

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

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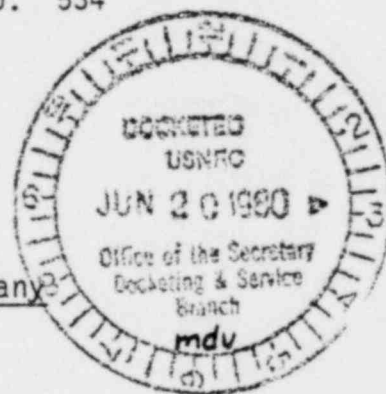
PETITION RULE PRM-51-6 (8)
(45 FR 25557)

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Serial No. 534

Attention: Docketing and Service Branch

Docket No. PRM-51-6
Petition for Rulemaking by Catherine Quigg
Comments of Virginia Electric and Power Company



Dear Sir:

These are the comments of Virginia Electric and Power Company (Veeco) on the petition for rulemaking of Catherine Quigg, who represents that she is research director of Pollution & Environmental Problems, Inc., of Palatine, Illinois. Ms. Quigg's petition, dated March 6, 1980, asks that 10 CFR Part 51 be amended "to require that a full Environmental Impact Statement be prepared covering the generic environmental impacts of high burnup nuclear fuel as used in commercial nuclear reactors, stored in spent fuel pools or cooling racks; and potentially as processed in reprocessing plants or disposed of in permanent sites." "High burnup" refers to proposed nuclear fuel management plans designed to achieve greater amounts of energy per metric ton of uranium used. Ms. Quigg asserts that high burnup fuel might have a number of effects on the environment, mainly increased releases of radioactive gases.

Comments on the Quigg petition were invited by a notice in the Federal Register, 45 Fed. Reg. 25557 (Apr. 15, 1980). Veeco wishes to comment because the company has long had an interest in nuclear power and because it presently owns four licensed nuclear generating units. A high burnup program at any of those units would result in more efficient and cost-effective use of fuel, with fewer adverse environmental effects, and so Veeco's customers would benefit from such a program. Accordingly, Veeco opposes Ms. Quigg's petition for rulemaking. The reasons are set out below.

- I. Part 51 already contains a provision requiring environmental impact statements in appropriate cases.

Ms. Quigg's request is very precise: she wishes to have the NRC regulations in 10 CFR Part 51 amended to require a full environmental impact statement for the "generic environmental impacts" of high burnup nuclear fuel.

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ACKNOWLEDGED BY USA. 6/20/80. mdv

But an amendment is unnecessary, because 10 CFR Section 51.5(a) (10) already requires an impact statement for "any . . . action which the Commission determines is a major Commission action significantly affecting the quality of the human environment."

Presumably Ms. Quigg, instead of having the Commission rely on Section 51.5(a) (10), would have the widespread use of high burnup fuel listed specifically as an action requiring an impact statement along with other specific types of action in Section 51.5(a) (1) through (9). But she gives no reason whatsoever why Section 51.5(a) (10) is not adequate.

It is no answer to say that Ms. Quigg's petition is not really a request for an amendment to Part 51 but rather a request for a programmatic environmental impact statement on the widespread use of high burnup fuel. As noted above, Ms. Quigg has been quite precise about what she wants, and her asking for an amendment to Part 51 instead of a programmatic impact statement should not be ascribed to inadvertence; 10 CFR Section 2.802, which she cites in her petition, says that a prospective petitioner "is encouraged to confer with the staff prior to the filing of a petition for rulemaking." Ms. Quigg's petition does not indicate whether or not she took advantage of this invitation, but if she did not then it must be concluded that she felt no need of the Staff's advice and that she knew exactly what she was doing. Her petition should be taken on its own terms.

II. The Quigg petition does not specify any proposal for a "major Federal action."

Even if the Commission takes the large step of presuming that what Ms. Quigg really wants is simply a programmatic environmental impact statement, then Ms. Quigg's petition still should be denied. The reason is that she identifies no NRC proposal for a "major Federal action" such as triggers NEPA Section 102(2) (c), 42 U.S.C. Section 4332(2) (c).

Ms. Quigg mentions a potential "nationwide program of high burnup fuel in nuclear reactors" and certain DOE research activities, but the only action of the NRC she contemplates is that when reactor licensees apply to the NRC for permission to increase their burnup, the NRC will have to process the applications, granting or denying them depending upon the facts of each case. While it is true that NEPA may require a "comprehensive" impact statement in certain situations where several proposed actions are pending at the same time, Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976), this is not such a case. Here there is no coherent NRC plan of national or regional scope, see Kleppe, 427 U.S. at 400, nor are the series of licensing actions that Ms. Quigg foresees "integrated into a plan or otherwise interrelated," id. at 401. Nor are the issues involved in the widespread use of high burnup or the relevant audiences, apparently different from those involved in the analysis of a particular facility. Cf. Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Com'n., 481 F.2d 1079, 1093 (D.C. Cir. 1973). Nor do there appear to be "cumulative or synergistic" impacts from concurrent licensing actions such as might require a comprehensive impact statement. See Kleppe, 427 U.S. at 410.

Even if the NRC were contemplating a widespread program (as it seems not to be), mere "contemplation" is not enough to trigger NEPA. See Kleppe, 427 U.S. at 404. There must be an NRC proposal for federal action, and Ms. Quigg has not identified one.

III. The environmental effects of high burnup fuel should be dealt with on a case-by-case basis.

If and when license amendments are required to permit individual utilities to use high burnup fuel, the NRC will of course have to carry out the environmental assessments or the environmental impact statements required by 10 CFR Part 51. But until that time there is no apparent reason why the Commission ought to engage in the sort of wide-ranging inquiry that Ms. Quigg seems to envision. There is no more reason to do a generic impact statement on the use of high burnup fuel, it appears to Vepco, than to do one on operating licenses in general just because there are a number of nuclear plants under construction that will someday be the subjects of OL proceedings.

IV. The widespread use of high burnup will not have a significant adverse effect on the human environment.

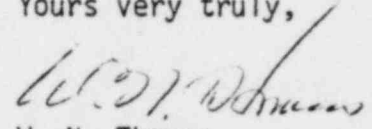
Putting arguments of law aside, the widespread use of high burnup simply will not have a significant adverse effect on the human environment. The primary concern expressed in the petition is increased fission gas release to the environment. The increase in fission gas release associated with extended fuel burnup, however, is to the fuel rod plenum, not to the environment. The purpose of the extended fuel burnup development and demonstration is to demonstrate successful fuel performance at extended fuel burnup. The current technical specification limits on coolant activity will be maintained with extended fuel burnup; therefore, with successful fuel performance, coolant activity available for release will not be affected.

It should also be noted that extended fuel burnup will have environmentally beneficial effects on the nuclear fuel cycle. The decreased uranium ore requirements from extended fuel burnup will decrease the resource utilization for the uranium fuel cycle and reduce the associated environmental effects from uranium mining and milling. In addition, there will be a significant decrease in the production of spent nuclear fuel, since fewer fuel assemblies will have to be replaced at each reactor fueling. This will reduce the number of fuel assemblies that must be placed in interim storage, as well as the number of assemblies that must ultimately be disposed of.

For the reasons recited above, the Virginia Electric and Power Company believes that the Quigg petition is ill-conceived and should be denied. Vepco is pleased to have the opportunity to submit these comments.

If we can provide you any information you may need on this subject, please let us know.

Yours very truly,

A handwritten signature in dark ink, appearing to read "W. N. Thomas". The signature is written in a cursive style with a prominent flourish at the end.

W. N. Thomas
Vice President
Fuel Resources