

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C      05000250  
50-251 Turkey Point Plant, Unit 4, Florida Power and Light C      05000251

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SUBJECT: Forwards post-mod testing of emergency diesel generator  
idle start mod.

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U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
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Gentlemen:

Re: Turkey Point Units 3 and 4  
Docket No. 50-250 and 50-251  
Post-Modification Testing of Emergency  
Diesel Generator Idle Start Modification

Attached please find a description of the testing which will be performed as part of the idle start modifications for the existing Emergency Diesel Generators (EDGs). This information is being provided as requested by Mr. Rajender Auluck, Turkey Point Project Manager. The testing program, as described in the attached Section 13 of Project Change/Modification (PC/M) 87-264, "EDG 3B/4B, EDG 3A/4A, and New EDG Building Tie-Ins," may be revised prior to full implementation of the PC/M. A Pre-Operational Testing Procedure which incorporates the testing requirements of this PC/M is being generated. This procedure will be completed and available for NRC review by April 30, 1991.

Should there be any questions, please contact us.

Very truly yours,

T. F. Plunkett  
Vice President

TFP/GS

Attachment

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant

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13.0 STARTUP TESTING (Continued)

13.3 Functional Testing (Continued)

13.3.6 Electrical Tie-in for the Communication System (PC/M 87-261)

Note: Installation of communication system is performed in PC/M 87-261. PC/M 87-264 provides system tie-in with existing communication system.

13.3.6.1 Verify that the PA System operates correctly. The PA handsets/headsets, site evacuation alarm lights, and fire alarm horn, shall function properly tied into the existing system.

13.3.6.2 Verify that the PBX system operates correctly. The telephone handset stations with a loud ringing bell and flashing lights shall function properly tied into the existing system.

13.3.6.3 Verify that the Alternate Shutdown Communications System operates correctly. The handsets with headset adaptors shall function properly tied into the system.

13.3.7 Idle Start

The EDG Idle Start System test for EDGs 3A and 3B is discussed herein. Similar tests are required for EDGs 4A and 4B, and are included in PC/M 87-263. Upon completion of the Idle Start modifications, EDGs 3A and 3B shall be tested by performing twenty-three (23) consecutive EDG starts without failure. Twenty-three (23) consecutive starts provides a conservative level of testing consistent with the guidelines of Regulatory Guide 1.108, Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Plants, Revision 1, for the extent of the modifications being performed. In addition, full load carrying capability for an interval of not less than 24 hours, 2 hours of which would be at load equivalent to 110 percent rating and 22 hours at a load equivalent to the EDG continuous rating will be demonstrated.

13.0 STARTUP TESTING (Continued)

13.3 Functional Testing (Continued)

13.3.7 Idle Start (Continued)

An EDG at Standby temperature conditions is normal started with the Idle Start pushbutton and the Governor Control switch in the "Electric" position. The engine should come up to idle speed (430-470 rpm) and remain there. The EDG is run for approximately 5 minutes to perform engine checks (ie system pressures and temperatures, engine noises and vibrations). After these engine checks have been performed, the engine can be returned to idle via the normal stop control switch.

13.3.7.1 Governor Electric/Hydraulic Controls

With the EDG at idle speed and the Governor Select Switch in the "hydraulic" position, verify operation of the governor control by accelerating engine to rated 900 rpm manually. At rated engine speed (900 RPM), verify electronic governor control with the Governor Select Switch in "electric" position by adjusting engine speed within manufacturer's specified limits. Stop the EDG via the normal stop control switch.

13.3.7.2 Normal Start with Full Load

With the Governor Select switch in the "Electrical" position (normal position), the engine is started normally. After an approximate 60-second warm-up period at idle speed (450 rpm nominal), the engine accelerates to rated speed (900 rpm nominal). After the EDG is synchronized to the grid, slowly load to 100% load. Engine and generator parameters are allowed to stabilize. Upon selecting the normal stop mode, the EDG returns to idle for an approximate 20 minute cooldown period. Then the EDG shuts down automatically.