

official

JUL 8 1986

Docket No. 50-302
License No. DPR-72

Florida Power Corporation
ATTN: Mr. W. S. Wilgus
Vice President Nuclear Operations
P. O. Box 14042, M.A.C. H-2
St. Petersburg, FL 33733

Gentlemen:

SUBJECT: RESPONSE TO NRC INSPECTION REPORT NO. 50-302/86-09

We have completed our review of your response of April 24, 1986, to our Notice of Violation issued on March 27, 1986, concerning activities conducted at your Crystal River facility. We have evaluated your response to Violation 86-09-05 and found that it meets the requirements of 10 CFR 2.201. We will examine the implementation of your corrective actions for this violation during future inspections.

After careful consideration of the basis for your denial of Violation 86-09-04, we have concluded, for the reasons given in the enclosure, that the Violation as stated in the Notice is valid.

In accordance with the requirements of 10 CFR 2.201(a), please provide us, within 30 days of the date of this letter, with written statements of the actions you have taken or plan to correct and prevent recurrence of this Violation and the date when full compliance will be achieved.

The responses directed by this letter are not subject to the clearance procedures of the Office of Management and Budget issued under the Paperwork Reduction Act of 1980, PL 96-511.

We appreciate your cooperation in this matter.

Should you have any questions concerning this letter, please contact us.

Sincerely,

ORIGINAL SIGNED BY
DAVID M. VERBELL

Luis A. Reyes, Acting Director
Division of Reactor Projects

Enclosure:
Staff Evaluation of Licensee Response

cc w/encl: (See page 2)

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cc w/encl:

✓ P. F. McKee, Nuclear Plant Manager

✓ R. C. Widell, Manager
Nuclear Operations Licensing
and Fuel Management

bcc w/encl:

✓ NRC Resident Inspector
Document Control Desk
State of Florida

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ENCLOSURE

STAFF EVALUATION OF LICENSEE RESPONSE

The staff has reviewed NRC Inspection Report 50-302/86-09, the licensee's response dated April 24, 1986, Procedure PM-123, revision 4, Periodic Electrical Checks of Emergency Diesel Generators, and applicable sections of the facility's Technical Specifications. This finding was also discussed with the NRC inspector.

With respect to violation 86-09-04, the licensee's response stated that procedure PM-123 was adequate to perform the necessary electrical checks. The licensee agreed, however, that on February 26, 1986, the insulation resistance readings were taken incorrectly and should have been taken from the rotor and not from the brush spring retainers. The licensee's response appears to attribute the error to a personnel shortcoming rather than to a deficiency in Procedure PM-123.

Step 7.5.2 of PM-123 (revision 4) directs the maintenance technician to "Megger the rotor at 500 VDC as described above". The licensee apparently leaves it up to the individual performing the test to interpret the exact intent of that statement. From the inspection report, it is obvious that the technicians who performed the test on February 26 assumed that "as described above" directed them to Step 7.5.1.1, which immediately precedes Step 7.5.2 and to them indicated that the meggering should be done from the brush spring retainers.

Both Sections 7.4, Stator Insulation Test, and 7.5, Rotor Insulation Test, offer a note to the technician that the test data should be recorded on Enclosure 1, Page 9 of the procedure. The "Stator Insulation" and "Rotor Insulation" data blocks on Enclosure 1 only provide spaces for recording a single set of resistance readings at intervals of 15 sec., 30 sec., 45 sec., and 1 minute as directed in Step 7.4.3. From the report, this apparently added to the technician's confusion on February 26, because the technician recorded two resistance readings for the single phase rotor and three resistance readings for the three phase stator. The procedure does not describe more than one reading set per rotor/stator, it does not describe where the authorized hookup point(s) is (are), nor does it describe whether or not the stator leads are to be shorted together for the test.

The licensee stated that this procedure had been successfully performed eight times. The vague requirements discussed above and other vague requirements would appear to preclude a conclusion that the procedure, or even the intent of the procedure, had been previously successfully completed. These other items include, for example:

- ° Section 7.1.2 - "Remove any greasy or oily deposits from windings by wiping with lint-free cloth dipped in a suitable solvent".
 - No authorized solvents are listed.
 - No record is required of the solvent type or where it was used.

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- Section 7.1.4 - "Check the windings for any weak spots and revarnish as necessary".
 - No criteria are stated for "weak spots", the type of varnish, or varnishing procedure.
 - No records are required of problems found, type of varnish used, or locations of revarnished areas.
- The data to be retained from Section 7.1 is simply one notation of "SAT or UNSAT."
- Section 7.2.4.1 - "Hook a calibrated spring balance scale to the tip of the brush arm."
 - No requirements are stated for the type or range of scale to use.
 - No record is required of which spring scale was used.
- Section 7.2.4.2 through 7.2.4.4 [Set brush pressure to 2 psi ± ¼ psi].
 - No requirement is stated to record the individual "as found" or "as left" readings.
- The data to be retained from Section 7.2 is one note of "SAT or UNSAT".
- Section 7.5.2 - "Megger the rotor at 500 VDC as described above."
 - No acceptance criteria are specified.

Discussions with the inspector confirmed statements made in Inspection Report No. 302/86-09, that step 7.5.2, which directed personnel to the previous step in the procedure, caused confusion and resulted in the technicians performing the procedure incorrectly. This confusion was evident at the time of occurrence when the inspector observed the activities in progress and discussed the procedure with technicians involved in the work.

A procedure must be clear and accurate to ensure that it is performed properly. Step 7.5.2 and Enclosure 1 of PM-123 were sufficiently vague, such that an excessive reliance was placed on the individual technician's skill and training and, as was the case on February 26, chance. The staff concludes that the Violation did occur as stated in the Notice.