

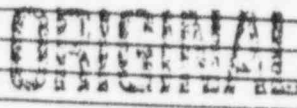
150-D

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

1. CONTROL NO. 19003340 00 2. DATE 07/17/90 3. UNIT 1 4. SYSTEM 2403  
5. MPL/TAG NO. 12403G4002 DIESEL GENERATOR 5A. REPAIR TAG

6. PROB/WORK REQ. THE STICKING OF SEVERAL AIR START VALVES WAS DETERMINED TO BE THE CAUSE OF THE RECENT 2A D/G FAILURE TO START. *WORK on 1/3/90*

CONT. N NPRD "Y"



7. INITIATOR DUSTY ADAMS 8. SUPRV JP REDDING  
9. MWO CLASS S EQP CLASS 015 10. UNIT STAT - *Any MWO* 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 4 0 0 0 0  
HRS. 0 180 0 0 0 0  
EXP. 0 180 0 0 0 0  
SCHED BEG SCHED END RESP FOREMAN  
18. WELD PERM N 19. RWP PERM *NA*  
20. PROC 21. PRI 24 22. LCO *NA*  
23. WORK INST. *main zone TV housekeeping*

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  
OPS DATE *7/18/90* MNT CR DATE *7/18/90* 25. SPEC REV REQ N  
HP DATE *7/18/90* ENG *KA* DATE *7/18/90* SIG. *[Signature]* 26. MWO RELEASE FOR WORK DATE *7/18/90*  
27. ACT WORK PERFORMED

*See Const Start mwo 7-18-90*

CONT. N

HIST SUM  
28. MTRL REQD 90-10453 10532  
29. PERSON PERFORMING WORK (NAME) DATE 30. MAINTENANCE FOREMAN DATE  
*JH Moorey* 7/19/90 *James Suter* 7/19/90  
31. INSPECTION PERFORMED BY *WR [Signature]* DATE 7/19/90  
32. METHOD OF F.T. *ops 70* DATE 7/30/90  
33. PROCEDURE # *14580-1* 34. PERFORMED BY *James Suter* 35. DATE *7/19/90*  
36. PROVES OPERABILITY 37. METHOD USED TO PROVE OPERABILITY *14580-1*  
38. SATISFY/UNSATISFY - 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 44. DETECT BY *N* 45. EFFECT ON SYS *N*  
46. EFF ON PLANT *N* 47. MWO STAT D 48. CAUSE *WCB* 49. CORR ACT. *N*  
50. NEW MWO *M.E. 19003340* 51. OPER. ACCEPT BY *(WCB)* DATE *7/18/90*  
52. OSOS APPROVAL *NA* 54. MEET. # *NA* DATE *7/18/90*  
53. SPEC REV COMP *NA* DATE *7/18/90*  
55. CLOSE OUT APPROVAL BY QC DATE *7/18/90*

*13 [Signature]*

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NUCLEAR PLANT MAINTENANCE WORK ORDER (CONTINUED)

(2 OF 2)

CONTROL NO. 19003340 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 RETURN MWO TO WPG FOR REVISION.

CSO 7/14/90

Nuclear Plant Maintenance Work Order Continuation Sheet

MPL No. 1-2403-G4-002

MWO No. 19003340

(1)

Work Description The sticking of several Air start valves was found on D/G IB. Valves found was 7L, 4L 2L 1L on the Left bank side were bad, on the right bank side were 8R 7R 6R 5R 2R 1R were bad. WCP 7-18-90

Maintained Zone IV Housekeeping.

Block 26 (O.V. Closet) 7/18/90

Removed all 16 air start caps and piston from 16 D/G, to check flatness of cap, and clearance between the original piston and new cap, the sub cover were temporary install on heads Maintained Zone IV Housekeeping and Class-C-Cleanliness. WCP 7-18-90 Checked FLATNESS OF CAPS by using granite SURFACE TABLE in TOOL ROOM and a .001 feeler gauge, 6 caps were acceptable and labeled as such. The 2 caps that failed were .002-.00315 gHM 7-18-90

Block 27: lapped pistons to obtain .003 clearance between piston and cap. Used VP-3-2153 cal due 10-2-90 and VP-3-2155 cal due 10-2-90. Maintained zone IV housekeeping E2F 7-18-90

Installed caps and pistons in engine on all 16 air start valves. "Some new caps were obtained on MFR-90-10453 and checked for flatness to replace ones with unacceptable readings on flatness test. Two old ones that were unacceptable had burrs on them causing more trouble to produce when then these were stored down. Torqued all air start valve capscrews to 150-ft lbs. using VP-3-2273 1/2 10-5-90.

VOGTLE ELECTRIC GENERATING PLANT

GEORGIA POWER CO.

MAINTENANCE WORK ORDER REVISION SHEET

1 CONTROL NO. 19003340	2 REVISION NO. 2	3 MPL TAG NO. 1-2405-64-002	4 DATE 7-19-90
5 REASON FOR REVISION After machining Piston & Rings engine No. 1001 Cooled for 24 hours. Same 8 E. Air fail before failed Pop Test. Block 23: P4 Conversation with "Boyer" we can machine in large up to .010 from bottom of cage to obtain .001 or less flatness. Large one of the obliterating cages that was removed from engine to obtain this clearance. Also hone on machine piston where there is a .003 diametrical clearance between cage & piston. Record measurements as dictated from 27548-C.			
7 MAINTENANCE ENG- 7-19-90			6 INITIATOR M. J. Boyer
REVIEW SIGNATURES			
10 QC REVIEW W.R. Pollock 7/19/90	8 OPERATIONS W.C. 3y -	9 CLEARANCE REQUIRED 1-90-10181	
12 HP REVIEW D. Henry 7-19-90	11 HOLD POINTS YES	<b>HOLD POINT ATTACHED</b>	
14 ANII REVIEW NA CAB 7-14-90	13 NEW RWP REQUIRED NONE		
16 WORK PLANNER 7/19/90	15 HOLD POINTS NT		
18 FIRE PROTECTION REVIEW NO	17 PROCEDURES 27548-C		
19 SHIFT SUPERVISOR W.C. 3y - 7/19/90			
20 REMARKS Notify U-1 CR 55 prior to beginning work			

VOGTLE ELECTRIC GENERATING PLANT

GEORGIA POWER CO.

MAINTENANCE WORK ORDER REVISION SHEET

1 CONTROL NO. 19003340	2 REVISION NO. 1	3 MPL TAG NO. 1-2403-G4-002	4 DATE 7/18/90
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5 REASON FOR REVISION

- SEVERAL AIR START VALVES FAILED TEST.
- Add Work Instruction Block 23:
  - Remove cap from <sup>ALL</sup> AIR start valve (TOTAL 16)
  - Remove cap from NEW AIR start valve (REQ FROM WAREHOUSE)
  - Check NEW CAP FOR <sup>FLATNESS</sup> FLATNESS. (.001 MAX CLEARANCE ALLOWED.)
  - Check for a clearance between the orig (installed) piston and NEW CAP. Clearance = .001" to .003". Pre: 27598-C
  - Install NEW CAP per 27598-C.
  - SEE BELOW.

6 INITIATOR  
L. Johnson

7 MAINTENANCE ENG K. Newton 7-18-90	8 OPERATIONS W. Brown 7/18/90	9 CLEARANCE REQUIRED SEE MWD FTD
10 QC REVIEW 7/18/90	11 HOLD POINTS HOLD POINT ATTACHED	
12 HP REVIEW 7-18-90	13 NEW RWP REQUIRED NONE	
14 ANII REVIEW 7/18/90	15 HOLD POINTS NA	
16 WORK PLANNER 7/18/90	17 PROCEDURES 27598-C	
18 FIRE PROTECTION REVIEW NO	19 SHIFT SUPERVISOR C. L. Johnson	
20 REWORKS HOLD POINT	Check ORIG. (cap) (REMOVED FROM DG) CAP FOR Flatness - Check orig cap for clearance .001" - .003" between piston & cap, per 27598-C. - Reinstall cap the inside of caps (new/orig) 7/18/90 - Lap piston to obtain .001" - .003". Need max clearance which is .003". L. Johnson 7/18/90	

WVO No: 19003340



PROCEDURE & REV NO:

27598-C Revision 0

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
		Notify QC to verify the following hold points:	DW	7/17/90	WRP	7/19/90	WRP	I
4.6.2b	H	Verify inside diameter of cap in x - x and y - y planes					WRP	I
4.6.2c	H	Verify outside diameter of piston in x - x and y - y planes					WRP	I
4.6.2d	H	Verify clearances			WRP	7/19/90	WRP	I
4.6.2e	H	Inspect following components for signs of corrosion and wear:						
		1) Valve stem						
		2) Lower guide inside diameter, outside diameter and rings						
		3) Upper guide inside and outside diameter						
		4) Cap inside diameter						
		5) Piston outside diameter						
		6) Housing inside diameter						
4.6.2f	H	Inspect valve and seat for pitting	DW	7/19/90				

N/A  
WRP  
7/19/90  
7/19/90

COMMENTS & IR NUMBERS: (initial and date entries)

IR# 35341, WRP, 7/19/90

WVO No: 19003340 

PROCEDURE & REV No: 27598-C Revision 0


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 DATE		QC ACTION	
			INIT	DATE	INIT	DATE	INIT	I-W-WV
4.6.2h	H	Verify bluing of valve	DC	7/17/90				
4.6.3	H	Verify reassembly			WRP	7/19/90	WRP	I
4.7.2	H	Verify installation of gasket					WRP	N/A
4.7.3	H	Verify cleanliness					WRP	I
4.7.4	H	Verify length of cap screws					WRP	N/A
4.7.6	H	Verify torque					WRP	I
4.7.7	H	Verify torque			WRP	7/19/90	WRP	N/A
4.7.9c	H	Verify cleanliness						
4.7.9e	H	Verify cleanliness						
4.7.9h	H	Verify torque						
4.7.10	H	Verify valve adjustment						N/A WRP 7/11/90
4.7.11	H	Verify cleanliness prior to installation of cylinder head cover	DC	7/17/90				

COMMENTS & IR NUMBERS: (initial and date entries)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

WFO No: 19003340 

PROCEDURE & REV No: 27598-C Revision 0

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/V
4.6.2h	H	Verify bluing of valve	DC	7-17-90				
4.6.3	H	Verify reassembly			WRP	7/19/90	WRP	I
4.7.2	H	Verify installation of gasket					WRP	N/A
4.7.3	H	Verify cleanliness					WRP	I
4.7.4	H	Verify length of cap screws					WRP	N/A
4.7.6	H	Verify torque					WRP	I
4.7.7	H	Verify torque			WRP	7/19/90	WRP	N/A
4.7.9c	H	Verify cleanliness						
4.7.9e	H	Verify cleanliness						
4.7.9h	H	Verify torque						
4.7.10	H	Verify valve adjustment						N/A WRP 7/19/90
4.7.11	H	Verify cleanliness prior to installation of cylinder head cover	DC	7-17-90				

COMMENTS & IR NUMBERS: (initial and date entries)



WVO No: 19003340 *A*

PROCEDURE & REV No: 27598-C Revision 0

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
4.7.13	H	Verify main bearing cap oil lines reinstalled and tightened	DC	7/17/90				
4.8	H	Verify relanding of lifted leads	DC	7/17/90				
N/A	H	Notify QC to verify flatness of cap	WRP	7/17/90	WRP	7/19/90	WRP	I

*N/A WRP 7/19/90*

COMMENTS & IR NUMBERS: (initial and date entries)

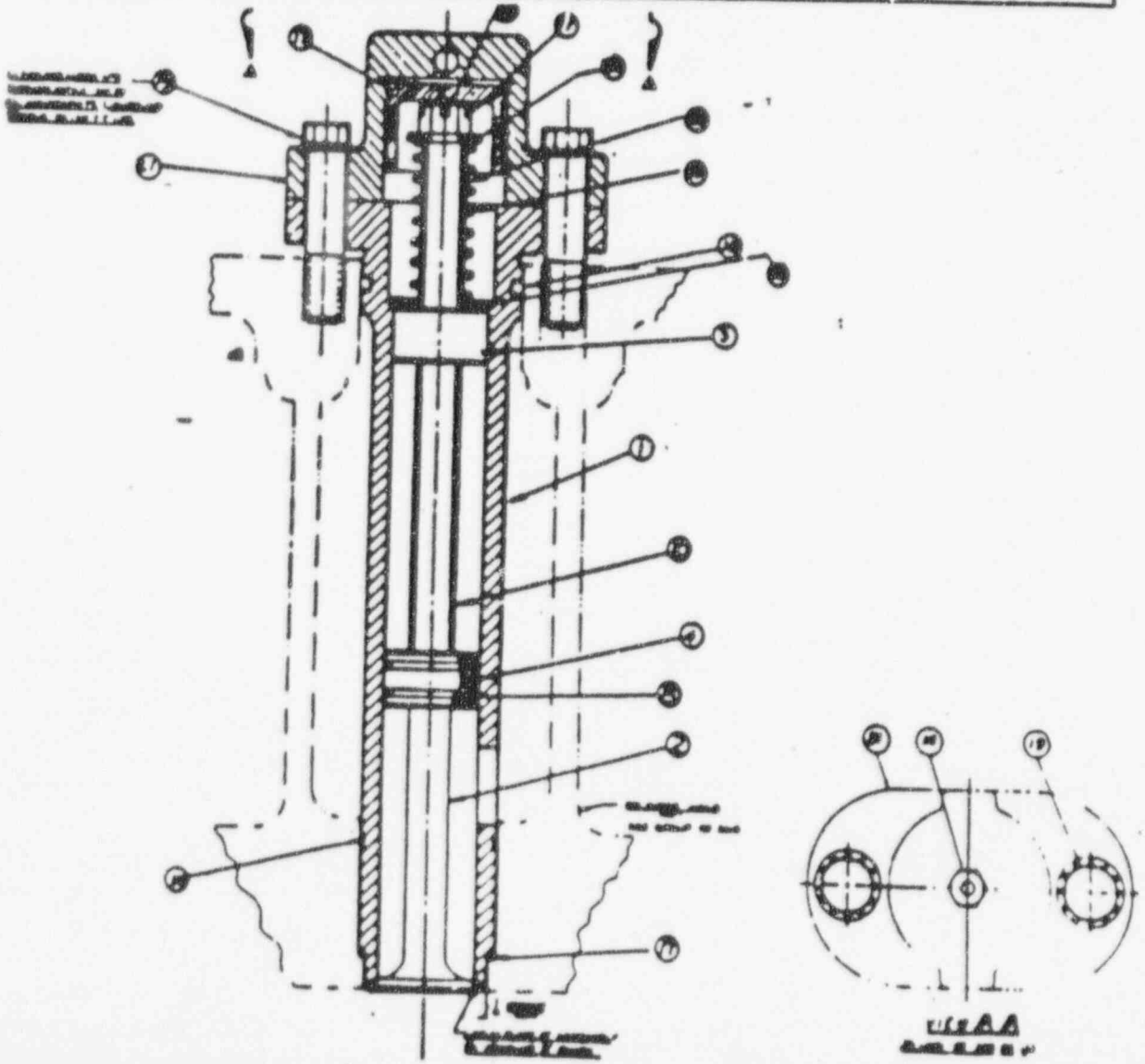
FOR USE WITH CONTROL NO.

19003340

DATA SHEET 1 *PARTIAL SET OF DATA SHEETS*  
AIR START VALVE INSPECTION

Sheet 1 of 4

COMPONENT GROUP TITLE: AIR START VALVE	PARTS GROUP NO. 02-359
LOCATION: VOGTLE ELECTRIC GENERATING PLANT	UNIT NO. 1
TAG NUMBER: 1-2403-94-002	ENGINE SERIAL NO. 76022
TOTAL ENGINE HOURS: 7439	HOURS SINCE LAST INSPECTION: N/A
DATE THIS INSPECTION: 7-18-90	REFERENCE STEPS: 4.6, 4.7



DATA SHEET 1  
AIR START VALVE INSPECTION

ENGINE TAG NO.: 1-2403 (4000) DATE: 7-19-90

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

Valve	CAP		PISTON		Clearance	Sat	Unsat	Performed By
	x-x	y-y	x-x	y-y				
1R								
1L								
2R								
2L								
3R								
3L								
4R								
4L								
5R								
5L <i>N/A</i>								
6R								
6L								
7R								
7L								
8R	2.250	2.250	2.247	2.247	0.003	x		
8L <i>N/A</i>								<i>Jimmy Duvall</i>

M&TE Serial No. VF-3-2155  
 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				



COMPLETION SHEET

PROCEDURE NO. 27598-C	REVISION 0	SHEET 1 of 4
TAG NO. 1-2403-64-002	DESCRIPTION Standby Diesel Generator	
SERIAL NO. 76022	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	<u>JA 17/19/90</u>	<u>N/A</u>	<u>WRP 17/19/90</u>
4.2	Shift Supervisor Notified	<u>JA 17/19/90</u>	<u>N/A</u>	<u>1</u>
4.3	Diesel Generator Isolated and Tagged	<u>JA 17/19/90</u>	<u>N/A</u>	<u>WRP 17/19/90</u>
4.6.2b through d	Measure Air Start Valve Cap to Piston Clearance "Data" Sheet 1, Sheet 2	<u>JA* 17-19-90</u>	<u>QC HOLD POINT</u>	<u>WRP* 17/19/90</u>
4.6.2e	Inspect Air Start Valve Internals "Data" Sheet 1, Sheet 2	<u>1*/17/19/90</u>	<u>N/A</u>	<u>*1</u>
4.6.2f	Inspect Air Start Valve Seat For Pitting "Data" Sheet 1, Sheet 3	<u>1*/17/19/90</u>	<u>N/A</u>	<u>*1</u>
4.6.2h	Blue Air Start Valve "Data" Sheet 1, Sheet 3	<u>1*/17/19/90</u>	<u>N/A</u>	<u>*1</u>

\* Document on Referenced "Data" Sheet

PROCEDURE STEP	DESCRIPTION	MAINT. INIT/DATE	HOLD POINT (Yes/No)	QC INIT/DATE
4.6.3	Air Start Valves Reassembled			
	1R	<del>/</del>	<del>/</del>	<del>/</del>
	2R	<del>/</del>	<del>/</del>	<del>/</del>
	3R	<del>/</del>	<del>/</del>	<del>/</del>
	4R	<del>/</del>	<del>/</del>	<del>/</del>
	5R	<del>/</del>	<del>/</del>	<del>/</del>
	6R	<del>/</del>	<del>/</del>	<del>/</del>
	7R	<del>/</del>	<del>/</del>	<del>/</del>
	8R	<del>/</del>	<del>/</del>	<del>/</del>
	1L	<del>/</del>	<del>/</del>	<del>/</del>
	2L	<del>/</del>	<del>/</del>	<del>/</del>
	3L	<del>/</del>	<del>/</del>	<del>/</del>
	4L	<del>/</del>	<del>/</del>	<del>/</del>
	5L	<del>/</del>	<del>/</del>	<del>/</del>
	6L	<del>/</del>	<del>/</del>	<del>/</del>
	7L	<del>/</del>	<del>/</del>	<del>/</del>
	8L	<del>/</del>	<del>/</del>	<del>/</del>
4.7.2	Valve To Head Gasket Installed			
	1R	<del>/</del>	<del>/</del>	<del>/</del>
	2R	<del>/</del>	<del>/</del>	<del>/</del>
	3R	<del>/</del>	<del>/</del>	<del>/</del>
	4R	<del>/</del>	<del>/</del>	<del>/</del>
	5R	<del>/</del>	<del>/</del>	<del>/</del>
	6R	<del>/</del>	<del>/</del>	<del>/</del>
	7R	<del>/</del>	<del>/</del>	<del>/</del>
	8R	<del>/</del>	<del>/</del>	<del>/</del>
	1L	<del>/</del>	<del>/</del>	<del>/</del>
	2L	<del>/</del>	<del>/</del>	<del>/</del>
	3L	<del>/</del>	<del>/</del>	<del>/</del>
	4L	<del>/</del>	<del>/</del>	<del>/</del>
	5L	<del>/</del>	<del>/</del>	<del>/</del>
	6L	<del>/</del>	<del>/</del>	<del>/</del>
	7L	<del>/</del>	<del>/</del>	<del>/</del>
	8L	<del>/</del>	<del>/</del>	<del>/</del>
4.7.4	Air Start Valve Capscrews Inspected "Data" Sheet 1, Sheet 3	<u>N/A</u>	<u>N/A</u>	<u>*1</u>
4.7.6	Air Start Valve Capscrews Torqued - "Data" Sheet 1, Sheet 3	<u>N/A * 1/17/90</u>	<u>QC HOLD POINT</u>	<u>N/A * 1/17/90</u>

\* Document on Referenced "Data" Sheet

<u>PROCEDURE STEP</u>	<u>DESCRIPTION</u>	<u>MAINT. INIT/DATE</u>	<u>HOLD POINT (Yes/No)</u>	<u>QC INIT/DATE</u>
4.7.7	Air Start Valve Capscrews Retorqued every 8 hours of engine operation "Data" Sheet 2	<u>N/A</u>	<u>N/A</u>	<u>1</u>
4.7.9h	Torque Rocker Arm Capscrews "Data" Sheet 1, Sheet 4	<u>N/A</u>	<u>N/A</u>	<u>*1</u>
4.7.10	Adjust Intake And Exhaust valves			
	1R	<del>/</del>		<del>/</del>
	2R	<del>/</del>		<del>/</del>
	3R	<del>/</del>		<del>/</del>
	4R	<del>/</del>		<del>/</del>
	5R	<del>/</del>		<del>/</del>
	6R	<del>/</del>		<del>/</del>
	7R	<del>/</del>		<del>/</del>
	8R	<del>/</del>		<del>/</del>
	1L	<del>/</del>		<del>/</del>
	2L	<del>/</del>		<del>/</del>
	3L	<del>/</del>		<del>/</del>
	4L	<del>/</del>		<del>/</del>
	5L	<del>/</del>		<del>/</del>
	6L	<del>/</del>		<del>/</del>
	7L	<del>/</del>		<del>/</del>
	8L	<del>/</del>		<del>/</del>
4.7.11	Tools removed from engine	<u>N/A</u>	<u>N/A</u>	<u>1</u>
4.7.12	Cylinder head covers installed	<u>N/A</u>	<u>N/A</u>	<u>1</u>
4.7.13	Main Bearing Oil Lines installed	<u>N/A</u>	<u>N/A</u>	<u>1</u>
4.9	Notify Shift Supervisor required maintenance is complete	<u>gcl 11/19/90</u>	<u>NO</u>	<u>11/19/90</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: \_\_\_\_\_

\* Only caps and pistons were removed and reassembled.

QC has reviewed this procedure for hold points W.R. [Signature]  
Signature 7/19/90

APPROVED <input checked="" type="checkbox"/>	DISAPPROVED <input type="checkbox"/>
FOREMAN	DATE
David Seckman	7-19-90

COMPLETED BY	DATE
Jimmy Arnold	7-19-90



NWO No: 19003340 2/1

PROCEDURE & REV NO:

27598-C Revision 0

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/A
		Notify QC to verify the following hold points:			WRP	7/18/90	WRP	N/A
			DW	7/17/90				
4.6.2b	H	Verify inside diameter of cap in x - x and y - y planes					WRP	I
4.6.2c	H	Verify outside diameter of piston in x - x and y - y planes						
4.6.2d	H	Verify clearances					WRP	I
4.6.2e	H	Inspect following components for signs of corrosion and wear:					WRP	N/A
		1) Valve stem						
		2) Lower guide inside diameter, outside diameter and rings						
		3) Upper guide inside and outside diameter						
		4) Cap inside diameter						
		5) Piston outside diameter						
		6) Housing inside diameter					WRP	N/A
4.6.2f	H	Inspect valve and seat for pitting	DW	7/19/90	WRP	7/14/90	WRP	N/A

COMMENTS & IR NUMBERS: (Initial and date entries)

IR# 35207, WRP, 7/18/90

WFO NO: 1900 2240 4/1

PROCEDURE & REV NO: 27598-C Revision 0

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
4.6.2h	H	Verify bluing of valve	DC	7/16/90	WRP	7/16/90	J-11	N/A
4.6.3	H	Verify reassembly					WRP	I
4.7.2	H	Verify installation of gasket					WRP	N/A
4.7.3	H	Verify cleanliness					WRP	I
4.7.4	H	Verify length of cap screws					WRP	N/A
4.7.6	H	Verify torque					WRP	I
4.7.7	H	Verify torque					WRP*	N/A
4.7.9c	H	Verify cleanliness					WRP	N/A
4.7.9e	H	Verify cleanliness					WRP	N/A
4.7.9h	H	Verify torque					J-11	N/A
4.7.10	H	Verify valve adjustment					J-11	N/A
4.7.11	H	Verify cleanliness prior to installation of cylinder head cover	DC	7/17/90	WRP	7/15/90	J-11	N/A

COMMENTS & IR NUMBERS: (initial and date entries)  
\* 8 hour checks to be done on another date.

WFO No:

19003340

PROCEDURE & REV NO:

27598-C Revision 0

INITIALS  
DATE

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

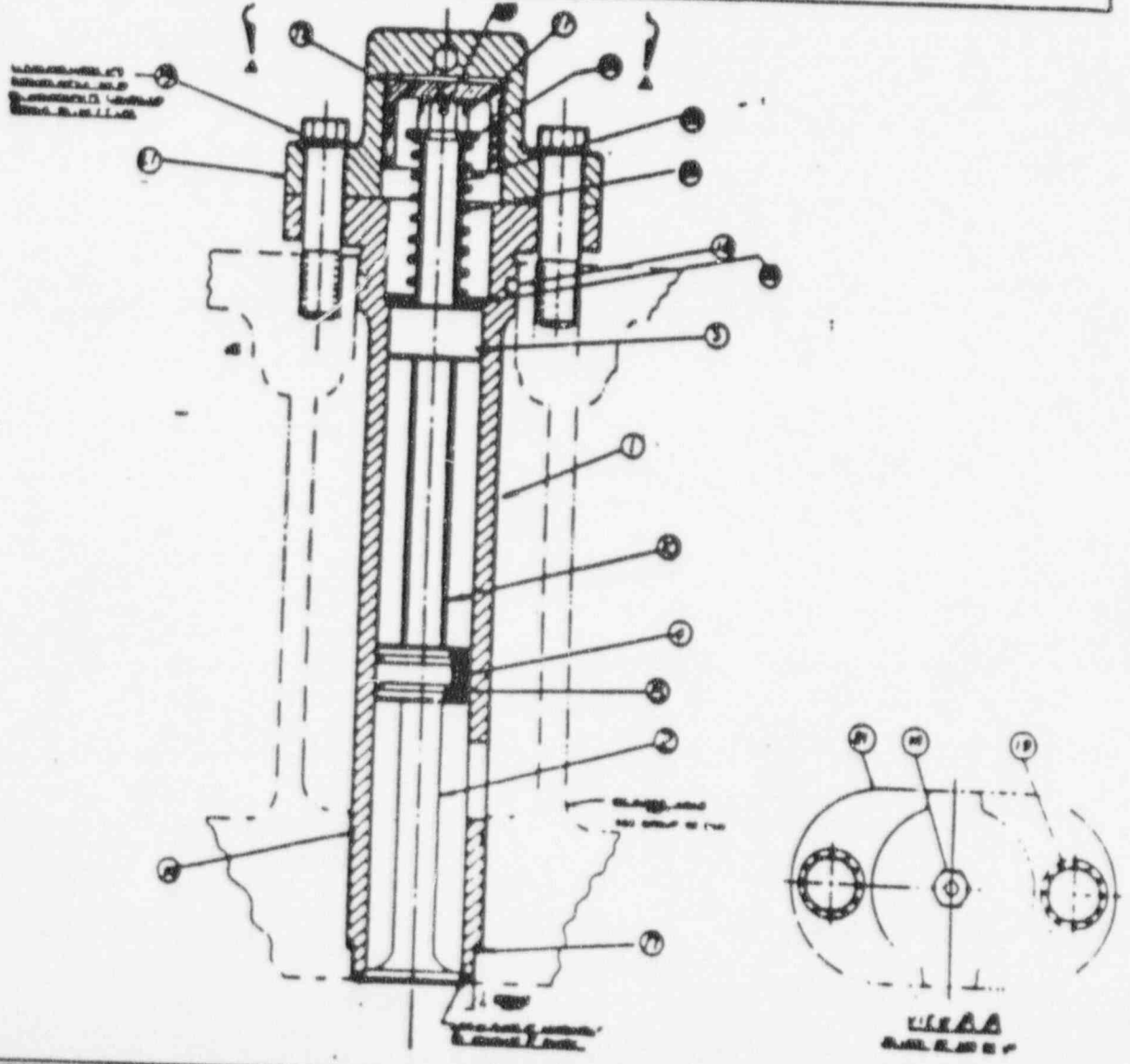
DO NOT BYPASS QC HOLD OR WITNESS POINTS

STEP NO.	H/W	HOLD POINT / WITNESS POINT DESCRIPTION	ASSIGNED BY		NOTIFIED		QC ACTION	
			INIT	DATE	INIT	DATE	INIT	DATE
4.7.13	H	Verify main bearing cap oil lines reinstalled and tightened	DC	7/17/90				
4.8	H	Verify relanding of lifted leads	DC	7/17/90				
N/A	H	NOTIFY QC TO VERIFY <sup>TO VERIFY</sup> CAPS <sup>FOR FLATNESS</sup>	JS	7/17/90	JS	7/17/90	JS	
N/A	H	NOTIFY QC TO VERIFY <sup>FOR FLATNESS</sup> CAPS	JS	7/17/90	JS	7/17/90	JS	

COMMENTS & IR NUMBERS: (initial and date entries)

DATA SHEET 1  
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: 1-2403-G4-002	ENGINE SERIAL NO. 76022
TOTAL ENGINE HOURS: 743.9	HOURS SINCE LAST INSPECTION: n/a
DATE THIS INSPECTION: 7.17-90	REFERENCE STEPS: 4.6, 4.7



DATA SHEET 1  
AIR START VALVE INSPECTION

ENGINE TAG NO.: 1-2407 64-002 DATE: 2-11-90

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

Valve	CAP		PISTON		Clearance	Sat	Unsat	Performed By
	x-x	y-y	x-x	y-y				
1R	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
1L	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
2R(N5)	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
2L	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
3R(N3)	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
3L	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
4R	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
4L	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
5R(N4)	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
5L(N6)	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
6R	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
6L	2.249	2.249	2.246	2.246	0.003	X		PL J. [unclear]
7R(N1)	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
7L(N2)	2.249	2.249	2.246	2.246	0.003	X		PL J. [unclear]
8R	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]
8L	2.250	2.250	2.247	2.247	0.003	X		PL J. [unclear]

M&TE Serial No. VP 3-2157 VP 3-2155  
 Cal. Due Date 10/2/97 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				

PROCEDURE NO.

VEGP

27598-C

REVISION

0

PAGE NO.

23 of 31

Sheet 3 of 4

DATA SHEET 1

AIR START VALVE INSPECTIONS

ENGINE TAG NO. 1-2403-G4-002

DATE: 7/18/90

3) Step 4.6.2f and h: Valve Seat Inspection

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

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

Cylinder	Capscrew = 2-3/4"		Torque		Performed	Witnessed
	1	2	1	2		
1R						
2R						
3R						
4R						
5R						
6R						
7R						
8R						
1L						
2L						
3L						
4L						
5L						
6L						
7L						
8L						

M&TE Serial No. VC-3-2112

Cal. Due Date 10/5/90

DATA SHEET 1

ENGINE TAG No. 1-7403-C-4-002 DATE: 7/18/90

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.: 1-2403-64-002

DATE: 7/18/90

Step 4.7.7

ENGINE HOURS \_\_\_\_\_

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 \_\_\_\_\_

Step 4.7.7:

ENGINE HOURS \_\_\_\_\_

Cylinder	Capscrew		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.: \_\_\_\_\_  
 Step 4.7.7

DATE: \_\_\_\_\_  
 ENGINE HOURS \_\_\_\_\_

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					

*NA*

M&TE Serial No. \_\_\_\_\_  
 Cal. Due Date \_\_\_\_\_

Step 4.7.7:

ENGINE HOURS \_\_\_\_\_

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					

*NA*

M&TE Serial No. \_\_\_\_\_  
 Cal. Due Date \_\_\_\_\_



19003340  
COMPLETION SHEET

PROCEDURE NO. 27598-C	REVISION 0	SHEET 1 of 4
TAG NO. 1-2403-64-002	DESCRIPTION Standby Diesel Generator	
SERIAL NO. 76022	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	N/A 7-12-90	No	See 17/18/90
4.2	Shift Supervisor Notified	N/A 7-16-90		
4.3	Diesel Generator Isolated and Tagged	N/A 7-18-90		
4.6.2b through d	Measure Air Start Valve Cap to Piston Clearance "Data" Sheet 1, Sheet 2	N/A 7-18-90	Q.C. HOLD POINT	N/A * 17/18/90
4.6.2e	Inspect Air Start Valve Internals "Data" Sheet 1, Sheet 2	N/A	Q.C. HOLD POINT	N/A WRP 7/19/90 *1
4.6.2f	Inspect Air Start Valve Seat For Pitting "Data" Sheet 1, Sheet 3	N/A	Q.C. HOLD POINT	N/A WRP 7/19/90 *1
4.6.2h	Blue Air Start Valve "Data" Sheet 1, Sheet 3	N/A 7/19/90		N/A *1

\* Document on Referenced "Data" Sheet

PROCEDURE STEP	DESCRIPTION	MAINT. INIT/DATE	HOLD POINT (Yes/No)	QC INIT/DATE
4.6.3	Air Start Valves Reassembled			
	1R	<i>* See Comments</i> mwb 17-18-90	Q.C. HOLD POINT	WRP 7/18/90
	2R	/	/	/
	3R	/	/	/
	4R	/	/	/
	5R	/	/	/
	6R	/	/	/
	7R	/	/	/
	8R	/	/	/
	1L	/	/	/
	2L	/	/	/
	3L	/	/	/
	4L	/	/	/
	5L	/	/	/
	6L	/	/	/
	7L	/	/	/
	8L	mwb 17-18-90	/	WRP 7/18/90
4.7.2	Valve To Head Gasket Installed			
	1R	/	Q.C. HOLD POINT	N/A WRP 7/18/90
	2R	/	/	/
	3R	/	/	/
	4R	/	/	/
	5R	/	/	/
	6R	/	/	/
	7R	/	/	/
	8R	/	/	/
	1L	/	/	/
	2L	/	/	/
	3L	/	/	/
	4L	/	/	/
	5L	/	/	/
	6L	/	/	/
	7L	/	/	/
	8L	/	/	/
4.7.4	Air Start Valve Capscrews Inspected "Data" Sheet 1, Sheet 3	N/A * DAS 7/18/90	Q.C. HOLD POINT	N/A WRP 7/18/90
4.7.6	Air Start Valve Capscrews Torqued - "Data" Sheet 1, Sheet 3	DAS * 7/18/90	Q.C. HOLD POINT	WRP * 7/18/90

\* Document or. 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	MW 7-19-90 N/A	-QC- HOLD POINT-	N/A 7/19/90
4.7.9h	Torque Rocker Arm Capscrews "Data" Sheet 1, Sheet 4	N/A 7/12/90	/	*/
4.7.10	Adjust Intake And Exhaust valves	N/A		
	1R	/		/
	2R	/		/
	3R	/		/
	4R	/		/
	5R	/		/
	6R	/		/
	7R	/		/
	8R	/		/
	1L	/	/	
	2L	/	/	
	3L	/	/	
	4L	/	/	
	5L	/	/	
	6L	/	/	
	7L	/	/	
	8L	/	/	
4.7.11	Tools removed from engine	N/A 7/12/90		/
4.7.12	Cylinder head covers installed	N/A 7/12/90		/
4.7.13	Main Bearing Oil Lines installed	N/A 7/12/90		/
4.9	Notify Shift Supervisor required maintenance is complete	N/A 7/12/90	N/A	Sub 7/12/90

\* Document on Referenced "Data" Sheet

COMMENTS/ADDITIONAL HOLD POINTS: IR# 35207, WRP, 7/19/90  
 \* Only Cores and Pistons were removed & re-assembled

\* K 4.7.6 SIGNED AFTER THE FACT BASED ON INSPECTION REPORT 352.07

QC has reviewed this procedure for hold points William H. [Signature] 7/19/90  
 Signature

APPROVED <input checked="" type="checkbox"/> DISAPPROVED <input type="checkbox"/>
FOREMAN DATE
Mr. [Signature] 7-19-90

COMPLETED BY	DATE
Mr. [Signature] for Walter [Signature]	7-19-90

MWO No: 1900 3.340

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 QWP IF REASON FOR ASSIGNMENT OF ADDITIONAL HOLD POINTS	Sub	7/10/90	WRP	7/19/90	WRP	*

MENTS & IR NUMBERS: (initial and date entries)  
\* assigned more hold points to sec 2 of mwo wrp 7/19/90

Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

35207

Georgia Power 

Page 1 of 1

MWO/ODR/DR No. 19003340	Building UNIT 1 DIESEL MAINT BLDG	Procedure/Spec. No./Rev. 27543-C, R/D
Room No./Level No. W.R. 7/15/90 <del>11A</del> B-Train	Sys./Start-Up Designator 2403	Tag No. 1-2403-G4-002
Drawing No./Rev. N/A	Vendor Manual Log No. N/A	Other 85022-C, R/1

- 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 Performed a visual examination for the following procedure steps 4.6.2b Verify x and y planes on inside of cap. 4.6.2c Verified x-y planes of piston. 4.6.2d Verified clearance. See recorded measurements below. Checked caps and pistons for damage and cleanliness prior to re-installing on air start valves. Checked mating surfaces and bolting for cleanliness and damage. 4.6.3 Verified reassembly. 4.7.6 Verified final torque of 150 FT/LBS. Work performed on this IR is for all caps, valves and air valves.

11ER# 90-10453, Air Start Valves M&TE# VP-3-2273, Wrench, Cal Due Date 10/5/90  
M&TE VP-3-2153, 2-3" Mic, Cal Due Date 10/2/90

Sketch					
CAP ID	CAP X-X	CAP Y-Y	PISTON X-X	PISTON Y-Y	CLEARANCE
1R	2.250	2.250	2.247	2.247	0.003
1L	2.250	2.250	2.247	2.247	0.003
2R	2.250	2.250	2.247	2.247	0.003 (N5)
2L	2.250	2.250	2.247	2.247	0.003
3R	2.250	2.250	2.241	2.247	0.003 (N3)
3L	2.250	2.250	2.247	2.247	0.003
4R	2.250	2.250	2.247	2.247	0.003
4L	2.250	2.250	2.247	2.247	0.003
5R	2.250	2.250	2.247	2.247	0.003 (N4)
5L	2.250	2.250	2.247	2.247	0.003 (N6)
6R	2.250	2.250	2.247	2.247	0.003
6L	2.249	2.249	2.246	2.246	0.003

M&TE VP-3-2155, 2"-3" Mic, Cal Due Date 10/2/90

Inspection Results  SAT.  UNSAT—ODR/DR NO.(S):


Inspector W. R. Podhousky Jr. Date 7/15/90



# Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

35341

Georgia Power 

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MWO/ODR/DR No. 19003340	Building UNIT 1 DIESEL MAINT BLDG	Procedure/Spec. No./Rev. 27598-C, R10
Room No./Level No. B-Train	Sys./Start-Up Designator 2403	Tag No. 1-2403-G4-002
Drawing No./Rev. N/A	Vendor Manual Log No. N/A	Other 85027-C, R11

- 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 Performed the following visual examinations. Verified flatness of used cap  $\approx 0.001$ ". 4.6.2 b/c verified X & Y planes of cap and piston. see recorded measurements below. 4.6.2 d verified clearance. Checked cap & piston for damage & cleanliness prior to reinstalling. Checked mating surfaces and bolting for cleanliness and damage. 4.6.3 Verified reassembly. 4.7.6 Verified final torque of 150 FT/LBS

M&TE VP-3-2406 granite surface plate, Cal Due Date 11/15/90  
 VP-3-2155, mic 2"-3", Cal Due Date 10/2/90  
 VP-3-2273, Torque Wrench, Cal Due Date 10/5/90

Sketch

Cap  
 ID

2.250" X-X  
 2.250" Y-Y  
 WRP 3/19/90  
 Valve piston  
 O D  
 2.247" X-X  
 2.247" Y-Y

Clearance  
 0.003"

MEX # 90-10453, an start valve

Inspection Results


SAT.  UNSAT—ODR/DR NO.(S):

Inspector W.R. Podgorsky Jr. Date 7/19/90

# Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

35002

Georgia Power   
Page 1 of 1

MWO/ODR/DR No. 19003340	Building Mount Shop	Procedure/Spec. No./Rev. 27598-C-10
Room No./Level No. NA	Sys./Start-Up Designator 2103	Tag No. 1-2403-64-002
Drawing No./Rev. NA	Vendor Manual Log No. NA	Other 85022-C <sup>2</sup> 1, Block 23

- 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.

Method of inspection Visual

Remarks  
 Verified Features of 8 New Air Start Valve Caps, Verified Features of 2 Used Air Start Valve Caps. 6 New Caps Acceptable and marked as such. 2 New Caps Have .002" to .035" Gap 2 Used Caps Have .002" to .035" Gap, NOTE Used - Granite Surface Plate VP-3-2406  
 CDD 11594  
 MAR 90-10453

Sketch NA

Inspection Results

SAT.  UNSAT—ODR/DR NO.(S): 19003340


Inspector  
DC Lewis

Date  
7-18-90

Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

33500

Georgia Power 

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MWO/ODR/DR No. 10609940	Building Main SMC	Procedure/Spec. No./Rev. 27578-C E/I
Room No./Level No. N/A	Sys./Start-Up Designator 2409	Tag No. 1-2409-144-002
Drawing No./Rev. N/A	Vendor Manual Log No. N/A	Other 85022-C E/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

Verified flanges of cold air start valve caps are acceptable, these valve caps were marked as following

LAB - LAB - LAB

LAC - LAC - LAC these caps gap is .001" to .002"

LAD - LAD

LAJ - LAJ

Other caps had a gap of .0025" to .0045"

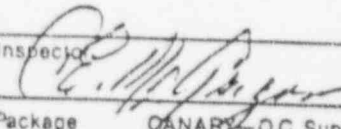
N/A used Granite Surface-Plate V/A-2409 C/I 11-15-80

Sketch

N/A

Inspection Results

SAT.  UNSAT—ODR/DR NO.(s):

Inspector:  Date: 11/15/80


705516A MCS191

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

Quality Control Inspection Report

VOGTLE GENERATING PLANT—UNITS 1 & 2

35217

Georgia Power 

Page 1 of 1

MWO/ODR/DR No. <b>19003340</b>	Building <b>MAINT SHOP</b>	Procedure/Spec. No./Rev. <b>85022-04/ 85022-04</b>
Room No./Level No. <b>N/A</b>	Sys./Start-Up Designator <b>2403</b>	Tag No. <b>1-2403-04-002</b>
Drawing No./Rev. <b>N/A</b>	Vendor Manual Log No. <b>N/A</b>	Other <b>MWO INSTRUCTIONS</b>

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 *Method of inspection: Visual*  
*Verified minimum inside bore of air start*  
*valve caps as follows*  
 Identification: Bore:  

N3	2.250"
N1	2.250"
N2	2.249"
N4	2.250"
N5	2.250"
N6	2.250"

Sketch *METE UP-3-2155 DUE 10-2-90*

*THIS REPORT IS FOR INFORMATION FOR THE PURPOSE*  
*OF MATCHING CAP TO PISTON AND RECORDING FINAL*  
*CLEARANCE AT A LATER TIME.*

Inspection Results *N/A Sub 9/10/90*  
 SAT.  UNSAT—ODR/DR NO.(S).  
 Inspector *[Signature]* Date *1/1*

35286

Procedure/Spec. No./Rev.	27598-C, R/0
Tag No.	1-2403-G4-002
Other	85022-C, R/1

... and insert original with work package,  
 drawing numbers, specifications, special  
 applicable, showing dimensions checked,  
 and sign and date

*See the following copy*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

... with IR# 35217

Date 7/18/90

EQ EVALUATION CHECKLIST

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

MWO NO. 19003340

SECTION I

PART A ORIGINAL PART

- 1. DESCRIPTION D.G.
- 2. TAG NO. 1240364002
- 3. PROJECT CLASS Q15
- 4. SPECIFICATION (EQDP) NO. X9AK01
- 5. MANUFACTURER DELAVAL
- 6. MODEL NO. \_\_\_\_\_
- 7. PART NO. \_\_\_\_\_

PART B REPLACEMENT PART

- 1. DESCRIPTION \_\_\_\_\_
- 2. MEX NO. \_\_\_\_\_
- 3. STOCK NO. \_\_\_\_\_
- 4. SPECIFICATION (EQDP) NO. \_\_\_\_\_
- 5. MANUFACTURER A SEE ATTACHED SHEET
- 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 \_\_\_\_\_  
(Init. Date) ASR 17/18/90
- 2. ARE SPECIFICATION NUMBERS FOR ORIGINAL AND REPLACEMENT ITEMS THE SAME? X YES \_\_\_\_\_ NO \_\_\_\_\_
- 3. ARE MANUFACTURER MODEL/PART NUMBERS OF THE ORIGINAL AND REPLACEMENT PARTS THE SAME? X YES \_\_\_\_\_ NO \_\_\_\_\_
- 4. IS BULK MATERIAL LISTED ON ATTACHMENT ACCEPTABLE? LIST ITEM NO. FROM ATTACHMENT IF "NO" IS CHECKED. ✓ YES \_\_\_\_\_ NO \_\_\_\_\_  
CAH 17/19/90  
(Init. Date)

(Item No.)

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

WPG 17/19/90  
WPG DATE

SECTION III EQ GROUP EVALUATION

- PART IS ACCEPTABLE FOR USE
- PART IS UNACCEPTABLE FOR USE

JUSTIFICATION FOR ACCEPTANCE:

EQ ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

FIGURE 3

EQ EVALUATION CHECKLIST  
FOR BULK MATERIAL

MWO NO 19003340

1. DESCRIPTION OF ITEM AIR START VALVE ASSEMBLY  
 MER 9010453 PO 24234, 25350, 2549, 25
2. DESCRIPTION OF ITEM AIR START VALVE ASSEMBLY  
 MER 90-10532 PO PAV-481
- ~~3. DESCRIPTION OF ITEM \_\_\_\_\_  
 MER \_\_\_\_\_ PO \_\_\_\_\_~~
- ~~4. DESCRIPTION OF ITEM \_\_\_\_\_  
 MER \_\_\_\_\_ PO \_\_\_\_\_~~
- ~~5. DESCRIPTION OF ITEM \_\_\_\_\_  
 MER \_\_\_\_\_ PO \_\_\_\_\_~~
- ~~6. DESCRIPTION OF ITEM \_\_\_\_\_  
 MER \_\_\_\_\_ PO \_\_\_\_\_~~
- ~~7. DESCRIPTION OF ITEM \_\_\_\_\_  
 MER \_\_\_\_\_ PO \_\_\_\_\_~~
- ~~8. DESCRIPTION OF ITEM \_\_\_\_\_  
 MER \_\_\_\_\_ PO \_\_\_\_\_~~

REMARKS: ITEMS BOUGHT SPECIFICALLY FOR DIESELS

FIGURE 3 (CONT'D.)

Material/Equipment Request—NUCLEAR OPERATIONS  
VOGTLE ELECTRIC GENERATING PLANT

*Q Multi 7-18-90*

COPY 2

Department/Contractor: MEOP Design Change No. \_\_\_\_\_ Date: 7-18-90 Stores Register No. JUL 18 90 10453

Description/Tag	Stock Number	Location	Quantity			P.O. No.	MIR No.	Maint. Work Order	Unit	Account Number	Resp. Center	Anly. Code
			Ord.	Filled	U/M							
<i>Valve, Air Start Assembly</i>	<i>29060-6512</i>	<i>D-62-A</i>	<i>4</i>	<i>2</i>	<i>EA.</i>	<i>PN #19 87 39239</i>	<i>881</i>	<i>1508333, 3340</i>				
<i>"</i>	<i>"</i>	<i>D-72-A</i>	<i>4</i>	<i>2</i>	<i>EA.</i>	<i>PN #2 88 25350</i>	<i>4545</i>					
<i>"</i>	<i>"</i>	<i>D-62-A</i>	<i>2</i>	<i>2</i>	<i>EA.</i>	<i>PN #18 87 39239</i>	<i>1120</i>					
<i>"</i>	<i>"</i>	<i>D-72-A</i>	<i>2</i>	<i>2</i>	<i>EA.</i>	<i>CWE #0 55975</i>	<i>55975</i>					

Ordered By: *MW Godfrey* Approved By: *MW Godfrey* Filed By: *Daniel B...* Received By: *MW Godfrey* Date: *7-18-90*



Material/Equipment Request—NUCLEAR OPERATIONS  
VOGTLE ELECTRIC GENERATING PLANT

Q J.M.F  
7-19-90

COPY 2

Department/Contractor <i>MAINT</i>	Design Change No.	Date	Stores Register No. <i>Jul 199010532</i>
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Description/Tag	Stock Number	Location	Quantity			P.O. No.	MIR No.	Maint. Work Order	Unit	Account Number	Resp. Center	Anly. Code
			Ord.	Filled	U/M							
<i>VALVE, Air Start (7327)</i>	<del><i>79060</i></del> <i>6512</i>	<i>D-88-4</i>	<i>1</i>	<i>1</i>	<i>EA</i>	<i>PA-481</i>	<i>105/65</i>	<i>1900375</i>				

Ordered By <i>J.M. Glouder</i>	Approved By <i>RA Mullinax</i>	Filled By <i>RA Hogg</i>	Received By <i>J.M. Glouder</i>	Date <i>7-19-90</i>
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Left Bank AIR START. (8L) Good

(7L) Failure

(6L) Good

(5L) Good

(4L) Failure

(3L) Good

(2L) Failure

(1L) Failure

Right Bank Air Starts - (8R) Failure

(7R) Failure

(6R) Failure

(5R) Failure

(4R) Good

(3R) Good

(2R) Failure

(1R) Failure

VEGP FIRE PROTECTION CHECKLIST

1. MWO NO. 12003340 2. MPL/TAG NO. 1240364002  
3. LOCATION D.C. B 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 [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 n/a 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