

** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY ** COPY
NUCLEAR PLANT MAINTENANCE WORK ORDER (1 OF 2)

1. CONTROL NO. 19003339 00 2. DATE 07/17/90 3. UNIT 1 4. SYSTEM 2403
5. MPL/TAG NO. 12403G4001 DIESEL GENERATOR 5A. REPAIR TAG _____
MPL/TAG(S) ASSOCIATED WITH SPECIAL INDICATORS
6. PROB/ THE STICKING OF SEVERAL AIR START VALVES WAS DETERMINED TO BE THE
WORK CAUSE OF THE RECENT 2A D/G FAILURE TO START.
REQ.

ORIGINAL

CONT. N NPRD "Y"

7. INITIATOR DUSTY ADAMS 8. SUPRV JP REDDING LOC 1DGB1-
9. MWO CLASS S EQP CLASS 015 10. UNIT STAT 11. FIRE PROTECT N
12. DCR N 13. NCR/DR N 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 2 0 0 0 0
HRS. 72
EXP. 0 0 0 0 0
SCHED BEG
SCHED END
RESP FOREMAN
17. CLR ~~100~~ 18. WELD PERM N RWP PERM NA
19. QC ~~100~~ 20. PROC
QC REVIEWED BY *[Signature]* 7/18/90 21. PRI 24 22. LCO NA
23. WORK * INST.

CONT. Y
ALL 18 AIR START VALVES ARE TO BE "POP" TESTED PRIOR TO AND IMMEDIATELY FOLLOWING THEIR NEXT SURVEILLANCE RUN. THE "POP" TEST CAN BE PERFORMED BY CONNECTING HOUSE SERVICE AIR (REGULATED TO 100PSI) TO THE 1/4" SUPPLY TUBING (COMING FROM THE AIR START DISTRIBUTOR) AT
24. INITIATE REVIEW 25. SPEC REV REQ N

OPS WB DATE 7/18/90 MNT WB DATE 7/18/90 26. MWO-RELEASE FOR WORK
HP SI DATE 7/18/90 ENG RA DATE 7/18/90 SIG. [Signature] DATE 7/20/90
27. ACT WORK PERFORMED
SEE CONTINUATION SHEET

CONT. N
HIST SUM

28. MTRL REQD 10557 10556 98 16052
29. PERSON PERFORMING WORK (NAME) A Cook DATE 7/20/90 30. MAINTENANCE FOREMAN Donald Sweet DATE 7/20/90
31. INSPECTION PERFORMED BY SA [Signature] DATE 7/24/90
32. METHOD OF F.T. ESP 14540-1
33. PROCEDURE # OSP 14540-1 34. PERFORMED BY SA [Signature] 35. DATE 7/21/90
36. PROVES OPERABILITY NA 37. METHOD USED TO PROVE OPERABILITY NA
38. SATISFY./UNSATISFY SA 39. IF UNSAT. CORR. ACTION NA
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 D N 48. CAUSE N 49. CORR ACT. N
50. NEW MWO N/A 51. OPER. ACCEPT BY SA [Signature] DATE 7/21/90
52. OSOS APPROVAL N/A
53. SPEC REV COMP NA DATE N/A 54. MEET. # NA DATE N/A
55. CLOSE OUT APPROVAL BY QC [Signature] DATE 7/16/90
9509150261 950815
PDR ADOCK 05000424
G PDR

CONTROL NO. 19003339 00

WORK INSTRUCTIONS: POINT ENTERING SUB-COVER.

A QUICK BURST OF SERVICE AIR WILL ACTUATE THE AIR START VALVE AND AN AUDIBLE METALIC "CLICK" SHOULD BE HEARD. THE QUICK RELEASE OF THIS AIR WILL ALLOW THE AIR START VALVE SPRING TO CLOSE THE VALVE; AND AGAIN AN AUDIBLE "CLICK" SHOULD BE DETECTED. THE EVIDENCE OF THESE "CLICKS" WILL ASSURE THE VALVE IS OPERATING PROPERLY.

- UPON COMPLETION OF TEST - DISCONNECT SERVICE AIR AND RECONNECT PERMANENT AIR LINE.

- IF VALVE REQUIRES REWORKING - SEE FOLLOWING WORK INSTRUCTIONS
~~RETURN MWO TO WPS FOR REVISION.~~ CAC 7/24/90

W/P 7/18/90

WORK INSTRUCTIONS TO BE PERFORMED IF AIRSTART VALVES FAIL TEST.

- PER CONVERSATIONS WITH "COOPER" THE CAPS ON AIR START VALVES CAN BE MACHINED OR LAPPED UP TO .010" FROM BOTTOM OF CAP TO OBTAIN A .001" OR LESS FLATNESS (REF. MWO 19003340 REV. 2)

- REMOVE CAPS FROM ALL AIR START VALVES

- LAP OR MACHINE THE CAPS REMOVED ~~OR~~ TO OBTAIN RECOMMENDED FLATNESS. OR REPLACE WITH CAPS BEING REWORKED UNDER MWO A9001255.

- ALSO, HONE OR MACHINE THE PISTON TO OBTAIN A .003" DIAMETRICAL CLEARANCE BETWEEN THE CAP AND PISTON. RECORD ON 27598-C DATA SHEET

- REASSEMBLE VALVE PER 27598-C

Craig J. Conklin 7-20-90

MAINTAIN ZONE ID HOUSEKEEPING DI

Nuclear Plant Maintenance Work Order Continuation Sheet

MPL No. 1-2403-64-001

MWO No. 19003339

Work Description ^{Atm 7-20-90} Block 27: Performed POP TEST ON ALL THE 16 AIR START VALVES ON 1-2403-64-001 "A" TRAIN. 3L, 8L, 4B AND 6B FAILED POP TEST. PULLED ALL 16 AIR START VALVE CAP AND CARRIED TO MAINT. SHOP. * ^{245 7-20-90} 8 OF THE CAPS TO BE RE-
^{245 7-20-90} INSTALLED ARE FROM MWO 19003340. ^{24003028 DA} 6 ^{24003028 DA} ARE FROM MWO A9001255-22
 2 WERE FROM MER#90-10556 AND 1 FROM MER#90-10557
 Block 27 Cont.

SEE NOTE

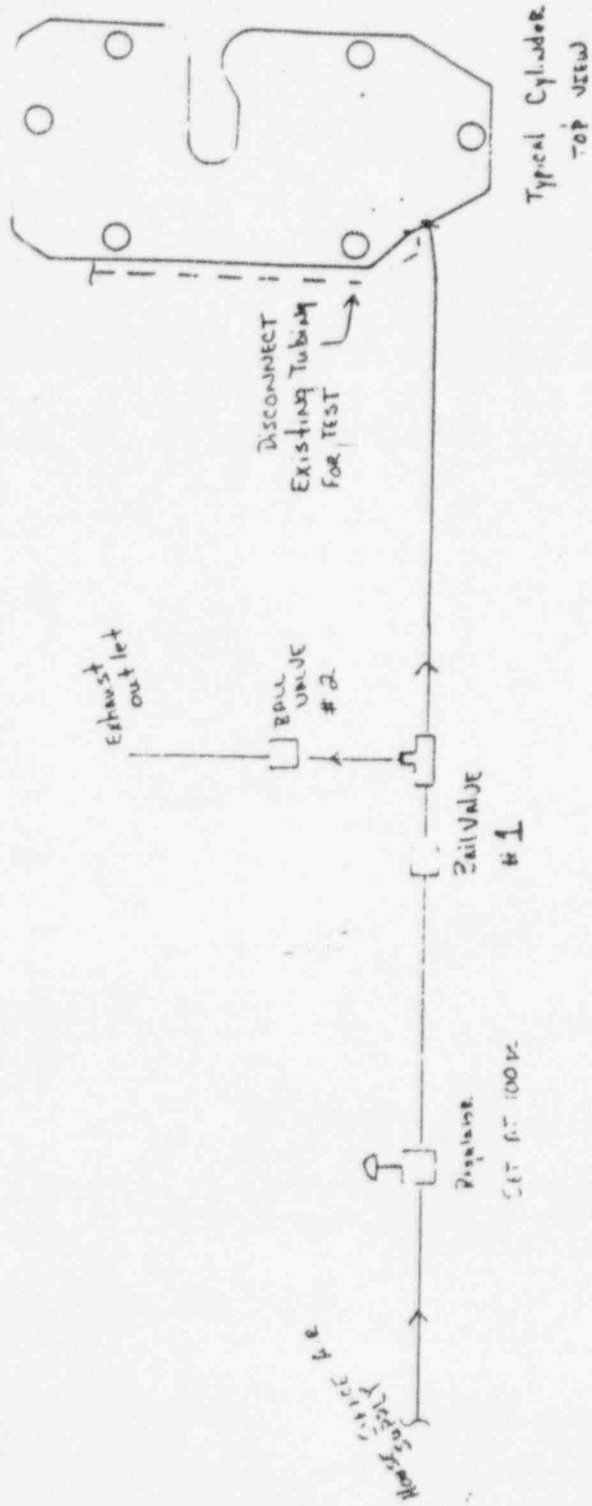
machined 16 pistons to obtain a .003 DIAMETRICAL clearance between the cap and piston all measurements are recorded on procedure 27558-C 2.0 DATA SHEET USED METE VP 2153 MILK CAL DUE 10-2-90 LUBRICATED PISTONS AND CAPS WITH ENGINE OIL RECEIVED ON MER 88-16652 AND ASSEMBLED ON AIR START VALVES AND TORQUED TO 150 FT/LBS USING TORQUE WRENCH VP 3-2273 CAL DUE 10-5-90 TESTED ALL AIR START VALVES WITH SERVICE AIR QC WITNESSED RECONNECTED ALL PERMANENT AIR LINES AND INSTALLED VALVE COVERS MAINTAINED ZONE TO HOUSEKEEPING
 A Lock 7-20-90

NOTE

* THE 16 CAPS REMOVED WERE REJECTED BECAUSE OF FAILURE TO PASS FLATNESS TEST. INSTALLED 16 CAPS REWORKED UNDER MWO ^{245 7-20-90} ~~1900~~ A9001255 FLATNESS AND BORE DIAMETRICAL CLEARANCES WERE DOCUMENTED ON MWO A9001255.

STEP 4.27 OF THE PROCEDURE IS N/A. WORK TO BE PERFORMED UNDER NEW MWO WR 11156 (WR 11156 NOT WORKED. REF LETTER FROM OPPER - ATTACHED) 9/18/91

Block 27 Cont. Ran Engine for 1 hour and engine was at operating temperature shut engine down and pop tested all air start valves all valves operated satisfactorily
 A Lock 7-20-90 maintained zone to housekeeping



• With both valves closed and supply line cragged, CONVERT TO TURBINE AT CYLINDER.

• Open valve #1 quickly. Air Start Valve should open with click.

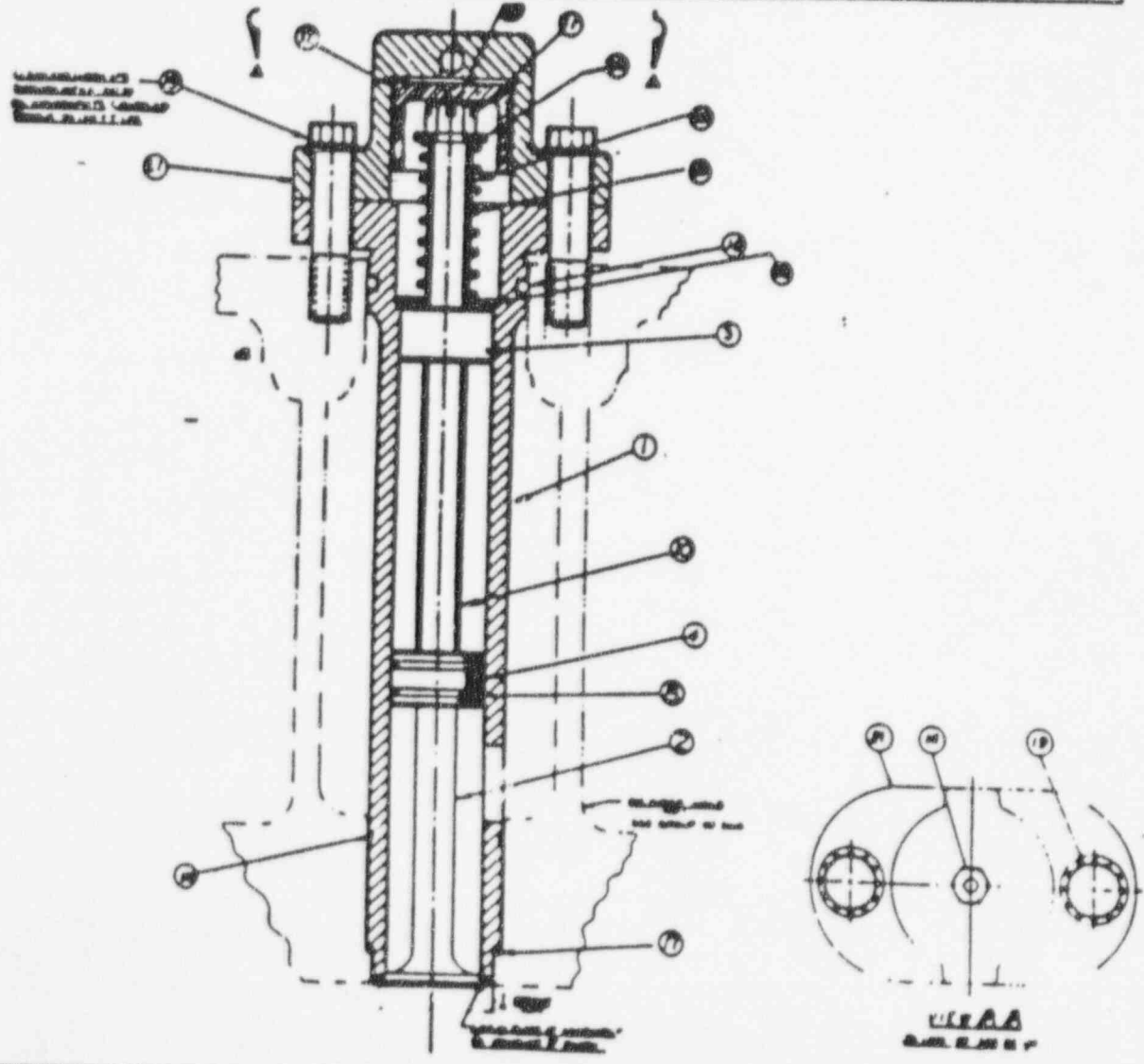
• Close valve #1, and open valve #2 quickly. Air Start Valve should close with click.

NOTE: Evidence of Air Leaking by Air Start Valve is necessary

DATA SHEET 1

FOR USE WITH CONTROL NO. 1900333 AIR START VALVE INSPECTION

COMPONENT GROUP TITLE: AIR START VALVE	PARTS GROUP NO. 02-359
LOCATION: VOGTLE ELECTRIC GENERATING PLANT	UNIT NO. 1
TAG NUMBER: 12403A4001	ENGINE SERIAL NO. 76028-2871 22-20-50
TOTAL ENGINE HOURS: 783,3	HOURS SINCE LAST INSPECTION:
DATE THIS INSPECTION: 7-20-90	REFERENCE STEPS: 4.6, 4.7



DATA SHEET 1

AIR START VALVE INSPECTION

ENGINE TAG NO.: 1240324001 DATE: 7-20-90

1) Step 4.6.2b,c and d: Cap To Piston Clearance

O.C. HOLD POINT
Handwritten notes:
 1/10/90
 2.250
 2.249

Handwritten: * see comments

Valve	CAP		PISTON		Clearance	Sat	Unsat	Performed By
	x-x	y-y	x-x	y-y				
1R	2.249	2.244	2.246	2.246	.003	✓		H Cash
1L	2.250	2.250	2.247	2.247	.003	✓		H Cash
2R	2.249	2.249	2.246	2.246	.003	✓		H Cash
2L	2.250	2.250	2.247	2.247	.003	✓		H Cash
3R	2.250	2.250	2.247	2.247	.003	✓		H Cash
3L	2.250	2.250	2.247	2.247	.003	✓		H Cash
4R	2.250	2.250	2.247	2.247	.003	✓		H Cash
4L	2.250	2.250	2.247	2.247	.003	✓		H Cash
5R	2.250	2.250	2.247	2.247	.003	✓		H Cash
5L	2.250	2.250	2.247	2.247	.003	✓		H Cash
6R	2.250	2.250	2.247	2.247	.003	✓		H Cash
6L	2.250	2.250	2.247	2.247	.003	✓		H Cash
7R	2.250	2.250	2.247	2.247	.003	✓		H Cash
7L	2.249	2.249	2.246	2.246	.003	✓		H Cash
8R	2.250	2.250	2.247	2.247	.003	✓		H Cash
8L	2.250	2.250	2.247	2.247	.003	✓		H Cash

M&T Serial No. UP3-2153
 Cal. Due Date 10-2-90
 Clearance When New: 0.001/0.003" Replace When Over 0.009"

2) Step 4.6.2e: Valve Internals Inspection

Valve	Comments	Sat	Unsat	Performed By/Date
1R				
1L				
2R				
2L				
3R				
3L				
4R				
4L				
5R				
5L				
6R				
6L				
7R				
7L				
8R				
8L				

DATA SHEET 1

AIR START VALVE INSPECTIONS

ENGINE TAG NO. 1-240364001 DATE: 7-20-90

3) Step 4.6.2f and h: Valve Seat Inspection

Valve	Valve/Seat Inspection	Bluing	Sat	Unsat	Performed By/Date
1R					
1L					
2R					
2L					
3R					
3L					
4R					
4L					
5R					
5L					
6R					
6L					
7R					
7L					
8R					
8L					

Handwritten: N/A DAS

4) Step 4.7.4 and 4.7.6: Air start valve capscrews. ENGINE HOURS 783.3

QC HOLD POINT
7/20/90
J.R.# 39659

Cylinder	Capscrew = 2-3/4"		Torque		Performed	Witnessed
	1	2	1	2		
1R	150 F/H	150 F/H	150 F/H	150 F/H	J. Roche	CP 11/21/90
2R	150	150	150	150	J. Roche	CP 11/21/90
3R	150	150	150	150	J. Roche	CP 11/21/90
4R	150	150	150	150	J. Roche	CP 11/21/90
5R	150	150	150	150	J. Roche	CP 11/21/90
6R	150	150	150	150	J. Roche	CP 11/21/90
7R	150	150	150	150	J. Roche	CP 11/21/90
8R	150	150	150	150	J. Roche	CP 11/21/90
1L	150	150	150	150	J. Roche	CP 11/21/90
2L	150	150	150	150	J. Roche	CP 11/21/90
3L	150	150	150	150	J. Roche	CP 11/21/90
4L	150	150	150	150	J. Roche	CP 11/21/90
5L	150	150	150	150	J. Roche	CP 11/21/90
6L	150	150	150	150	J. Roche	CP 11/21/90
7L	150	150	150	150	J. Roche	CP 11/21/90
8L	150	150	150	150	J. Roche	CP 11/21/90

M&T Serial No. V23-2273
Cal. Due Date 10-5-90

PROCEDURE NO.

VEGP

27598-C

REVISION

0

PAGE NO.

24 of 31

Sheet 4 of 4

DATA SHEET 1

ENGINE TAG No. N/D DATE: N/D

5) Step 4.7.9h: Rocker Arm Capscrew Torque

Cylinder	Rocker Arm		Capscrew	
	1		2	
			Performed	Witnessed
1R				
2R				
3R				
4R				
5R				
6R				
7R				
8R				
1L				
2L				
3L				
4L				
5L				
6L				
7L				
8L				

M&TE Serial No. _____

Cal. Due Date _____

DATA SHEET 2

AIR START VALVE CAPSCREW TORQUING

ENGINE TAG No.: N/A

DATE: N/A

Step 4.7.7 *xx*

ENGINE HOURS N/A

N/A
Q.C.
HOLD POINT
1/2/50

Cylinder	Capscrew		Did Screw Move?	Performed	Witnessed
	1	2			
1R					
2R					
3R					
4R					
5R					
6R					
7R					
8R					
1L					
2L					
3L					
4L					
5L					
6L					
7L					
8L					

M&TE Serial No. _____
 Cal. Due Date _____

Q.C.
1/2/50
HOLD POINT
N/K

Step 4.7.7:

WORK WILL BE PERFORMED UNDER
NEW MWD WRT 1156 HAS BEEN INSTALLED

ENGINE HOURS N/A

Cylinder	Capscrew		Did screw Move?	Performed	Witnessed
	1	2			
1R					
2R					
3R					
4R					
5R					
6R					
7R					
8R					
1L					
2L					
3L					
4L					
5L					
6L					
7L					
8L					

M&TE Serial No. _____
 Cal. Due Date _____

DATA SHEET 2

AIR START VALVE CAPSCREW TORQUING

ENGINE TAG No.: N/A

DATE:

Step 4.7.7 ~~XX~~

ENGINE HOURS N/A

N/A
 CC
 HOLD POINT
 PC
 7/1/77

Cylinder	Capscrew		Did Capscrew Move?	Performed	Witnessed
	1	2			
1R					
2R					
3R					
4R					
5R					
6R					
7R					
8R					
1L					
2L					
3L					
4L					
5L					
6L					
7L					
8L					

M&TE Serial No. _____
 Cal. Due Date _____

N/A SEE CRT 11156

N/A
 CC
 HOLD POINT
 PC
 7/1/77

Step 4.7.7: ~~XX~~

ENGINE HOURS N/A

Cylinder	Capscrew		Did screw Move?	Performed	Witnessed
	1	2			
1E					
2R					
3R					
4R					
5R					
6R					
7R					
8R					
1L					
2L					
3L					
4L					
5L					
6L					
7L					
8L					

M&TE Serial No. _____
 Cal. Due Date _____

COMPLETION SHEET

PROCEDURE NO. 27598-C	REVISION 0	SHEET 1 of 4
TAG NO. 1-3403-GQ-001	DESCRIPTION Standby Diesel Generator	
SERIAL NO. 76021-2871	MANUFACTURER Transamerica Delaval	MODEL DSRV-16-4
TEST EQUIPMENT USED See applicable "Data" Sheet	<input checked="" type="checkbox"/> Safety Related/QC HoldPoints apply <input type="checkbox"/> Non-Safety Related	

PROCEDURE STEP	DESCRIPTION	MAINT. INIT/DATE	HOLD POINT (Yes/No)	QC INIT/DATE
4.1	Verify Prerequisites met	JHM 17-20-90	NO	JHM 7/18/90
4.2	Shift Supervisor Notified	JHM 17-20-90	NO	JHM 7/18/90
4.3	Diesel Generator Isolated and Tagged	JHM 17-20-90	NO	JHM 7/18/90
4.6.2b through d	Measure Air Start Valve Cap to Piston Clearance "Data" Sheet 1, Sheet 2	JHM 17-20-90	QC HOLD POINT	JHM 7/18/90 34654
4.6.2e	Inspect Air Start Valve Internals "Data" Sheet 1, Sheet 2	JHM 17-20-90	QC HOLD POINT	JHM 7/18/90
4.6.2f	Inspect Air Start Valve Seat For Pitting "Data" Sheet 1, Sheet 3	JHM 17-20-90	NO	JHM 7/18/90
4.6.2h	Blue Air Start Valve "Data" Sheet 1, Sheet 3	JHM 17-20-90	NO	JHM 7/18/90

* Document on Referenced "Data" Sheet

PROCEDURE STEP	DESCRIPTION	MAINT. INIT/DATE	HOLD POINT (Yes/No)	QC INIT/DATE
4.7.7	Air Start Valve Capscrews Retorqued every 8 hours of engine operation "Data" Sheet 2	<i>** SCE Comments</i> <u>N/A</u>	<u>N/A</u>	REF. WRT#1156 <u>PX 1/24/90</u>
4.7.9h	Torque Rocker Arm Capscrews "Data" Sheet 1, Sheet 4	<u>NA *1</u>	<u>NO</u>	<u>PX *1 7/24/90</u>
4.7.10	Adjust Intake And Exhaust valves			
	1R	/	/	/
	2R	/	/	/
	3R	/	/	/
	4R	/	/	/
	5R	/	/	/
	6R	/	/	/
	7R	/	/	/
	8R	/	/	/
	1L	/	/	/
	2L	/	/	/
	3L	/	/	/
	4L	/	/	/
	5L	/	/	/
	6L	/	/	/
	7L	/	/	/
	8L	/	/	/
4.7.11	Tools removed from engine	/	/	/
4.7.12	Cylinder head covers installed	/	/	/
4.7.13	Main Bearing Oil Lines installed	<u>NA</u> /	/	/
4.9	Notify Shift Supervisor required maintenance is complete	<u>DAG 7-20-90</u>	<u>NB</u>	<u>PX 1 7/24/90</u>

* Document on Referenced "Data" Sheet

PROCEDURE NO. VEGP 27598-C	REVISION 0	PAGE NO. 31 of 3
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COMMENTS/ADDITIONAL HOLD POINTS: _____

* STEP 4.6.2.B THESE MESURMENT TAKEN UNDER
MWO A9001255 AND INSPECTED BY QC SEE I-R
IN A9001255

** STEP 4.7.7 WORK TO BE PERFORMED UNDER NEW
MWO REF WRT 1156

QC has reviewed this procedure for hold points Rhys D. Cheek
Signature 7/17/90

APPROVED <input checked="" type="checkbox"/> DISAPPROVED <input type="checkbox"/>
FOREMAN DATE
D Seifinger 7-20-90

COMPLETED BY DATE
A Cook 7-20-90

WVO NO: 1900 3339

PROCEDURE & REV NO: N/A

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		NOTIFIED		QC ACTION	
			INIT	DATE	INIT	DATE	INIT	I-W-N/A
1	H	RETURN MWO TO BEWP (H) IF REQUIRED FOR ASSIGNMENT OF ADDITIONAL HOLD POINTS	JLS	7/15/90			JLS	N/A
2	H	NOTIFY Q.C. PRIOR TO INSTALLING CAP(S) FOR Q.C. TO VERIFY ACCEPTABLE FLATNESS	JLS	7/24/90	JLS	7/24/90	JLS	I
3	H	NOTIFY Q.C. PRIOR TO RE-ASSEMBLY FOR Q.C. TO VERIFY ACCEPTABLE CLEARANCES BETWEEN CAP AND PISTON AND THE CAP PISTON ARE VISUALLY ACCEPTABLE.	JLS	7/24/90	CEM	7/24/90	CEM	I
4	H	NOTIFY Q.C. PRIOR TO RE-ASSEMBLY FOR Q.C. TO VERIFY FOLLOWING:						
		a) ACCEPTABLE CAPSCREW LENGTH (STEP 4.7.4)	JLS	7/24/90	CEM	7/24/90	CEM	I
		b) CAPSCREW TORQUE (STEP 4.7.6)	JLS	7/24/90	CEM	7/24/90	CEM	I
		c) CAPSCREW TIGHTNESS (STEP 4.7.7) - N/A	JLS	7/24/90	JLS	7/24/90	JLS	N/A

COMMENTS & IR NUMBERS: (Initial and date entries)


HOLD POINT #2 SIGNED OFF BASED ON I.R. # 34694 AND I.R. # 35156 (MUCH AS 1156) JLS 7/24/90

*STEP 4.C (HOLD POINT) NOT APPLICABLE BASED ON WRT 11156 BEING WRITTEN TO COVER THIS WORK. JLS 7/24/90

Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

34694

Georgia Power 

Page 1 of 1

MWO/ODR/DR No. <i>19003339</i>	Building <i>Diesel GEN- Unit 5</i>	Procedure/Spec. No./Rev. <i>27598-C 2/0</i>
Room No./Level No. <i>126B 1A</i>	Sys./Start-Up Designator <i>2403</i>	Tag No. <i>1-2403-64-001</i>
Drawing No./Rev. <i>14/0</i>	Vendor Manual Log No. <i>11/4</i>	Other <i>85022-C 2/1</i>

- Inspector will use separate form for each completed inspection function(s) and insert original with work package use continuation sheets when needed.
- 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.
- Upon completion of the inspection activity, enter results below and sign and date.

Remarks

Method of inspection Visual

Identified as witness the following point.

#3 verify the clearance by measuring the piston and

WREN THEN WITH CAPS IN MEASUREMENTS 4.6.2c and d.

Verification of clearance M/WB A9001255 IP 30156

#4

4.a. verify capscrew length. 4.7.4 step

4.b. verify capscrew torque 4.7.6 step

150 ft-lbs

4.c. N/A

NOTE VP3-2153 N/C. ldd 10-2-90

VP3-2273 ldd 10-5-90

Sketch

MER. 88-1652 - Mobil 412 oil

Inspection Results

SAT. UNSAT—ODR/DR NO.(s):

Inspector *[Signature]* Date *1-20-90*

705516A MCS191

WHITE—Work Package CANARY—QC Supr. PINK—Inspector

EQ EVALUATION CHECKLIST

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

MMO NO. P203339

SECTION I

PART A ORIGINAL PART

- 1. DESCRIPTION D.G.
- 2. TAG NO. 1240364001
- 3. PROJECT CLASS 015
- 4. SPECIFICATION (EQDP) NO. X4AK01
- 5. MANUFACTURER DELAVAL
- 6. MODEL NO. _____
- 7. PART NO. _____

PART B REPLACEMENT PART

- 1. DESCRIPTION _____
- 2. MFR NO. _____
- 3. STOCK NO. _____
- 4. SPECIFICATION (EQDP) NO. _____
- 5. MANUFACTURER _____
- 6. MODEL NO. _____
- 7. PART NO. _____
- 8. PO NO. _____

COMMENTS _____

SECTION II WORK PLANNING

1. ARE PROCEDURES, VENDOR MANUALS, DRAWINGS OR INSTRUCTIONS AVAILABLE TO DISASSEMBLE/REWORK COMPONENT?

YES NO
CJP 17/18/90
(Init. 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?

YES NO

4. IS BULK MATERIAL LISTED ON ATTACHMENT ACCEPTABLE? LIST ITEM NO. FROM ATTACHMENT IF "NO" IS CHECKED.

YES NO

(Item No.)

CJC 17/20/90
(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

CJP 17/20/90
VPC DATE

SECTION III EQ GROUP EVALUATION

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

JUSTIFICATION FOR ACCEPTANCE:

CJP
EQ ENGINEER

DATE

FIGURE 3

EQ EVALUATION CHECKLIST
FOR BULK MATERIAL

MWO NO 19003339

1. DESCRIPTION OF ITEM AIR START VALVE

MER 9010556 PO PAV 29239 #2

2. DESCRIPTION OF ITEM AIR START VALVE

MER 9010556^{CA 7/20/00} PO PAV 481

3. DESCRIPTION OF ITEM MORIL 412

MER 88-16052 PO 341

4. DESCRIPTION OF ITEM _____

MER _____ PO _____

5. DESCRIPTION OF ITEM _____

MER _____ PO _____

6. DESCRIPTION OF ITEM _____

MER _____ PO 75A

7. DESCRIPTION OF ITEM _____

MER _____ PO _____

8. DESCRIPTION OF ITEM _____

MER _____ PO _____

REMARKS: ITEMS 1 & 2 BOUGHT PER X4MK01 AND
DEDICATED TO DIESELS. LAC 7/20/00
ITEM 3 APPROVED FOR USE

FIGURE 3 (CONT'D.)

VEGP FIRE PROTECTION CHECKLIST

1. MWO NO. 1900333 2. MPL/TAG NO. 1240364001
 3. LOCATION D.G. A TRAIN

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 J.P. [Signature] DATE 7/18/90

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

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

(B) THE FIRE PROTECTION COMPONENT IS STILL IMPAIRED. FPE _____ DATE 7/18/90

(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 _____



MEMO

Date: July 13, 1990
To: Ken Stokes
From: Robert Johnston

Subject: Vogtle Electric Generating Plant
Reference: Diesel Generator Air Start Valve Capscrew Retorque

The requirement to retorquer air start valve cap screws after the initial operation following a valve's installation is necessitated by the compression characteristics of the soft copper gasket used to seal between the head and valve assembly. We know from experience that bolting preload alone will not fully compress the copper gasket, cylinder pressure fluctuations acting upon the air start valve causes motion of the valve which further compresses the gasket and correspondingly reduces the preload imparted by the cap screws. This additional compression must be compensated for by retorquing the cap screws until no further gasket compression is observed. The work currently in progress at Vogtle entails removal of the cap screws and air start valve cap but does not disturb the relationship between the valve body, gasket and cylinder head, it is therefore not necessary to require a periodic hot retorque of the air start valve cap screws upon reassembly.

[Handwritten signature]

Project Engineer

Attention: Lance Block
Ray Howard

File: Engine S/N: 76081/24

Project Admin:

Sales:

Other: