I-MOSBA-206

NUCLEAR REGULATORY COMMISSION

Docket No. 50-424/425-OLA-3 EXHIBIT NO. II-206

In the matter of Ga. Power / Vogtle

☐ Staff ☐ Applicant ☒ Intervenor ☐ Other

☒ Identified ☒ Received ☐ Rejected Reporter

Date 8-9-95 Witness Mosbaugh

DOCKETED USNRC

DOCKETED USNRC

NORMS

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NUCLEAR PLANT MAINTENANCE WORK ORDER

OFFICE OF SECRETARY DOCKETING & SERVICE

ORIGINAL

1. CONTROL NO. 19001629 00 2. DATE 03/29/90 3. UNIT 1 4. SYSTEM LIST
5. MPL/TAG NO. LIST
6. PROB/ WORK REQ. DUE TO INCONSISTANCIES FOUND IN CALIBRATION OF THESE TEMPERATURE SWITCHES, CALIBRATION SHOULD BE REPERFORMED. 5A. REPAIR TAG
CONT. N

7. INITIATOR KEN STOKES 8. SUPRV KEN STOKES LOC LIST
9. MWO CLASS 2 EOP CLASS LIST 10. UNIT STAT JR2 11. FIRE PROTECT NO
12. DCR N 1-90-0152 13. NCR/DR N 90-152 14. TYPE MAINT P 15. DURATION
16. CRAFT MECH(EST/ACT) ELEC(EST/ACT) I&C(EST/ACT) CONT(EST/ACT) HP/OT(EST/ACT)
CREW 0 0 2 0 0
HRS.
EXP.
SCHED BEG
SCHED END
RESP FOREMAN
17. CLR Y 1-90-1537-1 18. WELD PERM N RWP PERM N
19. QC HOLD POINT ATTACHED QC 22332-C
QC REVIEWED BY [signature] 3/29/90 21. PRI 14 22. LCO 1-90-1513 T.S. 3.8.1.1/2
23. WORK INST. CALIBRATE 1TSH-19146 HIGH TEMP LUBE OIL, 1TSH-19110 (E-16C) HIGH TEMP. J.W, 1TSH-19111 (E-16A) AND 1TSH-19112 BOTH HIGH TEMP J.W
CONT. Y

24. INITIATE REVIEW
OPS JCP DATE 3/29/90 MNT [initials] DATE 3/29/90 25. SPEC REV REQ N
HP [initials] DATE 3/29/90 ENG [initials] DATE 3/29/90 26. WRO RELEASE FOR WORK SIG. [signature] DATE 3/29/90
27. ACT WORK PERFRMED Removed temp sw from D/G to check cal in I&C shop. Found correct. Missing an top cover on temp sw 1TSH-19110, 1TSH-19111 & 1TSH-19112. Started checking cal on 1TSH-19112 as per 22332-C and per vendor dir. Maintain [illegible] [illegible] 3-29-90
CONT. N
HIST SUM
28. MTRL REQD MCR# 90-6057, 90-6058
29. PERSON PERFORMING WORK(NAME) DATE 30. MAINTENANCE FOREMAN DATE
W.H. [illegible] 3/29/90 [signature] 3/30/90
31. INSPECTION PERFORMED BY [signature] DATE 3/29/90
32. METHOD OF P.T. None Required due to type of work performed [illegible]
33. PROCEDURE # N/A 34. PERFORMED BY N/A 35. DATE N/A
36. PROVES OPERABILITY Y 37. METHOD USED TO PROVE OPERABILITY [illegible]
38. SATISFY./UNSATISFY. S 39. IF UNSAT. CORR. ACTION N/A
40. UNIT STATUS AT TIME OF FAILURE N 41. TYPE FAIL N 42. MODE OF FAIL N
43. CAUSE OF FAILURE N 44. DETECT BY N 45. EFFECT ON SYS N
46. EFF ON PLANT N 47. MWO STAT 6D 48. CAUSE N 49. CORR ACT. N
50. NEW MWO NA 51. OPER. ACCEPT BY [signature] DATE 3/30/90
52. OSOS APPROVAL N/A DATE N/A
53. SPEC REV COMP N/A DATE N/A 54. MEET. # N/A DATE N/A
55. CLOSE OUT APPROVAL BY QC [signature] 4-3-90

A TRAIN

JCP 3/27/91

I-MOSBA-206

NORMS

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NUCLEAR PLANT MAINTENANCE WORK ORDER (1 OF 3)

1. CONTROL NO. 19001629 00 2. DATE 03/29/90 3. UNIT 1 4. SYSTEM LIST
5. MPL/TAG NO. LIST 5A. REPAIR TAG
6. PROB/WORK REQ. DUE TO INCONSISTANCIES FOUND IN CALIBRATION OF THESE TEMPERATURE SWITCHES, CALIBRATION SHOULD BE REPERFORMED.

CONT. N

ORIGINAL

7. INITIATOR KEN STOKES 8. SUPRV KEN STOKES LOC LIST
9. MWO CLASS B EQP CLASS LIST 10. UNIT STAT 1R2 11. FIRE PROTECT NO
12. DCR N 1-90-0152 13. NCR/DR N 90-152 14. TYPE MAINT P 15. DURATION 8
16. CRAFT MECH(EST/ACT) ELEC(EST/ACT) I&C(EST/ACT) CONT(EST/ACT) HP/OT(EST/ACT)

	MECH	ELEC	I&C	CONT	HP/OT
CREW	0	0	2	0	0
HRS.					
EXP.	0	0	160 / 34	0	0
SCHED BEG	/ /	/ /	/ /	/ /	/ /
SCHED END	/ /	/ /	/ /	/ /	/ /
RESP FOREMAN					

17. CLR Y 9000377 18. WELD PERM N RWP PERM N
19. QC HOLD PNTS AT 22332-C
QC REVIEWED BY [signature] 3/29/90 21. PRI 16 22. LCO 1900213 T.S. 3.8.1.1/2
23. WORK INST.

CALIBRATE 1TSH-19146 HIGH TEMP LUBE OIL, 1TSH-19110 (E-16C) HIGH TEMP. J.W, 1TSH-19111 (E-16A) AND 1TSH-19112 BOTH HIGH TEMP J.W

CONT. Y

24. INITIATE REVIEW 25. SPEC REV REQ N
OPS JCP DATE 3/29/90 MNT DHG DATE 3/29/90 26. MWO RELEASE FOR WORK
HP [initials] DATE 3/29/90 ENG [initials] DATE 3/29/90 SIG. [signature] DATE 3/29/90
27. ACT WORK PERFRMED Removed temp sw from D/G 1A to check cal in I&C shop. Found contact missing on top cover on temp sw 1TSH-19110, 1TSH-19111 & 1TSH-19112. Started checking cal on 1TSH-19112 as per 22332-C and per vendor dir. Maintain [illegible] W. Cleveland WHF 3-30-90

CONT. N

HIST SUM
28. MTRL REQD MCR# 90-6067, 90-6511
29. PERSON PERFORMING WORK(NAME) DATE 30. MAINTENANCE FOREMAN DATE
W. H. [signature] 3/30/90 [signature] 3/30/90
31. INSPECTION PERFORMED BY [signature] DATE 3/30/90
32. METHOD OF P.T. None Required due to type of work performed [illegible]
33. PROCEDURE # N/A 34. PERFORMED BY N/A 35. DATE N/A
36. PROVES OPERABILITY N/A 37. METHOD USED TO PROVE OPERABILITY N/A
38. SATISFY./UNSATISFY. N/A 39. IF UNSAT. CORR. ACTION N/A
40. UNIT STATUS AT TIME OF FAILURE N 41. TYPE FAIL 42. MODE OF FAIL
43. CAUSE OF FAILURE 44. DETECT BY N/A 45. EFFECT ON SYS N
46. EFF ON PLANT N 47. MWO STAT 6D 48. CAUSE 49. CORR ACT. N
50. NEW MWO NA 51. OPER. ACCEPT BY [signature] DATE 3/30/90
52. OSOS APPROVAL N/A N/A
53. SPEC REV COMP N/A DATE N/A DATE [illegible]
55. CLOSE OUT APPROVAL BY QC [signature] 4-3-90 54. MEET. # N/A DATE N/A

A TRAIN

JCP 3/27/91

VEGP FIRE PROTECTION CHECKLIST

1. MWO NO. 19501621 2. MPL/TAG NO. LIST
3. LOCATION DG TRN A

4. WILL THE WORK INSTALL, IMPAIR, MODIFY, ISOLATE, DEFEAT, OR REMOVE ANY OF THE FOLLOWING? IF THE ANSWER IS "YES" CHECK THE BOX, AND INDICATE APPROPRIATE DETAILS.

( ) SPRINKLER SYSTEM
( ) INTERIOR HOSE STATION
( ) HALON SYSTEM
( ) DETECTION SYSTEM
( ) EMERGENCY LIGHTING SYSTEM
( ) PERMANENT COMBUSTIBLES (CABLE, WOOD, PLASTIC, ETC.)
( ) STRUCTURAL STEEL, OR RACEWAY FIREPROOFING
( ) FIRE SUPPRESSION SUPPLY SYSTEM (PUMPS, TANKS, ETC.)
( ) CONDUIT SEALS OR EQUIPMENT ENCLOSURE (CABINET HOUSING)
( ) FIRE EXTINGUISHER
( ) COMMUNICATIONS SYSTEM
( ) RCP OIL COLLECTION SYSTEM
( ) SEISMIC STANDPIPE SYSTEM

5. WILL THE WORK DEFEAT, MODIFY OR IMPAIR ANY OF THE FOLLOWING FIRE SEPARATION FEATURES? IF THE ANSWER IS "YES" CHECK THE BOX, AND INDICATE APPROPRIATE DETAILS.

( ) A. FIRE AREA BOUNDARY (WALL, ETC.)
( ) B. PASSIVE AREA BOUNDARY PENETRATION SEAL ASSEMBLY.
PENETRATION SEAL
WALL BLOCKOUT
FLOOR PLUG OR HATCH
CABLE TRAY OR CONDUIT WRAP
RADIANT ENERGY SHIELD
( ) C. ACTIVE FIRE AREA BOUNDARY PENETRATION SEAL.
FIRE DOOR
FIRE DAMPER

6. IF ALL THE ANSWERS IN BLOCKS 4 and 5 ARE "NO", STOP THE EVALUATION HERE, AND ENTER "NO" IN BLOCK 11 OF THE MWO FORM.
IF ANY QUESTIONS WERE ANSWERED "YES", ENTER "YES" IN BLOCK 11 OF THE MWO FORM.
EVALUATOR M Stedman DATE 3/29/90

POST WORK REVIEW (COMPLETE "A, B, OR C" BELOW)

(A) THE CONDITION IMPACTING THE FIRE PROTECTION COMPONENTS LISTED ABOVE HAS BEEN REMOVED. FPE _____ DATE _____

N/A

(B) THE FIRE PROTECTION COMPONENT IS STILL IMPAIRED.
FPE _____ DATE _____

(C) RESTORATION OF THE IMPAIRMENT HAS BEEN TRANSFERRED (Ref: _____) AND THE FIRE PROTECTION LCO LOG HAS BEEN CHANGED TO REFERENCE THE NEW MWO FOR THIS IMPAIRMENT. FPE _____ DATE _____

FIGURE 1

Material/Equipment Request—NUCLEAR OPERATIONS
VOGTLE ELECTRIC GENERATING PLANT

NON-Q

COPY 2

Department/Contractor	Design Change No.	Date	No.
I & C		3-30-90	[illegible]006088

Description/Tag	Stock Number	Location	Quantity Ord.	Quantity Filled	Quantity U/M	P.O. No.	MIR No.	Maint. Work Order	Unit	Account Number	Resp. Center	Acty. Code
SENSOR PN-63565	59070-0008143	C-19-U	1-	1	Ca	G-81 54979	N/A	1900 1629	1	8251-531-027	0212	5901

Ordered By	Approved By	Filled By	Received By	Date
Phillip Lively	Phillip Lively	[illegible]	[illegible]	3-30-90

Material/Equipment Request—NUCLEAR OPERATIONS
VOGTLE ELECTRIC GENERATING PLANT

"Q" Rel 3-29-90

COPY 2

Department/Contractor	Design Change No.	Date	Stores Register No.
I&C/Wisco		3-29-90	W[illegible]0068

Description/Tag	Stock Number	Location	Quantity Ord.	Quantity Filled	Quantity Unit	P.O. No.	M&R No.	Maint. Work Order	Unit	Account Number	Resp. Center	Activ. Code
KIT, REPAIR 77373	7200-00026640	0-70-C-10	2	2	ea	DPAC 25935	821 1441	1900 1629	1	8251-531-027	0212	5V01

Originated By: Phillip Lindsey
Approved By: Phillip Lindsey
Filled By: S. Bell
Received By: [signature]
Date: 3-29-90

1/1

EQ EVALUATION CHECKLIST

FOR USE ON PROJECT CLASSES Q111, Q212, Q313, Q013, Q015, Q11E, Q11J, Q12E, 61J

MWO NO. 19001629

SECTION I

PART A ORIGINAL PART		PART B REPLACEMENT PART	
1. DESCRIPTION	Temp. Sw.	1. DESCRIPTION	REPAIR KIT (GASKETS)
2. TAG NO.	1TS11-19110, -19111, & -19112	2. MER NO.	6068
3. PROJECT CLASS	Q11J	3. STOCK NO.	2920-00-266468
4. SPECIFICATION (EQDP) NO.	XWA601	4. SPECIFICATION (EQDP) NO.	XWA601
5. MANUFACTURER	DELAVAL	5. MANUFACTURER	DELAVAL
6. MODEL NO.	NA	6. MODEL NO.	NA
7. PART NO.		7. PART NO.	ES7333001
		8. PO NO.	2-25935

COMMENTS: PURCHASED FOR DG TEMP SWITCHES

SECTION II WORK PLANNING

1. ARE PROCEDURES, VENDOR MANUALS, DRAWINGS OR INSTRUCTIONS AVAILABLE TO DISASSEMBLE/REWORK COMPONENT? — ✓ YES ___ NO
   (Init. 13-29-90 Date)
2. ARE SPECIFICATION NUMBERS FOR ORIGINAL AND REPLACEMENT ITEMS THE SAME? ✓ YES ___ NO
3. ARE MANUFACTURER MODEL/PART NUMBERS OF THE ORIGINAL AND REPLACEMENT PARTS THE SAME? NA YES ___ NO
4. IS BULK MATERIAL LISTED ON ATTACHMENT ACCEPTABLE? LIST ITEM NO. FROM ATTACHMENT IF "NO" IS CHECKED. NA (Item No.) NA YES ___ NO
   (Init. Date)

NOTE

If items 2, 3, or 4 are checked No, the Checklist must be reviewed by the EQ Group.

[✓] PART(S) ARE ACCEPTABLE FOR USE
[ ] SEND TO EQ GROUP

WPS 13-31-90
WPS DATE

SECTION III EQ GROUP EVALUATION

[ ] PART IS ACCEPTABLE FOR USE [ ] PART IS UNACCEPTABLE FOR USE

JUSTIFICATION FOR ACCEPTANCE:

EQ ENGINEER DATE

PE5468

COMPLETION SHEET

PROCEDURE TITLE TEMPERATURE SWITCH CALIBRATION

TIME TEST STARTED 16:20 BY W.H. [illegible] DATE 3-29-90

DEFICIENCIES OCCURRED AND ACTIONS TAKEN

Switch did not operate correctly once trip point was reach Rev. MWO to change Temp Sw. changed switc

TEST RESULTS: ACCEPTABLE [ ] UNACCEPTABLE [✓]

TEMPERATURE SWITCH RESTORED TO SERVICE [ ]

TEMPERATURE SWITCH COMMITTED TO REPAIR [✓]

TEST COMPLETED BY W.H. [illegible] TIME 13:00 DATE 3-30-90

SHIFT SUPERVISOR NOTIFIED [signature] 1344 3/30/90
Signature Time Date

REVIEWED BY: Billy J. McLeroy DATE: 3-30-90

APPROVED BY: [signature] DATE: 3-30-90

Sheet 1 of 1

CHECKLIST

3.1	Shift Supervisor Authorization	Signature [illegible] Date 1/29/96
3.2	Reactor Operator (RO) Notified	Signature [illegible] Date 1/29/96

STEP VERIFICATION

Step/Substep		Initial	Step/Substep		Initial
3.4	Prerequisites met	JR	4.4.4	Isolation valve open	N/A
4.2.2	Leads disconnected	N/A	4.4.5	Reflects plant conditions	N/A
4.2.2	Independent Verification	N/A			
4.4.1	Test equipment removed	WHT			
4.4.2	Element installed	N/A			
4.4.3	Leads connected	↓			

RESTORATION VERIFICATION

		Initial		Initial
1.	Element installed	N/A	3. Isolation valve open	N/A
2.	Leads connected	↓		

Performed by: W.H. [illegible] Date 3-30-96

Reviewed by: [illegible] Date 3-30-96

CALCULATION SHEET

Show all calculations performed during course of this procedure in the space below.

Completed by: _____ Date: _____

Reviewed by: _____ Date: _____

Approved by: _____ Date: _____

FOR USE WITH CONTROL NO. 19001629

Procedure No.	Revision	Page No.
VEGP : 22332-C	2	7 of 10

Sheet 1 of 1

DATA SHEET

Inst. No. 1TSH-19146 Location 1D/G 1A Lobe it Serial No. NONE

Description Temperature Switch Manufacturer CALCON Model No. A3500-W3

NOTES: N/A

Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped	°F	200.=	196.c	204.0	190.4	*
Switch Reset	↓	190.0	186.0	194.0	188.0	-
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped					N/A	
Switch Reset						

COMMENTS: Used Orfice size .028 - IC-706 ACC - RER # 88-0707

TEST EQUIPMENT

I.D. NO.	MODEL NO.	CALIBRATION DUE DATE
VP-3001	Fluke 2175A	4-29-90
VP-2619	Permacal	6-2-90
Orifice .028	IC-706	
		N/A
N/A		

Orifice (028) used on IC-706

* NO As LEFT DATA WAS TAKEN. BECAUSE switch is bad. - APPEARED TO HANG AS IT TRIPPED.

PERFORMED BY: W H. Tuttle DATE: 3-30-90

REVIEWED BY: Billy Mooney DATE: 3-30-90

APPROVED BY: [signature] DATE: 3-30-90

PROCEDURE NO.	REVISION	PAGE NO.
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Sheet 1 of 1

COMPLETION SHEET

PROCEDURE TITLE TEMPERATURE SWITCH CALIBRATION

TIME TEST STARTED 09:04 BY W.H. Brooks DATE 3-30-90

DEFICIENCIES OCCURRED AND ACTIONS TAKEN

NONE

TEST RESULTS: ACCEPTABLE [✓] UNACCEPTABLE [ ]

TEMPERATURE SWITCH RESTORED TO SERVICE [✓]

TEMPERATURE SWITCH COMMITTED TO REPAIR [ ]

TEST COMPLETED BY W.H. Brooks TIME 10:20 DATE 3-30-90

SHIFT SUPERVISOR NOTIFIED _____ 1345 3/30/90
Signature Time Date

REVIEWED BY: Gilbert J. McInerney DATE: 3-30-90

APPROVED BY: Jerry Faulkner DATE: 3-30-90

PE3405

Sheet 1 of 1

CHECKLIST

3.1	Shift Supervisor Authorization	[signature] Signature	3/30/90 Date
3.2	Reactor Operator (RO) Notified	[signature] Signature	3/30/90 Date

STEP VERIFICATION

Step/Substep		Initial	Step/Substep		Initial
3.4	Prerequisites met	WHT	4.4.4	Isolation valve open	N/A
4.2.2	Leads disconnected	N/A	4.4.5	Reflects plant conditions	WHT
4.2.2	Independent Verification	N/A			
4.4.1	Test equipment removed	WHT			
4.4.2	Element installed	WHT			
4.4.3	Leads connected	N/A			

RESTORATION VERIFICATION

		Initial			Initial
1.	Element installed	[signature]	3.	Isolation valve open	N/A
2.	Leads connected	N/A			

Performed by: W.H. [illegible] Date 7-30-90

Reviewed by: [signature] Date 7-30-90

CALCULATION SHEET

Show all calculations performed during course of this procedure in the space below.

$T_1 = 201.0$ $T_2 = 200.7$ $T_3 = 202.1$

$R_1 = 195.7$ $R_2 = 196.1$ $R_3 = 196.8$

TRIP POINT

$T_1 + T_2 + T_3 = T_T$

$T_T = 603.8$

AS LEFT IS $T_T \div 3$

AS LEFT = 201.27

AS FOUND = 201.27

RESET POINT

$R_1 + R_2 + R_3 = R_T$

$R_T = 588.6$

AS LEFT IS $R_T \div 3$

AS LEFT = 196.2

AS FOUND = 196.2

Completed by: W.H. Smith Date: 7-30-96

Reviewed by: Billy G. Phillips Date: 7-30-96

Approved by: Craig Fields Date: 7-30-96

MWO # 1900629

Procedure No.	Revision	Page No.
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Sheet 1 of 1

DATA SHEET

Inst. No. 1-TSH-19146 Location 10/G-A Serial No. NONE

Description Temperature Switch Manufacturer CALCON Model No. A-3500-W3

NOTES: N/A

Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped	°F	200.0	196.0	204.0	201.27	201.27
Switch Reset	↓	190.2	186.2	194.0	196.20	196.20
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped					N/A	
Switch Reset						

COMMENTS: USCO ORIFICE S.N. 0.028 IC-712 ACC. - RCR # 88-0707

TEST EQUIPMENT

I.D. NO.	MODEL NO.	CALIBRATION DUE DATE
VP 3093	2175A	5-14-90
VP 2567	0-100 PSI	4-30-90
		N/A

The AS FOUND AS LEFT DATA IS AN AVERAGE OF the three TRIP & RESET cycles PER RCR # 88-0707

PERFORMED BY: W.H. Tuck DATE: 3-30-90

REVIEWED BY: Billy J. McLeroy DATE: 3-30-90

APPROVED BY: Greg Bullock DATE: 3-30-90

Sheet 1 of 1

COMPLETION SHEET

PROCEDURE TITLE TEMPERATURE SWITCH CALIBRATION

TIME TEST STARTED 16:20 BY W.A. Tinker DATE 3-29-90

DEFICIENCIES OCCURRED AND ACTIONS TAKEN

As-found data out of tolerance

a small amount of leakage was present at the vent port with process temp >20°F below setpoint. This did not appear to affect calibration per step 5 of attachment 1 of AWO # 19901620. System eng. and/or vendor will determine the suitability of this switch.

Talk with vendor and he said a small amount of leakage at the vent port would not cause any problem with the diesel control sys as long as the desired press is held.

TEST RESULTS: ACCEPTABLE [✓] UNACCEPTABLE [ ]

TEMPERATURE SWITCH RESTORED TO SERVICE [✓]

TEMPERATURE SWITCH COMMITTED TO REPAIR [ ]

TEST COMPLETED BY [signature] TIME 0930 CST DATE 3/29/90

SHIFT SUPERVISOR NOTIFIED [signature] (Signature) 1745 (Time) 3/29/90 (Date)

REVIEWED BY: Billy G. McCleary DATE: 3-30-90

APPROVED BY [signature] DATE: 3-30-90

PC3409

Sheet 1 of 1

CHECKLIST

3.1 Shift Supervisor Authorization — Signature — Date 3/29/90

3.2 Reactor Operator (RO) Notified — Signature — Date 3/29/90

STEP VERIFICATION

Step/Substep		Initial	Step/Substep		Initial
3.4	Prerequisites met	WHF	4.4.4	Isolation valve open	N/A
4.2.2	Leads disconnected	N/A	4.4.5	Reflects plant conditions	N
4.2.2	Independent Verification	N/A			
4.4.1	Test equipment removed	N			
4.4.2	Element installed	N			
4.4.3	Leads connected	N/A			

RESTORATION VERIFICATION

		Initial			Initial
1.	Element installed	QR	3.	Isolation valve open	N/A
2.	Leads connected	N/A			

Performed by: — Date 3-30-90

Reviewed by: — Date 3-30-90

CALCULATION SHEET

Show all calculations performed during course of this procedure in the space below.

$T_1 - 199.1$ $T_2 - 200.1$ $T_3 - 200.1$

$R_1 - 195.1$ $R_2 - 196.1$ $R_3 - 195.8$

TRIP POINT

$T_1 + T_2 + T_3 = T_T$

$T_T = 599.6$

As left is $T_T \div 3$

As left = 199.9

RESET

$R_1 + R_2 + R_3 = R_T$

$R_T = 587.0$

As left is $R_T \div 3$

As left = 195.7

Completed by: [signature] Date: 7/30/90

Reviewed by: [signature] Date: 7-30-90

Approved by: [signature] Date: 7-30-90

FOR USE WITH CONTROL NO. 19001629

Procedure No.	Revision	Page No.
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Sheet 1 of 1

DATA SHEET

Inst. No. [redacted] Location DG-1A Jacket water Serial No. NONE

Description Temperature Switch Manufacturer CALCON Model No. A-350-W3

NOTES: N/A

Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped	°F	200.0	196.0	204.0	186.2	199.9
Switch Reset	↓	190°F	↓	*	181.6	195.7
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						

COMMENTS: * Reset - tobe ≤ 10°F of setpoint - per RER 98-707 Acc. ## 3-27-98 RER # 98-0707 I.R. 34173 T.W. 5-30-90 see wks on IR

Orifice .029" IC 711
Setpoint - 1X4AK01-443
The as-found as-left data is an average of three trip/reset cycles per attachment-1 and RER 98-707 see calculation sheet

TEST EQUIPMENT		
I.D. NO.	MODEL NO.	CALIBRATION DUE DATE
VP 3093	2175A	5-14-90
VP 2703	0-100	4-11-90
	n/a	

PERFORMED BY: [signature] DATE: 3/30/90

REVIEWED BY: [signature] DATE: 7-30-98

APPROVED BY: [signature] DATE 3-30-98

Sheet 1 of 1

COMPLETION SHEET

PROCEDURE TITLE TEMPERATURE SWITCH CALIBRATION

TIME TEST STARTED 00:30 BY James Oakley DATE 3/30/90

DEFICIENCIES OCCURRED AND ACTIONS TAKEN

NONE

TEST RESULTS: ACCEPTABLE [X] UNACCEPTABLE [ ]

TEMPERATURE SWITCH RESTORED TO SERVICE [✓]

TEMPERATURE SWITCH COMMITTED TO REPAIR [ ]

TEST COMPLETED BY J. Reaves TIME 0500 DATE 3-30-90

SHIFT SUPERVISOR NOTIFIED [signature] 1515 3/30/90
Signature Time Date

REVIEWED BY: Billy [illegible] DATE: 3-30-90

APPROVED BY: Jerry Faulkner DATE: 3-30-90

Sheet 1 of 1

CHECKLIST

3.1 Shift Supervisor Authorization — Signature — Date 3/29/90

3.2 Reactor Operator (RO) Notified — Signature — Date 3/29/90

STEP VERIFICATION

Step/Substep		Initial	Step/Substep		Initial
3.4	Prerequisites met	JPS	4.4.4	Isolation valve open	N/A
4.2.2	Leads disconnected	N/A	4.4.5	Reflects plant conditions	JPS
4.2.2	Independent Verification	N/A			
4.4.1	Test equipment removed	JPS			
4.4.2	Element installed	JPS			
4.4.3	Leads connected	N/A			

RESTORATION VERIFICATION

		Initial		Initial
1.	Element installed	JPS	3. Isolation valve open	N/A
2.	Leads connected	N/A		

Performed by: James O. Sales — Date 3/30/90

Reviewed by: Billy J. McKinney — Date 3-30-90

Sheet 1 of 1

CALCULATION SHEET

Show all calculations performed during course of this procedure in the space below.

T_1 - 198.9 T_2 - 197.4 T_3 - 199.4

R_1 - 190.4 R_2 - ~~190.4~~ 190.2 R_3 - 190.0

TRIPPOINT

$T_1 + T_2 + T_3 = T_T$

T_T = 595.7

AS LEFT IS $T_T \div 3$

AS LEFT = 198.56

RESET

$R_1 + R_2 + R_3 = R_T$

R_T = 570.6

AS LEFT IS $R_T \div 3$

AS LEFT = 190.2

Completed by: [signature] Date: 3/30/90

Reviewed by: [signature] Date: 3-30-90

Approved by: [signature] Date: 3-30-90

FOR USE WITH CONTROL NO. 19001629

Procedure No.	Revision	Page No.
VEGP 22332-C	2	7 of 10

Sheet 1 of 1

DATA SHEET

Inst. No. 1TSH-1911 Location 1DG1 Serial No. N/A

Description Temperature Switch Manufacturer CALCON Model No. A3500-W1

NOTES: N/A

Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped	°F	200.0	196.0	204.0	198.56	198.56
Switch Reset	°F	190.0	186.0	194.0	190.20	190.20
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						

COMMENTS: USED ORIFICE SIZE .028 - IC-706 ACC. - RER # 88-0207 I.C 34173 3-30-90

TEST EQUIPMENT

I.D. NO.	MODEL NO.	CALIBRATION DUE DATE
VP 3001	FLUKE 2175A	4-29-90
VP 2619	PERMA-CAL	6-2-90
~~ORIFICE .028~~ 3/30/90	IC-706 3/30/90	N/A
	N/A	

THE AS FOUND AS LEFT DATA IS AN AVERAGE OF three TRIP/RESET CYCLES PER ATTACHMENT 1. SEE CALCULATION SHEET

PERFORMED BY: James D. Sales DATE: 3/30/90

REVIEWED BY: Timothy M. Singer DATE: 3-30-90

APPROVED BY: Jerry Fulton DATE: 3-30-90

PROCEDURE NO.	REVISION	PAGE NO.
VEGP 22332-C	2	10 of 10

Sheet 1 of 1

COMPLETION SHEET

PROCEDURE TITLE TEMPERATURE SWITCH CALIBRATION

TIME TEST STARTED 2100 BY [signature] DATE 3/29/90

DEFICIENCIES OCCURRED AND ACTIONS TAKEN

None

TEST RESULTS: ACCEPTABLE [✓] UNACCEPTABLE [ ]

TEMPERATURE SWITCH RESTORED TO SERVICE [✓]

TEMPERATURE SWITCH COMMITTED TO REPAIR [ ]

TEST COMPLETED BY [signature] TIME 0130 CST DATE 3/30/90

SHIFT SUPERVISOR NOTIFIED [signature] 1341 3/30/90
Signature Time Date

REVIEWED BY: Billy G. McSwain DATE: 3-30-90

APPROVED BY: [signature] DATE: 3-30-90

PC3441

Sheet 1 of 1

CHECKLIST

3.1 Shift Supervisor Authorization — Signature — Date 3/29/90

3.2 Reactor Operator (RO) Notified — Signature — Date 3/29/90

STEP VERIFICATION

Step/Substep		Initial	Step/Substep		Initial
3.4	Prerequisites met		4.4.4	Isolation valve open	N/A
4.2.2	Leads disconnected	N/A	4.4.5	Reflects plant conditions	
4.2.2	Independent Verification	N/A			
4.4.1	Test equipment removed				
4.4.2	Element installed				
4.4.3	Leads connected	N/A			

RESTORATION VERIFICATION

		Initial		Initial
1.	Element installed		3. Isolation valve open	N/A
2.	Leads connected	N/A		

Performed by: — Date 3-30-90

Reviewed by: Billy J. McSweeny — Date 3-30-90

PROCEDURE NO	REVISION	PAGE NO
VEGP 22332-C	2	Page 19 of 19

Sheet 1 of 1

CALCULATION SHEET

Show all calculations performed during course of this procedure in the space below.

$\overline{T_1}$ - 193.1 $\overline{T_2}$ - 196.7 $\overline{T_3}$ - 196.2

R_1 - 192.1 R_2 - 191.8 R_3 - 192.3

Trip point

$T_1 + T_2 + T_3 = T_T$

$T_T = 591$

As left is $T_T \div 3$

As left = 197

Reset

$R_1 + R_2 + R_3 = R_T$

$R_T = 577.2$

As left is $R_T \div 3$

As left = 192.4

Completed by: _____ Date: 3-30-90

Reviewed by: _____ Date: 3-30-90

Approved by: _____ Date: 3-30-90

FOR USE WITH CONTROL NO. 19001629

Procedure No.	Revision	Page No.
VEGP 22332-C	2	7 of 10

Sheet 1 of 1

DATA SHEET

Inst. No. 1TSH-19110 Location DG1-A Jacket water Serial No. N/A

Description Temperature Switch Manufacturer CALCON Model No. A3500-103

NOTES: N/A

Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped	°F	200.0	196.0	204.0	197	197
Switch Reset	↓	190.0	*	*	192.4	192.4
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset			N/A			
Action	UNITS	EXPECTED	LO LIMIT	HI LIMIT	AS FOUND	AS LEFT
Switch Tripped						
Switch Reset						

COMMENTS: * Limit - to be ± 10°F of setpoint per REF 88-707

ACC - REF # 88-0707
Setpoint from 1R44E01-103
.029" orifice IC 712

IR34E13
D.C.N. 5-3090

The as-found and as-left data is an average of three trip/reset cycles per attachment 1 and REF 88-707. See calculation sheet.

TEST EQUIPMENT

I.D. NO.	MODEL NO.	CALIBRATION DUE DATE
3093	2175A	5-1490
2567	Heise 0-100 psi	4-30-90
	N/A	

PERFORMED BY: [signature] DATE: 3/30/90

REVIEWED BY: [signature] DATE: 3-30-90

APPROVED BY: [signature] DATE: 3-30-90

Quality Control Inspection Report — Georgia Power

VOGTLE GENERATING PLANT—UNITS 1 & 2 — 34173 — Page 1 of 1

MWO/ODR/DR No. 19001568 / IX 92452	Building Ice Ship Retirement	Procedure/Spec. No/Rev. 22337-C Rev 2
Room No/Level No. NA / 1	Sys/Start Up Designator 2405	Tag No. See Below
Drawing No/Rev. NA	Vendor Manual Log No. NA	Other REP 88-0707

1. Inspector will use separate form for each completed inspection function(s) and insert original with work package, use continuation sheets when needed.
2. Use simple narrative type report procedure. Reference all applicable drawing numbers, specifications, special instructions, etc., connected with your inspection. Use sketches, when applicable, showing dimensions checked, alignment, physical location of defects found, etc. N/A all blocks not used.
3. Upon completion of the inspection activity, enter results below and sign and date.

Remarks: Visually verified calibration of High Temperature street water trip switches, per REP. and attachment I of MWO for following switches. Also high temp use coils
① 1TSH 19110 MTE VP 2567 DD 4-2-90, VP-3093 DD 6-4-90, orifice I.C. 712
② 1TSH 19111 MTE VP-2614 DD 6-2-90, VP-3001 DD 4-29-90, orifice I.C. 706
⊕③ 1TSH 19112 MTE VP-2859 DD 4-4-90, VP-3092 DD 5-14-90, orifice I.C. 711
*④ 1TSH 19146 ... MTE VP 2640 DD 6-8-90, VP 3001 DD 4-29-90, orifice I.C. 706
Also replacement of gaskets for covers on 1TSH 19110, and 1TSH 19111. REP. 90-6658
*1TSH 19146 is not responding properly, 6 IT classified is to be replaced or reworked.
⊕1TSH 19112 meets requirements of attachment I steps

Sketch: but leak is detectable at vent with snoop.
Visually verified reinstallation of 1TSH 19110, 19111, 19112.

Inspection Results

☑ SAT. ☐ UNSAT—ODR/DR NO.(s):

Inspector: [signature] Williams — Date 3-30-90

WHITE—Work Package / CANARY—Q.C. Supv. PINK—Inspector

Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

34190

Georgia Power

Page 1 of 1

M/WO/ODR/DR No. 1900629 R2	Building T.S. Bldg Diesel	Procedure/Spec. No./Rev. 2332-C R2
Room No./Level No. TRAIN A	Equipment ID Designator 2403	Tag No. 1TSW-R146
Drawing No./Rev. N/A	Vendor Manual Log No. N/A	Other REA: 88-0707

1. Inspector will use separate form for each completed inspection function(s) and insert original with work package, use continuation sheets when needed.
2. Use simple narrative type report procedure. Reference all applicable drawing numbers, specifications, special instructions, etc., connected with your inspection. Use sketches, when applicable, showing dimensions checked, alignment, physical location of defects found, etc. N/A all blocks not used.
3. Upon completion of the inspection activity, enter results below and sign and data.

Remarks

MER# MAR 30-90-6088 for Temp Switch
Calgon # 3500 W3 added
Type of Inspection was visual
① HIR Supply was set at 60 psi
② The 3 trips + resets are as follows
T1 201.0 T2 200.7 T3 202.1
R1 195.7 R2 196.1 R3 196.8
③ Witnessed the installation of temperature switch on # 1A Diesel

Sketch

M+TE used: Pressure Gauge VP-2567 CAL 4-30-9
Digital Thermometer VP-3093 CAL 5-14-9

Inspection Results

☒ SAT ☐ UNSAT—ODR/DR NO.(s):

Inspector R C Harris Date 3/30/90

WHITE—Work Package CANARY—Q.C. Supv. PINK—Inspector

GEORGIA POWER COMPANY
VEGP QUALITY CONTROL

QC HOLD / WITNESS POINTS

WO No: 19001629	2	PROCEDURE & REV NO: N/A

NOTIFY QUALITY CONTROL PRIOR TO PERFORMING THE WORK ACTIVITY OR STEP ASSOCIATED WITH THE H.P. (H) OR WITNESS (W) POINT

DO NOT BYPASS QC HOLD OR WITNESS POINTS

STEP No.	H/W	HOLD POINT / WITNESS POINT DESCRIPTION	ASSIGNED BY INIT	ASSIGNED BY DATE	NOTIFIED INIT	NOTIFIED DATE	QC ACTION INIT	QC ACTION I
1	H	Notify QC prior to cal. temp switch	[illegible]	3/30/90	[illegible]	3/30/90	[illegible]	[illegible]
2	H	Notify QC prior to replacing temp switch	[illegible]	3/30/90	[illegible]	3/30/90	[illegible]	[illegible]

COMMENTS & IR NUMBERS: (Initial and date entries)
[illegible] ZN 34190 3/30/90

THIS FORM TO BE COMPLETED BY QUALITY CONTROL PERSONNEL ONLY

GEORGIA POWER COMPANY
VEGP QUALITY CONTROL

QC HOLD / WITNESS POINTS

85010-C FIG. 1
PAGE 1 OF 1

MWO NO: 19001629

PROCEDURE & REV NO: 22332-C R/2

NOTIFY QUALITY CONTROL PRIOR TO PERFORMING THE WORK ACTIVITY OR STEP ASSOCIATED WITH THE HOLD (H) OR WITNESS (W) POINT

DO NOT BYPASS QC HOLD OR WITNESS POINTS

STEP No.	H/W	HOLD POINT / WITNESS POINT DESCRIPTION	ASSIGNED BY INIT	ASSIGNED BY DATE	NOTIFIED INIT	NOTIFIED DATE	QC ACTION INIT	QC ACTION I-W-N/A
1	H	Notify QC prior to calibration of temp. switches	JWD	3/19/90				
		1TSH19146	↓	↓	RW	3-27-90	RW	N/A*
		19110			RW	5-27-90	RW	I
		19111			RW	5-27-90	RW	I
		19112			RW	5-27-90	RW	I
		1TSH 19146	RW	5-29-90	JCW	3-30-90	JCW	I

COMMENTS & IR NUMBERS: (initial and date entries)

* SEE IR 50173 R.W. 5-29-90

JCW 3/30/90 IR 50180

THIS FORM TO BE COMPLETED BY QUALITY CONTROL PERSONNEL ONLY

Nuclear Plant Maintenance Work Order Continuation Sheet

MPL No. _____ MWO No. 140-01629

Work Description _____

Block 27

During performance of PEP 22332-C on 1TSH-19146 switch was found out of tolerance and operating sluggishly. When attempting to adjust switch it was found to be leaking air by the O-ring at the adjustment point. Adjusted trip set point but switch appeared to be acting excessively sluggish for proper operation. Switch was calibrated per proc. 22332-C, Attachment #1 and RER 88-0707. Test equipment used was Fluke VP3001 due 9-29-90 Test Gauge VP-2619 due 6-2-90 and .028" test orifice # IC 706 Maintained Zone IV Housekeeping. QR 3-30-90

Block 27 cont: Pick up new switch from NUC OPS warehouse and calibrated per proc: 22332-C, ATT #1 and RER # 88-0707. Switch worked O.K. and was installed in place of bad switch 1TSH-19146. Maintain Zone 4. Cleanliness M.P. 2-3-4

Test Equipment used

Fluke VP-3092 Due Mfg. 5-14-90

Test Gauge VP2567 Due Dec 4-30-90

Orifice - IC-712 0.028"

Old switch was tagged and placed in B storage "C".

Nuclear Plant Maintenance Work Order Continuation Sheet

MPL No. _____ MWO No. 19001629

Work Description Block 27 cont— ITSK 1910, 1911, RIP were installed on 6GIA under the observance of QC. Zone IV housekeeping was maintained in work areas.

The small amount of debris at the work area did not cause any problems with the Diesel Control Systems as long as the diesel pressure is 60 ± 1 psi.

Mike Anderson 3-30-90

Nuclear Plant Maintenance Work Order Continuation Sheet

MPL No. _____ MWO No. 1-90-01629

Work Description Block 26: _____ 3-29-90

Block 27- Observed unit 1 S.G. personnel to begin work at beginning of evening shift. Completed calibrating of ITSH 1910, ITSH 1911, ITSH 1912. These switches were calibrated per proc. 22332-C, Attachment #1 and REE 88-0707. ITSH 1912 was found out of cal but calibrated satisfactorily (as-left was good). As-found data on ITSH 1911 and ITSH 1910 was good. Replaced cover gasket from ITSH's 1911, 1912 with repair kit (stock # 29200-22640) Ref. to on WER 90-6068. No gasket leakage detected around gasket.

ITSH 19112 calibrated satisfactorily but at step 5 of attachment #1 with temp. below 320° below setpoint the supply gauge was at 59.8 to 59.9 psig. A small amount (detectible only with leak detecting fluid) of leakage was observed at the vent port. The amount of leakage was well within step 5 of attachment #1 and did not appear to affect calibration in any way. System engineer and or service rep. should evaluate leakage to determine possible system effects.

Test equipment used is as follows:

ITSH 1911 - Fluke VP 3001 due 4-29-90
test gauge VP 269 due 6-2-90
.029" test orifice # IC 706

ITSH 1912 - Fluke VP 3093 due 5-14-90
test gauge VP 2703 due 4-11-90
.028 test orifice # IC 711

ITSH 1910 - Fluke VP 3093 due 5-14-90
test gauge VP 2567 due 4-30-90
.028 test orifice # IC 712

Continued →

VOGTLE ELECTRIC GENERATING PLANT — GEORGIA POWER CO.

MAINTENANCE WORK ORDER REVISION SHEET

1 CONTROL NO.	2 REVISION NO.	3 UNIT TAG NO.	4 DATE
19001629	2	1TSH-19146	3/30/90

5 REASON FOR REVISION

EXPAND SCOPE TO ALLOW REPLACEMENT OF 1TSH-19146 (TRIP HIGH TEMP LUBE OIL)

BLOCK 16: During performance of procedure 2-2332-C on 1TSH-19146 switch was found out of tolerance and operating sluggishly

BLOCK 23: REPLACE SWITCH AND CALIBRATE. STOCK # 59070-0000B143

6 INITIATOR: 3/30/90 Mark Goldman

REVIEW SIGNATURES

7 MAINTENANCE ENG: Mteaton 3-30-90	8 OPER NIGHTS: John C. Parrell 3/30/90	9 CLEARANCE REQUIRED: See Rev 4
10 QC REVIEW: DWSimmons 3-30-90	11 HOLD POINTS: HOLD POINT ATTACHED	
12 HP REVIEW: Mike Burt 3/30/90	13 NEW RWP REQUIRED: N/A	
14 ANII REVIEW: NA KM 3-30-90	15 HOLD POINTS: NA	
16 WORK PLANNER: Mark Goldman 3/30/90	17 PROCEDURES: N/A MHG 3/30/90	
18 FIRE PROTECTION REVIEW: N/A MHG 3/30/90	19 SHIFT SUPERVISOR: 3/30/90	

20 REMARKS

VOGTLE ELECTRIC GENERATING PLANT — GEORGIA POWER CO.

MAINTENANCE WORK ORDER REVISION SHEET

1 CONTROL NO.	2 REVISION NO.	3 MPI TAG NO.	4 DATE
19001629	1	ITSH 19110, ITSH 19111, ITSH 19112	3-29-90

5 REASON FOR REVISION

EXPAND SCOPE TO ALLOW REPLACEMENT OF COVER GASKET.

BLK 6. UPON INVESTIGATION OF SWITCHES FOUND GASKET MISSING FROM COVER.

BLK 23. REPLACE GASKETS. STK No 29200-26640.

Released to work [signature] 3/29/90

** NOTE: CALIBRATION FOR SWITCHES ON REV 0 INSTRUCTION REMAINS THE SAME As Modified. 3-29-90

QIIJ 3-31-90

7 INITIATOR	
[signature]	

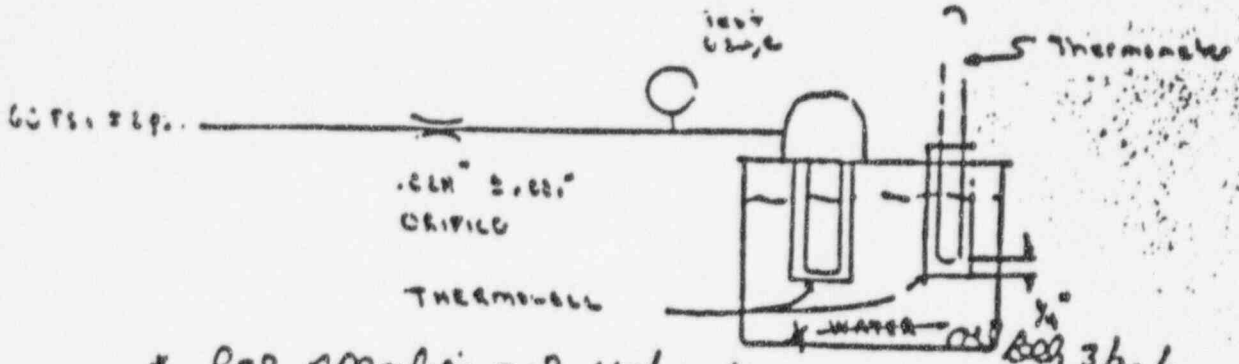
REVIEW SIGNATURES

7 MAINTENANCE ENG	8 OPERATIONS	9 CLEARANCE REQUIRED
[signature] 3-31-90	[signature]	
10 QC REVIEW	11 HOLD POINTS	
[signature]	NO ADDITIONAL HOLD POINTS	
12 HP REVIEW	13 NEW RWP REQUIRED	
[signature] 3-29-90	NA	
14 ANII REVIEW	15 HOLD POINTS	
NA [signature] 3-29-90	NA	
16 WORK PLANNER	17 PROCEDURES	
[signature] 3-29-90		
18 FIRE PROTECTION REVIEW	19 SHIFT SUPERVISOR	
NA [signature] 3-29-90 See Rev 2	[signature] 3-29-90	

20 REMARKS

ATTACHMENT 1 PG 2

Temperature Bath Requirements



* RER specifies oil not water Bkaplan 3/30/90 Bob 3/30/90

1) To test temperature valves accurately, a bath must have heating, cooling & circulating abilities.

2) Two Temp. Valve thermowells are required submerged 3" into the water/oil

3) Install Temp Sensor in one well and a Thermometer in the other. (Usual thermometer in well at the top to surpress heat loss. Thermometer should not touch sides or bottom of well.)

4) A 60 PSI Supply Pressure thru a 0.028" ± 001 Orifice thru a test gauge to the sensor is required.

FOR USE WITH CONTROL NO. 19001629

ATTACHMENT 1 Pg 1

TEST PROCEDURE FOR SETTING HIGH TEMPERATURE JACKET WATER TRIP SWITCHES (CALCON P/N F-573-330)

1) Install temperature sensor in bath (See Temp. Bath requirements)

2) Hook-up Air Supply (60 PSI Thru .028 orifice and Test gauge) to Sensor "IN" Port.

3) Heat-up Temp. Bath to temperature at which sensors are to be set and stabilize.

4) Set temperature valves to trip by slowly turning split ring clockwise while watching pressure gauge. While adjusting or checking trip temperature setting, lightly tap continuously on the side of the sensor. This simulates engine vibration and will give a more accurate setting.
When valve begins to trip, the pressure gauge will drop. The temperature sensor is considered tripped when gauge drops to 20 psi.

5) Cool temp. bath and note that temp. sensor Resets (40 psi. on gauge) by 10°F below setpoint. Pressure gauge must Reset to within 1 psi. of supply pressure by 20°F below setpoint.

6) Reheat bath (always starting 20°F below setpoint) and check trip setting.
Re-adjust as required to desired setting. A ± 2 ~~°F~~ % tolerance is acceptable. BAH 3/30/90 *

7) Re-check settings until setting within tolerance is achieved two consecutive times.

TYPO
* ± 2% is correct per RER 88-0707 BAHoplam 3/30/90

FOR USE WITH CONTROL NO. 8001629

NUCLEAR PLANT MAINTENANCE WORK ORDER (CONTINUED) (3 OF 3)

CONTROL NO. 19001629 00

WORK INSTRUCTIONS: CALIBRATE THESE SWITCHES UNDER NORMAL PROCEDURES ~~AND TEX~~ ~~COOPER REPRESENTATIVE DIRECTION~~ PER "ATTACHMENT 1" FOR ER 88-0707. ~~FOLLOWING CALIBRATION, VERIFY CALIBRATION OF AT LEAST ONE TEMPERATURE SENSOR AT THE ENGINE.~~

9/29/90

KLS 9/29/90

Not Required

** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COP

NUCLEAR PLANT MAINTENANCE WORK ORDER (CONTINUED) (2 OF 3)

CONTROL NO. 19001629 00

MPL/TAG NO.	SYSTEM	EQP CLS	DESCRIPTION	LOCATION
1TSH19146	2403	61J	DSL GEN1 LUBE OIL ENGINE	X5D85D01
1TSH19110	2401	61J	DG1 JACK WTR HDR OUT	1DB1
1TSH19111	2403	61J	DG1 JACK WTR MAIN HDR OUT	1DB1
1TSH19112	2403	61J	DSL GEN1 JACK WTR MAIN HD	1DB1

ATTACHMENT 1

TEST PROCEDURE FOR SETTING HIGH TEMPERATURE JACKET WATER TRIP SWITCHES (CALCON P/N F-573-330)

1) Install temperature sensor in bath (See Temp. Bath requirements)

2) Hook up Air Supply (60 PSI Thru .028 orifice and Test gauge) to Sensor "2W" port.

3) Heat up Temp. Bath to temperature at which sensors are to be set and stabilize.

4) Set temperature valves to trip by slowly turning split ring clockwise while watching pressure gauge. While adjusting or checking trip temperature setting, lightly tap continuously on the side of the sensor. This simulates engine vibration and will give a more accurate setting.
When valve begins to trip, the pressure gauge will drop. The temperature sensor is considered tripped when gauge drops to 20 psi.

5) Cool temp. bath and note that temp. sensor Resets (40 psi. on gauge) by 10°F below setpoint. Pressure gauge must Reset to within 1psi. of supply pressure by 20°F below setpoint.

6) Reheat bath (always starting 20°F below setpoint) and check trip setting.
Re-adjust as required to desired setting. A ± 2% tolerance is acceptable.
~~±2%~~ Bell 3/30/90

7) Re-check settings until setting within tolerance is achieved two consecutive times.

FOR USE WITH CONTROL NO. 4600v29

Typo
± 2% located per RER 88-0207 Bellaplan 3/30/90

**COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY

NUCLEAR PLANT MAINTENANCE WORK ORDER (CONTINUED) (1 OF 2)

CONTROL NO. 19001629 00

WORK INSTRUCTIONS: CALIBRATE THESE SWITCHES UNDER NORMAL PROCEDURES ~~AND TCR COOPER REPRESENTATIVE DIRECTION.~~ PER "ATTACHMENT 1" & RER 88-0707. ~~FOLLOWING CALIBRATION, VERIFY CALIBRATION OF AT LEAST ONE TEMPERATURE SENSOR AT THE ENGINE.~~

9/29/90

KLS 9/27/90

Int Required.

** COPY ** COPY ** COPY ** COPY ** COPY ** COPY.

NUCLEAR PLANT MAINTENANCE WORK ORDER (CONTINUED)

CONTROL NO. 19001629 00

MPL/TAG NO.	SYSTEM	EQP CLS	DESCRIPTION	LOCATION
1TSH19146	2403	61J	DSL GEN1 LUBE OIL ENGINE	X5D85D01
1TSH19110	2401	Q11J	DG1 JACK WTR HDR OUT	1DB1
1TSH19111	2403	Q11J	DG1 JACK WTR MAIN HDR OUT	1DB1
1TSH19112	2403	Q11J	DSL GEN1 JACK WTR MAIN HD	1DB1