

June 22, 2004

Mr. Adrian Heymer  
Nuclear Energy Institute (NEI)  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708

SUBJECT: EARLY SITE PERMIT TEMPLATE

Dear Mr. Heymer:

The U.S. Nuclear Regulatory Commission (NRC) staff has developed a draft early site permit (ESP) template. This template is intended to enhance the efficiency, consistency, and effectiveness of the staff's review of ESP applications and to ensure that information needed for an ESP, should one be issued, is available. It also allows other interested parties the opportunity to view the general form of an ESP. The NRC has made no decision on issuance of an ESP to any applicant. Should ESPs be issued in the future, each will vary from any others issued (and from the template), depending on site- and application-specific considerations. The generic ESP template therefore only provides a starting point for the possible development of future ESPs.

This letter provides the draft permit template for your information and feedback. We are also sending the draft template to the three current ESP applicants. We would welcome a discussion of the template in a future technical exchange.

Should you have questions regarding this letter or development of an ESP template, please contact Mr. Mike Scott of my staff at (301) 415-1421.

Sincerely,

*/RA/*

James E. Lyons, Program Director  
New, Research and Test Reactors Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Project No. 689

Enclosure: As stated

cc: See next page

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ADAMS ACCESSION NO. ML041110012

\*See previous concurrence

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OFFICE	BC:RLEP *	NSIR *	PD:EPPO *	PD:IPSB *
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OFFICIAL RECORD COPY

Distribution for Letter to Adrian Heymer dated June 22, 2004

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ESP-Generic

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## DRAFT

Mr. [Ms.] Utility POC  
Title  
Applicant Company  
Address

### ISSUANCE OF EARLY SITE PERMIT NO. ESP-XXX FOR THE SPECIFIED SITE

Pursuant to 10 CFR 52.24, "Issuance of early site permit," and with consideration of the Initial Decision, dated XXX XX, 20XX, by the Atomic Safety and Licensing Board and the report of the Advisory Committee on Reactor Safeguards dated XXX XX, 20XX, the Nuclear Regulatory Commission has issued Early Site Permit (ESP) No. ESP-XXX to (Applicant Company). This permit expires on XXX XX, 2XXX.

During the period ESP-XXX remains valid, pursuant to 10 CFR Part 52, an application for a construction permit under 10 CFR Part 50 or an application for a combined license under 10 CFR Part 52 may reference ESP-XXX, subject to the terms and conditions specified in the ESP. The ESP does not authorize construction activities except as specified in the permit.

A copy of ESP-XXX is enclosed, along with a copy of a related notice that has been forwarded to the Office of the *Federal Register* for publication. If you have questions on ESP-XXX, please contact [name] at 301-415-XXXX.

Sincerely,

James E. Dyer, Director  
Office of Nuclear Reactor Regulation

# DRAFT

APPLICANT COMPANY

SPECIFIED SITE

DOCKET NO. 52-XXX

EARLY SITE PERMIT

Early Site Permit No. ESP-XXX

1. The Nuclear Regulatory Commission (the NRC or the Commission) has found that:
  - a. The application for an early site permit filed by Applicant Company (the applicant) complies with the applicable requirements of the Atomic Energy Act of 1954, as amended, and the applicable rules and regulations of the Commission;
  - b. All required notifications to other agencies or bodies have been duly made;
  - c. The applicant has provided a description and safety assessment of the site, including an analysis and evaluation of the site under the radiological consequence evaluation factors identified in 10 CFR 50.34(a)(1) [using a plant parameter approach as a surrogate for actual facility design information];
  - d. The applicant has demonstrated that there are no physical characteristics unique to the proposed site that could pose a significant impediment to the development of emergency plans and has provided an acceptable description of contacts and arrangements made with local, state, and federal government agencies with emergency planning responsibilities;  
  
[Either or neither of the following statements will be added, depending on whether the applicant has chosen to address these subjects.] In addition, the applicant has provided the major features of emergency plans, which are acceptable as described in Table 1 of this ESP;  
[or]  
In addition, the applicant has provided complete and integrated emergency plans that provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency, as described in Table 1 of this ESP;
  - e. The applicant has demonstrated that the site complies with the siting evaluation factors in Subpart B of 10 CFR Part 100;
  - f. The applicant has provided an environmental report that addresses the requirements of 10 CFR 52.17(a)(2);

- g. [If the applicant has sought authorization to perform limited work in accordance with 10 CFR 52.25:] The applicant has provided an adequate site redress plan in accordance with 10 CFR 52.25(b);
  - h. On the basis of the foregoing, there is reasonable assurance that the site and identified existing and potential hazards in the site vicinity will pose no undue risk for up to [specify limit on number of reactors as supported by SER and/or EIS] nuclear power plants whose design characteristics are specified in Table 2 of this ESP [or] to one or more nuclear power plants falling within the plant design parameters specified in Table 2 of this ESP that might be constructed and operated on the site in the future under a license issued under 10 CFR Part 50 or 10 CFR Part 52 [Limitations on numbers and/or sizes of reactors as applicable, and as supported by the SER and/or EIS, will be specified in Table 2];
  - i. The issuance of an ESP will not be inimical to the common defense and security or to the health and safety of the public; and
  - j. The issuance of an ESP, subject to the conditions for protection of the environment set forth herein, is in accordance with the National Environmental Policy Act of 1969, as amended, and with applicable sections of 10 CFR Part 51 as invoked by Subpart A of 10 CFR Part 52, and all applicable requirements therein.
2. The results of the NRC staff's review of the safety and emergency planning aspects of the application are documented in a safety evaluation report, NUREG-XXXX, dated XXXX. The results of the staff's review of the environmental aspects of the application are documented in an environmental impact statement, NUREG-XXXX, dated XXXX.
  3. Pursuant to Section 103 of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants," and with consideration of the Initial Decision of the Atomic Safety and Licensing Board, dated XXX XX, 200X, and the report of the Advisory Committee on Reactor Safeguards dated XXX XX, 200X, the Nuclear Regulatory Commission hereby issues Early Site Permit No. ESP-XXX to the applicant for an area on Specified Site as described in the application and amendments thereto (the application) filed in this matter by the applicant and as described in the evidence received at the public hearing upon that application. As described in the application, Specified Site is located about XX miles [direction] of Major Landmark, State.
  4. This ESP is subject to all applicable provisions of the Act and rules, regulations, and orders of the Commission now or hereafter in effect; and it shall be deemed to contain and be subject to the conditions specified or incorporated below.
    - a. [If the applicant has sought authorization to perform limited work in accordance with 10 CFR 52.25 and has provided an adequate site redress plan] The applicant is authorized to perform the following activities at the site as described in its application: [list approved activities]



[or] No authority is granted to perform activities at the site in accordance with 10 CFR 50.10(e)(1);

- b. [Specify terms and limitations documented in the SER and/or EIS appropriate for inclusion in the ESP]
  - c. This ESP is subject to the following conditions for the protection of the environment: [list]
5. In accordance with 10 CFR 52.39, the Commission will, in proceedings for a combined license (COL) under 10 CFR Part 52 or a construction permit under 10 CFR Part 50 that references this ESP, treat as resolved matters resolved in the ESP proceeding, subject to certain conditions described in 10 CFR 52.39(a)(2). In accordance with 10 CFR 52.79, a COL application that references this ESP need not contain information or analyses submitted to the Commission in connection with this ESP, except information sufficient to demonstrate that the proposed facility design falls within the site and plant characteristics [or, if plant design is not specified in the ESP application] within the site characteristics and plant design parameters specified in Table 2 of this ESP. In addition, the following items must be addressed in a COL application that references this ESP. These items, which are not required to be addressed in the ESP application but are applicable to the interface between the site and plant design, are: [List]
  6. [Provide limits on the number of times that the ESP may be referenced, citing technical and/or policy bases as explained in the SER and/or EIS, if any, or in other documents such as a SECY paper.]
  7. In accordance with 10 CFR Part 21 and 10 CFR 52.37, the applicant is required to immediately notify the Commission of any information (1) that may indicate that the ESP site does not comply with the Atomic Energy Act or applicable Commission regulations, or (2) that indicates that future construction of one or more nuclear power plants on the ESP site could pose a substantial safety hazard.
  8. Until this ESP is referenced in a combined license or construction permit application, the site safety analysis report, the environmental report, the emergency planning information, and the site redress plan, submitted as part of the ESP application and as amended through [dates of most recent revisions reviewed by NRC], may not be modified except in accordance with the provisions of 10 CFR 52.39.
  9. This ESP is effective as of its date of issuance and shall expire on XXX XX, 2XXX. At any time before the expiration date, the ESP may be referenced in one or more applications for a COL under 10 CFR Part 52 or a construction permit under

10 CFR Part 50. This ESP continues to be valid beyond the above specified expiration date in accordance with 10 CFR 52.27(b)(1) under certain circumstances specified therein.

FOR THE NUCLEAR REGULATORY COMMISSION

James E. Dyer, Director  
Office of Nuclear Reactor Regulation

- Enclosures: (1) Acceptable Aspects of Proposed Major Features Emergency Plan [or] Complete and Integrated Emergency Plan
- (2) Site and Plant Design Characteristics [or, if design is not specified] Site Characteristics and Plant Design Parameters for the Early Site Permit

TABLE 1

EARLY SITE PERMIT NO. ESP-XXX

APPROVED ASPECTS OF PROPOSED MAJOR FEATURES EMERGENCY PLAN [or]  
COMPLETE AND INTEGRATED EMERGENCY PLAN

The following aspects of the applicant's proposed major features emergency plan [or] complete and integrated emergency plans as submitted in its ESP application are acceptable:

[List acceptable aspects of major features or of complete and integrated emergency plans, as applicable.]

TABLE 2

EARLY SITE PERMIT NO. ESP-XXX

SITE AND PLANT DESIGN CHARACTERISTICS [or, if design is not specified] SITE CHARACTERISTICS AND PLANT DESIGN PARAMETERS FOR THE EARLY SITE PERMIT

Site Characteristics

The following site characteristics are specified for this ESP. These characteristics are approved by the NRC, and any issues related to them are to be treated as resolved in a construction permit proceeding under 10 CFR Part 50 or a combined license proceeding under 10 CFR Part 52, subject to the provisions of 10 CFR 52.39.

[List site characteristics and their values from the ESP application that are important to the staff's findings in 10 CFR Parts 52 and 100 or are important in assessing the environmental impacts of constructing and operating nuclear power plants on the site. Technical staff will develop a list of such parameters during reviews in support of development of the SER and the EIS, and the characteristics and values chosen as bases for the site permit will be identified as such in the relevant SER or EIS sections. The following are examples that may or may not appear in any specific ESP.]

Maximum tornado wind speed	XXX m/s [or mph]
Maximum snow pack (100-year return period)	XXX kg/m <sup>2</sup> [or lb/ft <sup>2</sup> ]
Static and dynamic bearing capacities	XXX kg/m <sup>2</sup> [or lb/ft <sup>2</sup> ]
Shear wave velocity	XXX m/s [or ft/s]
Flood level	XXX m [or ft]
etc.	

[See Commission policy on conversion to the metric system (57 FR 46202); while the NRC supports and encourages use of the metric system, docketed material such as this ESP will use the system of units employed by the applicant.]

Plant design characteristics [if plant design specified in ESP application] [or] plant design parameters [if plant design not provided in ESP application]

The following design characteristics [parameters] are specified for this ESP. These characteristics [parameters] are assumptions about the design of nuclear plant[s] that might in the future be constructed on the ESP site. The staff's findings regarding the site characteristics are partially based, where applicable, on these parameters. Their applicability and use in a construction permit proceeding under 10 CFR Part 50 or a combined license proceeding under 10 CFR Part 52 are discussed in the permit of which this table is a part.

[List design characteristics/parameters and their values that are important to the staff's findings. Typically these would be input values for the ESP applicant's accident analysis or values important in the applicant's assessment of the environmental impacts of constructing

and operating nuclear power plants on the site. Technical staff will develop a list of such characteristics/parameters and their values during reviews in support of development of the SER and the EIS. Those chosen for inclusion in the ESP will be identified as such in the relevant SER or EIS sections. COL or CP applicants referencing the ESP would need to demonstrate that plant(s) submitted in their applications fall within the plant characteristic/parameter values specified herein. Alternatively, such applicants would need to demonstrate that such plants comply with the Commission's regulations, although they do not fall within the plant characteristic/parameter values specified in the ESP. The following are examples that may or may not appear in any specific ESP.]

Maximum thermal power	XXXX Mw(th)
Maximum reactor building height	XXX m [or ft]
Embedment depth	XXX m [or ft]
Closest spacing between reactor modules	XXX m [or ft]
etc.	