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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
GEORGIA POWER CO.	)	Docket Nos. 50-424
et al.	)	50-425
	)	(OL)
(Vogtle Electric Generating Plant,	)	
Units 1 and 2)	)	

NRC STAFF SUPPLEMENTAL
RESPONSE TO CPG/GANE CONTENTIONS

At the prehearing conference in Augusta on May 30, 1984, the Staff was granted permission to supplement its response to CPG/GANE Contentions 10 and 11. See Tr. 77-78, 84-85. The Staff Herein files its supplemental response to those contentions. In addition, the Staff wishes to inform the Board and parties of a recently-issued Commission Policy Statement relevant to CPG Contention 3. See Tr. 10-12.

CPG 3

CPG Contention 3 raises the issue of the financial qualifications of the Applicants to operate the Vogtle facility. At the prehearing conference, its was suggested that consideration of this contention be deferred pending the expected issuance of a Policy Statement by the Commission, Tr. 10-12. On June 7, 1984, the Commission issued its Statement of Policy on financial qualifications (a copy of which is attached) which concludes (Statement at P. 4):

DESIGNATED ORIGINAL

Certified By

> Accordingly, the March 31, 1982 rule [prohibiting litigation of financial qualification issues] will continue in effect until finalization of the Commission's response to the Court's remand. The Commission directs its Atomic Safety and Licensing Board Panel and Atomic Safety and Licensing Appeal Board to proceed accordingly.

The Commission has made it clear that it believes its rule eliminating financial review requirements (See 10 C.F.R. § 50.33(f)(1)) is still in effect. Consequently, CPG Contention 3 must be dismissed.

CPG/GANE 10

CPG/GANE Contention 10 raises the issue of environmental qualification of equipment. In its response of May 14, 1984 to CPG and GANE contentions, the Staff opposed this contention as excessively broad. In its response of May 7, 1984 to these contentions, the Applicants (Response at pp. 66-72) subdivided Contention 10 into 11 narrower subcontentions; at the prehearing conference, the Intervenors both agreed to have the contention subdivided in accordance with the Applicant's response (Tr. 78). The Staff takes the following positions on the individual subcontentions:

10.1 Integrated Dose v. Dose Rate

This subcontention alleges that Applicants' testing methods are inadequate because the Applicants only use high levels of radiation or integrated dose. Intervenors cite research performed at Sandia Laboratory for the proposition that many materials, including polymers found in cable insulation and jackets, seals, rings and gaskets at Vogtle may experience greater damage from lower dose rates. The Staff does not

object to the admission of this subcontention provided that it is limited to the polymers identified by the intervenors.

10.2 Synergism

The second identified subcontention deals with another Sandia study examining the effects of synergism. Intervenors state that this Sandia study examined the combined effects of radiation, heat, and (in some experiments) oxygen, concentration and determined that "the greatest amount of degradation was found upon exposure to heat followed by exposure to radiation." Intervenors further allege that the results of this report have not been applied to the testing performed and referenced by the Applicants. The Staff does not object to the admission of this subcontention.

10.3 Cable in Multiconductor Configurations

Again, Intervenors cite a Sandia study for the proposition that in tests of EPR cable material, multiconductor configurations performed "substantially worse" then single conductor configurations and that qualification testing emplying only single conductors may not be representative of multiconductor performance. Intervenors further allege that the results of this report have not been applied to Applicants' testing program. The Staff does not object to the admission of this subcontention.

10.4 Terminal Blocks

Once more, Intervenors direct us to information from Sandia concerning the testing of terminal blocks and allege that Applicants have

failed to consider this information. The Staff does not object to the admission of this subcontention.

10.5 Solenoid Valves

This subcontention challenges the qualification of solenoid valves used at Vogtle. The contention is based on tests performed by ASCO and Franklin Research Center and an NRC Board Notification issuance. The Staff does not object to the admission of this subcontention.

10.6 Limitorque Motor Operators

In this subcontention, Intervenors challenge the qualification of 43 motor operators manufacturers by Limitorque. The Staff does not object to the admission of this subcontention.

10.7 Hydrogen Recombiners

This contention contains two allegations. First, it is alleged that hydrogen recombiners manufactured by Rockwell International contain a number of defective parts. In its response (at p. 69), Applicants point out that Vogtle's hydrogen recombiner was manufactured by Westinghouse and not by Rockwell. This being the case, defects in recombiners manufactured by Rockwell are irrelevant to Vogtle and this portion of the subcontention should be dismissed.

Second, Intervenors allege that various transducers failed environmental qualificaiton testing because of an inability to withstand radiation doses and that the Vogtle FSAR does not indicate that the testing of Westinghouse recombiners includes radiation testing. The Staff does not

object to the admission of a subcontention stating that the transducers used in the Vogtle hydrogen recombiner have not been adequately demonstrated to withstand the effects of radiation.

10.8 Qualification Against Fire

In this subcontention, Intervenors assert that Applicants have not satisfied 10 C.F.R § 50.48 because they have failed to show that necessary equipment can withstand the fire environment. The Commission's fire protection requirements are set forth in Criterion 3 to Appendix A to 10 C.F.R. Part 50 and 10 C.F.R. § 50.48(a); guidance in meeting these requirements is set out in Branch Technical Position BTP APCSB 9.5-1 and its Appendix A. These requirements contain a number of measures designed to ensure that the plant can be safely shut down in the event of a fire. Criterion 3 requires that structures, systems and components be designed and located to minimize the probability and effect of fires; that non-combustible and heat resistant materials be used whenever practial; that appropriate fire detection and fighting systems be provided; and that such systems be designed such that their rupture or inadvertant operation does not significantly impair the safety capability of the plant. Section 50.58(a) requires that a fire protection plan be developed to satisfy Criterion 3. This plan must include various information, including a description of the overall fire protection program and a description of the specific features necessary to implement the program.

The Intervenors do not allege any specific noncompliances with the requirements set out in either Criterion 3 or Section 50.58(a). Instead, Intervenors appear to assert that these requirements include a demonstration

that safety equipment can withstand the effects of a fire. The regulations require that it be demonstrated that the plant can be safely shut down in the event of a fire; the regulations do not require that all equipment be capable of surviving such a fire. This subcontention is without regulatory basis; it should be dismissed.

10.9 Seismic Qualifications

In this subcontention, Intervenors challenge the seismic qualification of equipment at Vogtle. As basis, Intervenors cite an NRC summary of unresolved safety issues for the proposition that environmental qualification methods have undergone "significant change." However, there is no attempt to relate this information to the Vogtle facility. This subcontention should be dismissed.

10.10 Shortcomings in Qualification Methodologies

In this subcontention, Intervenors cite a Sandia report that raised various questions concerning qualification methodologies. These questions are said to raise "fundamental doubts" concerning the Applicants' ability to properly qualify equipment.

This subcontention suffers from the same vagueness and broadness as the original Contention 10. Intervenors could have, upon proper basis, challenged either specific qualification methodologies used for Vogtle or the actual qualification of specific pieces of equipment at the plant. This subcontention does neither; in essence, it does nothing more than express a generalized doubt that not all equipment can be properly

qualified. This subcontention does not present any issues that can be litigated; it should be rejected.

10.11 Accident Parameters

In this subcontention, Intervenors assert that Applicants have not accurately defined the parameters of an accident and have underestimated the period of time safety-related equipment will be required to operate. As to the definition of accident parameters, Intervenors make no mention of the parameters used for Vogtle and why they believe the specific parameters are inadequate. That portion of the subcontention should therefore be dismissed. As to the time duration for which equipment will have to operate, Intervenors do not even identify the time period selected for Vogtle, much less provide any basis to believe that this time period (whatever it may be) is inadequate. This portion of the subcontention should also be dismissed.

CPG/GANE 11

This contention alleges defects in the Vogtle steam generator system. The Staff originally opposed this contention as lacking any specific connection with the Vogtle facility. At the prehearing conference, an attempt was made to establish such a connection. Specifically, a CPG representative (Mr. Deutsch) cited portions of Section 5.4.2 of the Vogtle FSAR for the proposition that localized stress corrosion and tube wall thinning has occurred at rates significantly greater than general corrosion rates. Tr. 81. The FSAR goes on to say, however, that adoption of an all volatile treatment (AVT) control program will minimize both

corrosion and tube wall thinning. FSAR, p. 5.4.2-9 (a copy of this page is attached). Mr. Deutsch mentioned the AVT program, but he did not appear to be challenging the effectiveness of this program. See Tr. 81-82. Thus while mentioning that stress corrosion and tube well thinning have occurred elsewhere, Intervenors have provided no basis to believe (nor have they even alleged) that the AVT program will not eliminate this problem for Vogtle. This contention still lacks basis and should be dismised.

Respectfully submitted,

Robert Perlis

Robert G. Perlis
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 20th day of June, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
GEORGIA POWER CO. et al.	)	Docket Nos. 50-424 50-425 (OL)
(Vogtle Electric Generating Plant, Units 1 and 2)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF SUPPLEMENTAL RESPONSE CPG/GANE CONTENTIONS" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 20th day of June, 1984.

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NUCLEAR REGULATORY COMMISSION

[10 CFR Parts 2 and 50]

FINANCIAL QUALIFICATIONS
STATEMENT OF POLICY

AGENCY: U.S. Nuclear Regulatory Commission

ACTION: Policy Statement

SUMMARY: In response to the issuance of the mandate of the U.S. Court of Appeals for the D.C. Circuit in New England Coalition on Nuclear Pollution v. NRC, 727 F.2d 1127 (D.C. Cir. 1984), the Nuclear Regulatory Commission issues a statement of policy clarifying its response to the Court's remand.

FOR FURTHER INFORMATION CONTACT: Carole F. Kagan, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; phone (202) 634-1493.

SUPPLEMENTARY INFORMATION: On February 7, 1984, the U.S. Court of Appeals for the District of Columbia Circuit granted a petition for review by the New England Coalition on Nuclear Pollution (NECNP) which challenged the Commission's March 31, 1982 rule eliminating case-by-case financial qualification review requirements for electric utilities. New England Coalition on Nuclear Pollution v. NRC, 727 F.2d 1127 (D.C. Cir. 1984). The Court found that the rule was not adequately supported by its accompanying

statement of basis and purpose and remanded to the agency, but did not explicitly vacate the rule.

In response to this decision, the Commission initiated a new financial qualification rulemaking to clarify its position on financial qualification reviews for electric utilities. 49 Fed. Reg. 13044 (1984). One of the points focused upon in the Court's decision was the Commission's observation in the Statement of Considerations for the March 31, 1982 rule that utilities encountering financial difficulties in the past during construction have chosen to abandon or postpone projects rather than cut corners or safety. The Court believed that such actions by some utilities do not guarantee that all financially troubled utilities would follow the same course. The revised proposed rule would eliminate financial review only at the operating license stage. The question of reasonable assurance of adequate construction funding can be an issue only at the construction permit stage. Thus, the Commission's current rulemaking is responsive to the Court's concern by maintaining the financial qualifications review for construction permit applicants.

The Court was also troubled by what it perceived to be an inconsistency between elimination of the review only for electric utilities and the Commission's observation that

financial qualifications reviews are unnecessary because it finds no link between financial qualifications and safety. This observation is not relied on in the new proposed rule. Instead, the rule is premised on the assumption that, at the operating license level, regulated utilities will be able to cover the costs of operation through the ratemaking process.

In the interim, the Court's mandate has issued. The mandate contained no guidance other than that furnished in the Court's opinion. The Commission has concluded that the issuance of the mandate does not have the effect of restoring the previous regulation under which financial qualification review was required as a prerequisite for a reactor construction permit or operating license. In remanding the rule to the Commission without explicitly vacating the rule, the Court cited Williams v. Washington Metropolitan Area Transit Commission, 415 F.2d 922 (D.C. Cir. 1968) (en banc), cert. denied 393 U.S. 1081 (1969). Williams does not require that the agency action be vacated on remand. In another situation where the D.C. Circuit remanded a set of rules to an agency for an adequate statement of basis and purpose, the Court allowed the old rules to stand pending agency action to comply with the Court's mandate. Rodway v. United States Department of Agriculture, 514 F.2d 809 (D.C. Cir. 1975). The Commission is complying with the Court's mandate by repromulgating its

financial qualifications rule in a manner responsive to the Court's concern. The Commission anticipates that the new rule eliminating financial review at the operating license stage only will soon be in place. While there are no construction permits proceedings now in progress, there are several ongoing operating license proceedings to which the new rule will apply. It would not appear reasonable to construe the Court's opinion as requiring that the Commission instruct its adjudicatory panels in these proceedings to begin the process of accepting and litigating financial qualifications contentions, a process which would delay the licensing of several plants which are at or near completion, only to be required to dismiss the contentions when the new rule takes effect in the near future.

Accordingly, the March 31, 1982 rule will continue in effect until finalization of the Commission's response to the Court's remand. The Commission directs its Atomic Safety and Licensing Board Panel and Atomic Safety and Licensing Appeal Panel to proceed accordingly.

Commissioner Gilinsky did not participate in this decision. Commissioner Asselstine's dissent from this decision and the separate views of Chairman Palladino and Commissioners Roberts and Bernthal follow.

SEPARATE STATEMENT
OF CHAIRMAN PALLADINO

The Court of Appeals remanded the financial qualifications rule to the Commission. The Commission promptly initiated rulemaking to address the deficiencies identified by the Court. It then faced the question of what to do about financial qualifications in pending operating license cases. The Court's opinion did not say that the rule was "vacated." Thus, the Commission was presented with a question of interpretation of the Court's opinion. The Commission adopted the view that the Court's opinion could reasonably be interpreted as not vacating the rule for operating license reviews.

The Commission has not sought to flout the Court or escape its mandate. The Commission has attempted to be responsive to the Court's opinion and, at the same time, has sought to avoid unnecessary disruption of its licensing and regulatory program. It interpreted the Court's opinion with full recognition that the Court would correct its interpretation if the Court had intended to vacate the rule.

SEPARATE STATEMENT OF COMMISSIONER ROBERTS

I join in the separate statement of Chairman Palladino. In addition, I would point out that, of the five contentions perceived by the Court to have been raised by the petitioners' challenge, the Court agreed only with the last - that the rule is not supported by its accompanying statement of basis and purpose. In discussing the grounds for its remand, the Court addressed only its basis for disagreement with that portion of the rule that would eliminate a financial qualifications review in connection with consideration of applications for construction permits. The Court concluded that, in refusing to consider, in a vacuum, the general ability of utilities to finance the construction of new generation facilities, the Commission had abandoned what seemed to the Court "the only rational basis enunciated for generally treating public utilities differently for the purpose at hand."

The Court apparently did not focus on the rationality of the Commission's basis for treating public utilities differently for the purpose of considering applications for operating licenses. Thus, it appears unlikely that the Court intended, or had any reason, to vacate that portion of the rule eliminating a financial qualifications review in connection with consideration of applications for operating licenses.

SEPARATE VIEWS OF COMMISSIONER BERNTHAL

I believe that the Commission's action in instituting the recent rulemaking proceeding is fully responsive to the Court's mandate. As the Commission's policy statement indicates, the Court's criticism of the Commission's rationale for the March 1982 rule related solely to issues which, even under the pre-1982 rule, would be litigable only at the construction permit stage of review. Therefore, even if one assumes for the sake of argument that the Court vacated the rule insofar as it found the Commission's rationale inadequate, the Commission took prompt action in modifying the 1982 regulation by proposing a rule which would reinstate financial qualifications reviews for all construction permit applicants.

I have based my decision on a plain reading of the opinion of the Court, wherein the Court listed the five contentions raised by the appellants, and noted "We agree with the last [of the five contentions]." That is, the Court held that "the rule is not supported by its accompanying statement of basis and purpose..." and accordingly remanded the rule to the agency. Given that holding, I believe the Commission's action is directly and precisely responsive to the decision of the Court. It is unfortunate that the Commission was required to consider elaborate arguments and interpretations based on legal precedent to resolve what should have been a straightforward matter.

I concur in the views of the Chairman and Commissioner Roberts.

SEPARATE VIEWS OF COMMISSIONER ASSELSTINE

The Commission's policy statement is both shortsighted and most likely illegal. The Commission is in effect betting that the D.C. Circuit will not now act to make it very clear that the Commission's "new" financial qualifications rule has indeed been vacated, and that the Commission must re-open all those proceedings in which the rule was used to exclude financial qualification contentions. I choose not to join the majority in this course because I believe that the Court's previous decision effectively vacates the Commission's 1982 financial qualifications rule. Moreover, I believe that the Commission's approach risks in the long run serious disruptions and delays to pending cases.

Our Executive Legal Director, our General Counsel and now the Department of Justice have all advised the Commission that the decision of the D.C. Circuit did indeed vacate the Commission's 1982 financial qualifications rule. They told us that this means that the old rule governs until the Commission can substitute a valid new rule removing the issue from proceedings. The best that our legal advisors could say about the course being pursued by the Commission is that the Commission's position is "colorable" given the absence of explicit language in the Court's decision vacating the rule. They indicated,

however, that they would not advise taking this course because of the significant litigation risk involved. My reading of the case law leads me to agree with their conclusion.

To deal with this situation, the General Counsel proposed an interim policy statement which would have enabled the boards and parties to resolve the financial qualification issue in individual cases in an expeditious manner. There would have been some unavoidable, short-term delay and some inconvenience in a few cases. However, had the Commission acted in a timely manner to adopt that policy statement when it was proposed a month ago, much of that inconvenience and delay would be over by now.

Instead, the Commission has chosen to ignore the advice of all of its legal advisors and to act as if the 1982 rule were still valid. By pursuing this course, the Commission risks reaction by the D.C. Circuit which would not only reject the Commission's erroneous interpretation of the Court's previous decision but which would also set out precisely what the Commission must do in the case of those proceedings decided under the invalid rule. Any flexibility in dealing with these proceedings could well be lost to the Commission, and serious delays and disruption could result if the Court decides several months from now that all of these proceedings must be reopened.

Moreover, it is not clear that there exists an adequate factual basis to support a new rule eliminating financial qualification issues

from all nuclear powerplant operating license proceedings. For example, even if it is possible to demonstrate that electric utilities receive routine approval of funding requests to cover the cost of operating a nuclear powerplant--an essential element in the justification for the Commission's new proposed financial qualification rule, this does not necessarily assure that these funds will be used by the utility for meeting operating plant safety needs. The financial difficulties facing several electric utilities in meeting the cost of ongoing construction programs and in providing an adequate rate of return on investment are widely publicized. It is likely that in such cases these factors can create pressures on the utility to reallocate operating funds to other competing functions. In such circumstances, ratemaking decisions sufficient to cover operating expenses alone would not necessarily provide an adequate justification for excluding financial qualification issues from operating license proceedings.

Perhaps most disturbing of all is the Commission's willingness in this case, as well as in some other recent decisions, to take what are at best questionable legal positions for the sake of gaining a perceived short-term benefit. This approach does everyone involved in our licensing proceedings a disservice and has several unfortunate consequences. Such procedural shortcuts can ultimately be very disruptive to many ongoing licensing proceedings if a court rejects the Commission's approach months or years later, when the number of affected proceedings has grown substantially. Furthermore, continually taking questionable legal positions can easily lead to a much more searching and critical

attitude on the part of reviewing courts, and to adverse decisions that can seriously restrict agency flexibility in dealing with future cases. Finally, the Commission's approach simply reinforces the belief of many that this agency will go to any lengths to deny members of the public a fair opportunity to raise issues in our licensing proceedings and to have those issues fully and fairly litigated.

Signed in Washington, D.C. this 7th day of June, 1984.

For the Nuclear Regulatory Commission

Samuel J. Chilk
Secretary of the Commission

Recent operating experience, however, has revealed areas on secondary surfaces where localized corrosion rates were significantly greater than the low general corrosion rates. Both intergranular stress corrosion and tube-wall thinning were experienced in localized areas, although not simultaneously at the same location or under the same environmental conditions (water chemistry, sludge composition).

The adoption of the all volatile treatment (AVT) control program minimizes the possibility for recurrence of the tube-wall thinning phenomenon. Successful AVT operation requires maintenance of low concentrations of impurities in the steam generator water, thus reducing the potential for formation of highly concentrated solutions in low-flow zones, which is the precursor of corrosion. By restriction of the total alkalinity in the steam generator and prohibition of extended operation with free alkalinity, the AVT program should minimize the possibility for recurrence of intergranular [illegible] in localized areas due to excessive levels of free [illegible].

[illegible] testing has shown that the Inconel-600 tubing is compatible with the AVT environment. Isothermal corrosion testing in high-purity water has shown that commercially produced Inconel-600 exhibiting normal microstructures tested at normal engineering stress levels does not suffer intergranular stress corrosion cracking in extended exposure to high-temperature water. These tests also showed that no general type corrosion occurred. A series of autoclave tests in reference secondary water with planned excursions has produced no corrosion attack after 1938 days of testing on any as-produced Inconel-600 tube samples.

Model boiler tests have been used to evaluate the AVT chemistry guidelines adopted in 1974. The guidelines appear to be adequate to preserve tube integrity with one significant alteration: operation with contaminant ingress must be limited.

Additional extensive operating data are presently being accumulated with the conversion to AVT chemistry. A comprehensive program of steam generator inspections, including the recommendations of Regulatory Guide 1.83, Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes, with the exceptions as stated in section 1.9, should provide for detection of any degradation that might occur in the steam generator tubing. Limits for secondary side water chemistry for various plant operating conditions are given in table 10.3.5-1.