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 STOLZ, J.F. Operating Reactors Branch 4

SUBJECT: Submits info supporting determination that critical path
 outage time could be saved if containment purging commenced
 at RCS temp between 250 F & 225 F rather than present 200 F.
 Preparation of proposed Tech Specs re purging in progress.

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May 10, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. J. F. Stolz, Chief
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

My letter of March 17, 1983 provided a current status of Duke activities related to the Oconee purge system. Subsequently, Duke has identified that a substantial savings of critical path outage time could be achieved if containment purging were commenced at RCS temperature between 250°F and 225°F rather than below the presently committed to value of 200°F. The following discussion provides the details supporting this determination and an assessment of the safety significance.

Presently, the unit operating procedures permit opening the Reactor Building purge isolation valves and placing the purge in service when the Reactor Coolant System (RCS) is below 200°F. The operating procedures also require that the Once-Through Steam Generator (OTSG) undergo a hot soak at an RCS temperature of above 225°F. This temperature is necessary to keep secondary contaminants in solution. The hot soak is performed for about 36 hours to remove chemicals deposited in the OTSG during steaming so as to minimize tube degradation during wet lay-up conditions. In this current procedure, Reactor Building purge is a critical path item.

If the restrictions on purge operation could be revised upward to allow RCS temperature to be between 250°F and 225°F, with RCS pressure below 300 psig, then upwards of 27 to 30 critical path hours could be saved every cold shutdown. The result would be a negligible impact on safety, while resulting in substantial cost savings in replacement power costs as Reactor Building purge would no longer be a critical path item.

The safety impact is negligible because the likelihood of an accident to occur is no greater at 250°F than at 200°F. Additionally, Oconee Technical Specification 3.3, Emergency Core Cooling, does not require High Pressure Injection to be fully operable until RCS temperature of 350°F and Low Pressure Injection is not required to be operable until RCS pressure of 350 psig and temperature of 250°F. Furthermore, Specification 3.6 requires containment integrity only when RCS pressure is greater than 300 psig and temperature is greater than 200°F. Thus, it is considered that operation of the RB purge system with RCS pressure below 300 psi and with temperature less than 250°F poses no adverse safety impact.

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Mr. Harold R. Denton, Director
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As the NRC is aware from our March 17, 1983 letter, several activities related to the purge system are in progress. Among these is the preparation of suitable Technical Specifications. The preceding operational change will be appropriately reflected in the proposed change to Technical Specifications.

Unless informed to the contrary prior to the Unit 1 shutdown for refueling, Duke Power intends to operate the Reactor Building purge in this manner for all future outages and that no further regulatory actions in this area are necessary.

Very truly yours,

Hal B. Tucker
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Hal B. Tucker

RLG/php

cc: Mr. James P. O'Reilly, Regional Administrator
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Mr. J. C. Bryant
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