



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

September 29, 1992

ORGANIZATION: INDUSTRY SITING GROUP (ISG)

SUBJECT: SUMMARY OF SEPTEMBER 3, 1992, MEETING WITH INDUSTRY SITING GROUP ON THE TECHNICAL AND REGULATORY REVIEW OF SITING ISSUES - REGULATORY AND LEGAL AREA

On September 3, 1992, the NRC staff met with representatives of the Industry Siting Group (ISG) as they presented their understanding of the regulatory framework and legal issues associated with an early site permit (ESP). This meeting was one of a continuing series of public meetings with the NRC staff to discuss the issues related to the siting of new nuclear power plants. Related meetings were held on environmental protection issues on June 2, 1992, and on emergency planning issues on June 30, 1992.

In a letter dated August 10, 1992, the Nuclear Management and Resources Council (NUMARC), on behalf of the ISG, submitted a document that discussed its understanding ("General Principles") of the ESP process. This submittal was the subject of the meeting. In addition, in a letter dated August 28, 1992, NUMARC submitted information prepared for the DOE's Early Site Permit Demonstration Program regarding a set of Plant Parameter Envelopes (PPEs) to assist prospective applicants in preparing an ESP application. A discussion of the latter submittal was deferred and another public meeting will be scheduled for its discussion.

A list of the meeting attendees and the meeting handout (limited to the discussion of the General Principles) are included as Enclosures 1 and 2, respectively. The meeting provided a forum for the ISG staff to interact with the NRC legal and technical staff on ESP regulatory issues; no decisions were made or positions taken during this meeting.

In his opening remarks, the Chairman of the ISG, suggested that there was real interest on the part of industry to submit an application for an ESP and see the licensing process through to completion. He reiterated that a goal of the upcoming industry-sponsored public workshop was to stimulate a prospective applicant to step forward and that the ISG has placed significant importance on gaining and presenting a clear understanding of the ESP process. The NUMARC General Counsel, Mr. R. Bishop, made the General Principles presentation for the ISG and was supported by other ISG staff. The General Principles presentation generally followed the outline of the handout (Enclosure 2).

The ISG staff presented its understanding of the purpose of the ESP provisions of the 10 CFR Part 52 rule, which the ISG indicated was derived from the Statements of Consideration (SOC) included in the Federal Register notice published with the rule (54 FR 15372, April 18, 1989). The ISG staff

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concluded that the ESP regulations do not create new substantive requirements, but adopt the existing substantive siting requirements under 10 CFR Parts 50, 51, and 100. The NRC staff had no comment on this description of the purpose for the ESP regulations.

The ISG staff described the applicant that may be the recipient of an ESP; the activities that may be undertaken as part of the ESP and the financial qualification requirements for such activities; the succession of entities that may control the ESP; and the exercise of control over the site. The ISG takes the position, based upon § 52.15(a), that the applicant need not be a utility. The ISG staff suggested that the site property need not even be owned by the ESP applicant and could be leased. The NRC staff raised questions regarding the exercise of control over land use by the applicant throughout the term of the ESP and the need for the NRC to require at the combined license (COL) stage that the land uses assumed at the ESP stage have not been substantively changed.

With respect to information required by § 52.17(a)(1) on the financial requirements, the ISG staff proposed that the financial qualifications that need be addressed should be limited to the activities an applicant seeks to undertake including authorization for limited work. The NRC staff had no further comment on discussion of the ESP applicant.

The ISG staff described situations where the ESP holder may seek to amend the terms of the permit granted by the Commission. This discussion included changes in the permit holder; the continued viability of the permit once new information about the site comes to light; and, any alternate use of the site. The ISG staff did not specifically address applications for amendments using § 50.90 that was referenced in its August 10, 1992, submittal. The ISG staff presented an example for amending a permit to address new information: the discovery of a previously unidentified threatened or endangered species at the site. The ISG staff also discussed the exercise of control over the site for alternate use activities (see § 52.35) that may result in changes to the site characteristics. The NRC staff had no comments on the discussion of amending an ESP, however, it expressed concern over the exercise of control over the site and maintaining the integrity of site characteristics over the duration of the permit.

The ISG briefly discussed the approval process in § 52.21 and § 52.24, including docketing, hearings, and issuance of the ESP. Regarding the duration of the ESP, the NRC staff reiterated that the Commission determines the duration of the permit it grants and that it may issue a permit for a period different from that requested by an applicant. The ISG staff indicated that it would expect the Commission to have good cause and an explanation for issuing a permit or renewal for a duration other than that requested by the applicant.

The ISG staff asserted that the ESP environmental protection analysis was intended to comply with the National Environmental Policy Act (NEPA) and NRC's implementing regulations, 10 CFR Part 51. It further stated that this

analysis would focus on the evaluation of environmental impacts of construction and operation of plants with characteristics defined to be within postulated design and site parameters. The NRC staff acknowledged that Part 52 would permit an application for an ESP to evaluate potential environmental impacts from construction and operation using a set of postulated enveloping design and site parameters. However, the staff voiced a number of potential concerns with such an approach including the treatment of site specific issues in an actual proceeding.

The NRC questioned whether the ISG considered whether the ESP analyses would be performed in such a manner so that the ESP analyses will be sufficiently broad to cover a range of possible plant uses at the site. The NRC used the following example to discuss the competing objectives of the analyses: a conservative postulated set of parameters is used to describe a large energy center (e.g., 6000 MWe); the resource requirements (e.g., water use) for or impacts (e.g., discharges) from the center could preclude a number of obviously superior sites that could otherwise host a lesser energy capacity (e.g., 600 MWe). The NRC staff continued to voice the concern that sites may be excluded from further consideration based on a conservative impact assessment; if the site was to be developed in a manner other than the full energy center, it may result in an incomplete alternatives evaluation. Therefore, for the example given, the NRC staff suggested that so far as the NRC decision was based on an assessment supporting a 6000 MWe ESP application, it may be conclusive; however, that decision may not necessarily be conclusive for use of the site for 600 MWe unless that lower bound were also considered. The NRC staff indicated that this issue could be further complicated with plans for staged development of the site and the required interaction with State officials when considering the benefits assessment (e.g., need for power).

The NRC staff also expressed a number of concerns with the ISG presentation and attempted to place the total environmental evaluation into context. The evaluation of impacts from construction and operation is but one element of the total environmental evaluation. The Commission also must consider alternatives for reducing or avoiding adverse environmental and other effects. Consequently, dividing the environmental analyses (e.g., consequence from alternatives) among a number of proceedings limits the ability to perform the balancing; the alternatives assessments (the action, sites, designs, etc.) are fundamental to the consideration and balancing by the Commission. While the benefits assessment (e.g., need for power) is not required as part of the application to evaluate whether the site can host a plant, the evaluation of alternatives (including the evaluation of alternative sites) is.

Regarding other alternatives assessments, the NRC staff suggested that the evaluation of radiological risks from accidents is necessary at the ESP stage. The ISG and NRC staff recognize that the Commission directed that the NRC staff consider an assessment of severe accident mitigation design alternatives (SAMDA) as part of the design certification rulemakings (see, Part 52, Subpart B, for relevant regulations). The NRC staff raised questions as to whether SAMDA analysis would affect the environmental analysis performed at the ESP stage.

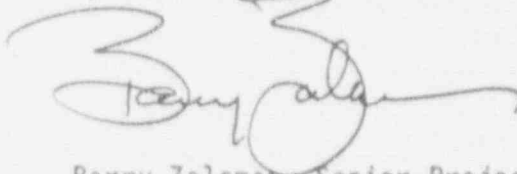


The discussion between the NRC and ISG staffs that ensued on environmental protection issues continued the dialogue initiated during the public meeting of June 2, 1992. The NRC staff indicated that the scope of the NEPA review should be from the standpoint of the future intended use of the site as narrowly defined as reasonable; e.g., to provide additional baseload capacity for a particular grid. In this manner, the region of interest could be narrowly defined. The NRC staff indicated that corporate ownership of one or more properties should not be the primary basis for evaluating alternative sites; e.g., a group having property rights on the east coast and west coast should not consider all of or just its holdings if the project is intended to provide power to a specific service area.

The ISG staff presented its understanding of the finality of determinations in § 52.39. Once an ESP is issued, new requirements may not be imposed on it by the Commission unless it determines that the permit needs to be modified to comply with requirements in effect at the time of issuance, or to meet the traditional safety criteria of adequate protection of the public health and safety, or for the common defense and security. The NRC staff expressed concern that, since there were no substantive environmental requirements in the regulations, the Commission would not be able to impose new ESP requirements for environmental reasons, because the compliance test could not be satisfied, and the test of adequate protection would not be relevant. The ISG staff suggested that this was not the intent of the presentation and provided the following clarifying example: if the permit was issued under a false premise (e.g., there was an error in the analytical method that was used for an assessment), the permit holder may seek an exemption or variance or may take other corrective actions rather than merely complying with the terms of the permit as issued. The NRC staff continued to express concern about this issue.

The ISG provided a brief discussion of the emergency planning provisions of the ESP regulations as outlined in § 52.17(b): an applicant may submit one of three options for addressing emergency planning issues as part of the ESP application. The NRC staff reiterated that the emergency planning issues were discussed in detail during the public meeting on June 30, 1992. The NRC staff raised questions regarding the ISG statement on supplementing local and State emergency plans. The staff indicated that a utility plan could not be submitted unless the applicant first attempts to make contact and establish arrangements with governmental entities. The NRC staff also indicated that, for those situations where a complete and integrated emergency plan is proposed, the plan would be reviewed under the provisions of § 50.47, which included the opportunity to complement local and State emergency plans with a utility plan when necessary. Finally, the NRC staff questioned whether the ISG was considering approaches for the assessment of alternative sites from the emergency planning perspective; the ISG staff indicated that it was considering evacuation time estimates as an indicator that would provide insight in this area. The NRC staff also indicated that it was working with the Federal Emergency Management Agency (FEMA) to develop criteria for review of emergency planning issues related to siting.

The ISG staff discussed the need to interact with local and State entities in terms of participation in emergency planning activities. The NRC staff indicated that interactions with local and State governmental entities extended to other permitting and hearing processes in addition to emergency planning. The NRC staff reiterated that granting an ESP governs actions under the Commission's purview, not under any other applicable laws and that the interaction with governmental entities at the earliest stages of consideration of a region of interest is the preferred course of action.

A handwritten signature in dark ink, appearing to read "Barry Zalcmán", with a stylized, flowing script.

Barry Zalcmán, Senior Project Manager  
License Renewal Project Directorate  
Associate Directorate for Advanced Reactors  
and License Renewal

Enclosures:

1. Attendee's List
2. Meeting Handout

NRC MEETING WITH THE INDUSTRY SITING GROUP  
TARGETED SITING ISSUES - REGULATORY AREAONE WHITE FLINT NORTH 17-G-27  
September 3, 1992 3:00 P.M.

NAME	AFFILIATION
L. B. Long	Southern Nuclear
D. M. Crutchfield	NRC/NRR/ADAR
M. G. Malsch	NRC/OGC
R. W. Bishop	NUMARC
J. P. Ronafalvy	NUMARC
S. T. Gray	EPRI
G. S. Mizuno	NRC/OGC
M. H. Finkelstein	NRC/OGC
B. Zalcmán	NRC/NRR/PDRE
W. Pasedag	DOE
L. Soffer	NRC/RES/SAIB
J. Santucci	EPRI
F. M. Akstulewicz	NRC/NRR/PDRE
R. A. Erickson	NRC/NRR/PEPB
F. Kantor	NRC/NRR/PEPB
M. E. Lopez-Otin	NRC/OSP/FL
S. C. Droggitis	NRC/OSP
J. N. Wilson	NRC/NRR/PDST
R. L. Rothman	NRC/NRR/ESGB
R. B. Uleck	NRC/NMSS/LLWB
J. J. Hayes	NRC/NRR/PRPB
J. Liaw	Halliburton-NUS

## **NRC/INDUSTRY MEETING**

Early Site Permit General Principles  
and  
The Use of Plant Parameters Envelopes  
for Early Site Permits

Louis B. Long

Southern Electric International Corporation

## Early Site Permit General Principles and the Use of Plant Parameter Envelopes for ESP Applications

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NRC agreement for the ESP general principles is an important milestone for the October 1992 conference.

NRC acceptance of the concept and the use of plant parameter envelopes for the preparation of an ESP application is an important element of a viable ESP process.



# **EARLY SITE PERMIT**

General Principles

Robert W. Bishop

Nuclear Management and  
Resources Council, Inc.

## PURPOSE OF EARLY SITE PERMIT

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- New licensing process to achieve early resolution of site-related issues
- Does not create new substantive requirements

## APPLICANT

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- Applicant need not be a utility
- Financial qualification requirements commensurate with ESP responsibilities
- ESP can be amended to add or substitute another entity

## APPLICATION

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- Site description
- Assessment of site features affecting the design
- Seismic, meteorological, hydrologic and geologic characteristics
- Redress plan required if site preparation activities planned

## APPROVAL PROCESS

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- An ESP is a partial construction permit and the same licensing process pertains
- The application will be docketed and a notice of hearing issued
- Any hearing conducted will be an adjudicatory proceeding before an ASLB
- Criteria for approval is meeting the AEA and NRC regulations
- ESP valid for 10-20 years, and further if referenced in CP or COL filed within ESP term
- ESP may be renewed for 10-20 years; renewal criteria is whether continues to meet requirements valid at issuance and new requirements if substantial increase in safety justifies direct and indirect costs



# NEPA REQUIREMENTS

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- Full NEPA analysis will be conducted by NRC in accordance with 10 CFR Part 51
- Scope will be evaluation of environmental impacts of construction and operation of plants with characteristics within postulated site parameters
- Severe accident design issues will be resolved in DC, not ESP
- ESP NEPA analysis will be conclusive as to environmental impacts of nuclear plant(s) at that site

## ISSUE FINALITY

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- Once ESP issued, new requirements cannot be imposed unless necessary to bring into compliance or assure adequate protection
- A COL applicant may request a variance from the ESP; the criteria to be applied was that associated with the original (or renewed) site permit
- In subsequent proceeding, challenges to ESP limited to contention that reactor is not within site parameters or a petition that the site is not in compliance with the ESP or that the ESP should be modified
- A petition alleging non-compliance must be based on "hard" data and, if not otherwise resolvable, the generic issues of material fact raised will be litigated
- A petition to modify the ESP will be processed under 10 CFR Section 2.206

# EMERGENCY PLANNING

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- Application must identify any significant impediments to emergency planning
- Applicant may request approval of major features of emergency plan or complete an integrated emergency plan
- Arrangements with applicable local, state and federal government agencies must be described and certifications of participation sought
- Applicant can supplement local and state participation with utility plan

## ROLE OF STATE AND LOCAL GOVERNMENTS

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- Granting of ESP does not change legal authority of state or local agencies (e.g., environmental permits, need for power)
- Full state and local participation in emergency planning desirable
- State, local and public participation provided for in adjudicatory process