



**DIESEL GENERATOR SET 1A-A**  
1-GEN-82-0001A-A

- NOTES:**
- DESIGN PRESSURE AND TEMPERATURE FOR PIPING SEGMENT FROM THE STARTING AIR COMPRESSOR DISCHARGE TO THE AFTERCOOLER (INCLUDING AFTERCOOLER) AND THROUGH BYPASS ISOLATION VALVE (1-BYV-82-1800, -1810, -2100, -2110, -2400, -2410, -2700 & -2710) IS 300 PSIG AND 400°F. DESIGN PRESSURE AND TEMPERATURE FOR PIPING SEGMENT FROM THE AFTERCOOLER AND THROUGH BYPASS ISOLATION VALVE THROUGH THE AIR TANK ISOLATION VALVE IS 300 PSIG AND 125°F. DESIGN PRESSURE AND TEMPERATURE FOR THE REMAINING SYSTEM, INCLUDING THE AIR TANKS, IS 260 PSIG AND 125°F. THE AIR TANKS HAVE BEEN RE-RATED TO A MAXIMUM ALLOWABLE WORKING PRESSURE OF 260 PSIG TO BE IN COMPLIANCE WITH THE ASME SECTION VIII CODE.
  - VALVES ARE THE SAME SIZE AS PIPING UNLESS OTHERWISE NOTED.
  - H<sub>2</sub> INDICATES A FLEXIBLE HOSE.
  - NOT USED.
  - ALL PIPING TO DIESEL UNIT TVA CLASS G (EXCEPT AS NOTED).
  - ALL PIPING INSIDE THE SKID INTERFACE INCLUDING AIR INTAKE & EXHAUST IS ANSI B31.1 SEISMIC CATEGORY I AND WITHIN THE APPENDIX B QA PROGRAM, ALL PIPING OUTSIDE THE SKID INTERFACE IS CLASSIFIED AS SHOWN ON THE DRAWING. ALL MODIFICATIONS TO PIPING INSIDE THE SKID INTERFACE SHALL BE PERFORMED TO MEET THE INTENT OF ASME III CLASS 3 (TVA CLASS C). REF. SPEC. N3M868 TABLE 1, NOTE 1.
  - NOT USED.
  - DESIGN CRITERIA/SYSTEM DESCRIPTION REFERENCE DOCUMENTS: USE THE LATEST REVISION ON ALL WORK UNLESS OTHERWISE SPECIFIED. SEE THE LATEST REVISION OF THE 47821 SERIES DRAWINGS. \*PIPING SYSTEM CLASSIFICATION: N3-82-4000-----STANDARD DIESEL GENERATOR BUILDING
  - AIR DRYER INFORMATION IS SHOWN ON VENDOR DRAWING 6906F07001, SHEETS 1 AND 2 (CONTRACT NO. 74C63-83090).
  - H<sub>2</sub> INDICATES AN AIR REGULATOR.
  - AIR DRYER SYSTEM FLOW DIAGRAMS ARE PROVIDED ON THE FOLLOWING COMPANION DRAWINGS:  
ENGINE AIR DRYER FLOW DIAGRAM  
1A1 & 1A2 1-DRYA-82-180 & 181 1-47W839-1D  
1B1 & 1B2 1-DRYA-82-210 & 211 1-47W839-1E  
2A1 & 2A2 1-DRYA-82-240 & 241 1-47W839-1F  
2B1 & 2B2 1-DRYA-82-270 & 271 1-47W839-1G
  - SOME CIDS ON THIS DRAWING HAVE BEEN CHANGED AND MAY DIFFER FROM THE CIDS SHOWN ON OTHER DOCUMENTS FOR THE SAME COMPONENT. THE ALTERNATE ID SCREEN (A11) IN EIMS CAN BE ACCESSED AS NECESSARY TO DETERMINE IF PREVIOUS CIDS EXISTED FOR A SPECIFIC COMPONENT.
  - FLOW DIRECTION FOR NORMALLY CLOSED VENT, DRAIN, RELIEF AND TEST VALVES SHALL BE OUTWARD FROM THE SYSTEM UNLESS OTHERWISE SPECIFIED. WHEN DISCHARGE IS TO ATMOSPHERE, PIPING DOWNSTREAM OF THESE VALVES MAY BE CLASS G, UNLESS OTHERWISE SPECIFIED.

**REFERENCE DRAWINGS:**  
POWER SYSTEMS DIVISION-MORRISON-KNUDSEN CO. INC-DWG NO. D379F07001  
SCHEMATIC DIAGRAM AIR START SYSTEM  
47W610-82-1-----CONTROL DIAGRAM - STARTING AIR SYSTEM  
WB-DC-40-28-----DESIGN CRITERIA - DIESEL GEN SYSTEM  
17WS6-----PIPING DRAWINGS  
47W839-101-----MECHANICAL STRESS ANALYSIS PROBLEM BOUNDARY DIESEL STARTING AIR SYSTEM

**COMPANION DRAWINGS:**  
1-47W839-1A  
1-47W839-1B  
1-47W839-1C  
1-47W839-1D  
1-47W839-1E  
1-47W839-1F  
1-47W839-1G  
1-47W839-2

THIS CONFIGURATION CONTROL DRAWING SUPERSEDES UNIT 1 AS-CONSTRUCTED DRAWING 47W839-1 REVISION P.

17	52198	ESJ	GJB	JKA	2-6-07
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REVISED PER DCA 52198-01-0.

REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE

SCALE: NTS EXCEPT AS NOTED

PROJECT FACILITY  
DIESEL GENERATOR BLDG  
UNIT 1  
TITLE  
**FLOW DIAGRAM  
DIESEL STARTING AIR  
SYSTEM**

1	WATTS BAR NUCLEAR PLANT TENNESSEE VALLEY AUTHORITY	Q
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DESIGN		INITIAL ISSUE	ENGINEERING APPROVAL
DRAWN JAT/MEB	CHECKER D.L. COOPER	RO ISSUE PER WBEP 5.17 & RIMS B26 '90 0301 378	1 L.S. CHAUNCEY
DESIGNER M.L. CHAPMAN	REVIEWER H.N. BENNINGHOFF, JR.		2 M.P. WASSON
DATE			3 L.W. BOYD

ISSUED BY:  
R.M. JOHNSON/WLE

DATE	9-17-90	85	M	1-47W839-1	R17
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CAD MAINTAINED DRAWING

CONFIGURATION CONTROL DRAWING