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DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233



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Dear Dr. Held:

The State of New York has completed its review of the U. S. Nuclear Regulatory Commission "Early Site Reviews for Nuclear Power Facilities Draft" (NUREG-0180 draft revision, Feb., 1978). In preparing the enclosed comments, we have taken into consideration the views of all concerned State Agencies.

The concept of an early site review is good, since the objective is to facilitate the power plant siting process while addressing the environmental aspects of such siting at the earliest phase in planning. New York State is in the process of developing an early site review procedure as well. However, there are several potential difficulties which may arise which should be thoroughly considered before implementation of such a procedure.

There is a potential for early site reviews to unnecessarily reduce the value of nearby land and land along the right-of-way of the associated transmission lines. Prior to adopting ESR regulations, NRC should fully assess this problem including the preparation of an environmental impact statement under NEPA.

It is conceivable that, for certain sites, inadequate background data exists to arrive at a reasonably accurate conclusion as to site suitability. There should be a provision that NRC will not conduct a review under those circumstances. Also, it should be emphasized that a positive early site determination will be superseded by the applicant's in-depth sampling and modeling efforts. The results of an early positive site determination should not be referenced in the CP hearing process to rationalize reversal of a negative determination which may result from the applicant's study.

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Acknowledged by card. 6/8... J. J. L.

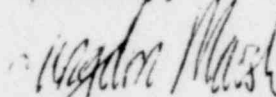
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In addition, the issuance of a positive finding of a single site for a nuclear plant may conflict with the New York State requirement (Article VIII Law) that alternate sites and alternate sources of energy must be considered. For instance, a site suitable for a nuclear power plant (distant from population centers) may not be suitable for a coal-refuse derived fuel (RDF) plant, which may, for economy, have to be sited near population centers for an adequate source of refuse. Therefore, suitability of alternate sites should be addressed in an ESR with respect to suitability for both nuclear and coal-RDF plants.

Coordination of site reviews with responsible State and Federal agencies should be stressed for all phases of the process. This is important not only to avoid duplication of effort but to provide technical and legal input to the review.

We appreciate the opportunity to comment on this draft and we look forward to reviewing your revised draft.

Sincerely,



Langdon Marsh
First Deputy Commissioner

Dr. E. E. Held
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Washington, D. C. 20555

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Comments of the
State of New York
on the
U.S. Nuclear Regulatory Commission

"EARLY SITE REVIEWS FOR NUCLEAR POWER FACILITIES;
PROCEDURES AND POSSIBLE TECHNICAL REVIEW OPTIONS"

(NUREG-0180 Draft Revision, Issued February, 1978)

May 22, 1978

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(1) General Comment: While it is hoped that many items could be disposed of in an early site review with limited facility information, it is also felt that early site review items should be verified to assure that the findings have not been substantially affected by new or more detailed information. The Aquatic Impact section (pp. V-6 to V-11), for example, implies that ESR decisions should generally be accepted with but minimal review of changes which may have occurred since their issuance.

(2) General Comment: The further we have proceeded with evaluations of proposed facilities in the New York State power plant siting process, the more important careful, detailed evaluation of specific facilities at specific sites has been found to be. Facilities which might be acceptable at one location may constitute a significant intrusion at another. It is, therefore, felt that an early site review should not be used as a basis for permitting site preparation activities unless it is essentially as thorough and complete as a construction permit review in all critical areas affecting acceptance of the site for development.

(3) General Comment: An early site approval should require that the "site and facility" eventually proposed conform rather closely to the early site review conclusion and should set a time limit for the initiation and completion of construction. The time limit should depend upon the specific location and other activities which had been considered in the early approval of the site. A ten year term for initiation of construction should be the maximum limit, but on a site-specific case-by-case basis, the term established might be much shorter.

(4) General Comment: While New York siting procedures contemplated early consultation between the applicant and staffs of the responsible agencies, they

do not provide a basis upon which an applicant can be assured that any decision by a staff member will be adopted by a State Siting Board after all relevant factors have been considered as they interact with each other.

(5) General Comment: The Early Site Review draft provides both a discussion about the revision of NUREG-0180 and information related to the actual content of the revised document. It would facilitate review of the draft (or any future drafts) if a clear distinction was made between these two types of information.

(6) General Comment: In light of the recent agreement between the Nuclear Regulatory Commission and the Departments of Environmental Conservation and Public Service and the Siting Board, it is not clear as to the applicability of the procedures and technical review options in this draft document for New York State. It is expected that these agreements will be expanded to accomodate the early siting procedures once they become effective.

(7) General Comment: An early site review should involve the other presently feasible source of energy - coal (with refuse derived fuel) to provide a meaningful site review. This is not beyond the scope of NRC's responsibility for site review and approval. In New York State, the State power plant siting process requires consideration of alternate energy sources in power plant applications.

(8) General Comment: All parties to a power plant siting case should be given the opportunity to submit, in writing, objections to statements made in the ESR application. These comments would then become part of the application so that the reviewing agency would have access to these comments at the proper time. This could prove especially useful if the formal review does not commence for several years.

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(9) General Comment: As in all NRC reviews, consideration of auxiliary boiler air quality impacts have been completely ignored. Although impacts will likely be small under most circumstances, certain conditions, such as location in non-attainment areas, unusual topography, unusual meteorological conditions, or structure-induced downwash, could present problems which should be addressed.

(10) General Comment: The report repeatedly mentions the term "conservative design." This term should be clearly defined. It is not clear whether this refers to economic or environmental conservatism. In addition, the parameters to which conservatism must be applied should be stated. Also, the applicant should be required to provide an analysis of the degree of conservatism inherent in the proposed design.

(11) General Comment: Reference should be made to the need to compare alternate sites. This is mandated in the New York State power plant siting law.

SPECIFIC COMMENTS

(12) Page I-1, Introduction: Provision of a process for consideration of special issues relative to the suitability of a site is very appealing. It is our view, however, that most issues cannot be considered in isolation, but should be considered only in the context of associated project features or of an entire facility. For example, the acceptability of a cooling tower to meet a thermal discharge problem must, at the very least, deal with fishery impacts, atmospheric emissions, visual intrusion, facility layout, impacts of the tower on fauna and flora, and costs of such an installation.

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Any early site review procedures should clearly show that information on impacts of any related facilities should also be considered in reaching decisions. An alternative would be to permit NRC to refuse to act on a request unless appropriate related information is also provided.

(13) Page II-1, Discussion of ESR Procedures... The limitation that "an Early Site Review should be conducted prior to and separate from the detailed review of the design features of the facility" (in the second paragraph) appears to be in conflict with the statement in the previous chapter (middle of page I-1) that a "review may be conducted either separate from or in conjunction with a proceeding for the issuance of a permit authorizing the construction of a nuclear power facility."

Our present practice in New York State has been to avoid partial decisions once a formal application has been filed. We would, therefore, favor the provision on page II-1 rather than the one on page I-1.

(14) Page II-4, Review Process: Since a Staff Site Report (SSR) may cover only a portion of the issues which must be considered in a Construction Permit (CP) Review, it is our view that an SSR should be re-examined for its consistency with the entire range of considerations required by a CP review, regardless of whether more or less than five years have elapsed.

(15) Page II-5, Intergovernmental Coordination: The qualification that NRC may decline to make an ESR if a state or local government body objects is appropriate.

Present New York site approval procedures do not provide for early reviews, although prospective applicants are encouraged to consult with New York State Regulatory Agency staffs on the scope of field surveys and procedures. Recognition of the limitations of state procedures in this regard will help to

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avoid conflicts between a state and the NRC as to the amount and type of information required for early site determinations.

(16) Page II-5, Intergovernmental Coordination: Since it is recognized that an ESR may be revised if new information becomes available, and a determination must be made as to whether new information has become available, the five-year term appears inappropriate. We suggest:

The partial decision of the ASLB or the conclusions of the Staff Site Report must be verified by the applicant at the time it applies for a construction permit. The applicant should show that no significant new information that substantially affects the earlier conclusions has been found to exist.

(17) Page II-6, Intergovernmental Coordination: Early site reviews which include requests for 316 (a) exemptions may present particular difficulties. New York certificate application requirements provide that field studies must be fairly recent (terminate not more than six months prior to the application).

A survey conducted at a substantially earlier date would not comply with this requirement and would generally require that additional recent data be collected and provided. We would want to consider any such earlier data collections, and a variance can be given if the data does not exactly meet this requirement. However, in the determination of a 316 (a) exemption we would be quite reluctant to limit our consideration to aquatic data which was 2, 3 or 5 years old at the time of the actual application.

In addition, a 316 (b) determination would be needed if a 316 (a) exemption were requested. It is as critical to have recent information for the intake determination as it is for the discharge permit.

It is doubtful that EPA would accept aquatic data as old as five years.

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At the very least, some additional monitoring data updating the original study should be required at the time the construction permit request is filed. We suggest that the following be added at the middle of the page:

The baseline studies would have to be updated if more than 2 years old at the time the construction permit is requested.

(18) Page II-6, Intergovernmental Coordination: In addition to "desirable" coordination with the State's Coastal Management Program, it would also be suggestive to coordinate review process with the State's 701 Land Use and Housing Elements as adopted by Governor Carey.

(19) Page II-7, Content of Reports: Additional report to accompany submittals should include a report "Site Suitability -- Comprehensive Planning" which would assess and confirm not only the need for the project but also provide consistency with State's projected demographic projections and growth interests.

(20) Page II-7, Content of Reports: Since Regulatory Guide 4.2 and Chapter 2 of Regulatory Guide 1.70 will be the basis for the concurrent construction permit request or for a later construction permit request, the appropriate parts of the guide should be recognized as the most appropriate guidance for the format and content of early site review requests. This would help to assure that the consideration given to various items in the early site review would be consistent with the consideration required for the later construction permit review.

(21) Page II-8, Tenure of Approval: While an applicant would obviously find a five-year guarantee on an early site review desirable, conditions can sometimes change more rapidly than that. It is recommended that where an early site review determination is more than two years old the applicant should be required to file a statement (or testimony in the case of New York State)

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regarding his assessment of whether any new information has developed which might affect the items covered by an early site review on which it proposes to depend. It is to be presumed that a construction permit application filed shortly after an ESR decision had been reached would have little or no new information while one filed five or more years later might have considerable new information.

(22) Page II-8, Mode of Approval: Suggest including "local" to public hearing.

(23) Page II-9, Public Hearings: Although intergovernmental coordination is included in the review process, further State and local involvement should be presented, e.g., A-95 and local hearings (Public Hearings are stated, but not in terms of their location). It is assumed they mean to be local and not in D. C., but this should be clarified.

(24) Page II-15, Review Options: It is stated that the decision on how much conservatism to assume remains the prerogative of the applicant. This implies that, if a less conservative analysis is presented (based on sufficient data) that the plant may be approved with this less conservative design. This is not acceptable, since sufficient conservatism should be built into plant design to account for unexpected anomalies which were not measured during the limited sampling program.

(25) Page II-18, Review Options: Page II-18 should include the A-95 process with "more efficient reviews by the NRC staff." "Public" should emphasize local public hearings.

(26) Page III-3, Postulated Information: We agree that "There will be a need later in the facility design review to verify those Early Site Review conclusions..." The various suggestions that ESR decisions are valid for up

to five years appear to be in conflict with this view. We recommend that any reference to the effective duration of an ESR decision be deleted and that the results of any ESRs be considered on their merits in subsequent evaluations.

(27) Page III-5, New Information: The EPA has strenuously objected to a state regulatory agency developing information to make an applicant's case under 316 (a) or 316 (b). The proposal that the NRC staff be required to identify new information could be in conflict with the expressed views of EPA if the new information were to be used by a state as the basis for relaxing a control requirement. Rather, the responsibility rests with the applicant to present an affirmative case.

The applicant should be required to (1) review the prior decision, and (2) include a statement as to whether (A) there is new information, and (B) the previous decision is still valid. If new information is introduced, the applicant should explain why it should be considered and what adjustments are required. The NRC staff and others could always introduce new information. This approach would appear to provide a sounder basis for assuring that new information relative to an earlier ESR will be adequately considered.

It is reasonable that reconsideration be limited to only those conclusions to which new information is relevant. If an early site review has been thorough, it is "less likely that new information of sufficient substance to cause reconsideration of the original site suitability decision will be identified at the facility review stage," (Page III-6).

(28) Page IV-2, SSR - Public Health and Safety Issues: It is stated that "less site-specific data" and "less detailed analysis" are required for the determination of a "conservative...design basis parameter." It is felt that this statement is likely to be misinterpreted and considered an invitation to avoid careful evaluations of proposals and/or alternatives in ESR procedures.

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It is our view that the emphasis in the subject document should be on the use of careful, detailed analyses of specific sites and facilities to the extent practical in early site reviews. It is suggested that the referenced sentence be revised to read:

Generally more site specific data and more detailed analysis are required to fine tune a design basis parameter.

(29) Page IV-3 and V-3, Meteorology: The ESR should be expanded to include Air Quality as well as Meteorology. An adequate air quality as well as meteorological data base is essential for an adequate determination of site suitability - especially with respect to cooling tower drift and auxiliary boiler impact. Although off-site air quality and meteorological data may be adequate for a "first-cut" Early Site Review, care should be taken to use only data which can be expected to be (or is shown by a short term study) representative of the air quality impact area. In cases where such data is not available, an ESR would be difficult, if not impossible.

- (30) Chapter IV:
- Section 2.4.13 Groundwater
 - Section 2.5.1 Basic Geologic and Seismic Information
 - Section 2.5.2 Vibratory Ground Motion
 - Section 2.5.3 Surface Faulting
 - Section 2.5.4 Stability of Subsurface Materials and Foundations
 - Section 2.5.5. Stability of Slopes
 - Section 2.5.6. Embankments and Dams

"Groundwater" should be considered as a dynamic system, upon which the facility may depend, on the one hand, and upon which the facility might impinge, on the other. It should be considered to be more than another factor affecting site suitability. In some cases, ground-water resources may be highly vulnerable to overdraft, contamination, or similar abuse which could affect, indirectly, options for other economic developments in the same area or locale.

To round out the geotechnical areas of review, it is suggested that a new action be added covering geological processes. This would include stream and wave erosion and sediment transport as dynamic systems, which, if altered, could cause secondary off-site impacts upon existing developments or could preempt alternative future developments.

(31) Page IV-3, Outline of Technical Review Areas, Section C: It is indicated that ... "one example will be developed." This section deals with public health and safety issues, and focusses primarily on reactor and "in transit" radioactive materials accidents. We feel that it would be appropriate, even at the Early Site Review stage, for the applicant to recognize State Highway Permit requirements for transport of overweight or oversize volumes of radioactive or other hazardous materials, and for use of State right-of-way for construction activities or permanent access points.

(32) Page IV-4, Hydrologic Characteristics - Examples Provided: An important aspect of early site review is the consideration of hydrologic variables at a proposed site as compared to design provisions which have been employed at other approved sites, thereby providing a basis upon which a potential site can be evaluated before significant effort has been expended on the engineering design for the facility. While this procedure for early site review would increase the licensing time for a facility, it would reduce the financial exposure of the applicant and permit it to pursue its detailed engineering design with greater confidence that environmental factors will not require a major revision late in the project design effort.

This is recognized as desirable, but only if there are suitable safeguards to assure that site development will not be allowed until any permitted activities are definitely shown to fit the final plan.

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(33) Page IV-13, Section 2.4.10, Flooding Protection Requirements: This section calls for consideration of the alternatives available, including a brief description and comparison of costs where unique. It is felt that greater effort should be placed on the consideration of alternatives so that the judgements made are clearly evident. This approach (comparison of alternatives) should be generally applied rather than just when the situation is "unique".

(34) Chapter V, Site Suitability Reviews - Environmental Protection Issues:

The following should be addressed in either general early site reviews or those specifically meant to address transportation issues.

- a. highway use permits for oversize or overweight vehicles, including hazardous materials and construction vehicles.
- b. highway right-of-way access permits for construction activities and permanent access points.
- c. the need for highway and bridge construction necessary for adequate access to the site for construction vehicles and workers.

(35) Page V-6, Intake System: Any Early Site Review should discuss how the reconnaissance level information relevant to a particular site will be utilized in development of the engineering design of the intake system. This section indicates that such information will be considered in the location of the cooling water intake but fails to discuss whether and how such information will be considered in the design of the intake system.

(36) Page V-8 to V-9, Aquatic Impacts: Reference should be made to the possibility of use of fish return systems.

(37) Page V-8, Section 5.2.1.2, Aquatic Impacts: This outline deals with aquatic populations, primarily fish, which reside in the water. However, many organisms, notably waterfowl, also use the surface of the water. The impacts of the cooling system on the use of water bodies for nesting or as migration nesting

spots by waterfowl must be addressed in an environmental impact analysis.

(38) Page V-9, Part 1, Aquatic Impacts: The ESR should recognize and address any local, state, and interstate water use plans that may exist.

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