

FEDERAL POWER COMMISSION  
WASHINGTON, D.C. 20426

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IN REPLY REFER TO:

January 13, 1972

Mr. Lester Rogers  
Director, Division of Radiological  
and Environmental Protection  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. Rogers:

This is in response to your letter of December 13, 1971, requesting the comments of the Federal Power Commission on the AEC Draft Detailed Statement on the Environmental Considerations Related to the Issuance of an Operating License to the Duke Power Company for the Oconee Nuclear Station, Unit No. 1.

By letter dated August 20, 1970, the Federal Power Commission transmitted comments to the AEC relative to the environmental statement on the Oconee Nuclear Power Plant, Units No. 1, No. 2, and No. 3. These comments are reflected in the AEC draft statement issued December 13, 1971, which correctly describes power system load growth patterns and related characteristics of the area. Therefore, the following comments are directed toward an analysis of the load, power resources, and reserve margin situation as it may obtain during the forthcoming 1972 summer peak period on the Applicant's system and the systems of the Virginia-Carolina Subregion of the Southeastern Electric Reliability Council which includes the Applicant. This is a most important time in the overall expected life of the generating unit (some 35 years) because it represents a significant part of the potential new capacity which is sorely needed to meet projected 1972 summer demands.

Because of delays encountered in meeting scheduled commercial operation dates for several large new generating units, and if further delays transpire in the next five months, the concerned electric utility systems in this area may be faced with considerably less than their desired generating capacity reserve margins with the consequent possible threat to the adequacy and reliability of bulk power supply during this period. All three of the Oconee units have suffered some delay. With particular regard to the subject Unit No. 1, very recent information indicates that the earliest operating date is now June 1972. Mechanical problems with a main reactor coolant pump will make it impossible to meet the earlier expected initial operation date of March 1972. Earlier this unit was expected to have achieved criticality in December 1971. The Surry No. 1 nuclear unit (820 MW) of the Virginia Electric and Power

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Company is also delayed and the Company hopes to have it in operation by June 1972. The H. B. Robinson No. 2 unit (700 MW) suffered several months of delay because of mechanical problems, but it is now operating. Currently these plants are all subject to a continuing evaluation of certain environmental aspects.

1972 Summer Peak Load Period

	<u>Duke Power Co.</u>	<u>Virginia-Carolina Subregion</u>
<u>Without Oconee No. 1</u>		
Net Capability - Megawatts	7,093 <sup>2/</sup>	22,237 <sup>3/</sup>
Load Responsibility - Megawatts	7,502 <sup>1/</sup>	20,605 <sup>4/</sup>
Reserve Margin - Megawatts	-409	1,632
Reserve Margin - Percent of Load Responsibility	-5.5	7.9
<u>With Oconee No. 1 (886 MW)</u>		
Net Capability - Megawatts	7,979	23,123 <sup>3/</sup>
Load Responsibility - Megawatts	7,502 <sup>1/</sup>	20,605 <sup>4/</sup>
Reserve Margin - Megawatts	477	2,518
Reserve Margin - Percent of Load Responsibility	6.4	12.2
Percent of Reserve Represented by Oconee No. 1	185.7	35.2

1/ System load plus net of firm receipts and deliveries (7,516-14).

2/ December 31, 1970, capability of 6,744 megawatts plus 1971 additions of Keowee (140 MW) and Buzzard's Roost (209 MW).

3/ Includes Robinson No. 2 (700 MW), Surry No. 1 (820 MW), Cliffside No. 5 (590 MW fossil), Sutton No. 3 (420 MW fossil).

4/ System load plus net of firm receipts and deliveries (20,980-375).

The foregoing tabulation indicates the importance of the timely and continued operation of the Oconee No. 1 unit to the adequacy and reliability of the concerned systems. The reserve margins are required to provide for loss of capacity due to forced outages of or scheduled maintenance of generating capacity, occurrence of loads higher than those forecast, operating margins required to fulfill obligations to participants in the interconnected systems, and operating margins to provide for flexibility in the allocation of load to generating resources

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because of abnormal bulk power system conditions. Also, the Applicant's installed hydroelectric capacity of approximately 1,000 megawatts included in its generating resources will at times be subject to less than full output under varying seasonal conditions. These considerations indicate that, if the forecast peak load is reached in the summer of 1972, the Applicant must have all of its generating resources, including Oconee No. 1, in operation if it is to satisfy its demand. Without the Oconee No. 1 unit in operation at the time of its peak demand, the Applicant is deficient by 409 megawatts in meeting its demand and must rely upon the resources of the other subregion members. In this event, and under similar peak load conditions throughout the subregion, the subregion's reserves are reduced to 1,632 megawatts, or 7.9 percent of its load responsibility. Since this 1,632 megawatts includes not only the full operation of all now operating generation resources including the Robinson No. 2 nuclear unit, but also the Surry No. 1 nuclear unit (820 MW), Cliffside No. 5 fossil fired unit (590 MW), and the Sutton No. 3 fossil fired unit (420 MW) not yet in operation, it is reasonable to conclude that the timely operation of the Oconee No. 1 unit will make a substantial contribution to the adequacy and reliability of the affected systems.

Very truly yours,



T. A. Phillips  
Chief, Bureau of Power