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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JAN 23 1986

NOTE TO: E. Tomlinson, P-904
R. Giardina, P-904

FROM: J. Stefano, Sr. Project Manager
BWR Project Directorate No. 4

SUBJECT: REGION III ASSISTANCE REQUEST (1/3/86) RE TDI EMERGENCY DIESEL GENERATOR (EDG) START TESTS

In consideration of the views expressed by you and C. Berlinger (TDI/EDG Task Force Lead Engineer) during our meeting of January 10, 1986 to discuss the subject regional staff assistance request, and subsequent discussions held with the Perry Applicant (CEI), it has been concluded that it would not be necessary or productive to have CEI repeat any of the 69/n EDG start tests in accordance with Regulatory Position C.2.a(9) in Regulatory Guide (RG) 1.108. This conclusion is based on the following findings and determinations:

1. For the Perry TDI/EDGs and possibly other EDGs with lube oil preheat systems, the only significant offset which would be determined from a repeat of the 69/n start tests would be a confirmation of the quality and reliability of the engine control systems. The ability of the Perry EDGs to start on demand would be unaffected by variations in engine lube oil/jacket water/component metal temperatures, as long as the engine temperature is above 50°F. If the engines are start-tested at any temperature within the standby temperature range recommended for the Perry EDGs by the manufacturer (140°F to 180°F), there would not be any discernible difference in engine starting reliability, altering the results of the tests already performed by CEI. The test results attached to the Region III assistance request memo show that the 69/n start tests were all performed within the manufacturer's recommended standby temperature range.

2. The variation in lube oil, jacket water and engine component metal temperatures observed during the Perry 1 EDG tests are believed to be insignificant for the reasons stated above, even though (as you maintained at the January 10th meeting) that the engines would experience less resistance during startup at temperatures higher than the 150°F lube oil temperature which you consider to be the more accurate standby temperature at which the engines should have been allowed to cool down between each consecutive start.

Contact: J.Stefano
X28358

3. Finally, we cannot find any regulatory basis, definition, or requirement for "standby" temperature in RG 1.108 or the Perry SER, other than that RG 1.108 stipulates that the 69/n tests be performed within the temperature range recommended by the EDG manufacturer. In the case of Perry, the 69/n start tests would total 23 tests per EDG. (i.e., since the Perry plant utilizes four identically designed TDI/EDGs, the minimum number of tests required for each EDG is 23). From the test data furnished by the regional staff, CEI appears to have performed more than the required number of start tests per EDG, having conducted 35 start tests with each Perry 1 EDG. Therefore, we find that CEI has adequately met its FSAR commitments to RG 1.108.

We are preparing a response to Region III which will relate the above findings and determinations. Should you desire to comment further on this matter please let me know. Otherwise, my January 7, 1986 request to you for a formal technical evaluation report is hereby cancelled. I do, however, wish to express my appreciation for your technical assistance on this matter.

John J. Stefano, Sr. Project Manager
BWR Project Directorate No. 4

cc: R. Bernero
R. Houston
W. Butler
J. Hulman
M. Srinivasan
C. Berlinger
C. Woodhead, (ELD)

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Original Signed by

John J. Stefano, Sr. Project Manager
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