

UNITED STATES OF AMERICA
BEFORE THE NUCLEAR REGULATORY COMMISSION

UNION OF CONCERNED SCIENTISTS' PETITION
FOR IMMEDIATE RECONSIDERATION OF THE ERRORS
OF THE ORDER OF MAY 8, 1979
AND FOR IMMEDIATE SHUTDOWN OF OCONEE UNITS 1 & 2

By Order dated May 7, 1979, the Commission directed the Duke Power Company to immediately undertake certain short term remedial steps to achieve a measure of improvement in the vulnerability to feedwater transients of the three Oconee Units designed by Babcock and Wilcox. This Order, as well as those issued to the other licensees of Babcock and Wilcox units, was the outcome of a series of Commission meetings the week of April 23-28, 1979.

The Union of Concerned Scientists was permitted to make a brief extemporaneous statement at the Commission meeting of April 25, at which time we urged you to immediately shut down all of the Babcock and Wilcox plants until the Three Mile Island accident is understood and all measures are taken at all Babcock and Wilcox plants to prevent the recurrence of that accident or a similar one.

Our purpose now is not to argue over the generic merits of the Babcock and Wilcox Orders or the particulars of the remedial measures to be taken at each plant; these issues can presumably be raised by any interested person by requesting a hearing within twenty days. This petition seeks the immediate reconsideration and modification of the Order to Duke Power

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Company only insofar as it exempts two of the three Oconee Units from immediate shutdown. As the attached Affidavit of Vince Taylor establishes, there is no rational basis for treating the Oconee Units any differently from all Babcock and Wilcox plants. All Babcock and Wilcox plants pose an immediate threat to public health and safety and there is no countervailing threat of power supply deficiencies.

Although the Commission's Order gives no reason for permitting Oconee Units 1 and 2 to remain temporarily in operation, the only possible basis must be the Commission's belief that immediate shutdown of all Oconee Units would create a power supply deficiency in the Duke service territory. This was the purport of the self-serving assertions of Duke's President, William Lee, at the NRC briefing of April 25. In addition, a DOE-prepared analysis presented to the Commissioners on Friday, April 27, was said by Mr. Dennis Rathbun to support these assertions.

With no other supporting data whatsoever, the Commissioners apparently accepted these assertions. The fact is that they were not true. A combination of errors and misleading oversimplifications were at their core. When these are corrected, the available data show clearly that electric supplies available to the affected region are adequate to meet summer peak with Oconee 1, 2 and 3 and Surry 1 and 2 shutdown.

The attached analysis, entitled "The Effect of Closing the Oconee Nuclear Plants on the Ability to Meet Summer Peak Demands," was prepared by Dr. Vince Taylor for the Union of Concerned Scientists from publicly-available official documents, all of

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which are referenced. It is submitted under oath, as the attached Affidavit indicates.

Dr. Taylor has a B.A. in Physics from the California Institute of Technology and a Ph.D. in Economics from the Massachusetts Institute of Technology. From 1961 to 1970 he was a member of the Economics Department of the Rand Corporation. During this period, he performed quantitative analyses on a variety of public policy issues. From 1974 to 1979 he was with Pan Heuristics, a Los Angeles consulting firm. The great bulk of his work during this period was under contract to the Arms Control and Disarmament Agency, for which he performed economic analyses of nuclear power, electricity supply and demand, and other aspects of energy policy. At present, Dr. Taylor is a consultant to the Union of Concerned Scientists.

The attached analysis clearly establishes that the following errors and misconceptions were presented to the Commission:

NRC MISINFORMED ON EFFECTS OF CLOSING OCONEE NUCLEAR PLANTS

The decision of the Nuclear Regulatory Commission to exempt two of the three Oconee Units of Duke Power from its orders immediately shutting down the remaining operating Babcock and Wilcox nuclear plants was based on erroneous and misleading information indicating that, in the absence of these units, "rotating blackouts" were likely. When errors of fact and interpretation are corrected, the testimony submitted to the Commission shows that electric supplies available to Duke Power would be more than adequate to meet expected summer demands.

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BACKGROUND

Duke Power is a member of the Virginia-Carolina (VACAR) power pool, which in turn is a sub-region of the larger Southeastern Electric Reliability Council (SERC), one of the nine Reliability Councils that cover the United States. All of these entities are interconnected by extensive transmission facilities, so Duke Power has access to electricity generated outside of its own system and region.

ERRORS AND MISLEADING INFORMATION

Item: A table presented to the Commissioners by the NRC Staff, based on information supplied by DOE, showed a "reserve" for VACAR after shutting the Oconee Units of minus 513 megawatts and a "reserve margin" of minus 1.8%.

Error: In calculating this reserve figure, Oconee 1, which was scheduled by Duke Power for refueling at the time of summer peak, was subtracted from gross generating capability twice.

Misleading: In calculating "reserves," DOE subtracted an allowance for unscheduled equipment failure from scheduled generating capability. This is extremely unusual and yields a figure completely incomparable with normally cited reserve margins.

Correct Information: Correcting for the double counting of Oconee 1, VACAR would have a scheduled capability reserve margin (the usually cited measure) of 11.8% without the Oconee Units, before allowance for replacement imports of electricity.

Item: After allowance for replacement imports of electricity, DOE information showed a supplemented "reserve margin" for VACAR of 7.5%, with the Oconee Units closed.

Error: In addition to having the deficiencies cited above, the supplemented reserve margin for VACAR was grossly understated due to an arithmetical error. On the basis used by DOE, correct arithmetic yields a reserve margin (after allowance for unscheduled equipment failures) of 16.3%.

Correct Information: After correcting for double counting of Oconee 1 and for the arithmetical error, the scheduled capability reserve margin for VACAR, after supplementation by the DOE estimate of potential imports, is 30%. This is far above the 15-20% figure cited by DOE as adequate to provide reliable electric service.

Numerous other examples of misleading or incorrect information are detailed in the attached analysis by Dr. Taylor.

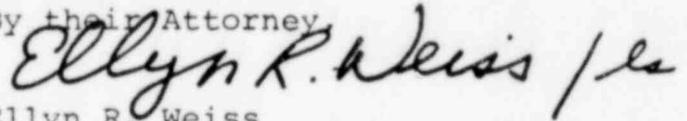
The Commission ordered the immediate or continued shutdown of all Babcock and Wilcox reactors except Oconee Units 1 and 2. It did so "pursuant to the Atomic Energy Act ... and the Commission's Rules and Regulations in 10 CFR Parts 2 and 50." Pursuant to the same authority, and the NRC's inherent authority and obligation to ensure the safety of nuclear power and protect the public health and safety, we urge you to act on the basis of the clear and convincing facts UCS has presented to order Oconee Units 1 and 2 to cease operation immediately. The NRC

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cannot permit the Duke Power Company to compromise public safety on the basis of unsubstantiated and untrue assertions. The attached analysis shows that the Commissioners were the victims of error and misrepresentation. Now that the record has been corrected, the Commission is obliged to see that the actions flowing from those errors and misconceptions are also corrected.

Submitted by the Union of
Concerned Scientists,

By their Attorney,



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