

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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COMMISSIONERS:

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Peter B. Lyons

In the Matter of)
)

SYSTEM ENERGY RESOURCES, INC.)

Docket No. 52-009-ESP

(Early Site Permit for Grand Gulf ESP Site))
)
_____)

CLI-07-14

MEMORANDUM AND ORDER

Today we approve the issuance of an Early Site Permit (ESP) for the Grand Gulf ESP site.

I. BACKGROUND

System Energy Resources, Inc. (SERI), filed its application for an ESP for the Grand Gulf, Mississippi site in 2003. Although a group of intervenors sought intervention, none of the group's contentions were found to present a litigable issue in this proceeding.¹ Thereafter, the proceeding was uncontested but still subject to a mandatory hearing under the Atomic Energy Act.²

In support of our review, the Commission asked the NRC Staff and SERI to respond to

¹ See LBP-04-19, 60 NRC 277 (2004), *aff'd* CLI-05-4, 61 NRC 10 (2005).

² See AEA, §189a, 42 U.S.C. §2239(a).

three specific findings in the Board's Initial Decision,³ and invited them to provide comments on any other matter of concern.⁴ Because we have confidence in our Staff's review, no party has brought any other issue to our attention, and we see no additional issues, we have confined our discussion to the three issues we specified.

II. ISSUES ON REVIEW

A. Deferral of Site Characterization Relating to Radionuclide Transport

We asked the parties to respond to the Board's observations about deferring any further site characterization relating to radionuclide transport until the construction permit or combined license (COL) stage.⁵

The Staff proposed to include in the ESP a Permit Condition 2 "requiring that an applicant referencing such an ESP design any new unit's radwaste systems with features to preclude any and all accidental releases of radionuclides into any potential liquid pathway."⁶ In its response to our briefing order, SERI proposed that the scope of the proposed permit condition be clarified.⁷ We agree that a modification of Permit Condition 2 is warranted.⁸ We

³ LBP-07-1, 65 NRC __ (Jan. 26, 2007).

⁴ CLI-07-07, 65 NRC __ (Feb. 15, 2007).

⁵ We note that SERI agreed, in its response to the Commission, that deferral of certain further site characterization to the COL stage is appropriate. System Energy Resources, Inc.'s Response to Commission Order Regarding Atomic Safety and Licensing Board's Initial Decision (Feb. 22, 2007) (SERI's Response), at 2-3.

⁶ See NUREG 1840, Safety Evaluation Report for an Early Site Permit (ESP) at the Grand Gulf ESP Site (Apr. 2006), App. A at A-2.

⁷ SERI's Response, at 9-10.

⁸ The Board raised a number of questions and concerns about the intent and effect of the "any and all" terminology. See LBP-07-1, slip op. at 34-38. In the proceeding on the issuance of an ESP for the Clinton ESP site, the Board in its Initial Decision noted that similar permit condition language precluding "any and all" releases was so broad as to be "unachievable as a practical matter and, therefore, may be unenforceable as a legal matter" LBP-06-28, slip op. at 40.

revise Permit Condition 2 to require, as a condition of the grant of the ESP that: “radioactive waste management systems, structures, and components, as defined in Regulatory Guide 1.143, for a future reactor include features to preclude accidental releases of radionuclides into potential liquid pathways.” As we did in *Clinton*, the Commission cautions the Staff that a more functional, performance-oriented approach, when adequate, is likely to avoid the questions of interpretation and practicality that have arisen in this case.

B. Deferral of NEPA Analysis of Short-term Damage and Commitments of Resources

We asked the NRC Staff and SERI to respond to the Board’s view that the Staff finding that an ESP by its nature can have no short-term damage to the environment and involves no commitment of resources was inconsistent with CEQ regulations.⁹ The Board said the NRC Staff’s position violated the CEQ regulation requiring agencies to consider the environmental effects of “related” actions.¹⁰ According to the Board, the construction and operation of a power plant should be considered an action “related” to issuing an ESP. The Board found, however, that this inconsistency did not preclude issuing the ESP because the NRC Staff considered the issue unresolved and deferred to the COL stage.¹¹

We disagree with the Board’s suggestion. In our view, the Staff’s finding is correct: the effects of short-term damage to the environment cannot be meaningfully assessed at the ESP stage because such an inquiry requires weighing the short-term damage against long-term benefits of the project, and the long-term benefits cannot be assessed until the construction permit or COL stage. As of now, it is not even known what the electrical output of the selected unit will be. Similarly, an assessment of the irretrievable commitment of resources – *i.e.*,

⁹ See LBP-07-1, slip op. at 96.

¹⁰ 10 C.F.R. § 1508.27(b)(7).

¹¹ See NUREG 1817, Environmental Impact Statement for an Early Site Permit (ESP) at the Grand Gulf Site (April 2006), at 10-6.

construction resources – will not be known until a particular reactor design is selected. Because the Staff merely deferred these narrow questions to a time when they can be accurately assessed, we find the Staff's actions consistent with NEPA's requirements.

C. Effect of Power Level Selection on Environmental Analysis

We asked the NRC Staff and SERI for comments on the Board's finding that any power level selected at the COL stage other than the 2,000 MWe target value used in the alternative energy analysis would constitute new information that, if found to be significant, would have to be evaluated at the COL stage.¹² Both the NRC Staff and SERI agree with the Board's assessment.¹³

For purposes of comparing alternative sources for generating power, the Staff compared the environmental impacts of a nuclear reactor generating approximately 2000 MWe against the impacts caused by other types of generating facilities generating approximately 2000 MWe. At the hearing, expert witnesses for both the NRC Staff and SERI acknowledged that selection of a different size plant would be new information.¹⁴ In that situation, SERI says that it would inform the NRC Staff of the new information and perform its own analysis of whether the information is significant in terms of whether it could affect the EIS's alternatives analysis.¹⁵ In other words, simply because the reactor design selected by SERI might have a different MWe value at the COL stage than what was assumed at the ESP stage does not

¹² LBP-07-1, slip op. at 66.

¹³ Staff Brief in Response to CLI-07-07, at 8; SERI's Response, at 8.

¹⁴ See, e.g., statement of Kathryn M. Sutton, applicant's attorney, at Tr. at 361 ("It's a certainty that [a different Mwe target value] would be new. Its not a certainty for all parameters that it would necessarily be significant").

¹⁵ See SERI's Response, at 8-9. Testimony of John Cesare, for applicant, Tr. at 349-52, 354-57.

mean there would have to be a full re-analysis of alternatives. That would depend on SERI's (and the NRC Staff's) significance analysis.

We agree with the parties that a different power level would be new information that would have to be evaluated to determine whether or not it is significant.

III. CONCLUSION

For the foregoing reasons, we authorize the staff to issue the ESP, subject to the direction in this memorandum and order.

IT IS SO ORDERED.

For the Commission

/RA/

Andrew L. Bates
Acting Secretary of the Commission

Dated at Rockville, MD
this 27th day of March, 2007