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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
DUKE POWER COMPANY	)	Docket Nos. 50-369
	)	50-370
	)	
(William B. McGuire Nuclear Station, Units 1 and 2)	)	

APPLICANT'S RESPONSE TO CESG'S MEMORANDUM IN SUPPORT OF MOTION TO ADD CONTENTIONS

I. INTRODUCTION

On January 21, 1981, the Carolina Environmental Study Group ("CESG" or "Intervenor") filed a Memorandum In Support Of Motion To Add Further Contentions. The Motion in question raised two contentions. These contentions concern the alleged need to prepare a supplement to the environmental impact statement ("EIS") addressing Class 9 accidents and the alleged need to include the City of Charlotte in emergency plans in the event of a Class 9 accident. Duke Power Company ("Applicant") opposed Intervenor's Motion to Add Further Contentions in its pleading of December 15, 1980. Intervenor's January 21 Memorandum does nothing to cure the fatal defects of the contentions pointed up in Applicant's December 15 pleading.

II. ARGUMENT

A. Timeliness

Applicant maintains that the new contentions have been untimely raised. Specifically, the Three Mile Island accident

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which serves as a major premise for the new contentions, occurred on March 28, 1979. The Commission's Statement of Interim Policy regarding consideration of Class 9 accidents in EIS's was issued on June 13, 1980, and the Commission's final rule on emergency plans was promulgated on August 19, 1980. Intervenor did not raise the subject two contentions until November 7, 1980. 1/ The lateness of the contentions has not been justified. See 10 CFR §2.714.

B. The EIS Should Not Be Supplemented

In its pleading of November 7, 1980, Intervenor alleged that a supplemental EIS concerning Class 9 accidents was required "under NRC practice". As stated in Applicant's Response of December 15, 1980, as well as herein, the Commission's June 13, 1980 Policy Statement clearly does not require a Class 9 supplement to the McGuire EIS. In its January 21, 1981 Memorandum, Intervenor again asserts that Commission policy requires that the EIS be supplemented. However, for the first time it offers the additional ground that NEPA and CEQ regulations require that the EIS be supplemented. Applicant will address each of these items.

1/ Requests for a supplemental EIS to discuss the impact of Class 9 accidents have been made with respect to other plants in far more timely fashion. The Friends of the Earth made such a request with respect to Diablo Canyon, Palo Verde and Rancho Seco plants on October 24, 1979. See Arizona Public Service Company (Palo Verde Nuclear Generating Station, Units 1, 2 and 3) et al., DD-80-22, 11 NRC 919, 920 (1980). Intervenors here offer no excuse for the additional year they have taken to make their identical request.

1. NEPA

Neither NEPA, nor case law interpreting NEPA, support Intervenor's proposition that the EIS should be supplemented. Indeed, this precise issue was litigated in the construction permit phase of this proceeding and is now res judicata against CESG. In Carolina Environmental Study Group v. United States, 510 F.2d 796 (D.C.Cir. 1975) the D.C. Circuit examined the purpose of NEPA and the adequacy of environmental impact statements under NEPA in the face of a specific argument that an analysis of environmental impacts, of the type now requested by CESG, had to be contained in the McGuire EIS. The court noted:

> Section 102(2)(c)(i) of NEPA requires a "detailed statement" on "the environmental impact of the proposed action". That language requires description of reasonably foreseeable effects. A "rule of reason" is used to ascertain those effects anticipated. "The detailed statement" is required as a basis for intelligent balancing of the effect on the environment with the economic and technical factors." (Citations omitted). (Emphasis added). 510 F.2d. at 798.

In that case the NRC, in accordance with its practice, had determined that the probability of the occurrence of the type of accident sequence at issue was sufficiently small to render the environmental risk associated therewith extremely low. In light of this determination, the D.C. Circuit Court concluded:

> Viewing the record as a whole, we cannot say that the AEC's general consideration of the probabilities and severity of a Class 9 accident amounts to a failure to provide the required detailed statement of its environmental impact....
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> . . .
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> ...It is entirely proper, and necessary, to consider the probabilities as well as the consequences of certain occurrences in ascertaining their environmental impact. There is a point at which the probability of an occurrence may be so low as to render it almost totally unworthy of consideration. 510 F.2d at 799.

Clearly under present judicial interpretation of NEPA requirements the NRC is not required to undertake the type of analysis now suggested by Intervenor. Greene County Planning Board v. FPC, 559 F.2d 1227, 1233 (2d Cir. 1976), cert. denied, 434 U.S. 1086 (1978).

Intervenor would engraft a new standard on NEPA requirements. According to Intervenor, where "significant new information or new circumstances" are presented agencies are required, as a matter of law, to prepare a supplemental EIS. Intervenor raises two points in this regard: first, the Commission's Statement of Interim Policy; and, second the TMI accident. The TMI accident is referenced in the Commission's Statement and is thus subsumed within it. Inasmuch as the Statement, as will be discussed herein, specifically states that conclusions in prior EIS's such as McGuire remain valid, neither of these items can be said to be significant new information requiring the preparation of a Class 9 supplement to the EIS.

However, the essential question under NEPA is whether the original EIS remains adequate in light of present information and circumstances, i.e., whether, under a rule of reason analysis (See CESG v. U.S., supra) the final EIS previously approved in this proceeding continues to adequately deal with the reasonably foreseeable effects of the proposed governmental action in light of present information and circumstances. That question is readily answered in the affirmative. The present McGuire EIS does not contain a specific section discusing the impact of accident sequences which go beyond the design basis of the plant and which include inadequate reactor cooling and melting of the fuel core. The position is consistent with the proposed annex to Appendix D of 10 CFR Part 50 published December 1, 1971. (36 Fed. Reg. 22851). In that proposed annex, the AEC, while noting that the consequences of such accidents "could be severe," concluded that:

> However, the probability of their occurrence is so small that their environmental risk is extremely low. Defense in depth (multiple physical barriers), quality assurance for design, manufacture, and operation, continued surveillance and testing and conservative design are all applied to provide and maintain the required high degree of assurance that potential accidents in this class are, and will remain, sufficiently remote in probability that the environmental risk is extremely low. For these reasons, it is not necessary to discuss such events in applicants' environmental reports.

Before it can be concluded that a supplemental EIS is required for the McGuire Nuclear Generating Station under

NEPA, it must be shown that the foregoing statements are no longer accurate. Such a showing cannot be made inasmuch as the Commission specifically adressed this point in its Statement of Interim Policy. See 45 Fed. Reg. 40101, 40103 (June 13, 1980) wherein the Commission, in addressing the precise question at hand, stated:

> Thus, this change in policy is not to be construed as any lack of confidence in conclusions regarding the environmental risks of accidents expressed in any previously issued statements...

Accordingly, under NEPA, a supplement to the McGuire EIS is unnecessary.

2. CEQ

Intervenor also relies on CEQ regulations for the proposition that a Class 9 supplement to the EIS is required. Specific reference is made to 40 CFR §1502.9(c) which requires a supplement if

> ...there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."

Applicant will not take issue with the wording of the CEQ regulation nor discuss whether NRC is bound by such regulation. 2/ For the reasons stated above, the NRC in

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2/ Applicant submits that the NRC is certainly not bound by informal letters written by Chairman Gus Speth of CEQ in another proceeding; nor is the NRC bound by internal memoranda of its legal staff.

determining whether "significant" new information exists within the meaning of this regulation, should simply determine whether the original EIS adequately discusses reasonably foreseeable effects. As discussed, the existing impact statement is more than satisfactory in this regard.

3. NRC Procedure

The only remaining argument concerns itself with the Statement of Interim Policy. As noted in Applicant's December 15, 1980 pleading, McGuire has been grandfathered from the Statement's requirement concerning environmental consideration of Class 9 accidents. Intervenor maintains that the Commission was wrong to provide for grandfathering, and as such its argument must be viewed as an attack on the regulations and subject to denial. Potomac Electric Power Company (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 88-89 (1974). Intervenor goes on to state that this Board need not reach its attack on the regulations due to special circumstances. The special circumstances that are alleged are threefold: (1) the Three Mile Island accident; (2) the proximity of Charlotte; and (3) "the uncertainties regarding the capability of the McGuire containment to withstand the explosion of an amount

of hydrogen no greater than that present at TMI." 3/

With respect to TMI, such cannot be viewed as special circumstances. As noted, the Commission obviously considered TMI when it promulgated the Policy Statement and indeed made specific reference thereto. See 45 Fed. Reg. at 40101, 401012 and 40104. However, the Commission did not in any way suggest that TMI itself constituted special circumstances.

As to McGuire's proximity to Charlotte, the NRC has provided guidance on this matter. In a decision of June 19, 1980, the Director of the Office of Nuclear Reactor Regulation characterized special circumstances regarding high population density as being "above the trip points in the Standard Review Plan (NUREG 74-087, September 1975) and Regulatory Guide, 4.7, General Site Suitability Criteria for Nuclear Power Stations (November 1974)." Arizona Public Service Company (Palo Verde Nuclear Generating Station, Units 1, 2 and 3) et al., DD-80-22, 11 NRC 919, 924 (1980). The referenced Standard Review Plan and Regulatory Guide set the "trip points" as being, "at the time of initial operation," "500 persons per square mile averaged over any radial

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3/ If CESG's Memorandum is to be read as suggesting that the Commission Statement of Interim Policy is to be viewed as special circumstances, Applicant maintains such is in error. By its terms, the Statement expressly found that it should not be the basis for, inter alia, expanding any previous or ongoing proceeding. 45 Fed. Reg. at 40103.

distance out to 30 miles (cumulative population at a distance divided by the area at that distance)," or "over the lifetime of the facility" as being 1000 persons per square mile.

The record reflects that at the measured boundaries McGuire satisifes this criteria. 4/ See i.e., ER Table 2.2.1-2, ER Figures 2.21-2 through 2.2.1-8, FSAR Table 2.1.3-1 and FSAR Figures 2.1.3-3 through 2.1.3-20. Accordingly, special circumstances do not exist with respect to this matter.

Lastly, the McGuire containment's ability to withstand the hydrogen generated in a TMI-type accident does not serve as special circumstances. This matter is premised upon TMI, and as stated above, TMI cannot serve as special circumstances. In addition, the size of the McGuire containment and its structural strength is in a class with all ice condenser plants and boiling water reactors. This class includes over 50 nuclear facilities. Obviously, if the Commission was of the view that a Class 9 EIS should be prepared for this class it would have so stated. It did not. In fact, the

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4/ At the 20 mile boundary, 503 persons per square mile are projected for 1980. Applicant maintains that such number is within the guidance of the Standard Review Plan and the Regulatory Guide. See Affidavit of D.B. Blackmon which shows that this 503 figure should be reduced to 438.

Commission has recently licensed Tennessee Valley Authority's Sequoyah plant, a small ice-condenser containment, Westinghouse pressurized water reactor plant similar to McGuire. The Commission did not require a Class 9 EIS. See Offshore Power Systems (Floating Nuclear Power Plants), CLI-79-9, 10 NRC 257, 262 n.11 (1979) wherein the Commission recognized that similar plants should be similarly treated.

In conclusion, Applicant notes that the Commission has explicitly stated and the Appeal Board has so recognized, that the decision to prepare a Class 9 EIS is one for the NRC Staff; a Licensing or Appeal Board is not to enter into this process. Public Service Company of Oklahoma et al. (Black Fox Station, Units 1 and 2), CLI-80-8, 11 NRC 433 (1980) and ALAB-587, 11 NRC 474 (1980). Accordingly, inasmuch as the Staff has not singled McGuire out for special treatment with respect to a Class 9 EIS, that judgment must control.

C. 10 Mile EPZ Does Not Need To Be Expanded To Include Charlotte

NRC's emergency planning rule (10 CFR Part 50, Appendix E) sets forth two emergency planning zones (EPZ) to be established around a nuclear power plant. The plume exposure pathway EPZ for airborne exposure to radioactive materials has a radius of about 10 miles. A larger ingestion pathway

EPZ with an approximate radius of 50 miles is established for contamination of food and water. 45 Fed. Reg 55402, 55406 (August 19, 1980). The NRC has specifically recognized that both the 10-mile and 50-mile distances represent a sufficient distance to provide protection to the public in the event of any accident sequence. Thus, the supplementary information to the final rule states that the EPZ concept is based upon "a conservative emergency planning policy in addition to the conservatism inherent in the defense-in-depth philosophy." 45 Fed. Reg. at 55406.

Intervenor, in contention 6, has alleged that Commission recognition of Class 9 accidents warrants inclusion of Charlotte in the 10 mile EPZ. Intervenor implies that the potential for a Class 9 accident requires that Charlotte be included in evacuation plans called for in areas within the 10 mile EPZ. Such position is in error inasmuch as the emergency plan regulations were premised upon the occurrence of Class 9 accidents and thus such have already been taken into account. If Intervenor is dissatisfied with the treatment given Class 9 accidents in the emergency plan rule, its remedy is rulemaking and not

litigation of the issue in this proceeding. 5/ 6/

A joint NRC/EPA report, commonly referred to as NUREG-0396, 7/ provided the basis for the selection of

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5/ See Douglas Point, supra, which prohibits attacks on the regulations before hearing boards. It should be noted that while the Memorandum maintains that Intervenor is not attacking the regulations, the deposition of Intervenor's President clearly states the contrary. See deposition transcript 139.

6/ Atmospheric conditions, such as wind direction and inversion, were clearly considered by the NRC in developing the 10-mile EPZ concept. The joint NRC/EPA Task Force which recommended a 10-mile EPZ stated: "The EPZ recommended is of sufficient size [a 10-mile radius] to provide dose savings to the population in areas where the projected dose from design basis accidents could be expected to exceed the applicable PAGs under unfavorable atmospheric conditions." (emphasis added). NUREG-0396, note 7 infra, at 16. The Task Force concluded that:

> [S]ignificant plume travel times are associated with the most adverse meterological conditions that might result in large potential exposures far from the site. For example, under poor dispersion conditions associated with low windspeeds, two hours or more might be required for the plume to travel a distance of five miles. Higher windspeeds would result in shorter travel times but would provide more dispersion, making high exposures at long distances much less likely.

Id. at 18. Meteorological considerations are the subject of an extensive, technical discussion in Appendix I to NUREG-0396. Id. at I-20 to I-26. In view of the NRC's previous, extensive consideration of possible adverse atmospheric conditions in selecting the 10-mile EPZ, such conditions are not special circumstances warranting futher consideration in this proceeding.

7/ "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," NUREG-0396; EPA 520/ 1-78-016 (December 1978).

a 10-mile EPZ. NUREG-0396 was developed by a Task Force composed of recognized experts on the effects of radioactivity from both NRC and EPA. This planning document specifically recognized the possibility of Class 9 accidents in recommending the 10-mile distance. NUREG-0396 states:

> The EPZ recommended is of sufficient size [10 mile radius] to provide dose savings to the population in areas where the projected dose from design basis accidents would be expected to exceed the applicable PAGs [Protective Action Guidelines] under unfavorable atmospheric conditions...[C]onsequences of less severe Class 9 accidents would not exceed the PAG level outside the recommended EPZ distance. In addition, the EPZ is of sufficient size to provide a substantial reduction in early severe health effects (injuries or deaths) in the event of the more severe Class 9 accidents.

NUREG-0396, at 16-17.

Appendix I of NUREG-0396 further explains that the 10-mile EPZ was designed to provide full protection to the public in the event of any class 9 accident. Appendix I states as follows:

> Class 9 accidents cover a full spectrum of releases . . . The lower range of the spectrum would include accidents in which a core "melt-through" of the containment would occur . . . [T]he doses from "melt-through" releases . . . generally would not exceed even the most restrictive PAG beyond about 10 miles from a power plant. The upper range of the core-melt accidents is categorized by those in which the containment catastophically fails and releases large quantities of radioactive materials directly into the atmosphere because of over-pressurization or a steam explosion. These accidents have the potential to release very large quantities . . . of radioactive materials. There is a full spectrum

> of releases between the lower and upper range with all of these releases involving some combination of atmospheric and melt-through accidents. These very severe accidents have the potential for causing serious injuries and deaths. Therefore, emergency response for these conditions must have as their first priority the reduction of early severe health effects. Studies have been performed which indicate that if emergency action such as sheltering or evacuation were taken within about 10 miles of a power plant, there would be significant savings of early injuries and deaths even from the most "severe" atmospheric releases. [Footnote omitted]

NUREG-0396, at I-6 to I-7.

The joint NRC and Federal Emergency Management Agency (FEMA) document establishing criteria for state and local emergency plans, commonly referred to as NUREG-0654, 8/ adopted the approach recommended in NUREG-0396 and specifically noted the conclusion of the NRC/EPA Task Force that "it would be unlikely that any protective actions for the plume exposure pathway would be required beyond the plume exposure EPZ." NUREG-0654, at 12. Further, NUREG-0654 states that "the plume exposure EPZ is of sufficient size for actions within this zone to provide for substantial reduction in early severe health effects (injuries or deaths) in the event of a worst case core melt accident." Id.

8/ "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654/FEMA-REP-1, Rev. 1 (November 1980).

In view of these conclusions, Applicant asserts that the contention now presented by Intervenor has already been considered by the NRC and satisfactorily resolved. Because Class 9 accidents were fully considered in NRC's development of the 10-mile EPZ concept, there can be no justification for further expansion of this distance.

With respect to the City of Charlotte, the previous discussion regarding a supplemental EIS, clearly demonstrates that the population densities surrounding McGuire do not give rise to special circumstances. Further, as is apparent from the discussion above, the 10-mile EPZ was chosen only after extensive studies of possible effects of radioactivity. That line of demarcation represents a reasoned, expert conclusion that detailed emergency planning within that area provides adequate protection against possible public health effects during any accident sequence, independent of population concerns. The Commission and its experts have repeatedly concluded that even the most severe potential accidents do not pose a significant risk to persons living outside the 10-mile EPZ. Because no such

special circumstance exists, the 10-mile EPZ is fully adequate.

Respectfully submitted,

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