DOCKETED
USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'82 AUG 17 A10:11

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

COMMISSIONERS:

Nunzio J. Palladino
Victor Gilinsky
John F. Ahearne
Thomas M. Roberts
James K. Asselstine

SERVED AUG 17 1982

In the Matter of UNITED STATES DEPARTMENT OF ENERGY PROJECT MANAGEMENT CORPORATION TENNESSEE VALLEY AUTHORITY (Clinch River Breeder Reactor Plant)	Docket No. 50-537 (Exemption request under 10 CFR 50.12)

CLI-82-23

MEMORANDUM AND ORDER

I. Introduction

This decision concludes the Commission's consideration of the Department of Energy's most recent request for an exemption from 10 CFR 50.10 pursuant to 10 CFR 50.12 to initiate site preparation and to perform limited safety-related activity with regard to the Clinch River Breeder Reactor. For the reasons discussed below, the Commission has determined that the exemption should be granted in part and denied in part.

II. Background

A. Project History

The Department of Energy (DOE), the Project Management Corporation and the Tennessee Valley Authority (Applicants) have

8208180008 820817
PDR ADOCK 05000537
G PDR

D502

proposed to construct a demonstration liquid metal fast breeder reactor, to be known as the Clinch River Breeder Reactor (CRBR), on a site adjacent to the Clinch River Industrial Park near Oak Ridge, Tennessee. Other nuclear facilities in the area are the Oak Ridge Gaseous Diffusion Plant, the Oak Ridge National Laboratory, and the Y-12 military facility.

Applicants applied to the Nuclear Regulatory Commission (NRC or Commission) for a construction permit for CRBR in 1975. Soon thereafter, the Commission initiated an adjudicatory proceeding on the application. Applicants requested, as a first step in that proceeding, that the presiding Atomic Safety and Licensing Board schedule hearings and issue a partial initial decision on environmental and site suitability issues in support of issuance of a limited work authorization for site preparation activities (a so-called "LWA-1"). However in 1977, before the proceeding progressed to the evidentiary hearing stage or the LWA-1, the proceeding was suspended at Applicants' request following an announcement by the Executive Branch that it was opposed to the CRBR project. The change of Administration in 1981 led to a new Executive Branch policy in favor of CRBR. On November 30, 1981 DOE, for itself and the other Applicants, requested the Nuclear Regulatory Commission to authorize initiation of site preparation activities for the CRBR prior to the issuance of a construction permit or limited work authorization by granting an exemption from 10 CFR 50.10(c) pursuant to 10 CFR 50.12. At about the same time the Licensing Board, acting in response to an unopposed request by Applicants, resumed the adjudicatory proceeding on the CRBR construction permit application.

10 CFR 50.10(c) of the Commission's regulations generally prohibits any person from clearing or excavating the site or otherwise commencing construction of a nuclear power reactor until either a construction permit or an LWA has been obtained following the holding of an adjudicatory hearing. However, 10 CFR 50.12(b) provides for the case-by-case granting of exemptions from this prohibition if specified criteria are met.[1/] On March 16, 1982 the Commission denied the exemption request by a divided vote, CLI-82-4, 15 NRC ___ (1982), and, on May 18, 1982, denied reconsideration. CLI-82-8, 15 NRC ___. Subsequently, Applicants submitted a new exemption request on July 1, 1982. This latest request asked authorization for some limited safety-related construction activities in addition to the non-safety related site preparation activities that were the subject of the earlier request.

Applicants' proposed site preparation activities include site clearing and grading, excavation and quarry operations, the construction of temporary construction-related facilities, a barge facility, an access road and a railroad spur, and the installation of services including power, water, sewerage, and fire protection. Applicants also propose to install some emergency plant service water piping that is part of the safety-related emergency service water system for the plant. Applicants described the various proposed site preparation activities and estimated the environmental impacts of these activities in a Site Preparation Activities Report (SPAR) that accompanied the application. Most of the proposed work does not involve safety-related structures,

---

1/ These criteria will be discussed in more detail below.

systems, or components subject to the Commission's safety regulations in 10 CFR Part 50.

Applicants' request was opposed by the Natural Resources Defense Council, Inc. and the Sierra Club (Intervenors), intervenors in the separate construction permit proceeding.

B. Procedural History

The Commission decided here to use informal procedures to determine for itself the merits of the exemption request. Similar informal procedures were followed in denying Applicants' first exemption request. These procedures provided an opportunity for the parties to the construction permit proceeding, government agencies, and other interested persons to file written comments with the Commission. Applicants were also asked to respond to specific Commission questions. Subsequently, the Commission conducted an oral proceeding at which presentations were made by all commentors who responded to the Commission's invitation to appear. Finally, the Commission met in public session to decide whether to grant the exemption.

Filings in favor of the exemption were received from the Governor of Tennessee, the Mayor of Oak Ridge, Tennessee, Scientists and Engineers for Secure Energy, several equipment vendors, a society of professional engineers, and many members of the public. Filings opposing the exemption were received from the Intervenors, the Attorney General of Tennessee, the Union of Concerned Scientists (UCS), and many members of the public. The bulk of the filings supported grant of the exemption. The various views presented in these filings were analyzed

in a publicly available report by the Commission's Office of Policy Evaluation. (OPE Report).

On July 29, 1982 the Commission conducted a day-long oral proceeding on the request. Presentations in favor of the exemption were made by the Applicants, a representative of the Governor of Tennessee, the Mayor of the City of Oak Ridge, Tennessee, and Dr. Miro Todorovich for Scientists and Engineers for Secure Energy. Presentations opposing the exemption were made by the Intervenors, a representative of the Attorney General of Tennessee, Mr. Michael Faden for UCS, and Mr. Theodore Taylor. On August 5, 1982 the Commission met in public session to reach a decision. As indicated, the Commission decided to grant the exemption in part and to deny it in part. The reasons for this decision are set forth below.

III. Commission Action on the Exemption Request

A. The Criteria

A request for an exemption from any Commission regulation in 10 CFR Part 50, including the general prohibition on commencement of construction in 10 CFR 50.10(c), may be granted under 10 CFR 50.12(a), which provides that:

> The Commission may, upon application by any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

10 CFR 50.12(b) provides more detailed regulatory guidance regarding the content of the "public interest" criteria in 10 CFR 50.12(a) as it

applies to requests for exemptions from 10 CFR 50.10(c). Under 10 CFR 50.12(b) whether grant of an exemption would be in the public interest depends on consideration and balancing of the following factors:

> (1) Whether conduct of the proposed activities will give rise to a significant adverse impact on the environment and the nature and extent of such impact, if any;
>
> (2) Whether redress of any adverse environment impact from conduct of the proposed activities can reasonably be effected should such redress be necessary;
>
> (3) Whether conduct of the proposed activities would foreclose subsequent adoption of alternatives; and
>
> (4) The effect of delay in conducting such activities on the public interest, including the power needs to be used by the proposed facility, the availability of alternative sources, if any, to meet those needs on a timely basis and delay costs to the applicant and to consumers.
>
> Issuance of such an exemption shall not be deemed to constitute a commitment to issue a construction permit. During the period of any exemption granted pursuant to this paragraph (b), any activities conducted shall be carried out in such a manner as will minimize or reduce their environmental impact.

Each of the elements in 10 CFR 50.12(a) and (b) will be considered in some detail below.

B. The Request to Conduct Safety-Related Activities

With one exception, DOE's exemption request does not involve any safety-related construction activities. The exception is the request for permission to construct emergency plant service water piping that is part of the safety-related emergency service water system for the plant. The Commission believes, as a matter policy for the CRBR program, that safety-related activities should not be permitted prior to the completion of an adjudicatory hearing for CRBR. For this reason, the Commission denies this portion of DOE's exemption request.

C. Procedural Issues Related to The Request to Conduct Non Safety Site Preparation Activities

Before addressing the merits of this part of the exemption request, it is first necessary to address Intervenors' contentions that: (1) the Commission may not apply 10 CFR 50.12 to this project; (2) Commission consideration of DOE's exemption request is barred by the principle of res judicata; and (3) an adjudicatory hearing is required on an exemption request. The Commission rejects each of these arguments for the reasons stated below. It does not address these arguments in connection with the request to conduct the safety-related activities because its denial of that request moots the arguments.

1. Availability Of An Exemption

Intervenors contend that the Commission may not apply 10 CFR 50.12 to a first of a kind project such as CRBR. We disagree. There is no indication in 10 CFR 50.12 that exemptions for conduct of site preparation activities are to be confined to typical, commercial light water nuclear power reactors. Commission practice under 10 CFR 50.12 has been to consider each exemption request on a case-by-case basis under the applicable criteria in the regulation. There is no indication in the regulations or past practice that an exemption can be granted only if an LWA-1 can also be granted or only if justified to meet electrical energy needs.

2. Res Judicata

Intervenors contend that the Commission's consideration of the merits of DOE's second exemption request is barred by the principle of

res judicata. For the reasons discussed below, the Commission finds that res judicata does not apply to this proceeding.

Res judicata is a judicially created rule for limiting parties from relitigating matters that have been previously determined by the courts. Generally, res judicata precludes parties, or their successors in interest, from bringing again to a court the same cause of action as one previously determined on the merits. The principal bases of res judicata are the need for finality, the protection of one party from harassment by another, and the conservation of judicial resources. Balanced against these policy considerations are the need for flexibility to implement new policy initiatives and the possibility of a more accurate decision through further proceedings. In applying res judicata, courts have usually controlled relitigation by exercising their discretion to balance the competing policy considerations through various definitions of either what constitutes the same cause of action or who are successors in interest to parties. In addition, courts have developed exceptions to the rule of res judicata. Material changes in fact or law have operated to preclude the res judicata effect of a decision. Commissioner v. Sunnen, 333 U.S. 591, 599-600 (1948). Moreover, the common law rules regarding res judicata do not apply, in a strict sense, to administrative agencies. Res judicata need not be applied by an administrative agency where there are overriding public policy interests which favor relitigation. International Harvester Company v. Occupational Safety and Health Review Commission, 628 F.2d 982, 986 (7th Cir. 1980).

In particular, when an agency decision involves substantial policy issues, an agency's need for flexibility outweighs the need for

repose provided by the principle of res judicata. Maxwell v. N.L.R.B., 414 F.2d 477, 479 (6th Cir. 1969). See, also, FTC v. Texaco, 555 F. 2d 867, 881 (D.C. Cir. 1977) cert. denied, 431 U.S. 974 (1977) rehearing denied, 434 U.S. 883 (1977) at 893-94 (concurring opinion per Leventhal, J.). Moreover, a change in external circumstances is not required for an agency to exercise its basis right to change a policy decision and apply a new policy to parties to which an old policy applied. Maxwell v. N.L.R.B., supra at 479. An agency must also be free to consider changes that occur in the way it perceives the facts, even though the objective circumstances remain unchanged. Maxwell, supra, Id.; FTC v. Texaco, supra at 874 (concurring opinion per Leventhal, J.) This is especially important here where the weighing of factors is largely a matter of individual perception. Indeed, the Commission's last decision on the exemption request contained five separate views, one by each Commissioner.

For the above reasons, the Commission has discretion not to apply the principle of res judicata to this exemption request and has chosen not to apply it.

3. Adjudicatory Hearing

We turn next to Intervenors' contention that the Commission must conduct an adjudicatory proceeding on DOE's request for an exemption. Section 189a. of the Atomic Energy Act of 1954, as amended (the Atomic Energy Act), provides for a hearing in "any proceeding under this Act, for the granting, suspending, revoking or amending of any license or construction permit." For the reasons discussed below, the Commission has determined that this provision does not apply to this proceeding on an exemption request.

It is the first sentence of section 189a. which requires a hearing at the request of any interested person in any proceeding under the Atomic Energy Act "for the granting, suspending, revoking, or amending of any license" or construction permit. The legislative history of that sentence indicates that the language was chosen deliberately to define which categories of agency action did not entail any hearing rights. 100 Cong. Rec. 10181 (July 16, 1954). Thus, for there to be any statutory right to a hearing on the granting of an exemption, such a grant must be part of a proceeding for the granting, suspending, revoking, or amending of any license or construction permit under the Atomic Energy Act.

However, the Act neither defines construction for which a license or permit must be obtained nor indicates which activities can be considered as preparation for construction and allowable without a license or construction permit. Accordingly, the Atomic Energy Commission construed the Atomic Energy Act as providing the Commission with discretion to determine which activities may take place prior to issuance of a license or construction permit. Carolina Power and Light Company (Shearon Harris Nuclear Power Plant, Units 1, 2, 3 and 4), CLI-74-22, 7 AEC 939 (1974). The Commission has consistently construed the Act so as not to require a license or a construction permit, or an adjudicatory hearing, on site preparation activities.

Moreover, the Commission is not required by NEPA to hold formal hearings on these activities because NEPA did not alter the scope of the Commission's jurisdiction under the Atomic Energy Act. Gage v. United States Atomic Energy Commission, 479 F.2d 1214, 1220 n. 19 (D.C. Cir. 1972); 39 Fed. Reg. 14506, 14507 (April 24, 1979).

D. The Merits of the Request Pertaining to Non-Safety Related Site Preparation Activities

Section 50.12(a) provides that any exemption from the requirements in 10 CFR Part 50 must be authorized by law, not endanger life or property or the common defense and security, and be in the public interest. As stated above, for an exemption from 10 CFR 50.10, the Commission considers the public interest by weighing the factors set out in 10 CFR 50.12(b). For the reasons discussed below, the Commission finds that an exemption would be authorized by law, will not endanger life or property or the common defense and security, and will be in the public interest.

1. An Exemption Would Be Authorized By Law

An exemption from Commission regulations must be consistent with the Atomic Energy Act, the National Environmental Policy Act, and other applicable law. For the reasons discussed below, the Commission finds, as Section 50.12(a) requires, that the requested exemption would be authorized by law.

a. Atomic Energy Act

The Intervenors contend that the grant of an exemption would foreclose at least two of their contentions in the CRBR construction permit proceeding and thus deprive them of their statutory right under section 189a. of the Atomic Energy Act to an adjudicatory hearing on these contentions. The contentions in question involve:

(1) alleged inapplicability of the LWA procedure to a first-of-a-kind reactor; and

(2) site-suitability of the proposed CRBR site.

Regarding the first contention, Intervenors allege that granting the exemption would permit Applicants to perform the activities that would be permitted under an LWA-1 and, thus, foreclose the issue of applicability of the LWA-1 procedure. As for site-suitability, Intervenors acknowledge that the Licensing Board might be able to consider this issue objectively after grant of an exemption. However, Intervenors believe that the risk of even minimally preempting that decision is not warranted in light of the highly controversial nature of the site-suitability issue. 2/

Applicants contend that grant of the exemption will not foreclose Commission consideration of Intervenors' contentions. They note their intention to seek a Limited Work Authorization-2 (LWA-2) pursuant to 10 CFR 50.10(e)(3)(i)-(ii). In determining whether to issue an LWA-2, the Licensing Board will also have to consider as a prerequisite condition all findings necessary for an LWA-1. Among the findings necessary for grant of an LWA-1 is a determination that the proposed site is a suitable location for a reactor of the general size and type proposed. Applicants therefore believe that grant of an

---

2/ Intervenors also contend that Sholly v. United States Nuclear Regulatory Commission, 651 F.2d 780 (D.C. Cir.), cert. granted, 451 U.S. 1016 (1981) (Sholly) precludes the Commission from modifying procedures in a licensing proceeding in a manner that would foreclose a party's contentions. This argument is without merit. Sholly addressed the issue of the Commission's need to offer an opportunity for a prior hearing on a proposed license amendment that the staff determined would present no significant hazards consideration. This case does not involve an application for a license amendment. Thus, Sholly has no relevance to the issue presented here.

exemption will not foreclose adjudication of either the ultimate legal issue of the applicability of an LWA-1 to CRBR or of site-suitability issues.

As the Commission interprets its regulations, the LWA-1 procedure and the 10 CFR 50.12(b) exemption procedure both provide independent avenues for Applicants to begin site preparation in advance of receiving a construction permit. Therefore, the availability of the exemption procedure for the CRBR does not depend on whether or not an LWA-1 would also be available. In that sense, the Intervenors are correct that granting the exemption would remove from the CRBR proceeding the specific issue of LWA-1 availability, by making the question moot. But this result would in no way interfere with Intervenors' hearing rights on the issue of whether CRBR should be constructed. It would simply enable the proceeding to reach a particular intermediate stage by an alternative route.

The Commission agrees with the Applicants that the granting of an exemption would not foreclose adjudication of Intervenors' contention regarding the issue of site-suitability. The grant of an exemption involves a balancing of the factors specified in 10 CFR 50.12(b). These factors do not include a determination of the suitability of the site. These issues will be considered separately in conjunction with Applicants' application for the construction permit or its anticipated application for an LWA-2. Therefore, even though grant of the exemption would permit Applicants to perform the site preparation activities usually permitted under an LWA-1, the legal issues of site-suitability for a project like CRBR will still have to be considered, either in

connection with the Applicants' request for an LWA-2 or for the construction permit itself.3/

b. National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires that the Commission prepare an environmental impact statement only for major actions significantly affecting the environment. The NRC issued a Final Environmental Statement (FES) for CRBR in 1977. The FES concluded that site-preparation activities would not cause a significant environmental impact (9-23). The FES was updated by a draft supplement issued for comment in July 1982 (Suppl. FES) NUREG-0139, Suppl. No. 1 (1982). In the supplement to the FES, the NRC staff reiterated its conclusion that site preparation activities will have an insignificant affect on the environment. Therefore, the activities which will go forward on the basis of the requested exemption need not be addressed in a separate impact statement. Moreover, site preparation will not foreclose alternatives to the CRBR project. Accordingly, the Commission has concluded that all NEPA prerequisites to granting the exemption have been met.

3/ Intervenors also contended that the Licensing Board will be foreclosed from objectively evaluating the adequacy of the NRC staff's NEPA review for CRBR because the Commission, in granting the exemption, will have had to make a preliminary finding of NRC compliance with NEPA. The Commission believes there will be no such foreclosure for the following reasons. First, as discussed below, it is not necessary for the Commission to consider in detail the adequacy of the entire FES in order to grant the exemption. Second, the Commission's tentative findings regarding the apparent adequacy of the FES are similar to a court's preliminary determination of the legal merits of a stay request. Just as such a preliminary determination by a court does not foreclose a court's later consideration of the merits of the case, so, too, the Commission's preliminary evaluation here does not foreclose the Licensing Board's later full consideration of the adequacy of the FES.

Intervenors contend that the Commission cannot consider site-preparation activities separately from the CRBR project. They believe that NEPA prohibits an agency from going ahead with any part of a project without a complete environmental analysis of the whole project. 4/ The Commission disagrees. It is well established that there are circumstances in which a federal agency may consider separately the different segments of a proposed federal action. The Commission has concluded that site preparation activities for CRBR may reasonably be addressed separately. The key point for this conclusion is that site preparation as proposed will not result in any irreversible or irretrievable commitments to the remaining segments of the CRBR project. Cf. Kleppe v. Sierra Club, 427 U.S. 390 (1976); Sierra Club v. Froehlke, 534 F.2d 1289 (8th Cir. 1976); Conservation Society of Southern Vermont v. Secretary of Transportation, 531 F.2d 637 (2d Cir. 1976). Although some of the site preparation activities, such as excavation for foundations, may not have a utility independent of the

---

4/ Intervenors also argue that the site preparation activities alone may result in significant adverse impacts and therefore constitute major federal action significantly affecting the quality of the human environment. Accordingly, intervenors contended that the NRC must prepare an FES specifically for these proposed activities. Contrary to this view, both the Applicants and the NRC staff have exhaustively reviewed the environmental impacts of the proposed site preparation activities and have found that those activities will not result in significant environmental impacts. Accordingly, there is no substantial question as to whether the proposed activities will result in significant environmental impacts. The NRC staff has also determined that the environmental impacts of the site-preparation activities can be effectively redressed. OPE, in its publicly available report of June 28, 1982 to the Commission, reported that affected areas of the site could be restored essentially to their present conditions of vegetation and animal life. Perfect restoration of the topography could not be achieved, but the topography of the site is in no way unusual or distinctive.

rest of the CRBR pr ,ect, the environment will not be significantly harmed even if the project is not ultimately completed, since the site preparation impacts are substantially redressable.

Intervenors argue that even if the Commission should determine that site preparation activities could be considered as a separate matter, the NRC still could not rely on the Site Preparation Activities Report (SPAR) submitted by the Applicants but would have to prepare an independent NRC analysis. In fact, the NRC has independently analyzed the impacts of site-preparation. In 1977 the NRC staff took the requisite "hard look" at environmental impacts that will result from the proposed site-preparation activities and found those impacts would be insignificant. 1977 FES at 9-23. The NRC staff also has evaluated the changes in environmental impacts associated with Applicants' modified proposals for site preparation activities and found no significant changes from the impacts as previously assessed. Suppl. FES at 4-29. Thus, there is no need for additional NRC analysis devoted especially to site preparation. 5/

5/ In determining to seek public comment on the supplement to the Project FES, the staff identified seven items for which there was significant new information. Of these items, only two are related to site preparation activities. One addresses aquatic impacts and the other addresses tax revenues from the inmoving worker population. Staff found that the new information on aquatic impacts did not change its conclusions on the significance of those impacts (Suppl. FES at 4-7), and that the new information on tax revenues now showed that revenues generated would be sufficient to cover the local costs of increased educational expenditures (Suppl. FES at 4-25). On August 16, 1982, the NRC provided the U.S. Fish and Wildlife Service with a biological assessment which concluded that the proposed construction of CRBR would not affect any of the listed species or critical habitats and is not likely to jeopardize the continued existence of proposed species or result in the destruction or adverse modification of any critical habitat proposed for such species. This constitutes compliance with the Endangered Species Act of 1973. Under these circumstances, we believe that had site preparation activities been considered separately, there would have been no need to circulate for comments the parts of the FES addressing only site-preparation impacts prior to acting on the exemption request.

2. Grant Of The Exemption Would Not Endanger Life Or Property Or The Common Defense And Security

The Commission finds that the grant of this exemption cannot endanger life or property or the common defense and security because the scope of the proposed site preparation activities does not include any safety-related work. Some participants contend that going forward with the breeder reactor program would increase the threat of a nuclear war and complicate non-proliferation problems. These allegations are irrelevant at this time because initiation of site preparation activities will not lead directly to the production of plutonium or commit the Commission to authorize construction of CRBR. Accordingly, the Commission finds that initiation of the non-safety construction activities proposed by the Applicants will not endanger life or property or the common defense and security.

3. Grant of the Exemption is in the Public Interest

To determine whether the public interest warrants the initiation of site preparation activities under an exemption from 10 CFR 50.10, the Commission considers the factors in 10 CFR 50.12(b). Past Commission practice also suggests that exemptions of this sort are granted sparingly and only in extraordinary circumstances. E.g. Washington Public Power Supply System (WPPSS Nuclear Power Project Nos. 3 and 5), CLI-77-11, 5 NRC 719 (1977). The public interest criterion is therefore a stringent one. For the reasons discussed below, the Commission finds that the public interest favors an exemption in this extraordinary case.

a. Only Insignificant Environmental Impacts Will Result From Site Preparation Activities

10 CFR 50.12 (b)(1) provides for consideration of the environmental impact of site preparation activities.

Applicants' proposed site preparation activities are the usual types of activities associated with any industrial development. Although the scope of these activities is somewhat greater than those previously proposed and analyzed in the NRC's 1977 FES, Applicants provided a Site Preparation Activities Report (SPAR) which concludes that there are no significant additional impacts beyond those associated with the previous proposal. In the 1977 FES, the NRC concluded that the proposed site preparation activities would not result in significant environmental impacts. Recently, in the 1982 Draft Supplement to the FES the NRC evaluated the impacts of the Applicants' currently proposed activities, determined that they will not result in significant additional environmental impacts beyond those already described in the previous FES, and concluded that no significant physical impacts would result from site preparation activities.

In the 1977 FES and the 1982 Draft Supplement the NRC considered construction impacts on land and water use, terrestrial and aquatic ecological impacts, dust and noise, and socio-economic effects on the community. FES, Chapter 4; Suppl. FES, Chapter 4. In the Supplement, the staff found that physical impacts would not differ significantly from those described in the 1977 FES. As for socio-economic impacts, the staff found that revenues generated by the inmoving worker population would be more than sufficient to cover the costs of increased educational expenses. Staff also listed twenty commitments by the Applicants for limiting construction impacts. These

included limits on waste disposal, burning, dust control, erosion control and reclamation of land. Staff believes that these measures will help keep adverse construction impacts to the minimum practicable level.

The OPE Report independently reviewed the environmental impacts that could result from the proposed site preparation activities. This review included impacts on: land and water use, terrestrial biota, and aquatic biota. The OPE Report also considered the impacts of dirt and noise and the disposal of wastes and chemicals as well as socio-economic impacts. The OPE Report concluded in general that the various impacts due to site preparation activities as proposed to be modified would not alter the staff's previous conclusion that such activities would have insignificant environmental impact. For example, the OPE Report found that although the number of acres to be cleared had increased from the 185 acres stated in the 1977 FES to 292 acres, only 113.5 acres would be covered by permanent facilities while the rest would be revegetated. Thus, the loss of the biota at the site would be insignificant because there are thousands of similarly forested acres in the vicinity. Regarding aquatic impacts, the OPE Report stated that the use of drainage ditches and the collection of drainage water in settling basins prior to discharge will keep these impacts small. Moreover, construction of the barge facility will involve substantially less dredging than assumed in the FES. Any benthic communities disturbed or eliminated by the dredging are expected to recover rapidly after construction. Socio-economic impacts will be less than those evaluated in the 1977 FES because the site preparation work force will be substantially smaller than the construction work force. The impacts of

the disposal of chemicals and other wastes were evaluated in the 1977 FES and determined to be insignificant.

The Commission finds for the purposes of this exemption request that the OPE Report and the 1982 Draft Supplement to the FES present an adequate evaluation of the adverse impacts expected to result from the proposed site preparation activities. Moreover, the changes in impacts associated with the changes in site preparation activities from those described in the 1977 FES appear insignificant enough to permit a reasonable determination of the insignificance of environmental impacts prior to the receipt and analysis of comments on the 1982 Draft Supplement to the FES. Further, when evaluated in the context of the land-use pattern authorized by local authorities, the insignificance of the environmental impacts is particularly apparent because the entire area is zoned for industrial development. Maryland-National Capital Park and Planning Commission v. Postal Service, 487 F.2d 1029, 1036-37 (D.C. Cir. 1973). For these reasons, the Commission finds, for the purposes of this exemption request, that the environmental impacts of site preparation activities will be insignificant.

b. Impacts From Site Preparation Activities Are Redressable

10 CFR 50.12(b)(2) provides for consideration of the redressability of site preparation activities.

Applicants contend that the site can be substantially returned to its original condition. Modern construction techniques are adequate to restore disturbed landscape. Applicants also note that because the site is zoned for industrial use, full redress may not be necessary to minimize environmental impacts. All alternative uses proposed for the area involve site clearing, road construction, railroad service, and

water and sewer lines. Applicants estimate that the site can be restored for a modest cost. Of course, the cost of redress is reduced if the site improvements related to industrial use are retained. The Applicants have committed themselves to completely redress the site, if necessary.

The OPE Report finds that the affected areas of the site could be restored essentially to their present conditions of vegetation and animal life after some time, but that perfect restoration of the topography could not be achieved. The OPE Report has also independently estimated the costs of redress by using the 1982 Dodge publications for construction costs and confirmed the costs of seven million dollars as estimated by Applicants.

Based on this record, the Commission finds that the site preparation activities could be substantially redressed, if necessary. These activities involve standard construction techniques and there is no reason to believe they cannot be implemented at this site. Moreover, the cost of redress, approximately $7 million, is not prohibitive, especially in comparison to the other costs associated with this project.

c. Reasonable Alternatives Will Not be Foreclosed

10 CFR 58.12(b)(3) provides for consideration of the foreclosure of alternatives that would result from initiating site preparation activities.

Intervenors believe that the expenditure of approximately $80 million on site preparation will result in momentum favorable to the project and, thus, foreclose the NRC's objective consideration of

alternatives. Applicants contend that the grant of an exemption will not foreclose design alternatives because no permanent construction activities have been proposed. Applicants further contend that a reasonable range of alternative site uses would be preserved since the site can be restored substantially to its original condition. Applicants also believe that the alternative of abandonment will be preserved because the costs of the proposed activities are a small fraction of the costs already incurred. Similarly, Applicants believe that grant of the exemption will not prejudice the ultimate NEPA cost/benefit balance or constitute an irretrievable commitment of resources because the cost of site preparation is a small fraction of the total project cost.

The OPE report acknowledges that site preparation costs are a substantial amount of money in absolute terms, but states OPE's opinion that these costs are so small a percentage of the project costs that site preparation would not tip the cost/benefit balance so as to foreclose the consideration of alternatives. Moreover, because no permanent plant structures are to be constructed, OPE believes that site preparation will not foreclose design alternatives.

The Commission believes that the OPE analysis is correct. Site preparation activities are too small a fraction of overall project activities to significantly affect the Commissioner's future consideration of alternative sites or abandonment of the project, and CRBR design alternatives will not be foreclosed because no permanent plant structures are to be constructed.

d. Delay Would Be Contrary to the Public Interest

10 CFR 50.12(b)(4) provides for the consideration of the impact of delay on the public interest. Applicants have identified several adverse effects that will result from delay in initiating construction of CRBR. These include: (1) failure to implement the national policy in favor of expeditious completion of CRBR; (2) undue hardship including (i) delay in the acquisition of information important to further progress in the LMFBR base research and development program (base R&D Program) the LMFBR fuel cycle program and the Large Development Plant (LDP); (ii) loss of coordination between CRBR, the base R&D program and the LDP; and (3) additional costs. Intervenors contend that the delay resulting from denial of the exemption request would not adversely affect the public interest because denial of the exemption would implement the objective of demonstrating the licensability of CRBR. Moreover, they questioned the existence of any policy that would favor the granting of an exemption and questioned the validity of Applicants' estimates of delay costs. For the reasons discussed below, the Commission finds that the public interest would be adversely affected by further delay in the CRBR program.

1. National Policy

Applicants believe that there is a clear national policy favoring expeditious completion of CRBR. Accordingly, they contend that failure to grant the exemption would result in delay in CRBR which would be contrary to the public interest in implementing national policy.

First, applicants find that the Omnibus Budget Reconciliation Act of 1981 includes a Congressional expression of intent for

expeditious project completion. Pub. L. No. 97-35. That Act provided funding for the CRBR in Fiscal Year 1982. The Conference Report accompanying that Act addressed the schedule for CRBR as follows:

> The conferees intend that the plant should be constructed in a timely and expeditious manner, so that a decision on the commercialization and deployment of breeder reactors can be made on the basis of information obtained in the operation of the plant.

H.R. Rep. No. 97-208, 97th Cong., 1st Sess. (1981).

The Conference Report language was explained by the floor managers of the bill in both the House and Senate. On the House floor, Congresswoman Bouquard stated:

> The conferees' choice of the words "timely" and "expeditious" were purposely chosen with the intent that licensing, construction, and other related project activities be undertaken promptly and with as little delay as discretion will allow. In the same sentence the phrase "so that a decision on commercialization and deployment of breeder reactors can be made on the basis of information obtained in the operation of the plant" in conjunction with the words "timely" and "expeditious" means that the effect of unrecoverable delays resulting from the 1977 decision to stop the project should be minimized and that to the maximum extent possible the overall liquid metal fast breeder reactor program should proceed in accordance with the pre-April 1977 project schedule. (Emphasis added)

127 Cong. Rec. H5817-18 (1981). She also noted that:

> The conferee's intent is clear on this project, that the DOE should move ahead with all deliberate speed and I trust the administration will obtain the cooperation of other agencies in seeing that construction will go ahead at a significant pace. (Emphasis added)

Id.

In the Senate, a colloquy between Senators McClure and Domenici establishes that the Conference Committee's intent was that construction of the CRBR be undertaken as expeditiously as possible to minimize the effects of unrecoverable delays from the 1977 decision to stop the project. 127 Cong. Rec. S8958 (1981).

Second, Applicants argue that the President's October 8, 1981 policy statement directed government agencies to proceed with the demonstration of breeder reactor technology, including CRBR. 17 Weekly Compilation of Presidential Documents, 1101-12 (1981). Third, Applicants state that DOE has recently supplemented its Environmental Impact Statement for the Liquid Metal Fast Breeder Reactor Program, and on the basis of this document, has concluded that CRBR should be constructed as expeditiously as possible. (Record of Decision LMFBR Program.) Finally, Applicants argue that the State Department has stated that the United States must actively develop breeder technology domestically if it is to participate in the international cooperative efforts for developing such technology. For all of these reasons, Applicants believe that national policy favors, if not requires, the granting of an exemption.

Intervenors contend that the continued funding of CRBR does not evidence a Congressional intent for the NRC to issue an exemption. They also believe that the Congressional voting records on CRBR funding over the years demonstrate an erosion of Congressional support for the project. Intervenors do not believe that the phrase "timely and expeditious manner" in the Conference Report for the Omnibus Budget Reconciliation Act of 1981 can be equated to an invitation to issue an exemption from the standard licensing procedure. Turning to other indicia of national policy, Intervenors find that recent reports by the General Accounting Office and DOE's Energy Research Advisory Board do not support expeditious completion of CRBR. Moreover, Intervenors find no basis for the Commission to defer to DOE on the issue of timing of CRBR.

The Commission finds that the legislative history of the Omnibus Budget Reconciliation Act of 1981 clearly indicates a national policy that all federal agencies should exercise their discretion to enable CRBR to be completed in a "timely and expeditious manner" so as to recoup some of the time lost since 1977. While this Congressional intent may not rise to the level of a mandate that compels the grant of the exemption, the Commission believes it is one important factor to consider that argues strongly in favor of the exemption.

2. Undue Hardship

Applicants report that design and research and development activities are nearly completed for CRBR. More than $600 million worth of hardware has been delivered or is on order. Accordingly, Applicants are ready to initiate the next major step of the project which is site preparation. Applicants believe that grant of the exemption is needed to avoid undue hardship.

For the reasons discussed below, the Commission finds that the Applicants have demonstrated substantial hardship that would result from further delay in CRBR. This hardship, in conjunction with the clear statements of national policy to expeditiously complete the CRBR, demonstrate extraordinary circumstances sufficient to support the grant of an exemption.

(i) Information Benefits

Applicants state that CRBR is a critical milestone in the LMFBR program. They believe that the information derived from the design, construction and operation of CRBR is vital to the LMFBR Base

Research and Development Program, the Large Development Plant, and the LMFBR Fuel Cycle Program. Accordingly, Applicants are concerned that further delay in the CRBR program may adversely affect the entire LMFBR program. In support of this position, Applicants have provided an extensive list of informational benefits that the Fast Flux Test Facility (FFTF) has contributed to the CRBR program.

Intervenors contend that the alleged informational benefits of proceeding now with CRBR are speculative because of the long-term character of the LMFBR program.

The Commission finds that if the ultimate decision is to proceed with CRBR, then delay now would adversely affect the public interest by foreclosing the opportunity to transfer early information from CRBR to the rest of the LMFBR program. While it is not feasible to quantify, or otherwise precisely identify the specific adverse effects of delay, or to identify in advance just which items of information provided by CRBR will be of early value to the base R&D program or to the LDP, it is clear from the experience with the FFTF that the sooner CRBR is begun, the more likely that it will provide useful information at an early enough time to be integrated into the overall LMFBR Program.

(ii) Programmatic Coordination

Applicants also contend that minimizing further delay in the CRBR program will enhance the ability to maintain the present cadre of technically trained personnel who might otherwise drift away to other more active engineering projects. Applicants believe that such a diffusion of technical talent would not only delay the CRBR program by requiring the recruitment and training of replacement personnel, but

would also delay the base R&D program and the LDP by depriving these programs of experienced personnel familiar with the overall LMFBR program.

At the oral presentation on July 29, 1982 witnesses for the Applicant stated that further delays in the CRBR program could also jeopardize the establishment of a cooperative agreement with the nuclear industry for development of the LDP and of international cooperative agreements for developing the LMFBR. Intervenors believe that Applicants' arguments are mere speculation.

The Commission finds that the public interest will likely be adversely affected by the loss of these benefits through further delay in the CRBR program. It agrees that there is an element of speculation here, but believes that this is the case whenever predictions of future effects are required to be made.

3. Cost Savings.

In Applicants' view, the Commission should consider three distinct perspectives on delay costs: (1) the appropriations or fiscal perspective; (2) the economic or resource perspective; and (3) the financial perspective.

In the appropriations perspective, delay costs are measured by increases in project costs due to inflation or increases in the prices of labor and materials plus the added costs of management during the delay. To find the net cost of delay, the delay costs must be reduced by increases in revenue due to inflation during the delay. Applicants estimate that a one-year delay will result in cost inflation of $136 million, management costs of $42 million, and higher revenues of $49

million for a net increase in appropriations of $129 million over the life of the project.

Economic costs measure the total burden on the productive capacity of the nation. For CRBR, Applicants estimate three quantifiable economic costs: (1) $38 million per year to maintain management personnel during the period of delay; (2) deferred revenues of $20 million per year; and (3) a savings of $30 million per year due to the deferral of anticipated expenditures. Thus, Applicants estimate the economic cost of delay at $28 million per year. However, Applicants believe that the most important cost of delay is the unquantifiable cost associated with the one-year deferral of the research and development information which CRBR is expected to provide. Applicants contend that the economic value of the deferred information exceeds the $20 million per year cost due to deferred revenues from the sale of electricity that would be produced by CRBR.

Finally, financial delay costs measure the relative burden of delay costs borne by an individual party. For CRBR, Applicants estimate that their financial delay cost in actual dollars is comprised of four components: (1) inflation costs of $136 million, (2) increased revenues of $49 million, (3) additional management costs of $42 million, and (4) $737 million to capitalize an additional year of interest measured at the time of plant completion. Thus, Applicants estimate a total financial cost of $866 million in actual dollars or $218 million in present worth.

Intervenors contend that the only costs of delay are real economic costs and that neither the appropriations perspective nor the financial perspective should be considered by the Commission. Moreover,

Intervenors believe that Applicants have overestimated some of the economic costs. For example, Intervenors argue that Applicants have overestimated personnel costs by failing to give credit for design improvements initiated during delay, by using excessive charging rates, and by giving insufficient attention to personnel reassignments. Intervenors did not quantitatively estimate the amount of alleged overestimated personnel costs.

The OPE Report found that delay costs should be measured in real resource terms recognizing the time value of money. Therefore, the OPE Report recommended that delay costs should not include the effects of inflation on future expenditures, carrying charges on monies already expended, and overhead costs avoided by the productive reassignment of resources. The OPE Report concluded that the Applicants' estimate of delay costs of $28 million dollars per year comes closest to approximating the actual costs of delay.

The Commission finds that the OPE Report has correctly analyzed delay costs.

4. Grant of the Exemption Will Not Affect the Demonstration of Licensability

Intervenors contend that delay would be in the public interest because grant of the exemption would be inconsistent with the licensability objective of the LMFBR program. In their view, a fundamental purpose of CRBR has been to demonstrate the licensability of LMFBR's and Congress has repeatedly affirmed this purpose. Intervenors believe that the grant of an exemption would contradict that Congressional intent, and undermine public confidence in the CRBR as a prototype for licensing an LMFBR. The Attorney General of Tennessee

also believes that the grant of an exemption would undermine public confidence in CRBR. Applicants contend that the grant of an exemption will not affect the completion of all NRC licensing procedures. Applicant will still be required to satisfy all requirements for an LWA-1 in order to seek an LWA-2, and if they obtain an LWA-2, to satisfy all remaining requirements for a construction permit and operating license.

The Commission finds that the grant of an exemption in this case does not affect the project's objective of demonstrating licensability. Licensability is based on: (1) the establishment of substantive licensing review criteria for a reactor of this type and the NRC staff and ACRS review of an application against those criteria and; (2) the conduct of a licensing proceeding to determine whether the applicable licensing requirements have been met. These objectives will not be altered materially by the issuance of this exemption. The conduct of standard site preparation and clearing work has no influence on the establishment of safety-related criteria, the NRC staff's and ACRS's safety review of the application, or the Commission's conduct of an adjudicatory proceeding on safety-related issues. Moreover, the NRC will still conduct an independent NEPA review of the project and project alternatives. The grant of the exemption will have no significant effect on that review. Accordingly, the Commission finds that the grant of an exemption for site-preparation activities does not significantly affect the objective of demonstrating licensability for CRBR.

As the above discussion clearly shows, the four factors all favor the grant of this exemption request. The national policy favoring expeditious completion of CRBR is, in the Commission's view, a paramount

consideration that serves to make this case an extraordinary one. Under these circumstances, The Commission believes it is in the public interest to grant Applicants' request.

Conclusion

For all the reasons discussed above, the request for an exemption pursuant to 10 CFR 50.12 is hereby granted in part (as it pertains to non-safety site preparation activities) and denied in part (as it pertains to safety related activities).

Separate views of Commissioners Asselstine and Roberts are attached. Commissioner Ahearne's dissenting views are also attached. Commissioner Gilinsky was delayed while travelling and was unable to return in time for the August 5, 1982, Commission meeting. Had he been present, he would have voted against granting the exemption.

It is so ORDERED.

For the Commission

SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.
this 17th day of August, 1982.

ADDITIONAL VIEWS OF COMMISSIONER ASSELSTINE

Safety-related construction activities

I strongly support the Commission's decision, reached by a vote of 4-0, to deny Applicants' request for permission to construct emergency plant service water piping that is part of the safety-related emergency service water system for the Clinch River Breeder Reactor plant. This decision was based upon the judgment of the Commission, as a matter of policy, that no safety-related activities for the CRBRP should be permitted prior to the completion of a formal, adjudicatory hearing for this project. I agree entirely with this policy judgment by the Commission that all safety-related activites for the CRBRP must await the completion of the formal hearing.

I would also conclude that the Commission must reject on procedural grounds as well, Applicants' request to perform safety-related activities prior to the completion of a formal hearing. Specifically, I believe that section 189a. of the Atomic Energy Act of 1954, as amended, requires the conduct of a hearing prior to Commission authorization to conduct safety-related activities. Moreover, the Commission's long-standing interpretation of section 189a. is that this hearing must be a formal, adjudicatory hearing. For these reasons, I would have rejected Applicants' request to conduct safety-related activities both as a matter of policy and as a matter of law.

Non-safety-related construction activities

This is the second occasion in which a DOE request for an exemption to conduct non-safety-related construction activites for the Clinch River Breeder Reactor project pursuant to 10 CFR section 50.12 has come before me. The first occurred on May 17, 1982, when the Department of Energy requested that the Commission reconsider its March 16, 1982, order denying the Department's request for an exemption to conduct site preparation activities. On that occasion, I voted to deny the DOE request without reaching the merits of the Department's proposal for an exemption to conduct site preparation activities. In reaching that conclusion, I noted at that time my view that the Department retained the option to submit a new exemption request, and that Commission consideration of a new request could proceed in a much more careful and deliberative manner than could Commission consideration of the Department's reconsideration request.

In fact, Commission consideration of this new request by the Department of Energy for an exemption to conduct site preparation activities for the CRBRP has proceeded in a careful and deliberative manner. The Commission has received written submissions on the exemption request from the Applicants and from other parties to the CRBR licensing proceeding. Members of the public have also provided their comments on the Applicants' exemption request. Finally, the Commission has heard oral presentations from the parties and other interested commenters and has had the opportunity to question the parties in detail on the exemption request. My action today on the new exemption request, following the review process

described above, represents my first determination on the merits of the DOE exemption request. For the reasons set forth in the Commission's order today, I conclude that there exist exigent circumstances in this case that make the issuance of an exemption for non-safety-related site preparation activities appropriate, and that, on balance, the public interest is best served by the issuance of this exemption.

ADDITIONAL VIEW OF COMMISSIONER ROBERTS

In his additional views, Commissioner Asselstine concludes that the Commission must, as a matter of law, reject that part of DOE's exemption request which relates to installation of emergency plant service water piping because Section 189a of the Atomic Energy Act requires a prior formal adjudicatory hearing on all safety-related activities. There are several problems with this legal conclusion. It is not at all clear that Section 189a requires formal adjudicatory hearings. While the Commission's practice has been to grant formal adjudicatory hearings when processing a construction permit application, Section 189a itself merely requires a hearing. Moreover, the Act does not define "construction." Thus, in the past, the Commission has permitted several kinds of safety-related activities to be undertaken by applicants without prior NRC authorization and certainly without prior formal adjudicatory hearings. The issue raised by Commissioner Asselstine is very important and fairly controversial. Due to its character, most Commissioners did not wish to reach the issue in the Clinch River exemption proceeding. This desire prompted me to agree to Commissioner Asselstine's proposal to reject the request to install emergency plant service water piping on policy grounds. I regret now having to write an additional view.

August 6, 1982

DISSENTING VIEWS OF COMMISSIONER AHEARNE

ON THE CLINCH RIVER BREEDER REACTOR 50.12 EXEMPTION REQUEST

The Department of Energy (DOE) has again requested an exemption under 10 CFR 50.12 in order to begin site preparations for the Clinch River Breeder Reactor (CRBR). This is the third time the Commission has considered this issue within the period of a year, previously rejecting the request on March 16 and May 18. 1/ I refer the interested reader to my previous separate opinion for a detailed history of §50.12. 2/

1/ U.S. Department of Energy et al., (Clinch River Breeder Reactor Plant), CLI-82-4 (March 16, 1982) and CLI-82-8 (May 18, 1982).

2/ CLI-82-4 (Separate Views of Commissioner Ahearne).

Since the limited work authorization (LWA) provision became final, only one 50.12 exemption for site preparation activity has been issued. This was in a case:

". . .where (a) an LWA-1 had already been granted (and therefore the initial environmental hearing had been held), (b) the applicant wanted approval for construction activities going beyond those approved in the first LWA, (c) the NRC had in place a policy statement prohibiting issuing additional LWA's until a particular rulemaking was completed, and (d) the request (referred to variously as a request for a broader LWA and for an exemption) was unopposed by the parties to the hearing. Thus, while the applicant is correct -- a 50.12 exemption is part of the NRC licensing procedures -- granting such an exemption would place the CRBR proceeding in the rare category, the category of extremely unusual procedures. To the extent that meeting full NRC licensing procedures is among the objectives of the CRBR program, use of a 50.12 waiver prevents meeting these objectives." Id. at 12.

There have been few changes since that time. As the Attorney General of the State of Tennessee stated in support of rejecting the waiver request:

> "The new application presents no new factors or circumstances which would warrant a change in the Commission's previous denial of a § 50.12 exemption in its orders of March 16, 1982, and May 18, 1982." 3/

There have been, however, several developments relating to the application: circulation of a supplement to the NRC environmental impact statement for CRBR, the pending start of the LWA hearing, and refinement of the DOE position.

By now all interested followers of this exemption application appreciate there are four factors to be weighed under 50.12. With regard to the first factor, environmental impact, I previously stated: "Although there have been changes since [the 1977 NRC staff] evaluation, the NRC staff continues to believe no significant adverse impacts will result [from site preparation activities]." 4/ Consequently I found: "Although the impacts are not so trivial that they can be entirely ignored, they do not weigh strongly against the exemption." 5/

However since that time, the Office of Nuclear Reactor Regulation has decided to circulate for public comment a

---

3/ Letter from W. Leech, Attorney General, State of Tennessee to Commissioners (July 21, 1982).
4/ Separate views at 14.
5/ Id. at 15.

supplement to the 1977 NRC Final Environmental Impact Statement for the CRBR. As the Executive Director for Operations explained to Congresswoman Bouquard:

> "Weighing importantly in the decision was the judgment that the following items constitute significant new information:
>
> "o assessment of specific, as opposed to a generic, fuel cycle;
>
> "o augmented alternative site analysis;
>
> "o changes in accident analysis methodology;
>
> "o more specific safeguards requirements;
>
> "o new analysis of striped bass problems and rare and endangered species considerations;
>
> "o change in conclusion regarding in-lieu-of-tax payments and tax revenues;
>
> "o change in the reactor core design." 6/

While I still reach the conclusion that environmental impact does not lead by itself to rejection of the exemption request, obviously another straw has been added to the scale against the exemption.

My previous opinion reviews the logic leading to my concluding the truly significant factor is the public interest. I remain convinced that:

> "[T]he public interest factor must be addressed -- as has been obvious from the beginning. Since the Applicants have a heavy burden and the other three factors are marginal, it is clear that consideration of the public interest criterion will be determinative for me." 7/

6/ Letter from W. J. Dircks, Executive Director for Operations, NRC to Representative Bouquard (July 28, 1982).

7/ Separate views at 18.

In addressing this fourth factor, I believe that the refinement in the DOE position requires an additional discussion beyond that in my previous opinion.

DOE's basic argument is:

> "1. Grant of the Section 50.12 request will result in the avoidance of a 6-12 month delay;
>
> "2. Substantial informational and other benefits will result from avoidance of a 6-12 month delay." 8/

Through several submissions the DOE has attempted to clarify the reasons supporting its request, particularly the nature of the benefits which will result. 9/ I quote extensively from these because I believe the Energy Department has been approaching but has not yet narrowed to a specific set of statements which it can then reiterate.

Acting Secretary Davis wrote:

> "Most importantly, acceleration of the CRBRP schedule by 6 to 12 months will:
>
> > "o Support the timely completion of the LMFBR base technology program, the Large Developmental Plant, and the LMFBR Fuel Cycle program, and enhance the prospects for success in those programs.
> >
> > "o Support the achievement of the Administration's nonproliferation policy objectives, and enhance the prospects for a U.S. leadership position in nuclear technology." 10/

8/ "Applicants' Memorandum in Support of Request to Conduct Site Preparation Activities" at 32 (July 1, 1982)(footnotes omitted).

9/ Letter from W. K. Davis, Acting Secretary, DOE to Commissioners (July 1, 1982)(transmitting Site Preparation Activities Report); Applicants' Memorandum, supra; "Applicants' Answers to Questions of Commissioner Ahearne, dated July 12, 1982" (July 22, 1982); oral presentations before the Commission on July 29, 1982; and "Applicants' Supplemental Responses to Commission Questions" (August 2, 1982)(responding to Commissioner Asselstine).

10/ July 1, 1982 letter at 2.

In the supporting memorandum DOE argued that "the public interest would be best served by grant of the request." They presented four reasons:

> "First. . .the President, the Congress and the Department of Energy have made the national policy determination that the public interest is best served by expeditious completion of CRBRP. . . ."
>
> "Second, the grant of this request will further the Department of Energy's LMFBR Program, and accelerate the informational and programmatic benefits from that program. . .[G]rant of the Section 50.12 request will permit CRBRP to provide information in a timely fashion necessary to support the LFMBR Base Research and Development Program, and Large Developmental Plant, and the LFMBR Fuel Cycle Program, and will substantially enhance the prospects for success in those programs."
>
> "Third, the grant of the request will have a substantial positive impact on a number of international policy issues. Those issues include: (1) the development and implementation of an international safeguards system, (2) advancement of an effective non-proliferation policy, and (3) revitalization of the U.S. leadership role and influence in nuclear technology."
>
> "Fourth, the grant of the request will result in substantial cost savings to the nation's taxpayers." 11/

Finally, in the Applicants' response to my questions, they stated:

> "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." 12/

11/ Applicants' Memorandum at 29-30.
12/ July 22, 1982 Answers to Questions at answer to question 3.

I find it somewhat difficult to get a clear understanding of the principle arguments being made, but I believe them to be that granting the exemption request will help the U.S. non-proliferation policy, is essential to support the overall LMFBR program, and will save the taxpayers a lot of money. I question each of these conclusions.

Regarding the effect on non-proliferation policy, in answer to my direct questions in the July 29th Commission meeting, the DOE said there are no specific safeguards programs and there are no specific non-proliferation policies for which the advancement of the CRBR by six to twelve months is critical. 13/ In refreshingly frank responses, Deputy Secretary Davis made the argument that it is important for the United States to have a breeder reactor under construction if the United States hopes to be able to influence foreign countries with regard to non-proliferation policy. This at least is a very straightforward explanation and is similar to arguments that have been advanced by a substantial portion of the knowledgeable nuclear community over the last five years, but it is a subjective judgment and DOE has provided little to substantiate that judgment. Diplomatic issues abound in subjective judgment. Regulatory decisions at least attempt to coat themselves as objective judgment. I

13/ At the least, I find the statements in Applicants' Memorandum at page 30 to be somewhat misleading.

can agree with Secretary Davis that the argument can be made that it is important for a U.S.-plant to be under construction for the United States to convince foreign countries to accept our non-proliferation policies. However I have not found significant evidence to support the argument, at least in my experience in dealing with a very large number of foreign representatives over the last five years.

A letter from the Department of State was provided by DOE in support of DOE's arguments concerning the international significance of this request. The State Department does support domestic work on the breeder option:

> "Finally if we are to be able to work together with other countries to realize the potential energy benefits of the breeder while controlling any proliferation risk, we must participate actively in such programs domestically lest we risk having little or no say when vital decisions in this area are made." 14/

However, the State response explicitly does not focus on CRBR and nothing in the response provides any basis for believing a six to twelve month delay in site preparation activities will have international repercussions. If DOE's request and the potential six to twelve month delay had significant international implications, I expect the State Department would at least be aware of the foreign policy consequences and would have mentioned them in this letter.

14/ Letter from R. T. Kennedy, Under Secretary of State for Management, DOS to W. K. Davis, Deputy Secretary, DOE (July 29, 1982).

The second issue relates to informational benefits to be gained. In its presentation before the Commission on July 29th the DOE was unable to provide details regarding the informational benefits for which six to twelve months would be critical. Since then, in their response to Commissioner Asselstine, the Department has provided an extensive development of that issue--a far better argument than they have made in the past. It is an argument by analogy. The analogy the Department presents is the very substantial benefit that the CRBRP design has had from the Fast Flux Test Facility (FFTF), a large nonpower liquid metal breeder facility. The response does not focus on the relative status of the FFTF and the CRBR or the length of the CRBR delay, which would be important in assessing the validity of the analogy. However, the Department has shown, through many specific details, that because the Clinch River Breeder Reactor Project was delayed, it was able to use a large amount of information generated in the design, development, construction, and initial operation of the FFTF. The Department's argument is, consequently, if the CRBRP can be accelerated, such informational transfer to the Large Development Plant (LDP) can be expected.

This argument has led me to revisit a position I took the first time the Commission addressed DOE's exemption request. At that time I supported the Commission's 1976 decision 15/

15/ U.S. Energy Research and Development Administration et al. (Clinch River Breeder Reactor Plant), CLI-76-13, 4 NRC 67 (1976).

in which the Commission concluded the timing of the liquid metal fast breeder reactor program was to be taken as established by the ERDA impact statement and associated processees. Consequently, I reached the conclusion the NRC should defer to the DOE on the timing of the LMFBR program. 16/

However, it does not follow that "the timing of Clinch River--as expeditiously as possible--is a matter on which the Commission should give complete deference" to DOE. 17/ First, it takes more than a simple assertion by DOE that site preparation should begin now rather than six months or a year from now. There must be some basis for that assertion "as established by the ERDA impact statement and associated processes." Second, under the Commission's decision, NRC did not give complete deference to DOE on issues such as the

---

16/ Separate views at 1-2.

17/ Applicants' Memorandum at 17. This argument was reiterated before the Commission: "The Department's finding that the timing of Clinch River should be as soon as possible is likewise entitled to controlling deference." Tr. 22-23 (July 19, 1982 Commission meeting)(statement by G. Edgar, Counsel for Project Management Corporation).

This position is untenable. The DOE has argued the public interest finding is driven by the timing. (I agree timing is the critical issue.) Therefore, if I defer to DOE on the timing, I must defer to DOE on the public interest finding. Since I have concluded that 50.12 turns on that factor, in effect I would be forced to defer totally to DOE on the waiver itself. That I cannot responsibly do.

"likelihood that the proposed CRBR project will meet its objectives within the LMFBR program" or the "[a]lternatives for meeting the objectives. . .to be evaluated in terms of the objectives defined in the ERDA impact statement." 18/

Therefore, it is appropriate to address the question of schedule and, in particular, that for the LDP as it affects the ability of the CRBR to meet program objectives since DOE has linked their support of informational benefits to the LDP. Unfortunately, the LDP has no specific schedule and its timing is increasingly open to question. DOE's programmatic environmental impact statement presents an LMFBR development schedule, including the LDP and the CRBRP. The discussion of the schedule indicates "Beginning CRBRP construction in 1982 or early 1983 will allow completion around 1990. . .[T]he program envisions that a large developmental plant (LDP) would begin operation in the mid-1990's." 19/ But as the DOE made clear in its presentation to the Commission on July 29th, there is currently no specific schedule for the LDP.

18/ CLI-76-13 at 92.
19/ "Final Environmental Impact Statement (Supplement to ERDA-1535, December 1975) Liquid Metal Fast Breeder Reactor Program," DOE/EIS-0085-FS at 41 (May 1982).

The DOE does not expect to reach a decision on whether to begin preliminary design of the LDP until September 1984, and a decision to initiate construction will not be made until the late 1980's. Obviously, since the Department's program is predicated upon the plant being built by industry, the timing of the industrial demand will affect the timing of the construction of the LDP. 20/

To the extent it is argued there is a direct link between the CRBR schedule and the LDP schedule based on the need to provide information for the LDP, slips and uncertainties in the LDP schedule affect the timing of the need for information from the CRBR. The current state of the LDP schedule makes it difficult to conclude a six to twelve month delay in CRBR will have a substantial impact. Even if it did, an alternative which is consistent with the updated ERDA/DOE program impact statement would be to slip the LDP six months to a year. As stated earlier, according to the impact statement "the program envisions [the LDP] would begin operation in the mid-1990's." That suggests considerable leeway in the precise timing of the LDP.

20/ Concerns have already been raised on this issue. The GAO has recently said "[I]t is also important to recognize that under DOE's present program timetable, DOE could develop a commercial size plant decades before it is economically competitive or is needed on the basis of uranium availability." "The Liquid Metal Fast Breeder Reactor--Options for Deciding Future Pace and Direction," GAO/EMD-82-79 at 27 (July 12, 1982).

However, even the link between the LDP and CRBR is weak, as the following discussion with a DOE representative in the July 29th Commission meeting shows:

> "Commissioner Ahearne: Okay, so you are saying that the other program schedule is not that tightly pinned to the Clinch River schedule.
>
> "Mr. Chipman: No. That's correct. . . ."
>
> "Commissioner Ahearne: But the -- let me make sure I understand. You are saying that the schedule of the other parts of the program is not that tightly linked to the Clinch River schedule.
>
> "Mr. Chipman: That is a hard thing to answer with a simple yes or no.
>
> "Commissioner Ahearne: But I think you just did answer it.
>
> "Mr. Chipman: But in the way I think you are asking it, I would say it is not that tightly linked." 21/

During DOE's oral presentation the legal representative for the applicants also referred us to a July 28th document:

> "DOE has completed its update or supplement to the LMFBR program environmental statement. . . .The Department signed the record of decision on that supplement on the 28th of July. . . .[The programmatic environmental impact statement (PEIS)] conclusively establishes the timing of the project [to be] as soon as possible." 22/

I have reviewed this "Record of Decision" and find the following statement in the conclusion section:

> "The CRBRP is a key LMFBR program and is needed as soon as possible." 23/

21/ Tr. 55-56 (July 29, 1982 Commission meeting).
22/ Tr. 21-22 (July 29, 1982 Commission meeting).
23/ "Liquid Metal Fast Breeder Reactor Program; Record of Decision," 47 Fed. Reg. 33771, 33773 (August 4, 1982) (decision is dated July 28, 1982).

Unfortunately, I cannot find any substantive support for that statement in the document itself or in the PEIS. The issue is whether a six to twelve month delay will have a substantial impact. Nothing in the impact statement or the "Record of Decision" supports the assertion that a delay of this magnitude will be significant. The justification of timing is in terms of years and decades rather than months.

In discussing the role of CRBR in the LMFBR program, DOE has left out an important aspect. According to the PEIS,

> "The successful demonstration of the LMFBR option by design, construction and operation of the CRBRP and the LDP before the turn of the century is expected to provide utilities with the confidence required to begin breeder commercialization when market factors dictate." 24/

An important element in building confidence is to demonstrate licensability. DOE has failed to address effectively the arguments that grant of this request is contrary to that objective. For example a Senator argued:

> "The Clinch River Breeder Reactor was initiated with the clear intent that it would be utilized as a demonstration project to explore the commercialization potential of breeder reactors. Breeder reactor demonstration includes the reactor's ability to be fully licensed. Therefore, the original purpose of the CRBR project would be overridden by any deviation from the established NRC licensing process. And it is abundantly clear to me that the DOE request represents a shortcut at the very first turn of the NRC licensing process." 25/

24/ DOE Supplement to ERDA-1535 at 42.
25/ Letter from Senator Mitchell to Chairman Palladino (August 2, 1982).

DOE argues we should grant the request because "the CRBRP will still undergo and satisfy all elements of NRC's licensing procedures" including all findings necessary for an LWA-1 (as a prerequisite for an LWA-2), an LWA-2, a construction permit, and an operating license. 26/

The LWA-1 hearing is scheduled to begin on August 23rd 27/ and will address the merits of approving activities covered by the current request. As DOE points out, the hearing is necessary even though the Commission has granted the exemption since the LWA-1 findings are a prerequisite for an LWA-2. However, I see a significant difference between addressing the merits prior to authorizing the activity and addressing the merits after authorizing the activity.

We are on the path warned against by Senators Hatfield and Cohen:

> ". . .If the NRC were to authorize site preparation activities at this time, it would be compelled to grant exemptions from established regulatory procedures for the CRBR. We have serious doubts about the wisdom of granting such exemptions. . .[W]e believe it is in the best interests of future commercial development of LMFBRs for the CRBR to undergo the established regulatory procedures without exemption. Furthermore, we believe granting exemptions to the CRBR could seriously erode the public's confidence in the federal nuclear energy programs in general and breeder reactors programs in particular." 28/

26/ Applicants' Memorandum at 11-12.

27/ See letter from E. Greenburg and B. Finamore, Counsel for NRDC and Sierra Club, to Commissioners (August 3, 1982) ("During a conference with counsel held yesterday, the Licensing Board ruled that LWA hearings will commence in three weeks, on August 23 as previously scheduled.").

28/ Letter from Senators Hatfield and Cohen to Chairman Palladino (December 15, 1981).

Finally, turning to the cost issues--in this latest DOE request for an exemption Acting Secretary Davis wrote: "While acceleration of the CRBRP schedule will yield primary benefits in terms of information, as indicated in the Department's letter of February 25, 1982, it will also yield substantial monetary cost savings to the taxpayer." 29/ The supporting memorandum states that "the grant of the request will result in substantial cost savings to the nation's taxpayers." 30/

In response to the first exemption request I described the great difficulties I found with the Department's cost estimates. In the applicants' most recent request, they again referred to "substantial cost savings." 31/ Secretary Davis enclosed the Site Preparation Activities Report (SPAR) 32/ with the request and wrote: "The enclosed Site Preparation Activities Report. . .provides the detailed technical justification and support for this [exemption] request." 33/ The SPAR also referred to a "substantial cost savings" to the taxpayers. 34/ The SPAR quoted a savings of $28-218 million, referencing responses submitted in support of the first exemption request. 35/

29/ July 1, 1982 letter at 2.
30/ Applicants' Memorandum at 30.
31/ July 1, 1982 letter at 2.
32/ "Clinch River Breeder Reactor Plant, Site Preparation Activities Report" (June 1982)."
33/ July 1, 1982 letter at 1.
34/ SPAR at v. and 7-2.
35/ SPAR at 7-12 to 7-14 and 8-7.

Because of the great difficulties I had with these estimates as outlined in my separate views in March, I did ask on July 12, "Does the DOE continue to support all cost calculations in reference 7-5 [of the SPAR, which merely lists the applicants' original submittals]?" The applicants' confirmed: "Applicants support the cost calculations contained in Deputy Secretary Davis' [February 25] letter and the specific references to previous submissions in that letter." 36/ I must therefore conclude that all the previous concerns I had with respect to the costs remain. 37/ Since the applicants insist on continuing to endorse these costs and no new costing information has been provided, I have the same reservations as I expressed in March.

In summary, I believe that the Applicants again have failed to make the public interest case. As the time grows short before the beginning of the LWA hearing, the arguments for granting a waiver are harder to make. The Applicants have done a better job arguing information transfer, focusing on the FFTF/CRBR connection. However, this has forced me to look at the LDP schedule and the impact of a relatively short delay in CRBR. I find that very tenuous. I accept the sincerity of Mr. Davis' arguments and grant substantial

---

36/ July 22, 1982 Answers to Questions at answer to question 4.
37/ Separate views at 27-39. A summary of my separate views, which includes my principle objections tc DOE's cost figures, is attached as an Appendix.

weight should be given his experience in international negotiations and building construction. While much better than the previous DOE arguments, they are still not sufficient for me to conclude the public interest finding weighs in the DOE's favor. The issue is whether avoiding a relatively short delay, six to twelve months, results in benefits significant enough to justify the extraordinary action of granting this exemption request. With the DOE presenting entirely subjective arguments in support of the international policy benefit, very tenuous links to the LDP program schedule, and the DOE persisting in support of its previous wide-ranging cost estimates, I find that sound public regulatory policy requires the waiver exemption be denied.

Having seen Commissioner Asselstine's views, I have one additional comment. Section 189a of the Atomic Energy Act simply states:

> "The Commission shall hold a hearing after thirty days' notice and publication once in the Federal Register, on each application under section 103 and 104 b. for a construction permit for a facility, and on any application under section 104 c. for a construction permit for a testing facility."

There is no mention of "safety-related activities." I agree it is longstanding Commission practice to hold a formal, adjudicatory hearing to meet the requirement for a hearing on a construction permit application. However, the Commission has not interpreted the Atomic Energy Act to mean that no safety-related activities can be authorized prior to issuance of a construction permit and completion of the related hearing.

APPENDIX: Summary from "Separate Views of Commissioner Ahearne" on the initial CRBR 50.12 exemption request*

The Department of Energy (DOE) has requested an exemption under 10 CFR 50.12 in order to begin site preparation for the Clinch River Breeder Reactor (CRBR). In addressing this request, I conclude it is not for the NRC to address (1) the need for an LMFBR program or for a demonstration scale facility or (2) the total cost of the CRBR.

Section 50.12 has a long history. A version of 50.12(a) authorizing specific exemptions has been in existence for over 20 years. When the Atomic Energy Commission (AEC) modified its regulations in 1972 to place restrictions on site preparation activities because of its new National Environmental Policy Act (NEPA) responsibilities, it introduced a version of 50.12(b) to provide a specific method by which applicants could show why work already begun should not be suspended until the AEC did an environmental review.

In 1974 the AEC developed an alternate way to approve site preparation activities prior to issuance of a construction permit -- the Limited Work Authorization (LWA). A 50.12 exemption was still an option, but the Commission noted it was to be used "sparingly and only in cases of undue hardship." Since the LWA provisions became final in 1974, only one 50.12 exemption for site preparation activities has been issued.

---

* CLI-82-4, 15 NRC__ (March 18, 1982).

I conclude 50.12 can be applied in this case. However, DOE must make a strong showing on the four 50.12(b) factors since 50.12 is to be used only in very unusual circumstances. The factors to be considered are: environmental impact, redressability, foreclosure of alternatives, and public interest.

The NRC staff has concluded the work that would be done under the exemption would have no significant environmental impact, and the local authorities strongly support the request. Nevertheless, site preparation inherently involves some environmental impacts and $88 million would be spent on project construction. Reasonable restoration is possible, although there may be some potential problems because of funding considerations. No alternative appears to be foreclosed by the proposed work.

Addressing the effect of delay on the public interest, I considered whether there is (1) a Congressional mandate, (2) a need to move ahead on the project for production of power or research and development (R&D) purposes, or (3) a substantial dollar cost to the taxpayer for delay.

After reviewing many letters from Congress and the Congressional legislative history, I conclude there is no mandate to waive - or not to waive - our standard procedures. The project is not being justified by need for power, and Congress has confirmed such a need is not a factor. Since I defer to DOE on the general need for R&D and it has not made that case, R&D needs do not provide a justification for the exemption.

Thus the decision rests on the cost. And it is here the applicant presented its worst case.

We have the following DOE estimates for a one-year delay:

November 30, 1981:		$120 million
January 18, 1982:	(a)	$120 million, "clearly conservative"
	(b)	$175 million
January 28, 1982:	(a)	$120 million, "clearly conservative"
	(b)	$161 million
	(c)	$166 million
	(d)	$175 million
February 25, 1982:	(a)	$129 million, "appropriations perspective"
	(b)	$28 million, "economic perspective"
	(c)	$218 million, "financial perspective"

I conclude the DOE has finally agreed that as far as the true dollar cost of delay, it is in the region of $30 million - coincidentally, about the cost of the management team.

This is sufficiently different from the original estimate as to indicate the DOE paid little attention in preparing its original statement, although the series of estimates does not lead me to have confidence in any of the estimates. In the case of a utility applicant we would look with strong disfavor on such rapidly shifting submissions.

Thus, I conclude the DOE has failed to make the public interest case and, in the cost area, badly.

I am also concerned that DOE may not understand the appropriate controls that should be applied when assuming the role of a license applicant. The NRC has high standards for license applicants -- which underlie the concept of licensability, which is a CRBR objective. It is because of these standards that showing licensability is an important accomplishment.

Therefore I vote to deny the exemption request.