ATTACHMENT 1
FEDERAL REGISTER NOTICE

[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 52

[Docket No. PRM 52-2]

Nuclear Energy Institute; Denial of Petition for Rulemaking

AGENCY: Nuclear Regulatory Commission.

ACTION: Denial of petition for rulemaking.

SUMMARY: The Nuclear Regulatory Commission (NRC or Commission) is denying a petition for rulemaking (PRM) submitted by the Nuclear Energy Institute (NEI or the petitioner) (PRM 52-2). The petitioner requested that the NRC amend its regulations that govern early site permits, design certifications, and combined licenses for nuclear power plants to eliminate the requirement for an early site permit (ESP) applicant to include, and for the NRC to review, alternatives to the site proposed in an ESP application. The petitioner further requested that the NRC initiate a rulemaking to remove requirements that applicants and licensees analyze and the NRC evaluate alternative sites, alternative energy sources, and need for power with respect to the siting, construction, and operation of nuclear power plants. The NRC is denying the petition because the NRC must continue to consider alternative sites, alternative energy sources, and need for power to meet its responsibilities under the National Environmental Policy Act of 1969, as amended (NEPA).

ADDRESSES: Copies of the petition for rulemaking, the public comments received, and the NRC's letter of denial to the petitioner are available for public inspection or copying for a fee, at the NRC's Public Document Room at One White Flint North, 11555 Rockville Pike (first floor),

Rockville, Maryland. These documents are also available at the NRC's rulemaking Web site at http://ruleforum.llnl.gov.

FOR FURTHER INFORMATION CONTACT: Nanette V. Gilles, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-1180, e-mail nvg@nrc.gov.

SUPPLEMENTARY INFORMATION:

Background

By letter dated July 18, 2001, NEI submitted a petition for rulemaking to modify 10 CFR Part 52, Subpart A, "Early Site Permits." The petitioner requested that the NRC amend its regulations in 10 CFR Part 52 to eliminate the requirement that an ESP applicant include, and the NRC review, alternatives to the site proposed in an ESP application. The petitioner further requested that the NRC initiate a rulemaking to remove requirements in Parts 2, 50, and 51 that applicants and licensees analyze and the NRC evaluate alternative sites, alternative energy sources, and need for power with respect to the siting, construction, and operation of nuclear power plants.

The regulations in 10 CFR Part 52 govern the issuance of ESPs, standard design certifications, and combined licenses (COLs) for nuclear power facilities licensed under Section 103 or 104b of the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. The provisions of 10 CFR Part 52, Subpart A, apply to applicants seeking an ESP. The purpose of 10 CFR Part 52, Subpart A, is to resolve site suitability issues in a licensing proceeding as early as possible, before the applicant makes large commitments

of resources. The ESP process allows an applicant to "bank" sites and is expected to improve the effectiveness of the nuclear power plant licensing process.

The regulations in 10 CFR Parts 2, 50, and 51 referenced by the petitioner relate to requirements for filing and acceptance of licensing applications, review of site suitability issues, environmental reports, and environmental impact statements (EIS).

A notice of receipt of the petition was published in the *Federal Register* on September 24, 2001 (66 FR 48828). The comment period ended on November 8, 2001. The NRC received letters from 12 commenters. Nine letters were in favor of the petition and three were opposed. Of the nine letters in favor, seven were from nuclear power plant owners and/or operators, one was from a nuclear steam supply system vendor, and one was from the petitioner. Of the three letters in opposition, two were from representatives of public advocacy groups and the other was from a private citizen. A discussion of the comments is provided in this document.

The NRC is currently conducting a rulemaking to update 10 CFR Part 52. This rulemaking activity addresses lessons learned during previous design certification reviews and discussions with stakeholders about the ESP, design certification, and COL review processes. NEI requested that this petition be incorporated into the ongoing rulemaking effort; however, the NRC decided to deny the petition. Therefore, further consideration of the petition during the 10 CFR Part 52 rulemaking is not necessary.

The Petition

The petitioner requested that the Commission amend 10 CFR 52.17 and 52.18 to eliminate the requirement that an ESP applicant include and the NRC review alternatives to the site proposed in an ESP application. The petitioner further requested that the Commission

initiate a rulemaking to amend 10 CFR Part 51 and related provisions in 10 CFR Parts 2 and 50 to remove the requirements that applicants and licensees analyze and the NRC evaluate alternative sites, alternative energy sources, and need for power with respect to the siting, construction, and operation of nuclear power plants. The petitioner stated that the need for these changes is a direct outgrowth of the dramatic changes that have occurred in the electric power industry, most notably the passage of the Energy Policy Act of 1992 and the resultant actions by the Federal Energy Regulatory Commission (FERC) to impose open access transmission requirements on electricity transmission providers. The petitioner stated that these changes have fundamentally altered both the marketplace for electricity and the makeup of electricity generating companies, and that the regulatory framework that the NRC uses to implement its responsibilities under NEPA should be revised accordingly.

NEPA Requirements

The petitioner's argument is that NEPA requires consideration of "alternatives" to proposed actions but does not specifically require alternative site reviews. However, the petitioner pointed out that several NRC regulations specify that an alternative site review must be conducted (e.g., §§ 2.101, 2.603, 52.17, and 52.18). The petitioner stated that, similarly, NEPA does not specifically require an analysis of alternative energy sources or need for power, but the NRC's implementing regulations in 10 CFR Part 51 require that those matters be addressed. General guidance on the environmental reviews that are to be conducted is specified in Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Plants" (July 1976) and in NUREG-1555, "Environmental Standard Review Plan" (March 2000), which call for a review of alternative sites, alternative energy sources, and need for power. The petitioner believes that the NRC's regulations and implementing guidance reflect the structure

of the 1970s electric utility industry; however because dramatic changes have occurred in the electric power industry since that time, the NRC needs to reconsider its implementation of its responsibilities under NEPA. The petitioner believes that the NRC has the statutory authority to revise its regulations to eliminate NRC review of alternative sites, alternative energy sources, and need for power, and that the NRC can, and should, conclude that its implementation of NEPA no longer requires these reviews because of the fundamental changes that have occurred in the electricity market. The petitioner believes that doing so is important to ensure the efficiency and safety focus of NRC reviews of new licensing applications.

Role of State and Local Governments

The petitioner argued that the NRC's licensing process does not change the division of authority between the Federal Government and the States over the siting of electric power generating facilities. The petitioner's argument is as follows. An NRC license or permit constitutes approval of a site or plant only under the Federal statutes and regulations administered by the NRC, not under other applicable laws. For example, individual State laws may require a State determination of the need for power and an evaluation of alternative energy sources or may require the issuance of a certificate of public convenience and necessity, and various environmental permits. Further, local zoning laws may control the use of a potential site.

The NRC's evaluation of the environmental impacts of the proposed site or plant neither supplants nor interferes with the traditional responsibilities of States in evaluating the need for power, alternative sites, and the suitability of alternative energy sources with respect to the

potential use of that site. The NRC explicitly recognized the extent of its authority in the evaluations of alternatives in 10 CFR 51.71(e), *Preliminary recommendation*, Footnote 4.[1]

Nonetheless, the petitioner notes that in the context of the license renewal rule, many States expressed concern that the NRC's findings, even though not legally dispositive, would establish an official Federal position that the States believed would be difficult to rebut in State proceedings. Specifically, the States expressed concern regarding the NRC's consideration of need for power and alternative energy sources in the license renewal Generic Environmental Impact Statement (NUREG-1437, Chapters 8 and 9) and the associated proposed amendments to 10 CFR Part 51. They were concerned that an NRC finding in those matters would infringe on State jurisdiction over economic regulation of utilities, including the generation, sale, and transmission of electric power produced by nuclear power plants. To address the States' concerns and the questions raised by the U.S. Environmental Protection Agency and the Council on Environmental Quality (CEQ), the NRC issued a supplement to its proposed license renewal rule to address whether, under NEPA, the agency could and should eliminate consideration of issues over which States have primary jurisdiction.

The petitioner argued that, in that supplement, the NRC thoroughly and thoughtfully evaluated its responsibility under NEPA in the context of the States' expressed concerns. First, the NRC clearly recognized the primacy of State regulatory decisions regarding future energy options. Second, it recognized that the choice of energy options will also be made by the electricity-generating company. Third, it characterized the NRC process as one that preserves the option of continuing to operate nuclear plants.

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[1]"The consideration of reasonable alternatives to a proposed action involving nuclear power reactors (e.g., alternative energy sources) is intended to assist the NRC in meeting its NEPA obligations and does not preclude any State authority for making separate determinations with respect to these alternatives and in no way preempts, displaces, or affects the authority of States or other Federal agencies to address these issues."

The petitioner stated that, in the license renewal context, the NRC revised the definition of the purpose of the Federal action to reflect the applicant's goals in seeking NRC approval of the licensing action. According to the petitioner, the NRC's definition of the purpose of the Federal action in the license renewal context was "to preserve the option of continued operation of the nuclear power plant for state regulatory and utility officials in their future energy planning decisions."

The petitioner stated that the NRC revised the definition of the proposed Federal action to more accurately reflect what is really to be accomplished: establishing a stable and predictable regulatory approach to determine if the option of nuclear power as a source of generating capacity at that site could be considered in future State energy planning decisions. The petitioner argued that the proposed definition allows only two basic alternatives: renewing the license to preserve the nuclear option or not renewing the license (59 FR 37725).

The petitioner believes that the license renewal example demonstrates that the NRC has the authority to determine what matters are pertinent to the NRC's NEPA evaluation of an application to site and build new nuclear power plants. The petitioner did not mention that the NRC does, in fact, continue to consider alternative energy sources in its license renewal reviews. Nor did the petitioner mention that license renewal is a post-siting and a post-construction licensing activity.

Application of NEPA to the Siting, Construction, and Operation of Nuclear Power Plants

According to the petitioner, the provisions of 10 CFR Part 52 relative to alternative site reviews are based on an interpretation of NEPA that is neither necessary nor reflective of the evolving electricity market. The petitioner stated that NEPA requires consideration of

“alternatives,” but does not require the NRC to evaluate the need for power, alternative sites, or alternative energy sources.

The petitioner argued that, although NEPA has never required these analyses, the electric utility structure in the 1970s was such that a typical environmental review for siting, constructing, and operating a nuclear power plant included an evaluation of need for power, alternative sites, and alternative energy sources. As a result, there are many licensing decisions and judicial determinations based on the NRC's interpretation of its responsibilities under NEPA and corresponding NRC regulations and practices that were adopted accordingly. However, the petitioner believes that what may have been pertinent 30 years ago is no longer pertinent. The petitioner did not indicate that the “utility” regulatory structure that has been in place over the last 30 years remains in effect in a number of States and will remain in effect for the foreseeable future.

The petitioner pointed out that, in the 1970s, the typical applicant for a nuclear power plant was an electric utility that was regulated by a State public utility commission. Additionally, as a regulated electric utility, the applicant had the legal authority to exercise the power of eminent domain to build generating facilities and any necessary supporting infrastructure. The petitioner believes that any new nuclear power plant today is likely to be constructed and operated by an unregulated merchant generator. The merchant generator will operate in a competitive marketplace. The petitioner argued that a merchant generator will not build and operate a plant unless it believes there is a need for power or that the facility will generate electricity at a lower cost than the competing facilities. Additionally, the petitioner believes that a merchant generator will not build and operate a nuclear power plant if there is a superior alternative source of energy. In States where utilities are still subject to regulation, the petitioner argued that the situation described relative to license renewal is directly applicable.

For these reasons, the petitioner concludes that it is not reasonable to believe that a nuclear power plant will be built in today's environment absent a need for power or some other benefit.

Furthermore, the petitioner stated that it is not reasonable to assume that the NRC will be able to identify an alternative site or alternative energy source that is both feasible and preferable to the choices made by the merchant generator. Because the consideration of alternatives under NEPA is subject to a rule of reason, the petitioner believes that NEPA does not compel the NRC to consider these factors in today's environment. Even if other sites or sources are available—perhaps even preferable in some respects to the applicant's proposal—the petitioner stated that the NRC lacks the authority to compel the applicant to use the alternative site or source. Therefore, the petitioner concludes that, because the NRC consideration of alternative sites, alternative sources, and need for power is not required under NEPA, denial of a permit or license for reasons related to these matters is inappropriate.

The petitioner argued that, in the context of an ESP, the proposed major Federal action is the granting of a permit for a site for one or more nuclear power plants. To actually build and operate one or more nuclear plants on a site, an applicant must also obtain a COL. In a COL proceeding, the proposed major Federal action is the approval to build and subsequently operate a particular nuclear plant at a specified site. If the COL references an ESP, the site approval is already established, and the site suitability issue is restricted to whether the proposed nuclear power plant or plants fit within the ESP's siting envelope. If the COL applicant does not reference an ESP, then the major Federal action with respect to approving the specified site is the same as for an ESP. The petitioner argued that in each case (ESP or COL, with or without a referenced ESP), the proposed action does not decide if there is a need for power, if an applicant should select a different site, or which of various possible sources of electric power best meets the State's or the region's needs, provides the most economic electricity to ratepayers, or is environmentally the most benign.

The petitioner stated that the proposed elimination of NRC consideration of alternative energy sources, alternative sites, and need for power is based on a fundamental principle of NEPA; i.e., that an agency need only consider alternatives that will accomplish the applicant's goal. The petitioner argued that, in the context of 10 CFR Part 52, the ESP applicant's goal is to determine if the proposed site satisfies statutory and NRC regulatory requirements as a suitable location for a nuclear power plant. Similarly, the petitioner stated that the goal of a COL applicant is to determine if the proposed plant satisfies applicable safety and environmental requirements, including the criteria established in any referenced ESP. Thus, the petitioner argued that the only site suitability issue before the NRC in an ESP or COL proceeding is if the site is suitable for one or more nuclear facilities.

The petitioner stated that each Federal agency must determine what alternatives are reasonable and should be considered under NEPA. Further, the NRC must consider the no-action alternative and actions that could mitigate the environmental impact of the proposed action. According to the petitioner, in addition to the no-action alternative, the NRC must consider only those alternatives that serve the purpose for which an applicant is seeking approval—and there are no alternatives. The petitioner believes that defining the proposed action in this manner reflects reality—that the NRC is not considering a proposal that would determine how or where electricity should be generated in the future and that, in either the ESP or COL proceeding, the NRC is considering only whether a specific application meets NRC regulations, not whether one or more nuclear facilities should, or will, be built.

The petitioner argued that, given the specific goals of ESP and COL applicants, the NRC should consider only actions, in addition to the no-action alternative, that serve the applicant's specific goal: to determine if the application meets all applicable requirements. Thus, the petitioner argued it is unnecessary and inappropriate for the NRC to require applicants to analyze alternatives that would not fulfill the goal of determining if the proposed

site and facilities meet NRC requirements. Similarly, the petitioner argued that it is unnecessary and inappropriate for the NRC to use its limited resources to evaluate possible alternative sources of electricity, alternative sites, or the need for power. The petitioner concluded that the NRC, in its NEPA analysis, is not legally obligated and should not attempt, to reach any conclusions related to alternative sites, alternative sources of power, or the need for power.

Public Comments on the Petition

The NRC received 12 comment letters on this petition. Nine commenters were in favor of the petition. Seven of those letters were from nuclear power plant owners and/or operators, one was from a nuclear steam supply system vendor, and one was from the petitioner. Of the three letters opposed to the petition, two were from representatives of public advocacy groups and the other was from a private citizen.

Comments: The commenters in favor of the petition summarized the arguments in the petition and stated their support for the petitioner's position. The commenters also expressed interest in including the petition in the current 10 CFR Part 52 rulemaking activity.

Response: The comments received in favor of the petition provided no additional bases for the petition. Therefore, these comments are addressed by the reasons for denying the petition. As discussed, the NRC denies the petition; further consideration of the petition during the 10 CFR Part 52 rulemaking is not necessary.

Comment: Of the three commenters opposed to the petition, the private citizen stated that, instead of further degrading the defense of the United States of America by the actions proposed in the petition, the NRC should additionally require that applicants evaluate the impact of "deep undergrounding of nuclear power plants."

Response: The NRC believes that the addition of requirements for applicants to evaluate the impact of deep undergrounding of nuclear power plants is outside of the scope of the petition. Deep undergrounding is a design matter rather than a siting matter.

Comment: The second commenter opposed to the petition was commenting on behalf of Public Citizen, a public advocacy group. The commenter stated that NEI is asking the NRC to consider less information and fewer factors before approving a site for a nuclear power plant at a time when the public is seeking assurances that potential threats to public safety are being analyzed with more thoroughness, not less. The commenter further stated that the effect of the dramatic structural and economic transformation in the electric power industry is evidence that the review of alternative sites and energy sources should be of heightened, not diminished, concern to regulators and the public. The commenter argued that there is little in the story of electricity restructuring thus far to suggest that nuclear power would ever be subjected to the same competitive market forces that apply in varying degrees to other sectors of the economy. The commenter stated that nuclear power's failure thus far to seriously compete in the new "competitive" electricity environment makes it more, not less, crucial that all options and alternatives be considered before the NRC approves an ESP. The commenter also stated that the earlier in the process those alternatives are introduced, the better, lest a potential licensee expend considerable resources on a failed siting application in an attempt to retrieve its investment from ratepayers.

The commenter also argued that granting the petition would preclude consideration of alternative sites, alternative energy sources, and the need for power at any other point in the Federal regulatory process. The commenter stated that the NRC should use any discretion it has under NEPA to provide the most rigorous review possible in service of the greater public interest. Finally, the commenter stated that the NRC can best uphold the public's trust by denying NEI's petition.

Comment: The third commenter opposed to the petition was commenting on behalf of Greenpeace, a public advocacy group. Although the commenter did not address specific issues raised in the petition, the commenter did express the general view that the petitions should be rejected because "to do otherwise will only serve to undermine public confidence in the legitimacy of the NRC and any future reactor licensing process."

Response: Although the NRC does not completely agree with all of the two commenters' arguments for denying the petition, the NRC agrees with their basic premise that the NRC should deny the petition and continue to perform reviews of alternative sites, alternative energy sources, and need for power to meet its obligations under NEPA.

Reasons for Denial

NEPA requires Federal Government agencies to study the impacts of their "major Federal actions significantly affecting the quality of the human environment" and prepare detailed statements on the environmental impacts of the proposed action and alternatives to the proposed action (NEPA Sec. 102(C); 42 U.S.C. 4332(C)). The act of granting a permit or license for a nuclear power plant qualifies as a major Federal action significantly affecting the quality of the human environment; therefore, NEPA applies to the NRC when it engages in licensing activity.

Cost-Benefit Balancing and Need for Power

The NRC currently requires an EIS in connection with new power plant construction. The EIS must include a balancing of costs and benefits and an assessment of the need for power (10 CFR 51.71 and 10 CFR Part 51, Appendix A(4)). Although NEPA does not explicitly

mention cost-benefit balancing, judicial interpretations of the statute have established that the agency must balance environmental costs against the anticipated benefits of the action in the EIS. Thus, it is well-established that an EIS for a proposed major action must include some kind of cost-benefit analysis. The principal benefit of constructing and operating a power reactor is the electric power. "Hence, absent some 'need for power,' justification for building a facility is problematical" (*Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 405 (1976), *Niagara Mohawk Power Corporation* (Nine Mile Point Nuclear Station Unit 2), ALAB-264, 1 NRC 347 (1975), *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), ALAB-179, RAI-74-2, 159, 175 (1974).[2]). The need for power must be addressed in connection with new power plant construction so that the NRC may weigh the likely benefits (e.g., electrical power) against the environmental impacts of constructing and operating a nuclear power reactor. The petitioner has not shown that other Federal licensing agencies for power generation projects in preparing an EIS as part of their NEPA obligations have changed their practices with respect to consideration of need for power. Nor is the NRC aware of any change in agencies' practices in this regard.

Contrary to the petitioner's claim, in considering the need for power as part of the NEPA process, the NRC does not supplant the States that have traditionally been responsible for assessing the need for power facilities and their economic feasibility, and for regulating rates and services. As the petitioner pointed out, the NRC has acknowledged the primacy of State regulatory decisions regarding future energy options. However, this acknowledgment does not

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[2]However, this "genuine need" may be shown in a variety of ways. Niagara Mohawk observed that a projected increase in demand for electricity is not the only acceptable justification for constructing a nuclear plant. A showing of need to substitute for existing generating capacity may also be acceptable. Again citing Vermont Yankee, Niagara Mohawk noted that "a Licensing Board may also take cognizance of the effect which a shortage of fossil fuel, or a need to divert that fuel to other uses, might have upon demand for non-fossil fueled generating sources."

relieve the NRC from the need to perform a need for power analysis to accurately characterize the costs and benefits associated with proposed licensing actions. Moreover, in the non-regulated environment foreseen by the petitioner, the NRC consideration of the need for power may become "more, not less, crucial" (in the words of a commenter) because a State decision maker may no longer do need-for-power assessments.

The petitioner asserts that any new nuclear power plant today is likely to be constructed and operated by a merchant generator and that a merchant generator will not build and operate a plant unless it believes that there is a need for power or that the facility will generate electricity at a lower cost than the competing facilities. This rationale does not appear to obviate the statutory need for an agency-prepared determination of the benefits of a proposed action. The Commission also notes that there are examples of other industries misjudging the need for a particular service or commodity, such as the overbuilding of fiber optic data lines. In any event, there is no reason to believe that the traditional utility model is going to go away. Thus, the petitioner's argument, at most, would call for a supplement of the 10 CFR Part 51 requirements to address merchant plants built by non-regulated entities rather than wholesale elimination of the NRC requirements for consideration of need for power.

With regard to the petitioner's discussion of the relevance of the NRC's actions under NEPA in the license renewal context, the Commission notes that in the case of license renewal, the significant environmental impacts associated with the siting and construction of the nuclear power plant have already occurred. The Commission has determined that it is not necessary to look at the need for power for post-construction licensing (issuing and renewing operating licenses). Also, in 10 CFR 51.95(c)(4) the Commission narrowed the NRC's determination for license renewal to "whether or not the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decision makers would be unreasonable." In the case of siting and construction of a new nuclear power plant, the NRC

must do a need for power assessment to accurately characterize the cost (i.e., environmental impact) and benefits associated with the proposed action. For these reasons, the license renewal example is not relevant to consideration of need-for-power issues for the site approval or new reactor construction processes.

In conclusion, the petitioner has not shown any change in judicial consideration of the NEPA obligations of Federal regulatory agencies responsible for privately proposed licensing actions, or other factors underlying the Commission's current policies for considering need for power in a NEPA context that would lead the Commission to conclude that consideration of need for power is no longer a necessary part of the Commission's NEPA obligations for reactor siting and licensing decisions.

Alternatives Addressed in EIS

The NRC's obligation to review alternatives to nuclear power plant licensing is based on NEPA Section 102(2)(C)(iii) which requires that an EIS discuss the "alternatives to the proposed action."[3] Under NEPA, 10 CFR 51.45 requires an applicant to submit an environmental report that contains alternatives to the proposed action. Similarly, 10 CFR 51.71 requires that an EIS include an analysis that considers the environmental impacts of alternatives to the proposed action.

[3] Another provision of NEPA, Sec. 102(2)(E), also requires a discussion of alternatives by requiring Federal agencies to "study, develop and describe appropriate alternatives to the recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." Although some courts have considered the responsibilities under this provision to be more rigorous than the discussion of alternatives under Sec. 102(2)(C)(iii), the courts more often than not view the requirements of the two alternative sections as interchangeable.

In addition, it is the NRC's policy to follow the CEQ's "Regulations for Implementing NEPA" (CEQ Guidelines), subject to certain conditions (10 CFR 51.10). CEQ Guidelines (40 CFR 1502.14) require the EIS to "rigorously explore and objectively evaluate all reasonable alternatives." The petitioner asserted that the proposed elimination of NRC consideration of alternative energy sources, alternative sites, and need for power is based on a fundamental principle of NEPA; i.e., that an agency need only consider alternatives that will accomplish the applicant's goal. The Commission disagrees with the petitioner's assertion that the stated principle is a fundamental principle of NEPA. On the contrary, the CEQ Guidelines state that the discussion of impacts of the proposed action and its alternatives is the "heart" of the EIS. The CEQ guidance gives details on the concept of reasonableness of the alternatives evaluation:

> In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. (Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Question 2a; 46 FRN 18027; March 23, 1981)

The NEPA phrase "alternatives to the proposed action" is understood to mean "alternatives to achieve the underlying purpose and need for the action." *(*See the remarks of Sen. Jackson in 115 Cong. Rec. 40,420, Dec. 20, 1969). NRC regulations require the EIS to include a statement of the purpose of and need for the action (10 CFR Part 51, Appendix A to Subpart A, 1(a)(4) & 4). Once the purpose of and need for the action are understood, the agency is expected to follow a rule of reason in deciding which alternatives are "reasonable" or

"feasible." This "rule of reason" governs "both *which* alternatives the agency must discuss and the *extent* to which it must discuss them."[4] In other words, "[t]he goals of an action delimit the universe of the action's reasonable alternatives." *(Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991), cert. denied, 503 U.S. 994, 112 S.Ct. 616, 116 L.Ed.2d 638 (1991)).

Alternative Energy Sources

The NRC currently considers alternative energy sources at the construction permit (CP) stage because alternatives to the construction of a nuclear power plant need to be considered before the environmental impacts of construction are realized. The agency's practice is reflected in Footnote 4 to 10 CFR 51.71(e) which states:

> The consideration of reasonable alternatives to a proposed action involving nuclear power reactors (e.g., alternative energy sources) is intended to assist the NRC in meeting its NEPA obligations . . .

The footnote conveys the agency's belief that it examines alternative energy sources in order to comply with its NEPA obligations.

The Commission's practice was acknowledged in the statement of consideration for the final rule amending 10 CFR Part 51 to bar the consideration of alternative energy source issues at operating license hearings for nuclear power plants (47 FR 12940; March 26, 1982). The Commission stated that "in accordance with the Commission's NEPA responsibilities, the need for power and alternative energy sources are resolved in the construction permit proceeding."

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[4]See *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 834, 837 (D.C. Cir. 1972); *Alaska v. Andrus*, 580 F.2d 465, 475 (D.C. Cir. 1978); *Allison v. Department of Transp.*, 908 F.2d 1024, 1031 (D.C. Cir. 1990).

The Commission added that "[a]lternative energy source issues receive and will continue to receive *extensive* consideration at the CP stage" (emphasis added). Thus, the Commission has committed itself to consider alternative energy sources and continues to believe that it must do so to meet its NEPA responsibilities. Under 10 CFR Part 52, alternative energy sources are considered at the ESP stage or, in the absence of an ESP, at the COL stage.

The NRC's position on consideration of alternative energy sources is consistent with other agencies' practices. Agencies have consistently included alternative energy sources within their consideration of alternatives when preparing an EIS for a new power generation project. In addition, the NRC's position is consistent with case law. The NRC is aware of many cases involving the adequacy of an agency's alternative energy source review. However, the NRC is not aware of any judicial decision that concluded that it is not necessary for a Federal agency to consider alternative energy sources in licensing a new power generation project.

The petitioner argued that it is not reasonable to assume that the NRC will be able to identify an alternative energy source that is both feasible and preferable to the choices made by the applicant. The petitioner also argues that because the consideration of alternatives under NEPA is subject to a rule of reason, NEPA does not compel the NRC to consider alternative energy sources in today's environment and denial of a permit or license for reasons related to these matters would be inappropriate.

The NRC does not agree with the petitioner. The NRC has performed numerous reviews of alternative energy sources during reviews of CP and license renewal applications. The NRC is experienced in identifying feasible alternative energy sources. The NRC is consistent with other Federal agencies in its implementation of alternative energy source reviews. The NRC does not believe that the recent changes in the electricity market are a

sufficient basis to change NRC practice in the review of alternative energy sources. In fact, the NRC considers alternative energy sources in its license renewal reviews for merchant plants.

The petitioner does not explain why the application of the "rule of reason" would lead to the conclusion that the NRC need not consider alternative energy sources. Because it is possible to identify and analyze the technical and economic feasibility of many different alternative energy sources, it is reasonable to consider them in the NRC's NEPA review process. It is also not necessary to address the petitioner's argument regarding if it would be appropriate for the NRC to deny a permit or license for reasons related to alternative energy sources, inasmuch as the "full disclosure" provisions of NEPA are a sufficient basis to require a discussion of alternative energy sources.

The petitioner has not shown any change in judicial consideration of the NEPA obligations of Federal regulatory agencies responsible for privately proposed licensing actions, or other factors underlying the Commission's current policies for considering alternative energy sources in a NEPA context, that would lead the Commission to conclude that consideration of alternative energy sources is no longer a necessary part of the Commission's NEPA obligations for reactor siting and licensing decisions.

Alternative Sites

The Commission uses a two-part process to ensure that alternative locations for constructing power generation facilities are adequately considered. The first part of this process requires that the applicant submit a slate of alternative sites that are "among the best that could reasonably be found" inside a region in which it is reasonable to construct a plant to

meet the projected need for power. The second part of the process requires the NRC to determine whether an obviously superior site has been identified.

The statement of consideration for the final 10 CFR Part 51 rule (49 FR 9352; March 12, 1984) explains why the NRC considers alternative sites:

> The reason for considering alternative sites is that many environmental impacts can be avoided or significantly reduced through proper selection of the location for a new generating facility. These significant impacts which can be avoided or reduced are also readily detected at the planning stage of a power plant. For this reason alternative site reviews are encouraged as early as possible in the process of licensing a power plant and the use of reconnaissance-level information for making the comparative analysis is urged.

The "obviously superior" standard has been upheld by the courts. See *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 95 (1st Cir. 1978).

The petitioner argued that the NRC should consider only actions, in addition to the no-action alternative, that serve the applicant's specific goal: in the case of an ESP applicant, if the proposed site meets requirements as a suitable location for a nuclear power plant; and for a COL applicant, if the proposed plant satisfies applicable safety and environmental requirements. Thus, the petitioner argued, it is unnecessary and inappropriate for the NRC to require applicants to analyze alternatives that would not fulfill their goal of determining if the proposed site and facilities meet applicable statutory and NRC requirements.

The Commission disagrees with the petitioner's analysis. The NRC is unaware of any other Federal regulatory agency conducting licensing that defines the proposed action for NEPA purposes as the compliance of the application with that agency's relevant requirements governing licensing. Such an approach renders any discussion of alternatives meaningless,

including the “no action” alternative. There can never be any alternative other than an application that does not comply with the deciding agency’s requirements. An analysis of an illegal alternative is plainly unreasonable. Moreover, such a crabbed reading of NEPA would be inconsistent with NEPA’s underlying intent that the agency identify, disclose, and consider all environmental issues, and alternatives to a proposed action. The NRC believes that the purpose of an ESP must ultimately be defined as the selection of a site that meets NRC technical and siting requirements, and represents an acceptable site environmentally. For a COL, it is the construction and operation of an electric power generation plant for providing energy to be sold into the free market, or to satisfy demand from service areas, as applicable.

The petitioner did not cite to, and the NRC is unaware of, any judicial decisions holding that the petitioner’s proposed statement of purpose is acceptable for purposes of a Federal regulatory agency’s compliance with NEPA in a licensing context. Nor has the petitioner demonstrated any change in the NEPA practice of other Federal regulatory agencies responsible for licensing privately proposed actions, or other factors underlying the Commission’s current policies for considering alternative sites in a NEPA context, that would lead the Commission to conclude that consideration of alternative sites is no longer a necessary part of the Commission’s NEPA obligations for reactor siting and licensing decisions.

Although the NRC does not agree that it can eliminate alternative site reviews, it has initiated work to develop the technical bases for rulemaking to specifically define the requirements for consideration of alternative sites. The NRC expects that such a rulemaking would address some of the petitioner’s concerns in this area by reducing unnecessary regulatory burden and by introducing more certainty in the alternative site review process. The NRC agrees that it should consider the changes in the electricity market (e.g., applicants may be unregulated merchant generators) in this effort. Current NRC regulations were designed for plants owned by public utilities. With the changes taking place in the power market, it is

apparent that the NRC should also revisit the process to address the complexities presented by merchant plants that have no particular regional boundary for business purposes. In addition, the NRC believes that it is appropriate to clarify the "obviously superior" standard in the upcoming rulemaking.

Because the discussion of alternative sites is governed by the "rule of reason," alternative sites cannot be studied *ad infinitum*. Independent of this petition for rulemaking, the NRC has already considered the importance of clarifying the meaning of "region of interest" (e.g., service area if it is sufficiently large) and "slate of alternative sites" (e.g., objectively identified sites that are "among the best" of a reasonable number of alternatives). In light of the changes underway in the power market, these definitions require even more specificity than in the traditional utility power market to ensure that the deliberative process is stable and predictable. If the NRC determines that it is appropriate to distinguish the necessary scope of alternative sites considered in upcoming applications for site approvals from merchant generators from the scope considered in a traditional utility application, then the lack of a defined service area for a merchant plant could serve as a basis for the distinction. Therefore, because of the challenges that the NRC will face as it receives site approval applications from merchant generators, traditional utility applicants, or unaffiliated individuals, the NRC believes it is appropriate to consider these issues in the upcoming rulemaking for 10 CFR Part 51 to define the scope of future alternative site reviews.

Conclusion

The petitioner has not shown any change in other agencies' practices, judicial consideration of the NEPA obligations of Federal regulatory agencies responsible for licensing privately proposed actions, or other factors underlying the Commission's current policies for

considering alternative sites, alternative energy sources, and need for power in a NEPA context, that would lead the Commission to conclude that consideration of these issues is no longer a necessary part of the Commission's NEPA obligations for reactor siting and licensing decisions. For site approval applications (i.e., ESP applications, and CP and COL applications that do not reference an ESP), the NRC continues to believe that it should address alternative energy sources and alternative sites in the NRC's EIS. The NRC also continues to believe that, for construction approval applications (i.e., CPs and COLs), it should address the benefits assessment (e.g., need for power) in the NRC's EIS.

For the reasons cited in this document, the NRC denies the petition.

Dated at Rockville, Maryland, this ____ day of _____, 2002.

For The Nuclear Regulatory Commission.

Annette L. Vietti-Cook,
Secretary of the Commission.