



June 16, 1980

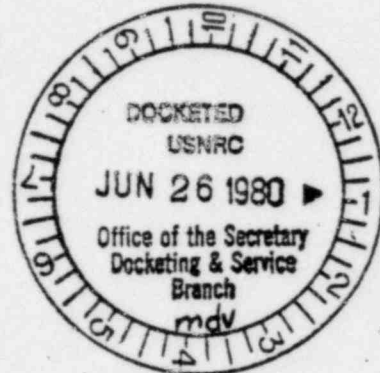
Westinghouse
Electric Corporation

Water Reactor
Divisions

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DOCKET NUMBER
PETITION RULE PRM -51-6 (12)
(45 FR 25557)

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



ATTENTION: Docketing and Service Branch

Gentlemen:

Subject: Filing of Petition for Rulemaking
Catherine Quigg

By notice published in the Federal Register dated April 15, 1980, the Nuclear Regulatory Commission published for comment a petition for rulemaking filed by Catherine Quigg to "require the preparation of a generic environmental impact statement for high burnup nuclear fuel as used in commercial nuclear reactors, stored in spent fuel pools or cooling racks, or potentially as processed in reprocessing plants or disposed of in permanent sites."

The Westinghouse Electric Corporation has reviewed the aforementioned petition and recommends that the NRC deny the request for change. A few of the obviously incorrect or misleading points in the petition are listed below.

1. The petition is premature. It tries to address an area that is currently under development as though it were a fully implemented program. The petitioner implies that if the pursuit of high burnup fuel is not stopped before it can be developed, it will grow to a national program without anybody evaluating the environmental impact. In this respect, the petitioner has completely misunderstood the nature of a development program and the work being done by the Department of Energy in this area of research. The whole purpose of a development program is to use a small effort that would inherently have minimum risk before any larger commitment is established. The results of such a program can then be used to evaluate the impact of a fully implemented program. Therefore, the petitioner is actually trying to hold up the very program that is required to evaluate wide use of higher burnup fuel which the petitioner has set forth as the objective of the petition.

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- 2. The first paragraph of comment 3 in the petition states, "Production of inferior grade nuclear spent fuel which can lead to long term environmental hazards." Using extended burnup nuclear fuel in a reactor does not produce "inferior grade" fuel. It will add to the inventory of fission product, but this does not make the fuel "inferior". The Zircaloy clad fuel is not expected to have any reduced storage capabilities as a result of higher burnup.

Also this section of the petition states that "The public is currently being asked to accept greatly increased amounts of spent fuel at the sites of nuclear reactors across the country, often in highly populated areas." Again, the petition is at odds with itself. A major function of the high burnup program is to use more of the energy left in the fuel, thus reducing potential spent fuel inventories by up to 40%. This in fact is one of the foremost drives behind higher burnup. With the continued political delay in re-processing and disposing of radioactive waste, this is one way to obtain more energy with no additional volume of waste.

- 3. In comment 3, the third paragraph, the petition states that "no experience beyond 36,000 MWD/MTU" is available. At the Spring 1979 ANS Topical Meeting (April 29 thru May 3, 1979) in Portland, Oregon, a paper was presented jointly by W. J. Leech and R.S. Kaiser of Westinghouse Electric Corporation's Nuclear Fuel Division; J. J. Zach of Wisconsin Electric Power Company's Point Beach Nuclear Plant; and D. R. O'Boyle of Commonwealth Edison Company. The paper, entitled "High Burnup Experience in PWRs" states that "In the Zorita program, for example, approximately twenty-five rods attained rod burnups greater than 50,000 MWD/MTU with a peak rod burnup of 57,000 MWD/MTU and a peak pellet burnup of 65,000 MWD/MTU. Also stated was that "two regions of Westinghouse commercial PWR fuel...attained region average burnups of 36,000 MWD/MTU. The two regions are Region 3 of the Commonwealth Edison Company's Zion Unit Number 1, and Region 3, of the Wisconsin Electric Power Company's Point Beach Unit Number 2." The paper went on to give these specifics: "Both regions had region average burnups greater than 36,000 MWD/MTU and the peak rod burnups were greater than 42,000 MWD/MTU."

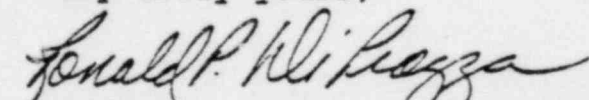
4. In comment 5 the petition states that "West Valley expected tritium releases to go from 1200 curies per month to as much as 20,000 curies per month with high burnup fuel." This is a direct misquote. The petition omits the part about the increased plant capacity. The actual statement from Dr. Hatfield's article is "It is expected that with the increased plant capacity and processing of higher burnup fuels the tritium released in the NFS liquid discharge will increase from the present high of 1200 ci per month to as much as 20,000 ci per month." In Dr. Hatfield's article he gave the "present" plant capacity as 100 tons/year (1970) with the projected 1980 capacity at 2952 tons/year.

In addition to the aforementioned technical comments, the petitioner does not fully meet the requirements specified by 10CFR 2.802, Petition for Rulemaking. The petition did not state the substance or text of the proposed amendment nor does the petition identify the specific part of 10CFR51 that it wishes to change.

Thank you for the opportunity to comment on the petition for rulemaking. We hope that you will give these comments serious consideration.

If you have any questions regarding this matter, please write me at the above address or telephone me on (412) 373-4652.

Very truly yours,


Ronald P. DiPiazza, Manager
License Administration

RPD/rk