PROD. & UTIL. FAC. 50-302

UNITED STATES OF AMERICA

ATOMIC ENERGY COMMISSION

In the Matter of	)	
	)	
FLORIDA POWER CORPORATION	)	Docket No. 50-302
	)	
(Crystal River Unit 3 Nuclear Generating Plant)	)	

BRIEF OF THE REGULATORY STAFF
IN OPPOSITION TO EXCEPTIONS AND REQUEST
FOR RELIEF BY INTERVENORS

I

Statement of the Case

This proceeding involves the application of Florida Power Corporation (applicant), dated August 10, 1967, and five amendments thereto ("the application") filed under §104 b. of the Atomic Energy Act of 1954, as amended (the "Act"), for a construction permit to construct a pressurized water reactor, designated Crystal River Unit 3 and designed to operate initially at power levels up to 2452 megawatts (thermal), to be located on the applicant's 4738 acre site located on the Gulf of Mexico about 70 miles north of Tampa, Florida, and seven and one-half miles north of the Town of Crystal River, Florida.

A notice of hearing was issued on May 29, 1968, designating an atomic safety and licensing board ("board") to conduct this

proceeding to determine whether a provisional construction permit should be issued to the applicant.

By Order dated June 28, 1968, the board granted a Petition to Intervene filed by the City of Gainesville, Florida, and the Gainesville Utilities Department (collectively referred to as "Gainesville"), but limited Gainesville's participation to the question of the jurisdiction of the Commission to issue a construction permit under §104 b. of the Act. The board denied Gainesville's Motion to Broaden Issues to include the questions of whether the proposed facility has "practical value" and therefore should be licensed under §103 of the Act, and whether the provisional construction permit should be conditioned "upon the availability of output to municipal utilities on nondiscriminatory terms and termination of any other violations of anti-trust policy".

The hearing was held in Crystal River, Florida, on July 16 and 17, 1968. The board issued its Initial Decision on September 24, 1968, directing the issuance of a provisional construction permit for the proposed Crystal River Unit No. 3, but recommending to the Commission that the construction permit be conditioned with respect to matters not pertinent here. (I.D., pp. 10 and 19.) The regulatory staff and the applicant have filed exceptions to this aspect of the Initial Decision. Gainesville has filed exceptions to the

Initial Decision claiming that the board erred in denying its Motion to Broaden Issues, in concluding that the proposed facility is a utilization facility involved in the conduct of research and development activities leading to the demonstration of practical value and may be licensed pursuant to §104 b. of the Act, in failing to condition the construction permit and in certain other respects. Gainesville requests that the proceeding be remanded to the board to receive evidence on whether the proposed Crystal River facility has practical value within the meaning of §102 of the Act, and whether the proposed license would tend to create or maintain a situation inconsistent with the antitrust laws. In addition, they request that the board reserve jurisdiction and convert the application to a project authorized under §103, pending a decision by the United States Court of Appeals for the District of Columbia in the Vermont Yankee and Duke cases (Power Planning Committee of the Municipal Electric Association of Massachusetts v. AEC; Cities of Statesville, et al. v. AEC).

II

The Proceeding is Properly Considered Under Section 104 b. of the Act

Gainesville contends that the application for the proposed facility was improperly filed under §104 b. of the Act since the

facility is allegedly a project having "practical value" under §102 of the Act, and is therefore subject to licensing only under §103 of the Act. On this basis, Gainesville claims that the issues set out in the notice of hearing should have been broadened and evidence received to establish this point. Gainesville also claims that the facility is not a research and development reactor within the meaning of §104 b. of the Act. (Exceptions 1a, 2, 5.)

The board's denial of Gainesville's motion to enlarge the issues to consider evidence of the "practical value" of the Crystal River facility was entirely consistent with the Commission's Memorandum and Order in the Philadelphia Electric case[1/] in which the Commission held that a "finding of practical value" can only be made within the context of a rule making proceeding. As the Commission stated:

> The finding of "practical value" under Section 102 is a non-delegable function of the Commission. Further, it is to be made as to a "type" of utilization facility and not as to a specific proposed facility. We believe that a finding of "practical value" can properly be made by the Commission only through rule making procedures (the course heretofore followed by the Commission with respect to the consideration of this matter)

1/ Matter of Philadelphia Electric Co., Nos. 50-277 and 50-278, Memorandum and Order (AEC, Dec. 5, 1967) [hereafter cited as Philadelphia Electric].

> (footnote omitted) in which all interested persons would have an opportunity to participate. The inappropriateness of an adjudicatory proceeding for the above purpose was recognized by the board in Duke and finds confirmation in our Memorandum and Order of September 8, 1967, responding to the jurisdictional ruling referred to us by that board.
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> Thus, the evidence which may be introduced in the instant proceeding should, as in the Duke case, be limited to the question of whether the application satisfies the requirements of Section 104 b.[2/]

Gainesville's contentions that the "practical value" of the Crystal River facility is illustrated by the applicant's assertion that the capacity of the facility is of vital importance to the reliability of its power system or the fact that the applicant sought an exemption under 10 CFR 50.12 from the requirements of 10 CFR 50.10(b) in order to perform preliminary construction work, or that the second unit (Crystal River No. 4) was withdrawn because it was not a "prudent" investment in generating capacity (Exception 1a) are all attempts to establish that the facility has practical value. For the reasons discussed in the previous paragraph, these contentions are not properly for consideration in this adjudicatory proceeding.

In any event, the fact that the applicant chose to rely on a nuclear facility such as the proposed Crystal River unit rather than a fossil fueled plant to fulfill needed future generating

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2/ Philadelphia Electric, Id. at 3-4.

capacity is only an "indication of the probabilities of successful operation at anticipated levels".[3] It is not, as Gainesville suggests, a sufficient basis for a finding of practical value. In its decision in the Duke case, the Commission quoted with approval the following statement in the Staff Memorandum accompanying the Commission's Determination Regarding Statutory Finding of Practical Value for Certain Types of Light Water Nuclear Power Reactors:[4]

> Although the willingness of utilities and equipment companies to accept the business risks involved is an impressive indication of the probabilities of successful operation at anticipated levels, it is not alone a sufficient basis to support a statutory finding of practical value by the Commission. (Footnote omitted.) The manufacturers of nuclear reactors compete for the business of utilities which are considering the purchase of power plants, and are motivated to offer incentives such as warranties as to

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3/ Staff Memorandum accompanying Determination Regarding Statutory Finding of Practical Value for Certain Types of Light Water Nuclear Power Reactors, Docket Nos. RM-102-1, PRM-102-A (AEC, Dec. 29, 1965), 31 F.R. 221 (Jan. 7, 1966). This determination, filed December 29, 1965, accompanied the Commission's denial of the petition for rule making which had been filed by the National Coal Policy Conference, Inc., the National Coal Association, and the United Mine Workers of America.

4/ Id.

> certain features in order to obtain the award of a contract. The willingness of utilities to purchase nuclear plants and of reactor manufacturers to warrant the plants is a reflection of the acceptance of what may be considered reasonable business risks, but does not necessarily constitute a sufficient assurance that the plants will in fact perform as warranted or will otherwise meet expectations.[5/]

Gainesville's assertion (Exceptions 2, 5) that the board was in error when it concluded that the Crystal River facility was properly licensable under §104 b. of the Act since the facility is not "involved in the conduct of research and development activities leading to the demonstration of ,.. practical value" is also without merit.

This same issue was raised in Duke, Vermont Yankee,[6/] and Matter of Philadelphia Electric.[7/] In Duke, the Commission stated that:

> [T]he "research and development" about which Section 104 b. speaks encompasses as "development" a demonstration that will provide a basis for commercial evaluation. Such "commercial evaluation", in terms of earlier relevant declarations, means an evaluation of the economic competitiveness of the nuclear facility with conventional power plants. (Footnote omitted.)

5/ Matter of Duke Power Co., Docket Nos. 50-269, 50-270 and 50-287, Decision (AEC, Jan. 3, 1968) [hereafter referred to as Duke] at 11.

6/ Matter of Vermont Yankee Power Corporation, Docket No. 50-271, Memorandum and Order (AEC, April 8, 1968) [hereafter referred to as Vermont Yankee].

7/ Docket Nos. 50-277 and 50-278, Decision (AEC, June 5, 1968).

> In the context, then, of the statutory language and our construction of it, until there has been a "demonstration of the practical value of such facilities for industrial or commercial purposes", utilization facilities which will provide a basis for commercial evaluation in connection therewith (i.e., "leading to" such "demonstration") may be licensed under Section 104 b.[8/]
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> In this context, we think it manifest that large-scale utilization facilities, such as the Oconee reactors, by contributing to the yet incomplete basis for a reliable estimate of economic competitiveness, are involved in the conduct of activities encompassed by Section 104 b. and, thus, are properly to be licensed thereunder.[9/]

The Commission reaffirmed these principles in its decisions in Vermont Yankee and Matter of Philadelphia Electric.

The same rationale applies to Gainesville's contentions here. The lack of a "demonstration that will provide a basis for commercial evaluation"of this size and type of facility, pointed out in the Commission's decision in the Duke proceeding, is also true with respect to the Crystal River facility.

Moreover, the Crystal River facility incorporates a number of design features which require research and development to complete its design. Most significant in this regard are research and development programs relating to: (1) once-through steam

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8/ Duke, supra note 4 at 5-6.

9/ Duke, supra note 4 at 9.

generator; (2) control rod drive unit test; (3) in-core neutron detectors; (4) thermal and hydraulic programs; (5) core cooling; (6) xenon oscillations; (7) iodine removal system; and (8) fuel rod failure mechanisms during LOCA.[10/] The foregoing, individually and in combination, evidences an "experimental purpose concomitent with the purpose of economic demonstration."[11/]

Gainesville urges (Exception 3) that the research and development related to the ability of the containment sprays to absorb radioactive iodine is a matter distinct from a demonstration of practical value and is thus "neuter" in character. It argues that since public health and safety is also of concern in licensing under §103 of the Act, research and development programs designed to resolve safety questions are not encompassed within the provisions of §104 b. as activities leading to a demonstration of practical value. As the Commission pointed out in its first Determination Regarding Practical Value:

> The statutory finding of practical value ... [presupposes] a determination of technical feasibility.... This [determination of practical value] could include ... the demonstration of the technical feasibility of the reactor concept and of its basic characteristics....[12/]

10/ Summary of Application, pp. 22-25 following Tr., p. 264; Staff Safety Evaluation, pp. 58-60 following Tr., p. 276.

11/ Matter of Duke Power Co., Docket Nos. 50-269, 50-270 and 50-287, Memorandum and Order at 5 (AEC, Feb. 29, 1968).

12/ Supra, note 3.

Research into "technical feasibility" may include research into the effectiveness of engineered safety features designed to protect the health and safety of the public.

Gainesville excepts (Exception 4) to the board's conclusion that core thermal and hydraulic design was one of the research and development areas as distinguished from "ordinary improvement considerations". Gainesville argues that the Crystal River steam supply system is essentially identical in design to that of Duke Power Company's Oconee Nuclear Station, Units 1, 2 and 3, and Metropolitan Edison's Three Mile Island Station, and that the core mechanical design parameters in Crystal River reflect an "optimization" of existing parameters. While it is true that the Crystal River facility is similar to several of those for which construction permits have been issued and that the core mechanical design was based upon an "optimization" of existing parameters, it does not necessarily follow that no important areas remain in which research and development is required.

The precise areas in which additional research and development are required are identified in the Applicant's Summary Description of Application. (Applicant's Summary Description of Application, p. 24, following Tr., p. 264.) These include research to more completely substantiate the correla ion of experimental DNB (Departure from Nuclear Boiling) data and flow

testing with internal vent valves installed and with open internal vent valves.

The board's determination (I.D. 11) that research and development areas included core thermal and hydraulic design is fully supported by the evidence as pointed out above.

Thus, it is clear that the board was correct in holding that the Crystal River facility was properly licensable under §104 b. This is true both because its construction and operation will contribute economic data useful in any demonstration of practical value, and because the applicant is also engaged in several research and development activities of a technical nature.

Gainesville's contention (Exception 5) that the board erred in concluding that the applicant sustained the burden of proof as to the jurisdiction of the board to issue a license under §104 b. of the Act is without merit. As pointed out above, the record in this case, particularly the application and the applicant's Summary Description, clearly demonstrates that the Crystal River facility is properly licensable under §104 b.

III

The Commission Lacks Regulatory Authority to Condition A 104 b. License Because of Antitrust Considerations

Gainesville contends (Exception 1b) that the Commission should condition the construction permit to require the applicant to make available the output from the Crystal River plant to municipal utilities "on non-discriminatory terms and termination of any other violation of antitrust policy..." It appears to contend that such conditions may be imposed whether the permit is issued pursuant to §103 or to §104 b. of the Act. As shown above, this proceeding may not be considered under §103 of the Act because no finding of practical value pursuant to §102 has been made for this type of reactor. Therefore, whatever authority the Commission may have to condition a construction permit on antitrust grounds in a §103 proceeding is not available in this proceeding.

The question of the authority of the Commission to condition §104 b. licenses with respect to antitrust questions was clearly disposed of by the Commission in the Vermont Yankee case. In its "Memorandum and Order", the Commission held:

> In a proceeding for the issuance of a license under Section 104 b. of the Act, which the instant proceeding properly is (see below), the Commission's substantive regulatory authority is limited, as earlier stated, to matters of radiological health and safety and common defense and security. The Commission in such a proceeding lacks the authority to deny or condition a permit or license on the basis that it would tend to create or maintain a situation inconsistent with the antitrust laws.13/

In Exception 1b, Gainesville refers to the language in §50.54(g), which it asserts "provides that ... compliance with the antitrust laws as specified in §105 a. of the Act shall be a condition of every license issued." It argues that this language in some way requires the Commission to consider the alleged antitrust questions in this proceeding. Section 50.54(g) restates in the regulations the pertinent part of §105 a. of the Act which reflects merely the Congressional policy that nothing contained in the Act relieves any person from the operation of the antitrust statutes and provides for suspending, revoking or taking other action with respect to licenses where antitrust violations are found by a court of competent jurisdiction. These provisions have no applicability to the instant proceeding.

Gainesville also argues (Exception 1b) that the Commission's failure to consider antitrust allegations in this proceeding is

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13/ Vermont Yankee, supra note 6 at 19-20.

in some way contrary to the fundamental policies of the antitrust laws. This point also has been previously dealt with by the Commission in the Vermont Yankee case:

> While the Commission lacks the authority to deny or condition a Section 104 b. license on the basis that it would tend to create or maintain a situation inconsistent with the antitrust laws, organizations which receive licenses under that section are not relieved from the operation of the antitrust laws. Section 105 a. of the Act explicitly declares that nothing contained in the Act shall relieve any person from the operation of the various antitrust statutes specified therein. Moreover, under Section 105 b. of the Act, the Commission is required to report promptly to the Attorney General any information it may have with respect to any utilization of special nuclear material or atomic energy which appears to violate or to tend toward the violation of the antitrust laws enumerated in Section 105 a. or to restrict free competition in private enterprise.
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> It was, perhaps, Section 105 b. which the Municipals had in mind in asking that the issues specified for hearing be enlarged so that testimony, evidence, and recommended findings respecting antitrust considerations "may be reported to the Attorney General for his use in the dispatch of his statutory responsibilities". We would only state in response, that while the AEC endeavors to comply fully with both the letter and spirit of Section 105 b., we cannot view its provisions as a warrant to use our licensing proceedings to develop evidence on matters unrelated to the issues properly within our jurisdiction solely so that we may assist the Attorney General in his law enforcement responsibilities.14/

14/ Vermont Yankee, supra note 6 at 19-20.

IV

The Board Was Not Required to Condition the Construction Permit to be Compatible with a Section 103 License

In Exception 6, Gainesville contends that the board erred in failing to provide for "regulations and terms of license as 'will be compatible with the regulations and terms of license which would apply in the event that a commercial license were later to be issued', as required by §104 b. of the Act" and that the board should have required that an application pursuant to §103 "must be made when a finding of 'practical value' can be made with reference to the proposed Crystal River facility".

These questions have already been dealt with by the Commission in its regulations in Part 50. In §50.41, in considering the question of compatibility, the Commission stated:

> The Commission has determined, in accordance with section 104b of the Atomic Energy Act of 1954, that the regulations and terms of license applicable to a production or utilization facility in the conduct of research and development activities leading to the demonstration of practical value of such facility for industrial or commercial purposes are compatible with the regulations and terms of license which will apply in the event that a class 103 license were later to be issued for that type of facility.15/

15/ Note following 10 CFR §50.41.

With respect to the question of the conversion of 104 licenses to 103 licenses upon a finding of practical value pursuant to §103 of the Act, the Commission has adopted §50.24 which provides as follows:

> §50.24 Effect of finding of practical value upon licenses previously issued. The making of a finding of practical value pursuant to section 102 of the act will not be regarded by the Commission as grounds for requiring:
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> (a) The conversion to a Class 103 license of any Class 104 license prior to the date of expiration contained in the license; or
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> (b) The conversion to a Class 103 license of any construction permit, issued under section 104 of the act, prior to the date designated in the permit for expiration of the license. 16/

Section 50.56 also provides that operating licenses and amendments will be of the same class for which the construction permits were issued. 17/

The Commission has stated, however, that:

> "...at such time as it makes a finding of 'practical value' for a type of facility, its policy as regards 'conversion' should be reexamined in the light of the circumstances which then obtain. (Footnote omitted.) Accordingly, the Commission intends that at such time it will consider, in a rule making proceeding with public participation, whether to change its present regulations respecting "conversion" so that any operating license issued thereafter for a facility of the type for which a statutory finding of 'practical value' has

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16/ 10 CFR §50.24.

17/ 10 CFR §50.56.

been made will be issued under Section 103, even though the construction permit may have been issued under Section 104 b. (Footnote omitted)" 18/

V

Conclusion

The Exceptions and Request for Relief filed by Gainesville should be denied.

Respectfully submitted,

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18/ See Brief for the Respondents, pp. 38-39, Cities of Statesville, et al. v. AEC and U.S., D.C. Cir., 1968, No. 21706.