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VICE PRESIDENT
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January 31, 1980

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington DC 20555

Re: NUREG 0625
Report of the Siting Policy Task Force
File No: GS-S-26.0.1

Gentlemen:

Duke Power Company is an investor-owned utility operating in a 20,000 square mile service area in the Piedmont Carolinas and serving over 1.2 million customers. Our electrical generation capacity is made up of hydroelectric, conventional coal-fired, oil-fired combustion turbine and diesel, and nuclear-fueled generating units. Our Oconee Nuclear Station, currently in operation; our McGuire, Catawba, and Cherokee Nuclear Stations, currently under construction; and our Perkins Nuclear Station, which has a construction permit application pending before the Commission, make up approximately 15,000 MWe which will be available for Duke's customers. Each of the five nuclear-fueled generating stations has been sited by Duke and appropriate consultants with particular regard to the requirements of 10 CFR 100, 10 CFR 50, the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as each applied.

Because of our experience in power plant siting, and because of our belief that our plants are adequately sited from an environmental and safety viewpoint, we believe that we have adequate scientific, engineering, and environmental expertise to provide substantive comments on the report of the Siting Policy Task Force, NUREG 0625.

Our comments deal first with overall power plant siting policy, and secondly with specific recommendations of the task force as written in NUREG 0625.

Siting Policy and Procedures

In April 1977 the Nuclear Regulatory Commission directed its staff to review recently completed licensing actions for the purpose of identifying ways to improve the effectiveness of NRC nuclear power plant licensing activities. In October 1977 the Commission requested the Staff to prepare a paper defining the issues and the scope of a proposal to make increased use of rulemaking proceedings. In August 1978 the Commission directed the Staff to develop a General Policy Statement on Nuclear Power Reactor Siting. An Interim Policy Statement on Generic Rulemaking was published in December 1978,

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and one of the ten issues identified in that Federal Register Notice dealt with the evaluation of alternative sites for nuclear generating stations. The NRC has, through its Commission's action, requested the Staff to develop position papers, proposed policies, and rules in the area of power plant siting. But because of the timing of the Commission's directives, the Staff has developed through one task force a report dealing with "site safety features," and through another task force a report dealing with "the evaluation of alternative sites under NEPA." These two position papers are published as NUREG 0625 (The Report of the Siting Policy Task Force), and SECY-79-481 (Proposed Amendments to 10 CFR 51, "Licensing And Regulatory Policy And Procedures For Environmental Protection," Evaluation of Alternative Sites for Nuclear Generating Stations Under NEPA).

These two position papers present a very difficult situation for the utility industry and its consultants. Nuclear power plants have been sited based on methods other than those spelled out in the two papers. It is the standard practice of the industry and of its consultants to site power plants on the basis of safety and environmental considerations. These two items are not separate; they interact and they should be considered together. While we recognize that the Staff may have in mind in NUREG 0625 the development of the best sites from a safety viewpoint first, and then their evaluation from an environmental standpoint, we do not believe that this is in the best interest of the general public.

During the workshops held to actively seek comments on the alternative sites issue ("Workshop on Alternative Site Rulemaking," Summary Report. Roberto Pagano. Washington DC. Mitre Technical Report MTR-79W00112, May 1979), each of the utility industry representatives expressed the view that the environmental siting of a nuclear power reactor could not be separated from the safety issues. In the discussions held at that time, industry representatives spoke particularly of population and population density, seismic conditions, flooding conditions, groundwater conditions, and hazardous facilities locations. It appeared obvious at that time, and still does to us, that the action now necessary is an evaluation of power plant siting in toto without the separation of environmental and safety concerns.

The Siting Policy Task Force established three goals. In brief those goals were to strengthen siting as a factor in the concept of defense in depth. Secondly, they were to take into consideration in siting the risks of Class 9 accidents. Finally, they were to require that sites selected did minimize the risk to the general public from energy generation. In light of the report prepared by the Task Force, we believe, whereas the Staff was directed to develop a general policy statement on nuclear power reactor siting, that they have now, by virtue of the publication of NUREG 0625, sealed additional requirements which must be met by construction permit applicants without going

through the appropriate rulemaking proceedings. We agree that defense in depth is an important concept and serves as the basis of power reactor safety.

We find that the Staff has, without regard to the economics involved, developed criteria which will be impractical to meet without designing into some plants specific safety design considerations. We recognize that the Staff has, by establishing population density and distribution criteria, limited the areas available for power reactor sites. While the Staff recognizes that risks cannot be reduced to zero, they are attempting to provide minimum risks in the power plant site without regard to the transmission reliability which will be required to get the energy and capacity from the remote nuclear plant site to the using ratepayer. We agree that sites selected should be among the best available in the region where new generating capacity is needed. At the same time, we recognize that alternative electrical energy generating sources may provide risks substantially greater than nuclear power without so much as being reviewed by any approving federal agency. When it becomes necessary to pay the high costs of electrical energy, which will be a result of the starvation for nuclear power plant sites, we believe that the ratepayers will see that the risks of nuclear generation, while they may not be understood, are acceptable.

Page 2 of NUREG 0625 indicates that the Commission requested the Task Force to assure that their study would address the various elements of the Public Interest Research Group petition on population density criteria. It appears to us that Recommendation No. 1, which deals with population and population density, may be the only recommendation that could be interjected into the existing regulations because of the support of PIRG. It appears that the Staff has expanded the scope of the Commission's request in developing recommendations which they believe would be "nice to have," but which are not necessarily practical.

While the Atomic Energy Act has been interpreted to confine the Nuclear Regulatory Commission to matters of radiological health and safety, the NRC, under the justification of the National Environmental Policy Act, now believes that it is directly responsible for evaluating the total environmental impact of nuclear plants and for assessing this impact in terms of available alternatives and the need for electric power. In order to achieve the results of both laws, the NRC must recognize the methods utilized in the practical siting of power plants. The Commission must recognize that the utilities which apply for construction permits and the state agencies which grant permits to those utilities have a responsibility to the energy users concerning both the siting of and type of facility needed.

The Staff report indicates that regulations are currently silent in reference to the processes of site selection from a radiological health and safety point of view. We do not believe this is indeed the case. Site suitability,

whether it deals with the methodology of site selection or with the actual engineering and environmental conditions of the site, is based upon radiological health and safety matters. While population and population density are factors in power plant siting, so is the meteorological condition of a proposed site. If a densely populated area is near a site, but not within a prevailing or predominant wind direction, it must be evaluated differently from the far-off population center within the prevailing wind. This consideration is evaluated both in the environmental and in the safety licensing to determine site suitability.

As a final general comment, we do not believe that changes to existing regulations are necessary in order to implement many of the thoughts discussed by the Staff in NUREG 0625. By the responsible use of Regulatory Guides, such as Reg Guide 4.7, applicants will know whether a site which they propose is acceptable or unacceptable. The separation of the plant site from the safety design features of the proposed unit is not justifiable or necessary. Overall concept of site suitability and station suitability must continue to be evolved through the licensing process without specific rules and regulations governing the siting of power plants.

Specific Task Force Recommendations

The Task Force in Section 3 of NUREG 0625 puts forth certain recommendations for changes to various parts of Title 10, Code of Federal Regulations. The Staff has indicated that a prevailing opinion throughout their deliberations was that the framers of Part 100 had prepared a document that had withstood the test of time and had substantially accomplished the intended objectives relative to plant design and siting requirements. It is therefore unreasonable, as we see it, to recommend changes now to Part 100 which will do nothing more than raise public concern over the adequacy of existing nuclear power reactors. The Staff points out that Part 100 clearly envisions the consideration of plant design characteristics in making siting decisions. We cannot therefore understand why the proposed site with acceptable engineering safeguards cannot continue to be acceptable. If the whole emphasis of the Staff effort has been to provide siting criteria that will enhance emergency planning, then we highly suggest that their recommendations as written be ignored and, instead, adequate emergency planning regulations be developed in conjunction with the proposed rule on emergency planning published in the Federal Register on Wednesday, December 19, 1979.

Recommendation 1

This recommendation to revise Part 100 is provided to incorporate fixed exclusion areas and protection action distances for populations. It deals with, as best we can determine, the ongoing work of the Staff in the area of

emergency planning and should be considered in that light. Even though the Task Force has not established a recommended single distance, they address an emergency planning zone of "about 10 miles." The approach, then, is similar to that suggested in the proposed 10 CFR 50.33g. The rationale for providing specific population density and distribution limits will, because of public opinion, limit the areas within the United States where nuclear power can be considered as a viable option. We highly recommend that if the Commission sees need to recognize the Staff's recommendation, they take all numbers out of any proposed recommendations and address population and population density specifically on a regional basis.

Recommendation 2

We agree with the Task Force that there is merit to maintaining the safety factor inherent in physical distance, and that the distance from potential hazards must be adequately established. We do not agree, however, with the Staff in their recommendation that minimum standoff distances should be a part of a revision to 10 CFR 100. The development through regulatory guides of recommended standoff distances to hazardous facilities will speed up the licensing process in most cases and will enable applicants to clearly demonstrate whether or not evaluation of potential hazards is necessary in their particular applications.

Recommendation 3

The discussion by the Staff in NUREG 0625 concerning Recommendation 3 to revise Part 100 by requiring a reasonable assurance that interdictive measures are possible to limit groundwater contamination is without sufficient detail to be commented on adequately.

Recommendation 4

As we discussed in our comments on Recommendation 2, the evolving technology in assessing seismic hazards, for which the Staff recommends revision to Appendix A, 10 CFR 100, could have disastrous effects on the owners of existing nuclear power reactors. Any changes to the seismic or geotechnical criteria associated with power plant siting should be made in regulatory guides so that the state of the art can be reflected.

Recommendation 5

In Recommendation 5 the Staff is requesting revisions to Part 100 to include consideration of postlicensing changes in the offsite areas. We suggest that the capability to consider postlicensing changes already exists in the periodic amendments to operating licenses which are necessitated by new fuel

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loads into existing reactors. There is no need to implant the seeds of "land use planning" into the controversy currently associated with nuclear power reactors.

Recommendation 6

Recommendation 6 exhibits a general belief that sites can be found which have no unfavorable characteristics that might require unique or unusual designs. Even in the case of satisfactory preconstruction site approvals, some changes may be necessary at a power plant site as construction progresses. Recommendation 6 can be adopted providing the Staff recognizes that this is a continuation of existing policy and regulation.

Recommendation 7

Recommendation 7 deals with a proposed revision to Part 100 to specify that site approval would be established at the earliest point in the existing review process. We totally agree with the concept of this revision, but we believe that adequate legal ability now exists to avoid reopening every proceeding at any whim of an intervenor. We believe that current regulations must be enforced to finalize decisions.

Recommendation 8

We see no reason to revise Part 51, as recommended by the Staff in Recommendation 8, to provide that a final decision disapproving a proposed site by a state agency would be a sufficient basis for NRC to terminate its review. The current practice of the NRC is indeed to terminate or indefinitely postpone its review when state agencies concerned with a proposed project have not made their decisions.

Recommendation 9

Recommendation 9 suggests that common bases for comparing the risks for all external events be developed. We believe that this recommendation has merit but will be very difficult to carry out. We suggest that the Staff concentrate their efforts on the licensing and review of existing problems rather than creating new problems.

We appreciate this opportunity to comment on NUREG 0625 and hope that the Commission will understand that the practical world of power plant siting, design, construction, and operation must be considered in all proposed rulemakings. We urge the Commission to accept NUREG 0625 only for information. In addition, we urge the Commission to direct the Staff to pay close attention to

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the methods utilized in the utility industry in the siting of power plants so that with that knowledge the Staff can better understand why the characteristics of a given plant site and the characteristics of a given plant design must go hand in hand in order to protect the economic, environmental, and public health and safety aspects of producing electricity for the consuming public.

Yours very truly,

L. C. Dail

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