

NUCLEAR REGULATORY COMMISSION

10 CFR Part 52

[Docket No. PRM 52-1]

Nuclear Energy Institute;  
Denial of Petition for Rulemaking

AGENCY: Nuclear Regulatory Commission.

ACTION: Denial of petition for rulemaking.

SUMMARY: The Nuclear Regulatory Commission (NRC) is denying a petition for rulemaking (PRM 52-1) submitted by the Nuclear Energy Institute (NEI or the petitioner). The petitioner requested that the NRC amend its regulations to allow applicants seeking an early site permit (ESP) and a combined license (COL) to use existing information from prior licensing actions as resolved information that has been approved by the NRC and has been subject to a public hearing. The Commission is denying the petition because most of the efficiencies, regulatory stability and predictability which are the object of the petitioner's proposal can be achieved under existing regulations and the guidance that the Commission has directed the NRC staff to prepare. In addition, the Commission is denying the petition because several key aspects of the petition are based on a misapplication of the "current licensing basis" concept and the Backfit Rule, and the petition does not represent a viable approach for achieving the desired efficiencies.

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, located at One White Flint North, 11555 Rockville Pike (first

floor), Rockville, Maryland. These documents are also available on the NRC's rulemaking web site at <http://ruleforum.llnl.gov>.

FOR FURTHER INFORMATION CONTACT: Stephen S. Koenick, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-1239, e-mail [ssk2@nrc.gov](mailto:ssk2@nrc.gov).

SUPPLEMENTARY INFORMATION:

Background

By letter dated July 18, 2001, NEI submitted a petition for rulemaking (PRM) to amend 10 CFR Part 52. The petitioner requested that the NRC amend its regulations governing ESP and COL applications at existing reactor sites to make the development and regulatory review of the application more efficient. The petitioner proposes to incorporate by reference and treat as resolved, existing information. By so doing, the petitioner wishes to eliminate the need for what it believes is duplicate applicant preparation and NRC review of existing information relating to a licensed facility that has been previously approved by the NRC and has been subject to a public hearing. The petitioner believes that its proposed amendments would enhance the focus and efficiency of the ESP and COL licensing processes.

A notice of receipt of the petition was published in the *Federal Register* on September 24, 2001 (66 FR 48832). The comment period closed on November 8, 2001. The NRC received letters from ten commenters. Nine of the ten commenters were in favor of the petition. Seven of

the favorable letters were from nuclear utilities, one was from a vendor, and one was from the petitioner. One commenter, a member of a public advocacy group, opposed the petition. The comments are discussed in this document.

Separately, the NRC is currently conducting rulemaking to amend 10 CFR Part 52. This rulemaking activity addresses lessons learned during previous design certification reviews and addresses certain elements of the ESP, design certification, and COL review processes. NEI requested in its July 18, 2001, letter forwarding the petition that this petition be incorporated into the ongoing rulemaking effort. The Commission has decided further consideration of the petition during the Part 52 rulemaking is not necessary, but the Commission will consider any relevant proposals to increase efficiencies, regulatory stability and predictability for Part 52 regulatory processes that may be submitted during the public comment period on the proposed Part 52 rule.

### The Petition

The petitioner expects that existing licensees will order new nuclear power reactors in the future and that many of the new reactors will be located on sites of currently operating plants. Additionally, the petitioner anticipates that the new reactors will rely on a number of the operational programs currently being used by the existing licensees. The petitioner believes that its proposed §§ 52.16 and 52.80 should be added to Part 52 to allow the use of existing information as a baseline and to limit the review and opportunity for a hearing to the consideration of changed circumstances, such as new regulations and significant new information, to improve the efficiency of the ESP and COL licensing processes. In its

July 18, 2001, letter forwarding the petition, the petitioner requested that the proposed amendments be included in the Part 52 rulemaking now in progress.

The petitioner notes that Subpart A of Part 52 contains provisions governing issuance of ESPs. The petitioner proposes that a new § 52.16 be added to Subpart A to allow an ESP applicant to incorporate, by reference, all or portions of the “current licensing basis” for an existing reactor site to the extent that it is valid and applicable to one or more additional nuclear power plants that “fit within the ESP envelope.” The proposed § 52.16 also would require that any information incorporated by reference be augmented to include:

1. Significant new safety or environmental information that materially affects the ability of the site to support the proposed additional nuclear facility;
2. Information regarding the cumulative radiological and environmental impacts of the existing facility and the facility as described in the ESP application;
3. An analysis of the potential safety impacts of the existing facility on the suitability of the site for the facility as described in the ESP application;
4. An analysis of the potential safety impacts on the existing facility from the facility as described in the ESP application; and

5. Information that addresses regulations applicable to siting issues that became effective after licensing of the current facility to the extent that these regulations are not addressed in the current licensing basis.

The petitioner states that under proposed § 52.16, the NRC would treat those matters incorporated by reference as resolved, except to the extent that those matters are subject to augmentation with the new information described above. The petitioner also states that this section would allow the NRC to impose a change in the application with respect to the information incorporated by reference to the extent that the change satisfies the principles underlying the Backfit Rule in 10 CFR 50.109. The petitioner believes that in preparing the environmental impact statement (EIS) for the ESP, the NRC should adopt the applicable portions of the existing EIS for the site, modified or supplemented as necessary to reflect the NRC's review of the new environmental information proposed in § 52.16.

The petitioner notes that Subpart C of 10 CFR Part 52 contains provisions governing issuance of COLs. The petitioner states that proposed § 52.80, with provisions similar to those proposed in § 52.16, would be added to Subpart C. The petitioner also states that proposed § 52.80 would allow a COL applicant to incorporate by reference programmatic information identified in the "current licensing basis" of an existing licensed facility located at the same site or at a site owned or operated by the same licensee. Programmatic information, as identified by the petitioner, includes, but is not limited to, radiological emergency response plans, organizational structure, administrative controls to assure safe operation, plans for conducting normal operations, physical security plans, and quality assurance programs. The proposed § 52.80 would require this programmatic information to be augmented to include information on

regulations that became effective after the existing facility was licensed to the extent that these regulations are not addressed by the current licensing basis for the existing facility. The petitioner states that under this proposed section, the NRC would treat those matters incorporated by reference from the existing facility as resolved, except to the extent that there is new information. The petitioner believes that the NRC could direct that a change be made in the COL application with respect to the information incorporated by reference to the extent that the change satisfies the principles underlying the Backfit Rule, 10 CFR 50.109.

The petitioner states that the proposed amendments would not only be consistent with NRC's mission to ensure adequate protection of the public health and safety, the common defense and security, and the environment, but also would focus NRC reviews on new information and "the incremental impact of an additional unit at an existing site." The petitioner also states that the proposed amendments would enhance the efficiency of the regulatory process, reduce regulatory burden by eliminating duplicate reviews of matters resolved in previous proceedings, and focus agency resources on new and material information and the impact of a potential new plant on the site.

#### Public Comments on the Petition

The NRC received ten comments in response to the petition. Nine of the ten comments were in favor of the petition. Seven of the favorable comments were from nuclear utilities, one was from a vendor, and one was from the petitioner. These commenters summarized the arguments in the petition but provided no additional bases in support of the petition. They

suggested that the petition be included in the current Part 52 rulemaking activity. One commenter, a member of a public advocacy group, opposed the petition.

### Reasons for Denial

The petition requests that the ESP and COL processes set forth in 10 CFR Part 52 be amended to allow an applicant to use existing information supplied to support the license for a different facility in an ESP or a COL application and to treat the information as resolved. The petition also discusses prior NRC activities that the petitioner claims are precedent for the petitioner's proposal. The Commission recognizes the benefits of licensing plants in a mature industry environment, rather than an emerging industry as was the case for the majority of the existing plant licenses. To the extent practicable, the Commission expects applicants for ESPs and COLs to rely on previously filed siting and programmatic information, as is permitted under existing NRC regulations. To ensure that future license applicants and the public understand the staff's review process, the Commission has directed the staff to articulate in appropriate guidance documents the specific criteria it will use to make its determination as to whether new siting information or a program modification is necessary. However, there are practical limitations to using previously filed information; specifically, the Commission recognizes the need for applicants to demonstrate the information is technically applicable to the prospective licensing action. In addition, this information cannot be treated as resolved for the purposes of a hearing, in as much as principles of *res judicata* and collateral estoppel would not provide

sufficient legal bases to support the petitioner's rulemaking proposal. Therefore, for these reasons, the Commission is denying the petition.

In addition, the Commission is denying the petitioner's proposal because certain key aspects of the proposal are based on a misapplication of the "current licensing basis" concept and the Backfit Rule. For ESPs and COLs there are no "current licensing bases" that exist with respect to a new facility—including a new facility to be located adjacent to a site of an existing licensed facility.

#### *Early Site Permits*

According to the petitioner's proposal, the siting information to be used as a basis for evaluating the acceptability of an ESP application for a site that is near a site for which a construction permit or license has been previously issued by the NRC<sup>1</sup> would be established, in part, by the siting information which the applicant proposes to "incorporate by reference" from the "current licensing basis" for that construction permit or license. See proposed § 52.16(a). The applicant would have to supplement the incorporated information to the extent that there is significant new information on, inter alia, the ability of the site to support the additional nuclear facility contemplated by the applicant, information on cumulative radiological impacts, and information addressing new regulations. See proposed § 52.16(b). The information incorporated by reference that need not be supplemented under paragraph (b), would be treated as resolved, unless the NRC met the Backfit Rule. See proposed § 52.16(d). The information

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<sup>1</sup>In pre-application interactions, two of the prospective ESP applicants have identified the physical locations of the proposed facilities to be at different locations on the proposed sites than were considered during the previous licensing actions.

incorporated by reference that must be supplemented under paragraph (b) would be subject to NRC review and approval, and the Backfit Rule would not apply. A similar approach would be used for environmental information. See proposed § 52.16(c) and (f) [sic].

#### *Use of Information From Prior Licensing Actions*

The petitioner's proposal implies that prior regulatory determinations by the NRC staff and licensing decisions in NRC adjudicatory proceedings with respect to siting for currently licensed plants should have preclusive effect in proceedings for ESPs to be located at or near a site for which a construction permit or operating license has been issued for another facility. The Commission recognizes that practical efficiencies may occur through incorporation of previously filed information or reference in some instances to prior adjudicatory hearings.

The Commission's regulations and guidance already afford an applicant the opportunity to use information from prior licensing decisions. Under § 50.32, "Elimination of Repetition," an applicant may incorporate by reference information already filed with the Commission. This regulatory provision may be used by an ESP applicant to reference information from existing sources, including the safety analysis report and the environmental report on the facility which is near the location that the applicant proposes to obtain an ESP for. Although the current Part 52 does not contain a provision that explicitly allows ESP applicants to take advantage of § 50.32, it was the intent of the Commission that the licensing provisions in Part 50 would be applicable to

the licensing processes in Part 52. See SECY-02-0077 (May 8, 2002; ADAMS Accession No.: ML021040011), Attachment at p.10.

With respect to the agency's compliance with the National Environmental Policy Act (NEPA), the current Part 51 regulations already permit an applicant or licensee to use prior information. Following the receipt of an ESP application, the NRC would conduct a scoping process involving interested stakeholders. Under the provisions of § 51.29(a), the NRC would use the scoping process to "identify and eliminate from detailed study those issues which are peripheral or are not significant or which have been covered by prior environmental review" and to identify other environmental assessments and impact statements which are "related to but are not part of the scope of the statement under consideration." Another process to use prior information is "tiering." Tiering allows federal agencies to rely on previous environmental assessments (EAs) and EISs to aid in the presentation of issues, eliminate repetition, or reduce the size of an EIS. Tiering is encouraged by the Council on Environmental Quality (see 40 CFR 1520.20), and the NRC's regulations permit the use of tiering and incorporation by reference (see 10 CFR Part 51, Appendix A.1.(b)). The Commission expects that both scoping and tiering will be used in appropriate circumstances to limit and focus the environmental issues to be addressed in an EIS for an ESP application for a site near an existing licensed facility.

The Commission also expects that the NRC staff's licensing review of an application for an ESP located at or near the same site as a current or formerly licensed facility will draw upon, and be informed by, the body of information that has already been amassed for that site as part of the previous licensing review. After demonstrating the relevance and technical adequacy of

the baseline of information for that site, the ESP application and the NRC's review may be focused on determining whether (1) there is significant new information for determining site characteristics; (2) there are new methodologies or techniques for collecting and analyzing information on site characteristics which have been developed since the earlier review and which are now accepted by the staff for conducting such collections and analyses; and (3) the regulatory requirements governing the site evaluation and the criteria for acceptance of the site have changed since the earlier review. On December 23, 2002, the NRC staff issued NRR Review Standard, RS-002, "Processing Applications for Early Site Permits: Draft for Interim Use and Public Comment," (ADAMS Accession No.: ML023530045). The objective of this document is to ensure that staff reviews of ESP applications and associated environmental reports (ERs) are efficient, effective, and consistent, and that the reviews result in high-quality products. The primary source of guidance for the site safety assessment review is applicable portions of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," as modified for the ESP review. The primary source of guidance for the ER review is applicable portions of NUREG-1555, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants," as supplemented by RS-002. The Commission has directed the staff to develop specific criteria that the staff will use in making its determination whether former siting information must be supplemented and new findings made with respect to an ESP application at or near a previously licensed facility. In developing this guidance, the staff will consider the five criteria in proposed § 52.16 for augmenting information. RS-002 and the specific criteria will assist the NRC's review in determining whether the referenced information is technically relevant to the ESP and focus the review on newly identified issues of significant technical merit.

With respect to adjudicatory decisions, it is clear that Commission and Licensing Board holdings on legal issues in an earlier proceeding constitute precedent for all subsequent proceedings where the same legal issue is presented. The Commission also believes that, apart from the issue resolution provisions in Part 52 applicable to an ESP referenced in a COL application, the doctrines of *res judicata* (or “claim preclusion”) and collateral estoppel (or “issue preclusion”) may be available to preclude certain claims and issues from being relitigated in an ESP proceeding where the same party has raised the claims and issues in an earlier licensing proceeding at or near a previously licensed facility. However, the Commission does not believe that either *res judicata* or collateral estoppel provides a sufficient basis for adopting the petitioner’s rulemaking proposal. *Res judicata* applies where (1) there has been a final adjudication of the merits of a particular cause of action or claim by a tribunal of competent jurisdiction; and (2) one of the parties to that adjudication (or party in privity with such party) subsequently seeks to advance or defeat the same cause of action or claim in either the same proceeding or in a separate proceeding involving the parties to the first action or their privies. *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-74-12, 7 AEC 203, 212 (1974). The related doctrine of collateral estoppel applies when (1) the issue for which preclusion is sought is the same issue involved in the previous action; (2) the issue was actually litigated; (3) the issue was determined by a valid final judgment; and (4) determination of the issue was essential to the prior judgment. *Carolina Power and Light Co. and North Carolina Eastern Municipal Power Agency* (Shearon Harris Nuclear Power Plant), ALAB-837, 23 NRC 525, 536-37 (1986); *see also Alabama Power Co.* (Joseph M. Farley Nuclear Power Plant, Units 1 and 2), ALAB-182, 7 AEC 210, 213 (1974)(collateral estoppel, unlike *res judicata*, does not require an identity between two causes of action). Additionally, the party in the second litigation, who is to be bound by the judgment of the prior litigation, must be in privity to a party in the earlier

litigation.<sup>2</sup> *Id.* at 1560. The primary purpose of collateral estoppel and *res judicata* is to “protect litigants from the burden of relitigating an identical issue with the same party or his privy . . . .” *Parklane Hosiery Co. v. Shore*, 439 U.S. 322, 326 (1979). Both doctrines operate in the interest of fairness and efficient case management to bar a party to a prior litigation from relitigating an issue or claim resolved adverse to it in the prior litigation. Neither of these legal doctrines provides a basis for the petitioner’s rulemaking proposals, inasmuch as the petitioner’s proposed rule would attempt to bar *any* party, including a nonparty to the original proceeding, from raising the issue in the subsequent ESP proceeding whose application references the earlier proceeding.

The Commission does not agree with the petitioner’s suggestion that the petitioner’s proposed rule is akin to the License Renewal Rule, 10 CFR Part 54, the generic environmental impact statement (GEIS) for license renewal which was adopted by rule in Part 51, or Part 52, each of which provide for a delineated scope of issue resolution and a bar to litigation. The limited scope of review at license renewal under Part 54 was supported by technical bases which were referenced in the Part 54 rulemaking. (See 56 FR 6443; December 13, 1991, and 60 FR 22461; May 8, 1995). For the GEIS supporting license renewal, the environmental issues were resolved on their merits as part of a rulemaking adopting the GEIS. (See 10 CFR Part 51, Appendix B to Subpart A; 61 FR 66564; December 18, 1996). By contrast, the petitioner’s proposed rule does not include any reviews of the technical basis or a rulemaking finding on the merits of the issues that would be precluded in later proceedings. With respect to Part 52, the Commission explicitly stated that the rule establishes a process for determining the adequacy of

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<sup>2</sup>The concept of privity is the same for *res judicata* and collateral estoppel. It pertains to the relationship between a party to a suit and a person who was not a party, but whose interest in the action was such that he will be bound by the final judgment as if he were a party.

siting (including related environmental issues) for a period of up to 20 years for the purpose of providing issue resolution in subsequent proceedings where the ESP is referenced. (See 54 FR at 15372, 15378; April 16, 1989). The public is provided notice and opportunity to participate in the ESP through a request for hearing. Thus, Part 52 establishes a regulatory regime whereby the public has fair notice that siting issues must be raised in the ESP proceedings, inasmuch as the Commission's resolution of the adequacy of siting will ordinarily be binding in a subsequent proceeding referencing that ESP. By contrast, when a current plant's siting decisions were considered in the construction permit proceeding, there was no knowledge or contemplation that issues reviewed and resolved in that construction permit proceeding would be given preclusive effect in another proceeding for an entirely different plant to be licensed to a different location on the same site and perhaps an entirely different licensee, as is contemplated under the petitioner's proposed rule. For these reasons, the Commission does not find that any of these rulemakings constitute a valid legal model for the petitioner's proposed rulemaking.

#### *Misapplication of "Current Licensing Basis" Concept and the Backfit Rule*

While the Commission expects that practical efficiencies, as described above, would be realized from using previously filed information, the petitioner's proposal does not represent a viable approach for achieving such efficiencies. Paragraphs (b) through (f) of proposed § 52.16 constitute the heart of petitioner's proposal, viz., resolution of issues in an ESP proceeding. However, the NRC regards the proposal as a misapplication of the "current licensing basis" concept and the Backfit Rule. The petitioner's proposal uses the term "current licensing basis" in the context of a site for which a construction permit or license has been issued. The NRC developed this concept for renewing nuclear power plant operating licenses under

10 CFR Part 54. The NRC uses the concept to determine the scope of the NRC safety review necessary to support the NRC's decision to renew a nuclear power plant's operating license. The NRC limited the scope of the NRC safety review for license renewal partly because the NRC has already made a licensing finding for the facility. Furthermore, as part of the Part 54 rulemaking, the NRC completed a comprehensive examination of NRC's post-licensing regulatory activities and determined that for all facilities the current licensing bases have been subject to continuing NRC oversight and have been appropriately updated. Thus, a broad-scope safety review against current requirements is unnecessary at license renewal. The renewed license is issued to the same facility for which the NRC previously granted operating authority, and except for aging management programs, the operating authority for the facility under the renewed license is identical to the authority under the previous operating license. By contrast, there is no "current licensing basis" for a facility not yet granted a license, even if it is located at a site for which a construction permit or operating license has been issued to another facility.

More importantly, information for an existing facility, even if updated in accordance with the NRC's regulatory requirements and oversight activities, may not be applicable from a technical basis to a new facility to be located on the same site as an existing licensed facility. The NRC considered two representative areas that could arise in reviewing an ESP application, to determine if the NRC's findings on these subjects could be used for a new facility to be constructed at the same site without change or supplementation, in order to avoid duplicative NRC review and approval. These areas are geotechnical information and meteorology. In both of these areas, which would not be expected to have significant changes from earlier reviews, the NRC concluded that simple application of the updated information would be insufficient to demonstrate compliance with regulatory requirements in effect at the time of the ESP application

(which petitioner's proposal would require, see § 52.16(d)), and accordingly there would be little basis for avoiding necessary NRC review and approval.

In the geotechnical area, the NRC accepted the suitability of the site for construction and operation of a specific facility design. The NRC's findings were based upon the applicant's subsurface investigations to obtain the necessary geologic and seismic data, and the applicant's evaluations of the data to determine the suitability of the site for that facility's reactor design. Even if the proposed ESP is to be located precisely on the footprint of a previously-approved facility that has not been constructed, the NRC believes that additional information must be submitted by the applicant and evaluated by the NRC to demonstrate that the site is suitable.

The applicant would need to demonstrate, and the NRC must find, that the data originally collected to determine the suitability of a specific reactor type to be constructed and operated at a specific location supports the suitability of the site for some as-yet-unspecified design. The certified designs and contemplated designs provide a range of depths of embedment and implications for hydrological radionuclide transport. In addition, the applicant needs to demonstrate that the data collected more than 20 years ago is still relevant, given the current knowledge of regional seismic activity, current data collection and analytical methods, and that the acceptance criteria of the previous licensing action are still relevant. There have been advances in the knowledge of seismic activity in the United States and how ground motion propagates from the seismic source to the site, particularly in seismic source zones such as the New Madrid and the Wabash Valley regions in the Midwest. There have been changes in the state-of-the-art techniques for performing subsurface investigations, (e.g., cone penetrometer testing and suspension logging inside one of the deep boreholes rather than across two

boreholes). Furthermore, the reactor site criteria in 10 CFR Part 100 were significantly revised in 1996, (61 FR 65176; December 11, 1996). The applicant would have to supplement the geotechnical information as necessary to meet the current requirements of the revised Part 100.

The NRC would need to evaluate the geotechnical and seismic information against the current knowledge of regional seismic activity, the current data collection and analytical methods, and the current acceptance criteria to make its safety determination against the revised Part 100. Thus, even in the most favorable case, the NRC believes that additional information, analyses and evaluation is necessary to determine whether existing findings on geotechnical data are applicable to a proposed facility which may be constructed on the same footprint as a previously-approved but unconstructed facility.

These concerns about applicability of the data for the existing facility and review effort would only increase if the ESP was for an alternate location on the site. The distance between the existing licensed facility (or footprint for a facility that was authorized but not constructed) and the proposed facility may result in differences in site suitability. Localized subsurface faults which were not adequately characterized during the previous licensing action could bring representativeness of the incorporated geotechnical information into question. There may be other differences in the characteristics of local subsurface materials (e.g., depth of bedrock and soil types) between the existing licensed facility (or footprint for a facility that was authorized but not constructed) and the proposed facility, that may render inapplicable the original data and findings with respect to geotechnical characteristics (or at least require supplementing the original data and findings).

In the area of meteorology, the existing licensee will have collected data that the NRC previously determined was sufficiently representative of the meteorological environment for the (then proposed) facility. While this data will have been supplemented to a certain extent by data collected throughout the period of operation of the facility, the type of data that has been collected in many cases has been reduced to a limited set necessary to support emergency action determinations. Also, as a technical matter, data collected to support the original findings may not be representative of current meteorological conditions at the proposed site. Localized changes such as changes in land use, the erection of new structures and the removal of existing structures, have the capability to significantly alter the previous characterization of the site's meteorology. These changes in local conditions may not be reflected in the licensing basis for the plant, inasmuch as they are unnecessary to support emergency action determinations. Furthermore, the meteorological data previously collected to support the existing facility's design may be insufficient to characterize the release characteristics unique to the specific design (or the envelope of designs) that may be built under the ESP. For example, the NRC guidance contains different consequence analyses, viz., elevated release versus ground-level release (and therefore the meteorological data necessary to support such analyses), depending upon whether the facility is a boiling water reactor or a pressurized water reactor. The application and review effort would only increase if the ESP was for an alternate location on the site. The distance between the existing licensed facility (or footprint for a facility that was authorized but not constructed) and the proposed facility may result in sufficient terrain differences or orientation differences that call into question the applicability of the meteorological data collected at the existing facility to a facility that may be constructed under the proposed ESP.

In summary, prior NRC findings with respect to the characteristics of a site and compliance with the then-current regulatory requirements with respect to an existing facility, updated in accordance with exiting requirements and practices, does not ensure that the data is sufficiently accurate and comprehensive to support a current ESP siting determination. Thus, the petitioner's proposal to extend the concept of a "current licensing basis" in the manner contemplated by its proposed § 52.16 is technically inappropriate.

The NRC also believes that the petitioner's proposal would essentially extend the Backfit Rule to situations for which the policies underlying the Backfit Rule are not applicable. The Backfit Rule was intended to address a licensee's expectation of regulatory stability. That is, a licensee expects that the terms and conditions of the licensee's authority under a license will not be changed after the NRC has issued the license, except as permitted in the Backfit Rule. The Backfit Rule established regulatory criteria to be used by the NRC in evaluating proposed new and changed regulatory requirements and changes in NRC interpretations and findings with respect to compliance with those requirements.

An ESP applicant, albeit one that already possesses a construction permit or operating license at the site for which an ESP is being sought, has no regulatory expectation that the NRC's determination of whether the application complies with applicable regulatory standards would be constrained by the "current licensing basis" for the earlier-issued construction permit or operating license at the site. An ESP application, submitted years after the issuance of the construction permit or license for an existing facility on the site, cannot reasonably be viewed as implicating the "regulatory stability" concept underlying the current Backfit Rule. The NRC further notes that the petitioner's proposal would also permit an ESP applicant that does not

have a construction permit or license at the site to reference the “current licensing basis” of another licensee’s facility located at the proposed ESP site. Again, under current regulatory practice the ESP applicant does not have any reasonable expectation of regulatory stability with respect to *its* new application, inasmuch as the NRC has not taken any licensing action *for the ESP applicant* with respect to a facility located at that site.

#### *Summary of Denial of Petitioner’s ESP Proposal*

In summary, most of the efficiencies and regulatory stability and predictability which are the object of the petitioner’s proposal can be achieved under existing regulations and the guidance that the Commission has directed the staff to prepare. In addition, key aspects of the petition are based on a misapplication of the “current licensing basis” concept and the Backfit Rule, and the petition does not represent a viable approach for achieving the desired efficiencies. For these reasons, the Commission is denying the ESP proposal as set forth in the petition.

#### *Combined Licenses*

According to the petitioner’s proposal, a COL applicant for a facility to be located at a site with a currently licensed facility<sup>3</sup> and a COL applicant who holds a facility license at another site, may incorporate by reference the siting information described in proposed § 52.16 from the “current licensing basis” of the currently licensed facility. The incorporation would be subject to the requirements in proposed § 52.16. See proposed § 52.80(a). In addition, a COL applicant

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<sup>3</sup>The petitioner’s proposal would, by its terms, permit an applicant to seek a COL at a site with a facility whose license is *not* held by the applicant.

for a facility to be located at a site where the COL applicant currently holds a facility license, and a COL applicant who holds a facility license at another site, may incorporate by reference the information required to address certain NRC requirements. These “programmatic requirements,” which are delineated in proposed § 52.80(b), include: (1) emergency preparedness plans under § 50.33(g) and compliance with the emergency preparedness provisions of 10 CFR Part 50, Appendix E; (2) physical security plans under 10 CFR 50.34(c) and safeguard contingency plans under § 50.34(d); (3) the quality assurance (QA) program under § 50.34(f)(3)(iii); and (4) the managerial plan for design and construction activities under § 50.34(f)(3)(vii). The COL applicant would have to supplement the incorporated information to the extent that there are new regulations. See proposed § 52.80(b)(1).

The bases for evaluating the acceptability of the COL application would be established, in part, by the siting and programmatic information for which the applicant proposes to incorporate by reference from the “current licensing basis” of an existing licensed facility located at the same site or another site owned or operated by the COL applicant. See proposed § 52.80(b). The information incorporated by reference that need not be supplemented in accordance with § 52.16(b) or (c), or § 52.80(b)(1), would be treated as resolved, unless the NRC complies with the Backfit Rule. See proposed § 52.16(d). The information incorporated by reference that must be supplemented under § 52.16(b) or (c), or § 52.80(b)(1) would be subject to NRC review and approval, and the Backfit Rule would not apply.

#### *Use of Information From Prior Licensing Actions*

The petitioner's proposals to give prior NRC staff regulatory determinations and NRC adjudicatory decisions preclusive effect in subsequent COL proceedings are apparently rooted in a desire to maximize regulatory efficiency and predictability. The Commission shares the petitioner's desire that the regulatory processes for review and approval of COLs be fair and efficient and maximize regulatory stability and predictability. Clearly, the nature of review of a program for a new facility, which is based, in whole or in part, on a program currently being implemented at a licensed facility, should be different in approach than where the NRC is reviewing the adequacy of the program for the first time. Moreover, the Commission also recognizes that the context in which the review of program adequacy of a new plant is fundamentally different than when currently licensed plants were being reviewed and licensed. The regulatory standards and review criteria for many existing plants were being developed for the first time or were evolving concurrently with the original licensing of those plants. The NRC's review of the adequacy of an operating license applicant's proposed operational programs occurred without extensive operational experience or data, and therefore, took conservative approaches to predicting the efficacy of such programs. Today, however, the NRC has the benefit of a body of regulatory requirements developed over a 45-year time span, and substantial experience and knowledge collected over 40 years on over 100 plants with thousands of reactor-years of operation. The Commission believes that the licensing review process can take advantage of this body of information and experience to focus the NRC's review of COL applications when the application references an existing program currently being implemented at another nuclear power plant. Indeed, there are substantial regulatory advantages where an applicant proposes to implement an existing proven program at a new plant, if the applicant demonstrates that such reliance is appropriate and technically justified. A mature program is likely to have been revised to reflect corrective actions and lessons learned. Application of such

a program to a similar situation at a different nuclear power plant may be preferable to developing and implementing a completely new, untested program. That might avoid the need for overly conservative program elements to compensate for unknowns and unproven assumptions or correcting errors in ineffective programs.

Therefore, the Commission expects that the licensing review for COLs that rely upon existing programs at other plants will draw upon, and be informed by, the body of information associated with that program's approval and implementation over the years, so that review will be focused only on technical issues of merit, and the review will avoid re-review of matters for which there does not appear to be significant new information or technical considerations. In such cases, the NRC's review should be focused on determining whether (1) there is significant new information on relevant issues; (2) there are new methodologies or techniques for complying with a relevant performance-based regulatory requirements, developed since the original program review and approval, which are now accepted as the "industry norm" for complying with that requirement; or (3) the relevant regulatory requirements governing the evaluation and approval of that program have changed since the earlier review and the existing program was not required to comply with the updated requirements. The Standard Review Plan (SRP) contains the staff's acceptance criteria that would be used in reviewing new applications, including COLs. The Commission has directed the staff to develop criteria for review of COL applications when the application references programmatic information from another license.<sup>4</sup> The Commission believes that the SRP, together with the review guidance to be developed, will

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<sup>4</sup>The COL guidance will use the same ESP criteria for assessing siting information developed in an earlier licensing proceeding, as described in the section on ESPs.

provide the licensing discipline necessary to ensure that the NRC's review of COL applications is appropriately focused.

In addition, the Commission reiterates that prior adjudicatory holdings on matters of law have precedential weight in subsequent adjudicatory proceedings, and that there may be occasions where *res judicata* and collateral estoppel may be applied in a COL proceeding to avoid relitigation of claims and issues raised by the same parties in an earlier proceeding. However, for the reasons discussed in the context of ESPs, the Commission does not believe that *res judicata* or collateral estoppel would provide a legal basis for the petitioner's rulemaking proposals on COLs.

#### *Misapplication of "Current Licensing Basis" Concept and the Backfit Rule*

As with the ESPs, the Commission expects practical efficiencies may be realized from using previously filed information. However, the petitioner's proposal does not represent a viable approach for achieving such efficiencies. The fundamental objective of the petitioner's proposal, viz., resolution of issues and regulatory standards in a COL proceeding referencing an earlier licensing decision, appears to be based on a misapplication of the "current licensing basis" concept and backfitting. The "current licensing basis" concept was intended only to apply to renewal of a license for a nuclear power plant. It was not intended, and has no regulatory meaning, in the context of licensing another separate and unrelated facility that may be located at the same site—much less a separate facility located at a different site. Moreover, with respect to information on compliance with programmatic requirements which may be incorporated by reference, proposed § 52.80(b) does not require the COL applicant to

demonstrate that the programmatic information is relevant and technically applicable to the proposed COL site and facility.<sup>5</sup> For example, under the petitioner's proposal, an applicant referencing an emergency plan from a licensee-owned facility located at a different site need not demonstrate that the siren alerting system for the referenced plant would be effective at the COL site. Thus, the petitioner's proposal to extend the "current licensing basis" concept in the manner contemplated by its proposed § 52.80 is not technically acceptable.

In addition, the NRC does not believe that programmatic information for an existing facility, even if that information was routinely updated in accordance with the NRC's regulatory requirements (e.g., 10 CFR 50.71(e) and 10 CFR 50.59) and oversight activities, may simply be "imported" and used at a new facility either at the same site (or a different site). In general, it is unlikely that such wholesale "importation" of programmatic information without change or supplementation to reflect the new facility and its location can be justified without NRC evaluation of the acceptability of the information with respect to the specific characteristics and location of the proposed facility. The NRC examined three programmatic areas to determine whether programmatic information for an existing facility may be used without change or supplementation at a different facility, in order to avoid repetitive NRC review and approval: (1) physical protection, (2) emergency preparedness, and (3) quality assurance (QA).

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<sup>5</sup>This may have been a drafting error on the part of NEI, which could be corrected by including a provision in the proposed § 52.80 requiring the COL applicant to demonstrate that the programmatic information from the referenced site and facility is relevant and technically applicable to the proposed COL site and facility. However, inclusion of such a provision would not address the other concerns with respect to "current licensing basis," backfitting, and regulatory effectiveness.

Proposed § 52.80(c) would provide issue resolution for all or part of the physical security and safeguards contingency plans (including compliance with the provisions of 10 CFR Part 73 under § 50.34(c) and § 50.34(d)), which would be incorporated by reference either from an already licensed facility at the site for the proposed COL or from a facility at another site whose license is held by the COL applicant. However, the adequacy of physical protection commitments for a nuclear power reactor depends on the design of the plant, the nature of the site, the location and configuration of the plant on the site (including its proximity to other structures), and the physical characteristics of the surrounding land. Adding a new facility to an existing site—even if located on the footprint of a previously approved but never built facility—would necessitate a reevaluation of the existing physical security plan and the safeguards contingency plan to determine if the proposed facility meets the eight elements of physical security in § 73.55 and the five categories of information for the safeguards contingency plan in Appendix C to Part 73.<sup>6</sup> For example, the existing physical barriers on the site would need to be evaluated to assure that there are two physical barriers of the appropriate size in place for the vital area of the proposed facility. With respect to the physical security organization, the NRC would evaluate whether the guard force is sufficient to perform their assigned duties and responsibilities for both the existing and proposed facility. Thus, it is unlikely that programmatic information on safeguards and security for an existing facility could be used without change or supplementation at a different facility, with a concomitant need for NRC review and approval of that safeguards and security program.

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<sup>6</sup>The NRC notes that a proposed facility located on a site with an existing facility could adversely affect the adequacy of the existing facility's physical security and safeguards contingency plans. However, unlike the provisions in proposed § 52.16(b)(1) and (4), § 52.80 would not require the COL applicant to address the impacts of the proposed facility on the existing facility, including cumulative impacts.

Proposed § 52.80(c) would provide issue resolution for all or part of an emergency plan (including compliance with 10 CFR Part 50, Appendix E, and the requirements for the size and configuration of emergency planning zones under § 50.33(g) and § 50.34(b)(6)(v)), which would be incorporated by reference either from an already licensed facility at the site for the proposed COL or from a facility at another site whose license is held by the COL applicant. If the COL applicant referenced an emergency plan for a facility at the site for which the COL would be issued, the NRC believes that the addition of a new facility could have a bearing on whether the existing plans meet the 16 planning standards in 10 CFR 50.47. In addition, the NRC must evaluate the impacts of the proposed facility on the existing facility, as well as any impact the existing facility would have on the proposed facility. The design of the facility determines the type and severity of accidents which need to be addressed by the emergency plan. If the new facility used a different design than the existing facility, the existing emergency plan would need to be evaluated to determine whether it can accommodate the type and severity of accidents associated with the new facility, or whether new provisions (e.g., emergency action levels tailored to the particular accident sequences of the proposed COL facility) are necessary. If the plan cannot accommodate the accidents, the plan would have to be supplemented. For example, with respect to emergency planning zones (EPZs), the NRC would have to determine whether the specific location and configuration of the proposed facility would lead to some adjustment to the existing EPZ. Furthermore, the protective actions associated with the EPZs may not be appropriate for a different design and radioactive inventory associated with the proposed facility. For a COL applicant who references an emergency plan from another site, a new EPZ would have to be developed inasmuch as the existing facility's EPZ could not be used at the COL site. The NRC would also have to identify and consider any differences between the existing site and the proposed COL site in order to determine whether the existing emergency

plan meets the § 50.47(b) planning standards. Therefore, the Commission does not believe that emergency planning information for an existing facility could be used at a different facility without change or supplementation, and a concomitant need for NRC review and approval of that emergency planning information.

Proposed §52.80(c) would provide issue resolution for all or part of a QA program (including compliance with the provisions of Appendix B to Part 50, under § 50.34(b)(6)(ii), § 50.34(f)(3)(i), § 50.34(f)(3)(ii) and § 50.34(f)(3)(vii)), which would be incorporated by reference either from an already licensed facility at the site for the proposed COL or a facility at another site whose license is held by the COL applicant. The petitioner's proposal does not distinguish between construction and operation. Operational QA programs cannot be used for design and construction of a new facility because the scope and nature of activities performed during construction are different than during operation. A construction QA program focuses on design, procurement, fabrication and construction, whereas an operational QA program focuses on maintenance, modification, and operation. Furthermore, the QA organization is different for construction than for operation because a construction QA program relies heavily on an architect-engineer and an operational QA program relies on licensee personnel. If the COL applicant intended to rely on a construction QA program which it used in construction of an existing facility (either on site or at another site), an extended period of time might have elapsed since the major provisions of that construction QA program had been utilized. Thus, the construction QA program might not address the design, procurement, fabrication and construction activities that the COL applicant proposes to use in the construction of the proposed facility. Moreover, applicable industry standards and practices for construction QA have evolved, so that the NRC may not consider the original construction QA programs to be

acceptable for constructing a new facility. For example, American Society of Mechanical Engineers (ASME) NQA-1, "Quality Assurance Program Requirements for Nuclear Facilities," which was referenced in the construction QA programs for many existing plants, has undergone numerous revisions since the 1970s editions. Since the original endorsement of these industry standards, the NRC has withdrawn its endorsement of several quality standards as more effective standards developed by industry groups became available. Accordingly, any construction QA program that was used for an existing facility could not be used at a new facility without substantial change, and concomitant need for NRC review and approval of those changes.

With respect to operational QA, the NRC would need to review the existing operational QA program to assure the licensee's commitments in the QA program area are applicable to the proposed facility. The adequacy of QA program elements depends upon facility design, fabrication and construction technologies, and how systems, structures, and components (SSCs) and services are procured. For example, modular construction, in which portions of the plant are prefabricated off site, transported to the site, and integrated into the portions of the plant constructed on site, will likely involve different QA programs, procedures, and considerations than those for (current generation) plants constructed entirely on site. Another example is the use of SSCs which are procured from sources outside the United States. These components may be manufactured, tested, and qualified to different standards than the standards of the COL applicant's construction QA program. While there may not be the need to make substantial changes to an operational QA program at an existing plant, the Commission believes that an operational QA program could not be used with some changes or supplementation. Those changes or supplementation would need to be reviewed and approved by the NRC.

Based upon the review of these three areas, the NRC does not believe that it is technically possible to apply programs such as physical protection, emergency preparedness, and QA from another facility to a proposed COL without evaluation and consideration of the acceptability of the information with respect to the specific characteristics and location of the proposed facility.

The NRC also believes that the petitioner's proposal would essentially extend the Backfit Rule to situations for which the policies underlying the Backfit Rule are not applicable. A COL applicant simply can have no reasonable regulatory expectation that the NRC's determination of whether the application complies with applicable regulatory standards would be constrained by the "current licensing basis" for a previously licensed facility at that site. This is even more true for a COL applicant referencing a previously licensed facility at a *different site*.

#### *Summary of Denial of Petitioner's COL Proposal*

Most of the efficiencies and regulatory stability and predictability which are the object of the petitioner's proposal can be achieved under existing regulations and the guidance that the Commission has directed the staff to prepare. In addition, several key aspects of the petition are based upon a misapplication of the "current licensing basis" concept and the Backfit Rule, and the petition does not represent a viable approach for achieving the desired efficiencies. For these reasons, the Commission is denying the COL proposal as set forth in the petition.

#### *NRC Regulatory Activities As Precedents for Petitioner's Proposal*

The petitioner cites several examples of NRC's practice to support the petition. The NRC does not believe that these examples are valid precedents for the petitioner's proposals. Each of these examples is addressed below.

#### *License Renewal*

The petitioner suggests that its proposal is consistent with the regulatory concepts underlying the Commission's adoption of Parts 51 and 54 for license renewal of power reactors. See petition at p.7.

As discussed in the ESP section of the Reasons for Denial, the NRC disagrees with the petitioner's analogy.

#### *License Amendments*

The petitioner compares the issuance of an ESP to the issuance of a license amendment for a facility, and argues that the NRC does not conduct a fresh assessment of issues that were thoroughly considered in initial licensing of that facility and that are not affected by the proposed amendment. See petition at pp.7-8.

The petitioner's analogy is inapt. After the NRC licenses a facility, the safety and environmental findings made when NRC initially authorized the facility's construction and operation remain effective throughout the term of the license, and need not be revisited in their entirety in a subsequent license amendment proceeding of limited scope. Only those matters

which are within the scope of the proposed license amendment and, therefore, are affected by the amendment, fall within the scope of the NRC's consideration of the license amendment. Contrary to the petitioner's suggestion, an application for an ESP or COL is not analogous to a license amendment. The NRC's review of an ESP or COL application is the NRC's initial licensing action. As suggested in the earlier discussion on backfitting, the NRC's licensing decision for a facility located on a specific site is limited to that facility. The NRC never envisioned that its licensing decision for that facility would have any regulatory significance years later for either a new, separate facility (likely of different design) located at the same site, or a new, separate facility to be located at an entirely different site.

*Table S-3 and Spent Fuel Storage Casks*

The petitioner states that the Table S-3 generic environmental rulemaking and the rulemakings approving spent fuel storage casks are regulatory precedents for making generic findings by rulemaking, and thereby reducing the scope, or eliminating the need for consideration, of matters in a facility-specific hearing.

The NRC does not regard these rulemakings as analogous to the proposed §§ 52.16 and 52.80. In the Table S-3 rulemakings, the Commission made generic environmental findings which were applicable to all light-water-cooled nuclear power plants. In every spent fuel storage cask rulemaking, the Commission made generic safety and environmental findings which were applicable to every spent fuel storage cask constructed in accordance with the specific cask design approved in that rulemaking. Moreover, each cask design was reviewed and approved by the Commission through the rulemaking for generic use across the United States. By contrast,

the NRC licensing determinations, which petitioner's proposals would permit an ESP and COL applicant to reference, are not generic but are limited solely to a consideration of an applicant's proposals and relevant information available at the time of the proposal. Nor did the NRC approve the applicant's proposals with the understanding that they would be deemed by rule to be acceptable in a subsequent licensing proceeding for a different facility, without a requirement that their suitability for use in the subsequent licensing action be assessed.

#### *Quality Assurance and Facility Procedure Change Process*

The petitioner cites the quality assurance (QA) program change process under § 50.54(a)(3)(ii), and the facility and procedure change process under § 50.59(a)(2)(ii) as examples of situations in which the NRC by rule permits a licensee to implement changes that have been previously approved by the NRC for use by other licensees. See petition at p.8.

While the NRC acknowledges that these two regulatory provisions permit a licensee to implement changes that have been previously approved by the NRC for use by other licensees, these provisions both require that the licensee demonstrate that the proposed change previously approved by the NRC is applicable to the licensee's facility. For example, § 50.54(a)(3)(ii) requires a licensee desiring to make a QA program change to demonstrate that "the bases of the NRC approval are applicable to the licensee's facility." Such a demonstration is not required by proposed § 52.80(b). Therefore, the petitioner's analogy to the implementation of changes without prior NRC approval is not valid for original licensing proceedings.

#### Conclusion

In conclusion, the petitioner proposes to incorporate by reference existing information for the site and, by so doing, eliminate the need for what it believes is duplicate applicant preparation and NRC review of existing information relating to a licensed facility that has been previously approved by the NRC and has been subject to a public hearing. The Commission is denying the petition because most of the efficiencies and regulatory stability and predictability which are the object of the petitioner's proposal, can be achieved under existing regulations and the guidance that the Commission has directed the staff to prepare. In addition, the Commission is denying the petition because key aspects of the petition are based on a misapplication of the "current licensing basis" concept and the Backfit Rule, and the petition does not represent a viable approach for achieving the desired efficiencies.

For these reasons, the Commission denies the petition.

Dated at Rockville, Maryland, this                    day of                    , 2003.  
For the Nuclear Regulatory Commission

Annette Vietti-Cook,  
Secretary of the Commission