESCRIPTION: HPSI PUMPS P017/018 PROBLEM DESCRIPTION: MODIFY LINGAGE STOP LOCK MECH/REINFORCE KIRK KEY									
3	BHA	3M001K	83704008	CM	01/01/84	07:30:00	02/16/84	16:00:00	1113
FUNC. DESCRIPTION: SHUTDOWN TO LPSI P016 PROBLEM DESCRIPTION: ADJUST PACKING WORK_DONE DESCRIPTION: OBTAINED APPROVAL, ADJUSTED VALVE, NO LEAKAGE UPON COMPLETION OF ADJUSTMENT. RELEASED APPROVAL, WORK DONE DURING PLANT OUTAGE.									
3	BHA	3HV9337	83704213	CM	01/24/84	07:30:00	02/24/84	16:00:00	753
FUNC. DESCRIPTION: SDC RETURN CTMT ISO PROBLEM DESCRIPTION: ADJUST PACKING WORK_DONE DESCRIPTION: TIGHTENED PACKING GLAND AND REMOVED ALL DEBRIS FROM AREA. VALVE NEEDS TO BE STROKED TO VERIFY. ISO COMPLETED BY OPERATIONS. 190 WORKERS REINSTALLED MIDDLE SHIELD AND CLEANED WORK AREA.									
3	BHA	3HV9330	83704430	CM	05/10/84	07:30:00	05/14/84	16:00:00	57
FUNC. DESCRIPTION: HPSI HDR #0 TO RCS PROBLEM DESCRIPTION: ADJUSTED PACKING WHILE IN MODE 3									
3	BHA	3HV9332	83704430	CM	01/16/84	07:30:00	02/26/84	16:00:00	849
FUNC. DESCRIPTION: HPSI HDR 2 TO RCS PROBLEM DESCRIPTION: ADJUST PACKING GLAND FLANGE NUTS WORK_DONE DESCRIPTION: CLEARANCE OBTAINED. PACKING TIGHTENED 3/4 TURN EACH. SYSTEM UNDER PRESSURE DURING TIGHTENING. MAINTENANCE VERIFICATION SAT., NO LEAKAGE.									
3	BHA	3HV9326	83704433	CM	02/07/84	07:30:00	02/25/84	16:00:00	57
FUNC. DESCRIPTION: HPSI TO LOOP 1R ISO PROBLEM DESCRIPTION: TIGHTEN PACKING GLAND ON VLV WORK_DONE DESCRIPTION: OBTAINED APPROVAL, REMOVED BORIC ACID CRYSTALS, ADJUSTED PACKING NUTS PER S023-I-6.46 AND HAD UNIT 3 CO									

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 46

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER - TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BHA 3HV9327 83704434 CM 02/01/84 07:30:00 02/25/84 16:00:00 585
 FUNC. DESCRIPTION: HPSI HDR TO RCS LOOP 1B
 PROBLEM DESCRIPTION: WORK DESCRIPTION ADJ PACKING IF LEAK CONTINUES
 WORK_DONE DESCRIPTION: ADJUSTED PACKING, SYSTEM NOT PRESSURIZED. CYCLED VALVE USING STATION
 PROCEDURE AT SYSTEM PRESSURE.
 VALVE REWORKED UNDER MAINTENANCE ORDER 84004477.

3 BHA 3HV9420 83704435 CM 02/01/84 07:30:00 02/22/84 16:00:00 513
 FUNC. DESCRIPTION: HPSI TO RCS LOOP 2 HOT LEG
 PROBLEM DESCRIPTION: ADJUST PACKING
 WORK_DONE DESCRIPTION: OBTAINED APPROVAL, AND ADJUSTED VALVE PACKING (TIGHTENED NUTS).
 NOTED NUTS WERE TOO LOOSE. PERFORMED REQUIRED MAINTENANCE.
 WORK SATISFACTORY-NO LEAKS.

3 BHA S31208MJ092 83704473 CM 01/24/84 07:30:00 03/05/84 16:00:00 1017
 FUNC. DESCRIPTION: SI TO LD HEAT EXCHANGER
 PROBLEM DESCRIPTION: ADJ/OPLY FOR PACKING GLAND LEAKAGE
 WORK_DONE DESCRIPTION: ADJUSTED PACKING AND SUCCESSFULLY STOPPED LEAK.
 INSPECTED VALVE AND FOUND NO LEAKAGE.

3 BHA S31209MP018 83710510 CM 04/24/84 14:00:00 04/26/84 16:00:00 99
 FUNC. DESCRIPTION: HPSI PP #3
 PROBLEM DESCRIPTION: DRN CAP FOR CASING LKS/RPL

3 BHA 3HV9334 83714237 CM 01/22/84 07:30:00 02/22/84 16:00:00 753
 FUNC. DESCRIPTION: SIT HDR TO RWST CTMT ISO
 PROBLEM DESCRIPTION: ADJUST PACKING

3 BHA 3HV9335 83714240 CM 01/22/84 07:30:00 01/25/84 16:00:00 81
 FUNC. DESCRIPTION: SIT HDR TO RCOT ISO
 PROBLEM DESCRIPTION: ADJUST PACKING

3 BHA 3A0408/P017 84000551 CM 07/22/84 07:30:00 07/31/84 16:00:00 025
 FUNC. DESCRIPTION: BRKR
 PROBLEM DESCRIPTION: BRKR SUBJECT TO INADVERTENT CLOSING
 WORK_DONE DESCRIPTION: COMPLETED MAINTENANCE IN ACCORDANCE WITH PROCEDURE.

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 16, 1985 47

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BHA 3MPC18 84000807 CM 01/10/84 07:30:00 02/20/84 16:00:00 1041

FUNC. DESCRIPTION: HP SAFETY INJ PP #3
 PROBLEM DESCRIPTION: INVESTIGATE/REPAIR
 WORK_DONE DESCRIPTION: 1. OBTAINED WORK AUTHORIZATION
 2. PERFORMED S0123-II-11.152
 3. INSTALLED IN KIND RELAY (NOTE BELOW)
 4. FUNCTIONAL TEST PC17, PC18 IN TEST POSITION
 5. RELEASED WORK AUTHORIZATION

3 BHA 3HV9350 84001339 CM 02/08/84 07:30:00 02/24/84 16:00:00 393

FUNC. DESCRIPTION: SAFETY INJECTION TANK NUMBER 2
 PROBLEM DESCRIPTION: CLEAN VALVE & ADJUST PACKING

3 BHA 3HV9360 84001340 CM 02/08/84 07:30:00 02/24/84 16:00:00 393

FUNC. DESCRIPTION: SAFETY INJECTION TANK VALVE
 PROBLEM DESCRIPTION: ADJUST PACKING

3 BHA 3HV9340 84001347 CM 02/19/84 07:30:00 02/18/84 16:00:00 135

FUNC. DESCRIPTION: SIT TANK INJECTION VALVE
 PROBLEM DESCRIPTION: CLEAN/REPLACE/SEAL LEAKY BODY PLUG
 REMOVED PLUG AND CHASED
 BODY THREADS.
 REINSTALLATION OF PLUG COMPLETED.

3 BHA 3HV9370 84001355 CM 02/08/84 07:30:00 02/24/84 16:00:00 393

FUNC. DESCRIPTION: SIT TANK INJECTION VALVE
 PROBLEM DESCRIPTION: CLEAN VLV /ADJUST PACKING

3 BHA 331204MP15 84002627 CM 02/21/84 07:30:00 02/24/84 16:00:00 91

FUNC. DESCRIPTION: TRAIN A LPSI PUMP
 PROBLEM DESCRIPTION: REMOVE TWO FLEXITALLIC GASKETS & FLOW BRIC.
 WORK_DONE DESCRIPTION: ERECTED SCAFFOLD. HAD CLEARANCE REVISID TO DRAIN SYSTEM. REMOVED PIPE AND
 INSPECTED. PIPE COULD ONLY BE THREADED IN 3 1/4 ROTATIONS. PIPE WAS WENT
 AT THREADED END. THREADS WERE BADLY DAMAGED. PIPE NEEDS TO BE REPLACED.
 RETURNING MAINTENANCE ORDER TO PLANNING FOR REVISION AND WELD PROCEDURE.
 PERFORMED IN ACCORDANCE WITH DIRECTION OF SUPERVISOR.

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BHA 3HV9360 84002818 CM 02/08/84 07:30:00 02/24/84 16:00:00 331
 FUNC. DESCRIPTION: SIT TANK DISCHARGE VALVE
 PROBLEM DESCRIPTION: INVESTIGATE/ REWORK
 WORK_DONE DESCRIPTION: 1. OBTAINED WORK AUTHORIZATION.
 2. CHECKED CONTROL CIRCUIT AND FOUND CIRCUIT BREAKER OPEN.
 3. RETURNED VALVE TO OPERATIONS FOR FUNCTIONAL TEST.

3 BHA P017/3A0408 84002921 CM 07/22/84 07:30:00 07/27/84 16:00:00 129
 FUNC. DESCRIPTION: BRKR
 PROBLEM DESCRIPTION: CLEAN/INSP/LUBE/ADJUST
 WORK_DONE DESCRIPTION: BREAKER SERIAL NUMBER: 33-50395-01-1-4-48
 PERFORMED MAINTENACE IAW 5033-1-4.5. NO NONCONFORMANCE. RELEASED WORK AUTHORI-
 ZATION.

3 BHA 3HV9344 84003716 CM 03/13/84 07:30:00 03/03/84 15:00:00 6
 FUNC. DESCRIPTION: TOOK SIT N2 SUPPLY VLV
 PROBLEM DESCRIPTION: NO POSITION INDICATION/TROUBLESHOOT
 WORK_DONE DESCRIPTION: COIL IS OPEN & HAS 125KR TO GROUND.

3 BHA 3HV9327 84004497 CM 02/27/84 19:10:00 03/01/84 09:00:00 36
 FUNC. DESCRIPTION: HPSI HDR 1 TO RCS LOOP 1R
 PROBLEM DESCRIPTION: REPACK VALVE
 WORK_DONE DESCRIPTION: LIMITORQUE WAS REMOVED & CHECKED. IT CHECKS OUT OKAY.
 DISCONNECTED & MARKED ALL ELECTRICAL WIRES TO ACTUATOR MOTOR LIMIT SWITCH, TOR-
 QUE SWITCHES AND POSITION INDICATOR. POSITION INDICATOR WIRES ARE STILL EMER-
 GIZED AND TIED OFF. DISCONNECTED ALL CONDUIT FROM ACTUATOR.
 STROKED VALVE MANUALLY. VALVE HINDS ALMOST TIGHT WHEN GOING OPEN.

3 BHA 3HV9327 84004577 CM 02/26/84 07:30:00 03/01/84 16:00:00 57
 FUNC. DESCRIPTION: HPSI HDR 1 TO RCS LOOP 1R
 PROBLEM DESCRIPTION: CUT OUT AND REPAIR VLV
 WORK_DONE DESCRIPTION: OBTAINED PERMISSION PRIOR TO STARTING JOB. CUT SEAL WELD ON BODY TO
 BONNET JOINT. PTH PTH-PT-4517 PERFORMED PRIOR TO CUTTING SEAL WELD AND NO INDI-
 CATIONS OBSERVED. PT WAS ACCEPTABLE. RECEIVED GO AHEAD FROM STATION MAINTANENC
 E FOREMAN TO PROCEED WITH WELDING OF BODY TO BONNET SEAL WELD.
 HAD PRE-WELD FIT-UP HOUGHT OFF BY QC. PERFORMED WELD IAW SECTION XI TRAVELER.

TESTS

UNIT SYSTEM	EQUIPMENT - I.O.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.	DATE	COMP.	TIME	DURATION (IN HOURS)
3	RHA 3L10333 FUNC. DESCRIPTION: PROBLEM DESCRIPTION: WORK_DONE DESCRIPTION:	84008707	CM	03/03/84	07:30:00	03/03/84	09:00:00		2	
<p>SIT TANK LEVEL INDICATOR WORK/RECALIBRATE RAN LOOP CHECK OF SYSTEM PER S023-II-P-10. VERIFIED ALL LOOP COMPONENTS OPERATIONAL AND IN CALIBRATION. OBSERVED SYSTEM OPERATION UNDER TEST AND IN SERVICE CONDITIONS AND REQUESTED BACKSHIFT OPERATORS TO OBSERVE DURING THE NIGHT. NO EVIDENCE OF A PROBLEM WAS DETERMINED.</p>										
3	RHA 3PV0312 FUNC. DESCRIPTION: PROBLEM DESCRIPTION: WORK_DONE DESCRIPTION:	84060925	CM	06/10/84	07:30:00	07/04/84	15:00:00		585	
<p>SIT T008 PRESS RECALIB 3PK0312/3PSHL0310 & 3PSHL0312A RECALIBRATED IAN APPROPRIATED PROCEDURES. OPERATIONS TESTED SAT.</p>										
3	RHA 3HV9337 FUNC. DESCRIPTION: PROBLEM DESCRIPTION: WORK_DONE DESCRIPTION:	84062102	CM	06/20/84	07:30:00	07/27/84	15:00:00		177	
<p>30CS FLOW FROM RCS LOOP 2 INSP PACKING GLAND & ADJUST PACKING 6/23/84-GYD-OBTAINED WRITTEN APPROVAL. MISSILE SHIELD WAS REMOVED BY MGG. DECONNERS REMOVED EXCESS WATER. ADJUSTED 2 GLAND NUTS ONE FULL TURN. WILL NOT TURN ANYMORE. THERE IS MUCH TORIC DEPOSIT AROUND THREADS. SUGGEST FULL CLEANING & MAINT. RELEASED WORK AUTHORIZATION. MISSILE SHIELD SEEDS REPLACEMENT. INITIATE MCR AFTER ISI.</p>										
3	RHA 3HV9332/9327 FUNC. DESCRIPTION: PROBLEM DESCRIPTION: WORK_DONE DESCRIPTION:	84063304	CM	06/29/84	07:30:00	07/03/84	15:00:00		105	
<p>HPSI 2 TO RCS LOOP 2 REPAIR VALVE AND ACTUATOR REMOVED ELECTRICAL WIRING S023-I-6-16 STEP 5-1-1-6-1-2. REMOVED ACTUATOR PER S023-I-6-16 SEC 5-1. THWJ 5-4-10. COMPLETED SEAL WELD BRINDJIT & YORK STEM SECTION OUT. REINSTALLED ACTUATOR IAW SECTION 6-3-13 THRU 6-3-15 & TORQUED 103FT/LBS</p>										
3	RHA 3HV9332 FUNC. DESCRIPTION: PROBLEM DESCRIPTION: WORK_DONE DESCRIPTION:	84063339	CM	06/29/84	08:00:00	06/30/84	15:00:00		32	
<p>HPSI HOR 2 TO RCS LOOP 2 INITIATE AND MAINTAIN FREEZE SEAL FOR 3HV9332 TOOK PRE FREEZE MEASUREMENT PER S023-I-6-147 SEC 6-1-7. JMR 6/29/84 BEGAN FREEZE SEAL & CONTINUED MONITORING TEMPS & NO BOTTLES. CR- SERVICED WELDER REMOVING BONNET FORM LINE. STEM & OJIC ARE GOING TO HOT SHOP FOR INSPECTION & REPAIR. TEMPS ARE CHECKED EVERY FIFTEEN MIN & FREEZE SEAL ONCE AN HOUR.</p>										

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BHA 3HV9325 84063375 CM 06/29/84 07:30:00 07/03/84 06:00:00 95

FUNC. DESCRIPTION: HPSI INJECTION VALVE
 PROBLEM DESCRIPTION: SEAL WELD & RPR ACTUATOR
 WORK_DONE DESCRIPTION: REPAIR TO DRAIN LINE WAS DOWN BY REMOVAL OF BROKEN WELD, REMOVAL OF 1/2" OF PIPE & REWELDING TO VALVE BONNETT. REPAIR TO SEAL WELD WAS MADE. ALL WELD TESTS AND HOLD POINTS WERE SIGNED OFF. R ACTUATOR REINSTALLED PER M.O. 84063368. RECONNECTED WIRING. COMPLETED STEP 9 AND 10 OF WORK PLAN.

3 BHA 3MP819 84070410 CM 07/05/84 13:00:00 07/05/84 18:30:00 5

FUNC. DESCRIPTION: HPSI PUMP 3MP819
 PROBLEM DESCRIPTION: PUMP TRIPPED ON PHSE A OVERCURRENT/REPAIR AS REQ.
 WORK_DONE DESCRIPTION: 1 OBTAINED WORK AUTHORIZATION.
 2 PERFORMED APPLICABLE PORTIONS OF S0123-11-11.152 & 158.
 3 MEGGERED AND BRIDGED MOTOR-READINGS FOUND SATISFACTORY.
 4 SET UP TO MONITOR RUNNING MOTOR CURRENT-FOUND SATISFACTORY.

3 BHA 3LT/LI0342 84081942 CM 08/23/84 22:00:00 08/23/84 23:00:00 1

FUNC. DESCRIPTION: SIT #4 LVL
 PROBLEM DESCRIPTION: REPAIR/RECALIBRATE
 WORK_DONE DESCRIPTION: INVESTIGATED THE PROBLEM WITH THE 2 TO 30 OSCILLATIONS ON THE SIT TANK LEVEL. FOUND AT THE TIME THAT THERE WAS MINIMUM OSCILLATION AND HAD OPERATIONS PURGE THE SIT TANK AND THE OSCILLATIONS COMMENCED APPROXIMATELY ONCE A SHIFT. THE OPERATOR ON SHIFT NOTICE THE FLUCTUATION DURING PURGE. UNIT 2 HAD SIMILAR PROBLEMS DUE TO THE N2 BLANKET ON THE SIT TANK.

3 BHA 3FI9435-2 84082935 CM 08/27/84 07:30:00 08/28/84 01:10:00 14

FUNC. DESCRIPTION: HPSI FLOW TO RCS LP 1 HOT LEG
 PROBLEM DESCRIPTION: RECAL/REWORK (PAMI INSTRUMENT)
 WORK_DONE DESCRIPTION: INVESTIGATED REPORT THAT FI-9435-2 IS INDICATING 505 GPM WITH NO FLOW. PROBLEM DETERMINED TO BE FLOW TRANSMITTER 3FI-9435-2 OUTPUT IN ERROR. OUTPUT FROM FT= 4.1984. THIS EXPLAINS WHY FI IS INDICATING 505 GPM.

3 BHA 3HV9375 01116.05 DCP 02/01/84 07:30:00 02/25/84 16:00:00 545

FUNC. DESCRIPTION: SFTY INJ TK T010
 PROBLEM DESCRIPTION: CMPL INTERNAL WIRING IN PNL PER DCP

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE C.M.P.-TIME DURATION (IN HOURS)

3 RHA 3M93345 011167.0 DCP 02/01/84 07:30:00 02/15/84 16:00:00 346
 FUNC. DESCRIPTION: SFTY INJ TK TOOL
 PROBLEM DESCRIPTION: CMPLT INTRNL WIRING IN PNL PER DCP

3 RHA 3M98163 01296J DCP 02/22/84 07:30:00 03/24/84 16:00:00 753
 FUNC. DESCRIPTION: SOC FLOW BYPASS VLV
 PROBLEM DESCRIPTION: REVISE VLV INTRNL CBL PER DCP/ADJ ROTOR

3 RHA 3F19313 074N DCP 01/10/84 07:30:00 04/09/84 16:00:00 0101
 FUNC. DESCRIPTION: HPSI PUMP POIR FLOW
 PROBLEM DESCRIPTION: INSTALL NEWFLOW TRANSMITTER

3 RHA 3F19315 074N DCP 02/02/84 07:30:00 04/09/84 16:00:00 938
 FUNC. DESCRIPTION: HPSI PMP P019 MINIFLOW
 PROBLEM DESCRIPTION: INSTALL NEW FLOW TRANSMITTER

3 RHA MV9345/55/55 0927.5M DCP 01/19/84 07:30:00 02/21/84 16:00:00 777
 FUNC. DESCRIPTION: SIT 42 VENT VLV
 PROBLEM DESCRIPTION: MODIFY 3M9345/55/55/75

3 RHA 346409 84003553 DCP 04/20/84 07:30:00 04/21/84 16:00:00 41
 FUNC. DESCRIPTION: HPSI PUMP POIR FOR HRR
 PROBLEM DESCRIPTION: INSTL CLOSE LATCH ANTI-SHOCK SPRING
 WORK DONE DESCRIPTION: INSTALLED ANTI SHOCK SPRING AS PER MANUOL INSTRUCTION AND PERFORMED PM.

3 RHA P019/346608 84003584 DCP 07/21/84 07:30:00 08/11/84 16:00:00 273
 FUNC. DESCRIPTION: HPSI PUMP
 PROBLEM DESCRIPTION: HPSI SUBJECT TO INADVERTENT CLOSING
 WORK DONE DESCRIPTION: INSTALLED NEW SPRING & COVER PIN AS PER WORK PLAN.

3 RHA 340609 84003585 DCP 04/24/84 08:00:00 04/26/84 16:00:00 104
 FUNC. DESCRIPTION: HPSI PP P018 HRR
 PROBLEM DESCRIPTION: INSTL CLOSE LATCH ANTI-SHOCK SPRING
 WORKED ACCORDING TO PROCEDURE AND INSTALLED CLOSE LATCH ANTI-SHOCK SPRING.

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	B4A 3HV9350 FUNC. DESCRIPTION: HPSI HOR #1 TO RCS LP 2A ISO V PROBLEM DESCRIPTION: INSPECT/CLEAN/ADJUST PACKING 6LAND WORK_DONE DESCRIPTION: LUBRICATED STEM AND PACKING STUDS. ADJUSTED PACKING 11 FLATS. VALVE REQUIRES ISI TESTING.	83705855	PM	01/22/84	07:30:00	02/24/84	16:00:00	861
3	B4A 3PI0308/0309 FUNC. DESCRIPTION: HPSI #1/2 PRESS INSTR PROBLEM DESCRIPTION: 12 MONTH CALIB WORK_DONE DESCRIPTION: COMPLETED RND PER S023-II-9.322	83707905	PM	02/05/84	22:00:00	02/14/84	15:00:00	210
3	B4A NFO19283 FUNC. DESCRIPTION: SIT SAMPLE TOTALIZER PROBLEM DESCRIPTION: PERFORM 14 MO PM PER S023-II-9.344	83711157	PM	02/05/84	07:30:00	02/05/84	16:00:00	9
3	B4A NLT9387 FUNC. DESCRIPTION: CVT EMERGENCY SUMP LEVEL PROBLEM DESCRIPTION: 18 MONTH CALIBRATION WORK_DONE DESCRIPTION: COMPLETED RND PER S023-II-9.374	83711750	PM	02/09/84	07:30:00	02/11/84	16:00:00	81
3	B4A 3LTC054 FUNC. DESCRIPTION: RWST TB & TB LVL IND LOGS PROBLEM DESCRIPTION: 14 MONTH CALIB WORK_DONE DESCRIPTION: CALIBRATION WAS PERFORMED ON ALL TB KWMS. ALSO PERFORMED 4 LOP CHECKS.	83711960	PM	01/06/84	07:30:00	02/14/84	16:00:00	940
3	B4A 3FT98211 FUNC. DESCRIPTION: HPSI FLOW TO HPT LEG 2 PROBLEM DESCRIPTION: 14 MONTH CALIB WORK_DONE DESCRIPTION: COMPLETED RND PER S023-II-9.323	83712665	PM	01/11/84	07:30:00	02/01/84	16:00:00	837
3	B4A 3FT0311/0321 FUNC. DESCRIPTION: HPSI FLOW PROBLEM DESCRIPTION: 14 MONTH CALIB WORK_DONE DESCRIPTION: COMPLETED RND PER S023-II-9.343	83712869	PM	01/15/84	07:30:00	02/11/84	16:00:00	555

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BMA 3W9352 83714223 PM 01/21/64 07:30:00 01/21/64 15:00:00 9
 FUNC. DESCRIPTION: SIT #2 DRN ISO
 PROBLEM DESCRIPTION: INSPECT FILTER & AIR LINES/ADJUST PACKING

3 BMA 3W9352 84001043 PM 02/11/64 07:30:00 02/15/64 07:00:00 96
 FUNC. DESCRIPTION: HPSI INJECTION HEADER
 PROBLEM DESCRIPTION: PM LINESTARTER
 WORK_DONE DESCRIPTION: OBTAINED WORK AUTHORIZATION. PERFORMED WORK IAW PROCEDURE.

3 BMA 3W9327 84001089 PM 02/15/64 07:30:00 02/25/64 16:00:00 297
 FUNC. DESCRIPTION: HPSI HOR 1 TO RCS LP 1B
 PROBLEM DESCRIPTION: CLEAN/INSPECT/MESSER MOTOR

3 BMA 3FT0311/0121 84001432 PM 01/15/64 07:30:00 01/22/64 16:00:00 153
 FUNC. DESCRIPTION: HPSI FLOW TRANSMITTERS
 PROBLEM DESCRIPTION: 18 MONTH CALIBRATION
 WORK_DONE DESCRIPTION: ON M083712197 (1/10/64) FOR SPI-0153-01-1.
 2/1/64: CALIB. PER S023-II-9.191 REV 3, ION 3-2 FOLLOWINGS:
 SPI0151, SPI0152, SPI0170, SPI0154, SPI0155.
 2/28/64: CALIB. PER S023-II-9.174 REV 3, ION 3-1. CALLOUTS: SPI0154 AND
 SPI0152.

3 BMA S31804FS80509 84002420 PM 04/24/64 12:00:00 04/25/64 14:00:00 26
 FUNC. DESCRIPTION: HPSI PUMP 1B BREAKER
 PROBLEM DESCRIPTION: CLEAN/INSPECT/ADJUST
 WORK_DONE DESCRIPTION: WORKED WORK ORDER ACCORDING TO PROCEDURE.
 PERFORMED PM.
 FINISHED PACKAGE ACCORDING TO PROCEDURE.

3 BMA S31704W015 84003793 PM 05/14/64 07:30:00 05/24/64 16:00:00 1201
 FUNC. DESCRIPTION: HPSI PUMP P019/DISC/VLV
 PROBLEM DESCRIPTION: CLEAN/ADJUST PACKING

3 BMA 3W016 84004414 PM 04/24/64 07:30:00 04/25/64 16:00:00 165
 FUNC. DESCRIPTION: HP SFTY INJECTION PUMP
 PROBLEM DESCRIPTION: INSP & PERFORM MESSER TEST ON PUMP NTR & AIR NTR
 WORK_DONE DESCRIPTION: COMPLETED S023-I-9.1 AND S023-I-9.1.

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.	TIME	DURATION (IN HOURS)
3	BMA P019/3A0608	84050046	PM	07/21/84	07:30:00	08/01/84	16:00:00	273
<p>FUNC. DESCRIPTION: HPSI PP CLEAN/INSPECT/LUBE/ADJUST PROBLEM DESCRIPTION: PERFORMED WORK IAW S023-1-4.5 UP TO & INCLUDING STEP 6.4.1.1.10. WORK_DONE DESCRIPTION: FOUND ARCING CONTACT ON PHASE "B" TO BE CHIPPED. COMPLETED WORK. NCR 3-803 INITIATED FOR CHIP ON "B" PHASE ARCING CONTACT.</p>								
3	BMA S3120AMP019	84050063	PM	07/21/84	07:30:00	08/01/84	16:00:00	273
<p>FUNC. DESCRIPTION: HPSI INJ PUMP 3MP019 PROBLEM DESCRIPTION: CLEAN AND INSPECT/MEGGER MOTOR WORK_DONE DESCRIPTION: OBTAINED AUTHORIZATION. PERFORMED INSPECTION IAW S023-1-9.1. PERFORMED MEGGER- ING IAW S023-1-4.1.</p>								
3	BMA 3MVS327	84052326	PM	07/16/84	07:30:00	07/17/84	11:15:00	75
<p>FUNC. DESCRIPTION: HPSI HOR 1 TO RCS LOOP 1A PROBLEM DESCRIPTION: PERFORM VLV PCKNG/GLND INSPCT/CLNG & LUBRICATION WORK_DONE DESCRIPTION: THE VALVE HAD A LARGE CONCENTRATION OF BIPIC ACID CRYSTALS AROUND PACKING GLAND. CLEANED ALL CRYSTALS AROUND PACKING GLAND & LUBRICATED VALVE STEM WITH NEOLUBE. WAITED ABOUT 20MIN & PACKING GLAND DID NOT LEAK. LIVE IS PRESSURIZED UP TO THE VALVE.</p>								
3	BMA MSHLC332	84070359	PM	07/17/84	08:06:00	07/17/84	13:00:00	5
<p>FUNC. DESCRIPTION: SIT #3 LOW PRESSURE ALARM PROBLEM DESCRIPTION: RMK/RECALIB PER S023-11-9.4 WORK_DONE DESCRIPTION: RECALIBRATED LOW ALARM SETPOINT. REFERENCED S023-11-10.3 AT END OF MAINTENANCE.</p>								
3	BMA 3P017		SV	04/10/84	07:30:00	04/10/84	16:00:00	9
<p>FUNC. DESCRIPTION: HPSI PUMP AND CHECK VALVES PROBLEM DESCRIPTION: INSERVICE TEST OF PMP/RELATED CHECK VALVES</p>								
3	BMA 3M-019		SV	06/02/84	07:30:00	06/05/84	16:00:00	153
<p>FUNC. DESCRIPTION: HIGH PRESSURE SAFETY INJECTION PROBLEM DESCRIPTION: ISI PUMP AND ASSOCIATED CHECK VALVES</p>								
3	BMA 3MPSIR HPSI		SV	07/31/84	07:30:00	08/01/84	16:00:00	23
<p>FUNC. DESCRIPTION: HIGH PRESSURE SAFETY INJECTION PROBLEM DESCRIPTION: ISI PUMP AND CHECK VALVES</p>								

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 15, 1985 58

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	BHA HPSI		SV	08/17/84	07:30:00	08/17/84	16:00:00	9
FUNC. DESCRIPTION:		HIGH PRESS SAFETY INJ CHK VLVE						
PROBLEM DESCRIPTION:		ISI TESTING						
3	BHA MP619		SV	08/28/84	07:30:00	08/28/84	16:00:00	9
FUNC. DESCRIPTION:		HIGH PRESSURE SAFETY INJECTION						
PROBLEM DESCRIPTION:		ISI S023-V-3.4.4/ASSOC CK VLVS S023-V-3.5.4						
3	BHA 3P016		SV	08/30/84	07:30:00	08/30/84	16:00:00	9
FUNC. DESCRIPTION:		LOW PRESSURE SAFETY INJECTION						
PROBLEM DESCRIPTION:		ISI PMP PER S023-V-3.4.5/AND ASSOC VLVS						
3	BHA HPSI 18		SV	02/23/84	07:30:00	02/24/84	16:00:00	33
FUNC. DESCRIPTION:		HPSI 18 HI PRESS SFTY INJ PP						
PROBLEM DESCRIPTION:		ISI						
3	BHA 3P016		SV	03/02/84	07:30:00	03/02/84	16:00:00	9
FUNC. DESCRIPTION:		8 RELATED CHK VLVS						
PROBLEM DESCRIPTION:		INSERVICE TEST OF 3P016 8 RELATED CHECK VLVS						
3	BHA 3P018		SV	05/15/84	07:30:00	05/17/84	16:00:00	57
FUNC. DESCRIPTION:		HPSI PP						
PROBLEM DESCRIPTION:		ISI PP						
3	BHA 3MP016		SV	05/22/84	07:30:00	05/22/84	16:00:00	9
FUNC. DESCRIPTION:		LPSI PUMP						
PROBLEM DESCRIPTION:		PERFORM ISI						
3	BHA 3MP015		SV	05/22/84	07:30:00	05/23/84	16:00:00	33
FUNC. DESCRIPTION:		LPSI PUMP						
PROBLEM DESCRIPTION:		PERFORM ISI						
3	BHA 3MP017		SV	07/10/84	07:30:00	07/10/84	16:00:00	57
FUNC. DESCRIPTION:		HPSI						
PROBLEM DESCRIPTION:		ISI TESTING						

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP. DATE COMP. TIME DURATION (IN HOURS)

3 BHA SCR-57 C4040-41 SV 06/16/84 07:30:00 06/18/84 16:00:00 57
 FUNC. DESCRIPTION: SIT OUTLET VALVES/HPSI HOT LG IN
 PROBLEM DESCRIPTION: REMOVE RETAINING NUT OF PTK MICROSWITCHES & IMSP

3 BHA S31204MP019 84003221 SV 03/10/84 07:30:00 03/14/84 10:30:00 99
 FUNC. DESCRIPTION: HPSI PUMP TRAIN "R"
 PROBLEM DESCRIPTION: INVAL/RMV TEST GAUGES ON PUMP SUCTION & DISCH
 WORK_DONE DESCRIPTION: OBTAINED GAUGES FROM TEST ENGINEER AND INSTALLED AS DIRECTED.
 AFTER COMPLETION OF TEST REMOVE GAUGES AS DIRECTED. RESTORED
 SYSTEM TO AS FOUND CONDITION.

3 BHA 2FT9351 84031486 SV 03/21/84 21:00:00 03/22/84 15:00:00 19
 FUNC. DESCRIPTION: HPSI IMP019 MINIFLOW IND
 PROBLEM DESCRIPTION: RECAL FOR ISI TEST
 WORK_DONE DESCRIPTION: VERIFIED CALIBRATION ON SFI-1115 TO BE GOOD. FOUND INDICATOR VALVED OUT
 BEFORE STARTING WORK AND LEFT IT VALVED OUT. AIR NEEDS TO BE BLEED OUT
 OF LINES WITH LPSI PUMP 019 RUNNING.

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
 TOTAL MO FOR SYSTEM BHA IS : 76

SV : 15 ==> 19.7 %

CM : 34 ==> 44.7 %

PM : 18 ==> 23.7 %

DCP: 9 ==> 11.8 %

SYSTEM-DURATION : 23567 HRS UNIT-DURATION : 4739 HRS ==> 50.1 %

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14107 MONDAY, MARCH 19, 1975 59

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	BKA MP012	84090933	CM	09/27/84	07:30:00	09/26/84	05:00:00	20
FUNC. DESCRIPTION:		CNTMT SPRAY PUMP #1						
PROBLEM DESCRIPTION:		SAMPLE PUMP/MOTOR OIL GOT OIL SAMPLE IAW S023-I-8.20.						
3	BKA 3FT0348-2	01514J	DCP	06/27/84	07:30:00	06/27/84	16:00:00	9
FUNC. DESCRIPTION:		CNTMT SPRAY PUMP DIS FLOW						
PROBLEM DESCRIPTION:		DTRM/RTM & RETEST PER DCP						
3	BKA 3FT0328	0223J	DCP	01/20/84	07:30:00	02/10/84	16:00:00	515
FUNC. DESCRIPTION:		CHEM SPRAY PMP 1 FLOW						
PROBLEM DESCRIPTION:		TIE IN TO 3FT0328 TO PROVIDE INFO TO QSP05						
3	BKA 3FT0318	0223J	DCP	11/16/84	07:30:00	12/10/84	16:00:00	649
FUNC. DESCRIPTION:		CHEM SPRAY PMP 2 FLOW						
PROBLEM DESCRIPTION:		TIE IN TO 3FT0318 TO PROVIDE INFO TO QSP05						
3	BKA 3AP9382	0226J	DCP	03/17/84	07:30:00	04/10/84	16:00:00	535
FUNC. DESCRIPTION:		SPRAY CHEM ADD LOCAL SMPL I50						
PROBLEM DESCRIPTION:		INSTALL NEW SAMPLE POINT PER DCP						
3	BKA 3AG403	84000545	DCP	06/17/84	07:30:00	07/02/84	16:00:00	369
FUNC. DESCRIPTION:		CONTAINMENT SPRAY PUMP BREAKER						
PROBLEM DESCRIPTION:		REPLACE CLOSE LATCH ANTISHOCK SPRING IN BREAK						
WORK_DONE DESCRIPTION:		VERIFIED PROPER SPRING AND CUTTER KEY. PERFORMED WORK AS DIRECTED.						
3	BKA 3A0604	84000540	DCP	06/16/84	14:00:00	06/27/84	16:00:00	216
FUNC. DESCRIPTION:		CONT SPRAY PP P013						
PROBLEM DESCRIPTION:		REPLACE CLOSE LATCH ANTISHOCK SPRING						
WORK_DONE DESCRIPTION:		OBTAINED REQUIRED SPRING & CUTTER PLW AND COMPLETED REPLACEMENT.						
3	BKA 3A0604	84061652	DCP	06/11/84	20:00:00	06/27/84	16:00:00	212
FUNC. DESCRIPTION:		CONT SPRAY PP P013						
PROBLEM DESCRIPTION:		CLEAN/INSP/LUBE/ADJUST						
WORK_DONE DESCRIPTION:		PERFORMED STEPS 6.1.1 THRU 6.2.15.7 OF 60.3-I-4.5. PERFORMED STEPS 6.2.19.5 THRU 6.4.1.1.10. Gc 6/19/84 PERFORMED STEPS 6.4.1.3 THRU 6.5.5. PM OF MOTOR.						

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BKA MP013 8370377 PM 08/05/84 07:30:00 3/16/84 16:00:00 33
 FUNC. DESCRIPTION: CEMNT SPRAY PP #2
 PROBLEM DESCRIPTION: OIL SAMPLING
 WORK_DONE DESCRIPTION: DRAINED OIL FROM PLUGS IN UPPER & LOWER SIGHT GLASSES ON MOTON INTO 300Z WIDE MOUTH SAMPLE BOTTLES. MARKED BOTTLES ACCORDINGLY. REFILLED WITH CHEV GST 46 OIL TO PROPER LEVEL.

3 BKA 3F70348-2 8371356 PM 01/19/84 07:30:00 02/13/84 16:00:00 225
 FUNC. DESCRIPTION: CEMNT SPRAY PP DI: FLOW
 PROBLEM DESCRIPTION: IN NO CALIB
 WORK_DONE DESCRIPTION: COMPLETED AMO PER S023-II-9-516

3 BKA 8400155 PM 01/09/84 07:30:00 02/11/84 16:00:00 537
 FUNC. DESCRIPTION: CONT SPRAY CHEN FLOW CONT VLV
 PROBLEM DESCRIPTION: PERIODIC ROUTINE MAINTENANCE
 WORK_DONE DESCRIPTION: CALIBRATED CONTROLS ASSOCIATED WITH S0V-316 AS PER APPLICABLE PROCEDURES.

3 BKA 3LV03492 84003019 PM 02/08/84 07:00:00 02/19/84 16:00:00 273
 FUNC. DESCRIPTION: CEMNT SPRAY CHEN STORAGE LVL
 PROBLEM DESCRIPTION: IN MATH CALIB
 WORK_DONE DESCRIPTION: CALIBRATED INSTRUMENTS AS PER S023-II-9-516 REV 10A.

3 BKA 3T103-1/2 84003019 PM 02/08/84 07:30:00 02/14/84 16:00:00 153
 FUNC. DESCRIPTION: SOC HEAT EXG TEMPERATURE LOOPS
 PROBLEM DESCRIPTION: IS 90TH CALIBRATION
 WORK_DONE DESCRIPTION: JC 340 CALLS ON INDIVIDUAL INSTRUMENTS AND REQUIRED THAT WE CONTACT JC WHEN WE WERE READY TO DO THE LOOPS. CALIBRATED IV-303-1 PER S023-II-9-125 REV 4, TCN 18 IAW 84003019. CALIBRATED II-303-1 PER S023-II-9-7 REV 5 IAW 84003019. CALIBRATED TR-303-1 PER S023-II-7-1 REV 4 IAW 84003019.

3 BKA 53104ES4033 8400373 PM 06/17/84 07:30:00 06/20/84 16:00:00 21
 FUNC. DESCRIPTION: CEMNT SPRAY PUMP P012 RKE
 PROBLEM DESCRIPTION: CLEAN INSPECT LUHE AND ADJUST RKE

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 RKA 3MP021 8403286 PM 04/22/84 04:00:00 04/22/84 04:00:00 4

FUNC. DESCRIPTION: SPRAY CHEM ADD PMP
 PROBLEM DESCRIPTION: INSPECT/LUBE
 WORK_DONE DESCRIPTION: INSPECTED OIL LEVEL. OIL LEVEL WAS SATISFACTORY. CHECKED EQUIPMENT FOR OIL LEAKS. NO TEST RUN REQUIRES PER OPERATIONS.

3 RKA MF021 84040842 PM 07/21/84 07:30:00 07/25/84 16:00:00 196

FUNC. DESCRIPTION: SPRAY CHEM ADD PPP
 PROBLEM DESCRIPTION: LUBE COUPLING
 WORK_DONE DESCRIPTION: REMOVED COUPLING GUARD. REMOVED GREASE PLUG AND APPLIED GREASE WITH HAND OPERATED GREASE GUN UNTIL CLEAN GREASE APPEARED AT JETER HOLE. REPLACED GREASE PLUG. WIPED OFF EXCESS GREASE. INSTALLED COUPLING GUARD.

3 RKA 53100M020 8407087 PM 08/07/84 07:30:00 08/11/84 15:00:00 57

FUNC. DESCRIPTION: SPRAY CHEM ADD P-JMP
 PROBLEM DESCRIPTION: LUBE INSP
 WORK_DONE DESCRIPTION: CHECKED OIL LEVEL. ADDED APPROXIMATELY 30Z TO CHECKED FLEDER.

3 RKA 3PT0303-1 8407205 PM 07/29/84 07:30:00 07/29/84 15:00:00 9

FUNC. DESCRIPTION: S43 COOLING MTR #1 INLET
 PROBLEM DESCRIPTION: RECALIBRATE
 WORK_DONE DESCRIPTION: ISOLATED 3PT-0303-1. VERIFIED IN CALIBRATION. FILLED AND VENTED 3PT-0303-1.

3 RKA MP013 84080743 PM 08/07/84 08:00:00 08/07/84 04:00:00 5

FUNC. DESCRIPTION: CONTINUT SPRAY PUMP NO 2
 PROBLEM DESCRIPTION: CHANGE OIL 1AW 5023-1-5-12
 WORK_DONE DESCRIPTION: REPLACEMENT LUBE OIL FROM RIP-P-301-P3. CHANGED OIL IN UPPER/LOWER BEARING CHANNELS.

3 RKA 3P021 84080743 PM 08/07/84 07:30:00 08/31/84 16:00:00 53

FUNC. DESCRIPTION: SPRAY CHEM ADD/CHECK MLVLS
 PROBLEM DESCRIPTION: ISI SP021/RELATED CHECK VALVES

3 RKA 3P012 84072108 PM 07/21/84 07:30:00 07/18/84 16:00:00 9

FUNC. DESCRIPTION: CONTINUT SPRAY PUMP
 PROBLEM DESCRIPTION: ISI TESTING

TESTS

UNIT SYSTEM	EQUIPMENT - I.D.	M.O. NUMBER	TYPE	START-DATE	START-TIME	COMP.-DATE	COMP.-TIME	DURATION (IN HOURS)
3	BKA 3P021 FUNC. DESCRIPTION: SPRAY CHEMICAL ADDITION PUMP PROBLEM DESCRIPTION: ISI PUMP AND DISCHARGE CHECK VALVE	SV		07/20/64	07:30:00	07/20/64	16:00:00	9
3	BKA 3P020 FUNC. DESCRIPTION: SPRAY CHEM ADDITION PUMP PROBLEM DESCRIPTION: ISI PUMP AND DISCHARGE CHECK VALVE	SV		07/20/64	07:30:00	07/20/64	16:00:00	9
3	BKA 3M012 FUNC. DESCRIPTION: CONT. SPRAY PUMP 3M012 PROBLEM DESCRIPTION: PERFORM ISI OF PUMP AND ASSOC CHECK VALVES	SV		08/07/64	07:30:00	08/07/64	16:00:00	9
3	BKA 3P012 FUNC. DESCRIPTION: CONTAINMENT SPRAY PUMP PROBLEM DESCRIPTION: PERFORM ISI OF PUMP	SV		09/20/64	07:30:00	09/20/64	16:00:00	13
3	BKA 3P021 FUNC. DESCRIPTION: SPRAY CHEM ADD PROBLEM DESCRIPTION: T/SERVICE INSPECTION	SV		02/07/64	07:30:00	02/07/64	16:00:00	57
3	BKA 3P021 FUNC. DESCRIPTION: SPRAY CHEM ADD PUMP PROBLEM DESCRIPTION: PERFORM ISI TEST ON PUMP & RELATED CHK VLVS	SV		01/08/64	07:30:00	03/22/64	16:00:00	1324
3	BKA 3P013 FUNC. DESCRIPTION: CONT. SPRAY PMP & CK VLVS PROBLEM DESCRIPTION: ISI	SV		03/26/64	07:30:00	03/29/64	16:00:00	57
3	BKA 3P012 FUNC. DESCRIPTION: CONT. SPRAY & CHK VLVS PROBLEM DESCRIPTION: ISI	SV		04/05/64	07:30:00	04/27/64	16:00:00	205
3	BKA 3P020 FUNC. DESCRIPTION: SPRAY CHEM ADD PUMP PROBLEM DESCRIPTION: ISI TESTING	SV		04/13/64	07:30:00	04/13/64	16:00:00	153

SAN ONOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 14, 1975 67

TESTS

 UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 BKA 3P013 SV 07/08/74 07:30:00 07/10/74 16:00:00 57
 FUNC. DESCRIPTION: CNTMNT SPRAY
 PROBLEM DESCRIPTION: ISI TESTING

3 BKA 3P013 SV 09/29/74 07:30:00 09/29/74 16:00:00 9
 FUNC. DESCRIPTION: CONTAINMENT SPRAY PUMP
 PROBLEM DESCRIPTION: PERFORM ISI OF PUMP PER S023-IV-3.46

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MD FOR SYSTEM BKA IS : 38

SV : 13 ==> 34.2 %

CM : 7 ==> 18.4 %

PM : 11 ==> 28.9 %

DCP: 7 ==> 18.4 %

SYSTEM-DURATION : 7351 HRS UNIT-DURATION : 47039 HRS ==> 15.6 %
.....

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 KJA 6002 84000221 CM 01/25/84 16:00:00 02/07/84 16:00:00 312
 FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHANGE VIBRATION DAMPER AND CLEAN CRANKCASE.
 WORK_DONE DESCRIPTION: CHANGED DAMPER IN ACCORDANCE WITH PROCEDURE.

3 KJA 3MV5931A 84000270 CM 03/10/84 07:30:04 03/15/84 16:00:00 153
 FUNC. DESCRIPTION: DIESEL GENERATOR AIRSTARTER
 PROBLEM DESCRIPTION: INSTALL NEW AIR START VALVE

3 KJA 6002 84000276 CM 01/25/84 07:30:00 02/07/84 16:00:00 321
 FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHANGE VIBRATION DAMPNER AND CLEAN CRANKCASE.
 WORK_DONE DESCRIPTION: CLEANED Y STRAINER.
 REPLACED ENTIRE AIR RELAY VALVE ASSEMBLY. COMPLETED LEAK TEST.

3 KJA 3MV5931C 84003000 CM 02/07/84 07:30:00 02/07/84 12:00:00 6
 FUNC. DESCRIPTION: 36002 AIR START CMPSRS
 PROBLEM DESCRIPTION: WILL NOT CHARGE RECEIVER/PWRK VLV
 WORK_DONE DESCRIPTION: DISASSEMBLED AIR START VALVE. CLEANED & INSPECTED PARTS. DEBURRED & POLISHED PARTS. LUBED O RINGS & REASSEMBLED VALVE. READY FOR TEST.
 TEST VALVE. HAD SOME LEAKAGE. DISASSEMBLED & INSPECTED. REASSEMBLED MAKING SURE VALVE STEM (WHICH HAS A SEPARATE SEAT ON TOP OF MAIN SEAT) WAS PUSHED DOWN TIGHT. RETEST & CHECKED 9000.

3 KJA 3LI6076002 84003559 CM 04/05/84 07:30:00 05/04/84 16:00:00 225
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: REMOVED ANNUNCIATOR CIRCUIT
 WORK_DONE DESCRIPTION: OBTAINED APPROVAL TO WORK ON PANEL BLISS ANNUNCIATOR. FOUND LOGIC OF PANALARM CARD ON NORMALLY CLOSED CONTACTS. CHANGED TO NORMALLY OPEN CONTACTS AS PER DRAWING 32X24.
 DIESEL BREAKER TRIPPED ALARM.
 OBTAINED APPROVAL TO INVESTIGATE ANNUNCIATOR GROUND ALARM.

3 KJA 3TCH5948A1 84031494 CM 04/07/84 07:30:00 04/15/84 03:00:00 260
 FUNC. DESCRIPTION: 35002 LUR OIL TEMP CONTROL
 PROBLEM DESCRIPTION: REMOVED/RECALIB 3T15945A
 WORK_DONE DESCRIPTION: FOUND 3T15945A INDICATING LBS WHICH VERIFIED PROPER OPERATION OF 3TCH5948A1.
 FOUND 3TCL5968A DEFECTIVE WHICH CAUSED THE LOW TEMPERATURE ALARM.
 OBTAINED REPLACEMENT PARTS AND CALIBRATED PER PROCEDURE 0023-11-9.121.
 INSTALLED SWITCH AND FUNCTIONALLY VERIFIED ALARM.

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 66

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 KJA S32420MC012A 84083463 CM 09/01/84 06:00:00 09/02/84 03:30:00 19

FUNC. DESCRIPTION: DIE GEN AIR START COMP
 PROBLEM DESCRIPTION: RMV LKG COMPR DISCH CK VLV/CLN FLUSH DRY VLV/
 WORK_DONE DESCRIPTION: CHECKED THAT TANK PRESSURE WAS ZERO. REMOVED CHECK
 VALVE FROM AIR COMPRESSOR LINE AND CLEANED AND
 FLUSHED CHECK VALVE. REINSTALLED VALVE BACK IN SYSTEM.
 HAD OPS CHARGE SYSTEM. WHILE CHARGING AIR COMP TANK, CHECKED
 FITTINGS AT VALVE.

3 KJA 3L160 D223J DCP 01/26/84 07:30:00 02/06/84 16:00:00 321

FUNC. DESCRIPTION: DIESEL GEN 36002 CON PNL
 PROBLEM DESCRIPTION: CMLPT TERM & RETEST NEW WIRING AT SWITCH 3HS-E948

3 KJA 3LCH/LSH59331 D289J DCP 01/26/84 07:30:00 02/07/84 16:00:00 297

FUNC. DESCRIPTION: DIESEL DAY TNK T133 TRN "A"
 PROBLEM DESCRIPTION: INSTALL NEW LVL SWITCHES

3 KJA 3TSL5968A/C 84071185 DCP 09/17/84 09:05:00 09/18/84 09:05:00 24

FUNC. DESCRIPTION: 36003 ENGINE MOUNTED INSTRS
 PROBLEM DESCRIPTION: IMPLEMENT FCN S219M/LUBE OIL LOW TEMP ALARM
 WORK_DONE DESCRIPTION: CALIBRATED 3TSL5968A PER S023-II-9.123 REV 2 TCM 3-1 AND HAD DC VERIFICATION.
 3TSL5968A WOULD NOT OPERATE AT SETPOINT OF 85F. (RESET SPAN WAS GREATER THAN
 30F). 3TSL5968A SET TO 85F PER FCN S219M. CALIBRATED NEW SWITCH PER S023-II-9.
 123. REPLACED OLD SWITCH WITH NEW SWITCH RSO-0607-84 NCR3-881 3TSL-5968A.

3 KJA 3PDSL9537A 83701750 PM 01/26/84 07:30:00 02/07/84 16:00:00 321

FUNC. DESCRIPTION: DIESEL INSTRUMENTATION
 PROBLEM DESCRIPTION: 18 MONTH CALIBRATION
 WORK_DONE DESCRIPTION: COMPLETED RMO PER S023-II-12.789

3 KJA S32420MC012H 83766779 PM 01/26/84 07:30:00 02/07/84 16:00:00 240

FUNC. DESCRIPTION: D/G AIR START CMPSR PACKAGE
 PROBLEM DESCRIPTION: CHANGE OIL IN DIESEL GEN AIR START COMPRESSORS
 WORK_DONE DESCRIPTION: PERFORMED WORK AS PLANNED.

CAN DUOFRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 12, 1985 67

TEST5

 UNIT-SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 KJA 532420MC012A 83706780 PM 01/28/84 07:30:00 01/29/84 02:15:00 19
 FUNC. DESCRIPTION: D/G AIR START CMRSSR PACKAGE
 PROBLEM DESCRIPTION: CHG OIL IN D/G AIR START COMPRESSORS
 WORK_DONE DESCRIPTION: PERFORMED WORK AS PLANNED.

3 KJA 3G002 83707754 PM 01/25/84 07:30:00 02/07/84 16:00:00 321
 FUNC. DESCRIPTION: DSL GENERATOR
 PROBLEM DESCRIPTION: CHANGE VIBRATION DMPR/CLN CRK CASE OIL SMP

3 KJA 3PCHH5927A1 83711607 PM 02/04/84 15:00:00 02/07/84 16:00:00 73
 FUNC. DESCRIPTION: 3G002 ENGINE MOUNTED
 PROBLEM DESCRIPTION: INSTRUMENTATION 12 HOUR RECAL
 WORK_DONE DESCRIPTION: PERFORMED S023-II-1.5, REV. 2.

3 KJA 3MG002 83715091 PM 01/25/84 07:30:00 02/07/84 16:00:00 321
 FUNC. DESCRIPTION: EMERGENCY DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHANGE OUT OIL TYPE IN AIR START AIR LINE
 WORK_DONE DESCRIPTION: CHANGED OIL AS DIRECTED.

3 KJA 3MG002 84030363 PM 03/14/84 07:30:00 03/15/84 06:30:00 47
 FUNC. DESCRIPTION: ENG MOUNTED INSTRUMENTS
 PROBLEM DESCRIPTION: PERFORM 12 HOUR SKID MOUNTED INSTRUMENT CAL

3 KJA MC012b 84041222 PM 05/16/84 04:00:00 05/16/84 07:00:00 3
 FUNC. DESCRIPTION: DIESEL GEN AIR START COMP
 PROBLEM DESCRIPTION: CHANGE OIL IN COMPRESSOR
 WORK_DONE DESCRIPTION: OBTAINED CLEARANCE. DRAINED OIL FROM COIL. REPLACED PLUG & REFILLED WITH CHEVRON EP150X.

3 KJA 522420M3002 84091659 PM 12/16/84 07:30:00 12/31/84 16:00:00 369
 FUNC. DESCRIPTION: DIESEL GEN
 PROBLEM DESCRIPTION: 18 MO DIESEL GEN INSP

3 KJA 3MG002 84031212 SV 03/15/84 07:30:00 3/15/84 14:15:00 31
 FUNC. DESCRIPTION: TRAIN A FMR DIESEL GEN
 PROBLEM DESCRIPTION: TEST K5 RELAY RESISTANCE/CURRENT LOAD
 WORK_DONE DESCRIPTION: K5 RELAY RESISTANCE AS FOLLOWS:
 SOLENOID A1 & A2 RESISTANCE = 6940HMS
 SOLENOID B1 & B2 RESISTANCE = 6770HMS

SAN ONOFRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 16, 1965 65

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER- TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MO FOR SYSTEM KJA IS : 20

SV : 1 ==> 05.0 %

CM : 7 ==> 35.0 %

PM : 9 ==> 45.0 %

DCP: 3 ==> 15.0 %

SYSTEM-DURATION : 3631 HRS UNIT-DURATION : 47039 HRS ==> 07.6 %
.....

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 18, 1985 49

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 KJB 3HV5931F 84002567 CM 03/10/84 07:30:00 03/10/84 10:00:00 125
 FUNC. DESCRIPTION: DIS GEN 16 CYL--AIR START
 PROBLEM DESCRIPTION: INSTALL NEW AIR START VALVE
 WORK_DONE DESCRIPTION: CLEANED Y STRAINER AS PER INSTRUCTIONS.
 REPLACED ENTIRE AIR RELAY VALVE WITH LIKE VALVE.

3 KJB 3G003 84032034 CM 04/16/84 07:30:00 04/17/84 16:00:00 33
 FUNC. DESCRIPTION: VOLTS PER CYCLE RELAY
 PROBLEM DESCRIPTION: READJ RESET LINKAGE/CAL RELAY/CHG-OUT VOLT BALANC
 WORK_DONE DESCRIPTION: FOUND 159/81 RELAY TARGET IN THE INVERTED POSITION. RESET TARGET TO THE
 PROPER POSITION, VERIFIED OPERATHILITY.

3 KJB 3G003 84000589 DCP 04/16/84 13:00:00 04/17/84 16:00:00 27
 FUNC. DESCRIPTION: DIESEL GEN FOR BKR 3A0513
 PROBLEM DESCRIPTION: INSTL CLOSE LATCH ANT SHOCK SPRING
 WORK_DONE DESCRIPTION: WORKED W.O. ACCORDING TO PROCEDURE & REPLACED SPRING. BREAKER IS NOW READY FOR
 PM.

3 KJB 3G003 83704936 PA 01/10/84 07:30:00 01/21/84 16:00:00 200
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: CHANGE FILTERS
 WORK_DONE DESCRIPTION: CHANGED AUX TURBO FILTERS ON ENG #1 & #2.
 CLEANED LINE Y STRAINERS ON ENGINE #1 & #2.

3 KJB 3G003 84030018 PM 03/01/84 07:30:00 03/01/84 16:00:00 4
 FUNC. DESCRIPTION: DIESEL GENERATOR
 PROBLEM DESCRIPTION: PERFORM PREVENTATIVE MAINTENANCE
 WORK_DONE DESCRIPTION: CALIBRATED 3PSLL-5926, 3PSLL-59202, 3PSLL-59242 WITH THE EXCEPTION OF THE
 ANNUNCIATOR VERIFICATIONS PER 9023-II-9.12 REV 4 AND CALIBRATED 3PDSH-5998D
 PER 9023-II-9.82 REV 4. A COPY 4/16/84.
 CALIBRATED 3PSLL-592602, 3PSLL-592602, 3PSLL-598403, 3PSH-59010, 3PSL-597102,
 3PSLE987, 3PDSH-59350, 3PDSH-59350, 3PSH-59210, 3PSL-596102, 3PSLE988, &

3 KJB S32420M6003 44030464 PM 04/16/84 07:30:00 04/17/84 16:00:00 33
 FUNC. DESCRIPTION: EMERG DIESEL GENERATOR
 PROBLEM DESCRIPTION: INSTL NEW STRAINER
 WORK_DONE DESCRIPTION: STRAINER NOT REPLACED, CLEANED & RESTORED TO SERVICE UNDER 404-4632200.

SAN ONDRE NUCLEAR GENERATING STATION
 REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 19, 1985 70

TESTS

 UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

3 KJB 3M6003 84032205 PM 04/16/84 07:30:00 04/17/84 16:00:00 33
 FUNC. DESCRIPTION: EMER DIESEL GEN
 PROBLEM DESCRIPTION: REPLACE AUX TURBO-FILTER ELEMENT
 WORK_DONE DESCRIPTION: UPON START UP OF UNIT, THE "Y" STRAINER ON ENGINE #1 LEAKED. THIS WAS DUE TO IMPROPER REINSTALLATION OF COVERS. CORRECTED THE PROBLEM AND CLEANED UP THE OIL SPILL. CHECKED OIL LEVEL AND FOUND IT LOW BUT WITHIN SPEC. OPERATIONS PERFORMED TEST RUN ON THE UNIT. CHECKED OUT OK. ADDED OIL AFTER TEST RUN.

3 KJB 3G003 83709474 SV 01/12/84 09:30:00 01/21/84 16:30:00 223
 FUNC. DESCRIPTION: EMER DIESEL GENERATOR
 PROBLEM DESCRIPTION: 18 MO DIESEL GENERATOR INSPECTION
 WORK_DONE DESCRIPTION: PERFORMED SURVEILLANCE ON BOTH ENGINES 1/12 - 1/13/84 CLEAN OUT OIL PAN ON BOTH ENGINES BECAUSE THE OIL WAS DRAINED. TORQUE ALL AIRBOX AND OIL PAN COVERS. STARTED UNIT UP AND PUT UNDER LOAD ENG. CHECK OUT TO BE OK NO PROBLEM.

3 KJH 3G003 84031216 SV 04/17/84 07:30:00 04/17/84 16:00:00 9
 FUNC. DESCRIPTION: EXCITER FIELD GND ALARM
 PROBLEM DESCRIPTION: INV/CLR EXCITER FIELD GND
 MEGGERED EXCITER FIELD ON 6000-----GREATER THAN 1000 MEGS.
 MEGGERED CONTROL CIRCUIT ON 6003-----GREATER THAN 250 MEGS.
 RAN DIESEL 6/22/84 AT 1202. GROUND RELAY OPERATED PROPERLY.

SAN ONOFRE NUCLEAR GENERATING STATION
REPORT ON EMERGENCY CORE COOLING SYSTEM OUTAGES

14:07 MONDAY, MARCH 19, 1985 71

TESTS

UNIT SYSTEM EQUIPMENT - I.O. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
TOTAL MO FOR SYSTEM KJB IS : 9

SV : 2 ==> 20.0 %

CM : 2 ==> 22.2 %

PM : 4 ==> 44.4 %

DCP: 1 ==> 11.1 %

SYSTEM-DURATION : 719 HRS UNIT-DURATION : 47039 HRS ==> 01.5 %
.....

TESTS

UNIT SYSTEM EQUIPMENT - I.D. M.O. NUMBER TYPE START-DATE START-TIME COMP.-DATE COMP.-TIME DURATION (IN HOURS)

.....
.....

<> TOTAL MO FOR UNIT 3 IS : 188 <>

SV : 34 ==> 16.4 %

CM : 77 ==> 41.0 %

PM : 51 ==> 27.1 %

DCP : 26 ==> 13.8 %

.....
.....