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December 30, 1977

Mr. Paul W. O'Connor, Project Manager
Operating Reactors - Branch 2
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station, Unit 1
Testing Program for the
Temporary Diesel Generator
NRC Docket No. 50-10

Dear Mr. O'Connor:

The enclosed information and planned testing program are provided in response to your verbal request. As previously described, this new temporary standby diesel generator was procured as a commercial quality unit to be obtained quickly and utilized during the requested ECCS, IEEE-279 exemption extension period during which the permanent safety related quality diesel generators will be installed. The manufacturer previously stated, "the engine and other components have previously been accepted for nuclear standby service application". The manufacturer has recently further explained his statement as follows:

> "PSD has used an engine of the same configuration, size and manufacture (EMD 20-645E4) as supplied on the following licensed nuclear plants:
>
> Rancho Seco - Sacramento Municipal Utility District
> James A. Fitzpatrick - Power Authority of the State of New York
> Davis Besse - Toledo Edison
> Browns Ferry - Tennessee Valley Authority"

In view of the above, the attached testing program has been developed to satisfy the intent of Regulatory Guide 1.108 to demonstrate the operability of the temporary diesel generator system for the Dresden Unit 1 application.

Very truly yours,

M. S. Turbak

M. S. Turbak
Nuclear Licensing Administrator
Boiling Water Reactors

Enclosure

Testing Program

Dresden Unit 1 Temporary Diesel Generator

A. Construction Tests

1. Megger & phase checks (all 4 KV)
2. Logic Verification (Switchgear & Engine)
3. 4 KV switchgear relay acceptance checks & calibration
4. 4 KV switchgear trip check
5. Ratio & polarity checks (CTs & PTs)
6. 125 VDC battery & charger inspection

B. Preoperational Tests

1. Engine trip and alarm sensor calibration
2. Functional Verification
   a) Starting Air System
   b) Lube Oil System
   c) Fuel Oil System
   d) Cooling System
   e) Auxiliary Lube Oil Pumps for A&B Primary Feedpumps

C. Acceptance Tests (This section satisfies the intent of the applicable testing requirements (Para. C2) of Regulatory Guide 1.108)

1. Regulatory Position C.2.3:

   Demonstrate full-load carrying capability:

   a) 1-hour of full-load paralleled to CECo. System.
   b) 23 hours at ½ load paralleled to CECo. System (10 of these hours will be logged during the 10-start reliability test described in Acceptance Test 2).

2. Regulatory Position C.2.9:

   Demonstrate the required reliability:

   a) 10 consecutive valid tests with no failures per the regulatory guide.

3. Regulatory Position C.2.1, C.2.2, C.2.4, C.2.5:

   Demonstrate proper startup by simulating loss of a.c.

   Demonstrate proper design-accident-loading-sequence and design-load requirements.

   Demonstrate proper operation during D.G. load shedding.

   Demonstrate functional capability at full-load temperature.