



Department of Energy
Washington, D.C. 20545

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USNRC

JUL 27 1982

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The Honorable Nunzio J. Palladino
Chairman
Nuclear Regulatory Commission
Washington, D.C. 20555

The Honorable James K. Asselstine
Commissioner
Nuclear Regulatory Commission
Washington, D.C. 20555

The Honorable Victor Gilinsky
Commissioner
Nuclear Regulatory Commission
Washington, D.C. 20555

The Honorable John F. Ahearne
Commissioner
Nuclear Regulatory Commission
Washington, D.C. 20555

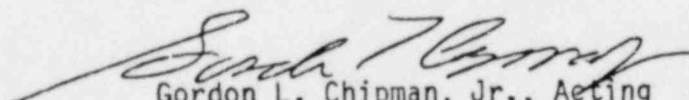
The Honorable Thomas F. Roberts
Commissioner
Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Clinch River Breeder Reactor Plant Docket No. 50-537
(Section 50.12 Request)

Gentlemen:

The Department of Energy, on behalf of its coapplicants, Project Management Corporation and the Tennessee Valley Authority, hereby files the enclosed Answers to the Questions of Commissioner Ahearne, dated July 12, 1982.

Sincerely,


Gordon L. Chipman, Jr., Acting
Deputy Assistant Secretary
for Breeder Reactor Programs
Office of Nuclear Energy

Enclosure

cc w/Enclosure:
Distribution List

ENCLOSURE

APPLICANTS' ANSWERS TO THE QUESTIONS
OF COMMISSIONER AHEARNE, DATED
JULY 12, 1982

July 22, 1982

Question 1. On page 2 of his letter dated July 1, 1982, to the Commission, Acting Secretary Davis states:

"Most importantly, acceleration of the CRBRP schedule by 6 to 12 months will:

- o Support the timely completion of. . .the Large Developmental Plant.. . ."

Please describe the current funded program for this plant and the funding in the FY 83 DOE budget proposal.

Answer: In FY 1982, the Department of Energy (DOE) is providing \$15 million for activities associated with the Large Developmental Plant (LDP). This funding supports project activities including the advancement of plant design, definition of the research and development required to support such a plant, conduct of optimization studies to simplify the design and reduce the overall plant cost, development of detailed cost and schedule estimates for LDP, and conduct of planning for consolidation of Government and U.S. electric utilities large plant design efforts in FY 1983.

FY 1983 funding for LDP, as noted in DOE's budget request currently before the Congress, is contingent upon the conclusion of formal agreement among the participating federal, private, and foreign entities. Negotiation of agreements with both the U.S. utilities and with the United Kingdom have proceeded satisfactorily such that DOE believes that this requirement will be met in FY 1982. Thus, the Department plans to obligate \$15 million for the design of a large scale prototype breeder in FY 1983. Requests for proposals for FY 1983 design activities for LDP were transmitted to U.S. reactor manufacturers and architect-engineers in June 1982.

Question 2. On page 2 of the Davis letter:

"...as indicated in the Department's letter of February 25, 1982, [acceleration of the CRBRP schedule] will also yield substantial monetary cost savings to the taxpayer."

Does the Department wish the February 25th letter to remain as part of their submission? Does the Department wish to modify any part of that letter?

Answer: Applicants believe that the February 25, 1982, letter from Deputy Secretary Davis of the Department of Energy to the Commission as well as the analysis in documents referenced in the letter should be considered as part of Applicant's submission. Deputy Secretary Davis' letter estimated the schedule savings which will result from grant of the 50.12 request at 12-24 months. Based on the schedule established by the Atomic Safety and Licensing Board, we now believe that grant of the request will result in a schedule savings in the range of 6-12 months. (See SPAR page 1-5)

Question 3: Page v, Site Preparation Activities Report (SPAR), June 1982:

"Approval by NRC to proceed as proposed can. . . achieve a substantial cost savings to the taxpayer."

Page 7-2:

"The estimated 6-12 months reduction in schedule will result in substantial cost savings."

Page 7-13:

"The net effect of an additional 1 year delay to the project from an appropriation perspect, [sic] is estimated at \$129 million."

Page 7-13:

"From the economic perspective. . .the net of these costs is estimated at a minimum of \$28 million for a 1 year project delay."

Page 7-14:

"From the financial perspective, the present worth of a one year delay in the CRBRP Project would result in a cost increase of \$218 million."

Are the estimates from pages 7-13 to 7-14 the "substantial cost savings to the taxpayer"? (Note that on page 28 of the "Applicants' Memorandum in Support of Request to Conduct Site Preparation Activities," dated July 1, 1982, the applicants refer to:

"[t]he relatively small investment for site preparation activities. . . ."

According to the SPAR, this investment would be \$81.5 million (p. 3-22).)

Answer: We believe that the costs of delay from the economic and appropriations perspectives are appropriate measures of the impact of delay on the nation's taxpayers. However, we are urging that the Commission grant the Section 50.12 request primarily because of (1) the substantial, positive impact which prompt initiation of site preparation activities would have on important national policies of international significance, and (2) important informational benefits which will result from grant of the request. We believe that these two circumstances amply support favorable Commission action in balancing the Section 50.12 factors, particularly in light of the fact that the site preparation activities will not cause significant environmental impacts, the impacts of the activities are fully redressable and no reasonable alternatives will be foreclosed.

As to the quotation from Applicants' Memorandum to the effect that site preparation will involve a "relatively small investment," that statement was made in the context of addressing the question of foreclosure of alternatives. The entire quotation from Applicants' Memorandum reads:

The relatively small investment for site preparation activities will not cause an irretrievable tilt of the cost-benefit balance toward project completion and thereby keeps the alternative of complete abandonment of the project economically viable.

Thus the phrase "relatively small investment" was used only in the context of the potential for altering the project's cost benefit balance.

Since it is DOE's programmatic responsibility to complete the CRBRP as expeditiously as possible, we deem the cost saving estimates associated with granting of the 50.12 request given on pages 7-13 and 7-14 of the SPAR to be substantial to the taxpayer. From this perspective, we view the estimated cost of site preparation to be substantial, but assume that these costs will be incurred regardless of the Commission's decision on the 50.12 request assuming a construction permit is ultimately issued. The substantial cost savings noted in the SPAR would accrue from the Commission's allowing site work to proceed immediately and thus effecting an overall reduction in the project schedule and avoiding additional unnecessary delay costs.

Question 4. The quotes from pages 7-13 and 7-14 of the SPAR referenced in question 3 apparently are to be supported by reference 7-5 (page 8-7 of the SPAR):

"The calculations supporting the cost of delay are contained in W. Kenneth Davis, Deputy Secretary DOE to NRC Commissioners, February 25, 1982, Applicants Response to NRDC, Incorporated, and Tennessee Attorney Generals Comments, January 28, 1982, and Applicants Answers to Questions Set forth in Attachment A to the Commissioners, December 24, 1981, Order (January 18, 1982)."

Does the DOE continue to support all cost calculations in reference 7-5?

Answer: Applicants support the cost calculations contained in Deputy Secretary Davis' letter and the specific references to previous submissions in that letter.

Question 5. Page 25, "Applicants' Memorandum in Support of Request to Conduct Site Preparation Activities":

"This case in [sic] on all fours with Shearon Harris."

Given that the site preparation work addressed in the Shearon Harris case was authorized before the LWA rule went into effect, please explain why Shearon Harris is "on all fours" with the current request.

Answer: The fact that the LWA regulations were not in effect at the time the Commission issued its decision in Shearon Harris is relevant to the question of whether the factual circumstances of Shearon Harris are "on all fours" with the factual circumstances of CRBRP. In granting a Section 50.12 exemption in Shearon Harris, the Atomic Energy Commission required the applicant to meet precisely the same burden of proof which the Applicants here must meet. The existence of the LWA regulations has no bearing on the issue of whether the applicant in Shearon Harris met the burden of proof prescribed by Section 50.12, just as it had no bearing on whether Applicants in this case have met the same burden of proof.

Applicants believe that this case is on all fours with Shearon Harris because of the strong factual parallels between the two cases under the Section 50.12 factors. Indeed, we believe the facts in this case are even more compelling than those in Shearon Harris. In Shearon Harris, favorable findings were made under all of the Section 50.12

factors. The Licensing Board found that although the proposed activities would cause environmental impacts, no unique flora or fauna indigenous to the site area would be lost or endangered by the proposed activities. Moreover, the Board found that such impacts as might occur were fully redressable and the applicant was committed to redress in the event a construction permit was not issued. As to foreclosure of alternatives, the Board noted that no reasonable alternatives including abandonment would be foreclosed. Finally, the Board found that grant of the exemption would advance the completion date by six months and significantly reduce the effects of inflation as well as the costs of alternate forms of power generation.

In affirming the Board's decision, the Commission, after noting that the Section 50.12 factors assist the Commission "in assessing the relevant environmental factors at the site preparation stage," held that under the circumstances present in Shearon Harris, granting the exemption was "particularly appropriate."

In the circumstances of this case, it was particularly appropriate to authorize Carolina Power to perform such work. As explained above, even though the staff has issued a final environmental statement recommending the grant of construction permits for the Shearon Harris reactor, the original licensing schedule had been substantially delayed because of design revisions which Carolina Power had to make to satisfy new requirements of the EPA. Moreover, a draft environmental statement based on these revisions (recommending a grant of construction permits) had been issued. And shortly after approval of the site preparation work, a final environmental statement of the revised plant was issued also recommending granting of the permits. In essence, this agency's environmental consideration of the proposed reactor was far from incomplete at the time the site preparation work was authorized.

In this case, as in Shearon Harris, the four factors under Section 50.12 have been met. The proposed activities will not result in significant environmental impacts and no unique flora or fauna will be lost or endangered by conduct of the proposed activities. The impacts of the activities are fully redressable and the Applicants are committed to such redress in the event a construction permit is not ultimately issued. No reasonable alternatives, including abandonment, will be foreclosed by conduct of the activities. Finally, the grant of authorization here is clearly in the public interest. Grant of the request will result in a schedule savings of 6-12 months and avoid additional and unnecessary costs. In addition, and unlike Shearon Harris, grant of this request will benefit the Department of Energy's LMFBRR Program and advance important national policies.

We believe that the grant of the Section 50.12 request is "particularly appropriate" here as it was in Shearon Harris. The environmental review process is at an advanced stage just as it was in Shearon Harris. The extensive environmental reviews of the CRBRP including the recently issued Draft Supplement, have all concluded that the action called for is construction of CRBRP. In regard to site preparation activities specifically, all reviews to date have concluded that the site preparation activities would not cause significant environmental impacts. Thus, based on the extensive reviews to date, the Commission is assured that grant of this request is consistent with its regulatory responsibility for safeguarding the environment. At the same

time, grant of the request will enable DOE to fulfill its primary responsibility for national energy policy.

Question 6. Page 16, "Applicants' Memorandum in Support of Request to Conduct Site Preparation Activities":

"The Department of Energy has implemented Congressional and Presidential policy and its own independent statutory responsibility for energy research and development, by determining that CRBRP should be completed as expeditiously as possible. The program called for in the Environmental Impact Statement for the Liquid Metal Fast Breeder Reactor Program (Supplement to ERDA-1535, DOE EIS-0085-FS, May 1982) is construction of CRBRP as expeditiously as possible."

Page 29:

"[G]rant of the Section 50.12 request will permit CRBRP to provide information in a timely fashion necessary to support the LMFBR Base Research and Development Program, and Large Developmental Plant, and the LMFBR Fuel Cycle Program, and will substantially enhance the prospects for success in those programs."

Page 39, "Final Environmental Impact Statement (Supplement to ERDA-1535, December 1975), Liquid Metal Fast Breeder Reactor Program" (DOE/EIS-0085-FS, May 1982) (footnote omitted):

"There are four main reasons to proceed expeditiously with the U.S. LMFBR development program:

- o Even with a relatively vigorous LMFBR development program, a commercially viable LMFBR cannot be available for several decades.
- o There is significant uncertainty in any prediction of a date for LMFBR need.
- o In view of uncertainties, the penalties for developing the breeder too early are small compared to the penalties for developing too late.
- o Continuity is essential to progress in any high technology development program."

Page 40:

"Even if the LMFBR program is pushed ahead now in a vigorous fashion, commercial-scale demonstration cannot be accomplished

until the mid-1990's and resulting utility commitments to commercial LMFBRs would result in LMFBR generating plants no earlier than 2005 to 2010."

Page 43:

"As noted earlier, the prudent course is to gear the development program toward possible commercialization of LMFBRs fairly early in the next century. . . . This course provides the maximum programmatic flexibility and minimizes the risk of not having options available."

Page 45:

"The nation has a considerable investment in the team of people and the facilities that now make up the LMFBR program. If development were substantially deferred, experienced people would be lost to other fields, and existing facilities would have to be closed."

The timing of the program called for in the EIS seems to be measured in terms of years and decades rather months. The "Applicants' Memorandum in Support of Request to Conduct Site Preparation Activities" states to the NRC that the public interest would be best served by granting the request. The Applicants argue that the information and program benefits support this position. Certainly grant of the Section 50.12 request will "permit CRBR to provide information in a timely fashion." However, since the Applicants raise the issue, it is important to understand how failure to grant the request will cause the information to be untimely. Therefore, how will delay of site preparation activities until (a) December 1982 or (b) August 1983 affect the "informational and programmatic benefits"?

Answer: The Liquid Metal Fast Breeder Reactor (LMFBR) Environmental Impact Statement (EIS) Supplement calls for the timing of CRBRP to be "as expeditiously as possible." Meeting this programatic objective requires that DOE and other federal agencies do everything within their power to complete the project expeditiously. consistent with meeting other project objectives.

In the EIS Supplement, DOE does discuss the timing for the total program in terms of years, and considers this to be appropriate given the overall

uncertainty of the data used at arriving at a target date for having the LMFBR commercially available. However, the estimated timeframe for availability of a commercial LMFBR production capability should not be confused with the specific objective of completing CRBRP as expeditiously as possible. Given the potential program benefits and corresponding penalties of delays in the project, DOE, from a programmatic point of view, measures as expeditiously as possible in terms of our obligation to take all actions within our power to complete the project promptly, within the constraint of adhering to the NRC regulatory process. Thus, as demonstrated in Section 7 of the SPAR, if the start of site preparation activities were delayed until either December 1982 or August 1983, the executive branch is convinced there would be a number of serious, adverse impacts.

Finally, DOE believes that the December 1982 date for initiation of site preparation activities is extremely optimistic if a Limited Work Authorization=1 (LWA=1) process is assumed. It should be noted that the NRC staff estimate for grant of an LWA=1, as presented to the Advisory Committee on Reactor Safeguards=CRBRP Subcommittee on June 24, 1982, is June 1983. Thus, the estimate of 6-12 months used by the Applicants is considered reasonable, and the projected impacts of a delay of this duration are so significant that the Applicants believe the public interest argues strongly in favor of granting the 50.12 request.