

BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF)
) Docket No. 50-458-LR
ENTERGY OPERATIONS, INC.)
) November 13, 2017
(River Bend Station, Unit 1))

**SIERRA CLUB'S REPLY TO ANSWERS OPPOSING SIERRA CLUB'S
PETITION TO INTERVENE**

INTRODUCTION

Sierra Club filed a petition to intervene in the license renewal proceeding regarding the River Bend Station. Entergy Operations, Inc. and the NRC Staff have filed Answers opposing Sierra Club's intervention.

Neither Entergy nor the NRC Staff have objected to Sierra Club's standing to intervene. Their only argument is that Sierra Club's contentions are not admissible. For the reasons set forth below, Sierra Club's contentions are admissible.

CONTENTION NO. 1 IS ADMISSIBLE

Contention 1 states:

The environmental report submitted by Entergy Operations does not properly and adequately state a purpose and need for the relicensing of River Bend Station.

As explained in Sierra Club's Petition to Intervene, the brief two-paragraph statement of purpose and need in Section 1.0 of the ER simply quotes from an NRC guidance

document. Regulatory Guide 4.2, Supplement 1, Revision 1, Preparation of Environmental Reports for Nuclear Power Plant License Renewal Applications (NRC 2013a, page 10).

That document states that "the purpose and need for the proposed action (i.e., the issuance of a renewed nuclear plant operating license) is to provide an option that allows for baseload power generation capability beyond the term of the current nuclear power plant operating license to meet future system generating needs." In other words, based on that statement of purpose and need, the issuance of the renewed license is a foregone conclusion.

Furthermore, the statement of purpose and need in the NRC guidance document is a generic statement with no reference or applicability to the specific circumstances of a particular reactor. The only inference of applicability to a specific reactor is reliance on other state and federal agencies. In fact, the purpose and need described by the NRC Staff in its Answer (p. 18-19) is "preserving continued operation of a nuclear power plant." The only way to interpret that statement is that the purpose and need preordains license renewal as the only alternative that meets the purpose and need.

Therefore, the NRC's purpose and need statement is so narrow that only one alternative would satisfy it (renewing

the license). Indeed, the NRC guidance specifically says the purpose and need is "the issuance of a renewed nuclear plant operating license . . . to allow[] for baseload power generation capability beyond the term of the current nuclear power plant operating license"

The purpose and need statement cannot be so narrow as to preclude review of reasonable or relevant alternatives. New York v. U.S.D.O.T., 715 F.2d 732 (2d Cir. 1983); Simmons v. U.S. Army Corps of Eng'rs., 120 F.3d 669 (7th Cir. 1997); Friends of Southeast's Future v. Morrison, 153 F.3d 1059 (9th Cir. 1998). By tying the alleged need for baseload power to the renewal of the license, all other alternatives are effectively precluded.

Nor does the reference to baseload power save the purpose and need from being too narrow. As explained in detail in Sierra Club's Petition to Intervene regarding Contention 2, renewable energy and energy efficiency can supply all the power that is needed when it is needed. The term "baseload" must not be used to limit the discussion to just a stationary central power plant.

Furthermore, Sierra Club's position that renewable energy and energy efficiency qualify as baseload power is not inconsistent with the accepted definition of baseload. Entergy cites the definition of baseload set forth by the

U.S. Court of Appeals for the Seventh Circuit as "energy intended to continuously produce electricity at or near full capacity, with high availability." That is exactly what Sierra Club has explained in support of Contention 2 that renewable energy and energy efficiency will do.

Entergy and the NRC Staff claim that Sierra Club is challenging NRC regulations and that such challenge is outside the scope of this proceeding. But a rule, regulation or policy of an agency cannot be contrary to NEPA. Since the purpose and need requirement has been held to prohibit a purpose and need that is so narrow as to preclude review of reasonable or relevant alternatives, the NRC's interpretation of purpose and need cannot be immune from question. In any NEPA case a party can always challenge the purpose and need.

CONTENTION NO. 2 IS ADMISSIBLE

Contention 2 states:

In examining the no action alternative, the ER improperly failed to include renewable energy and energy efficiency as a consequence of the River Bend license not being renewed.

Although the ER, at Sections 7.1.2.2.1 and 7.1.2.2.2, purport to discuss wind and solar energy as alternatives to renewing the River Bend license, Section 2.6.2 of the ER states that Entergy did not consider these alternatives as

reasonable. Therefore, they were not given serious consideration. Nor was energy efficiency given serious consideration in Section 7.1.2.2.3 of the ER.

The real problem is that renewable energy and energy efficiency were not evaluated in combination as a replacement for River Bend. Section 7.1.2.2.1 of the ER discusses the potential of wind by itself. Likewise, Section 7.1.2.2.2 discusses the potential of solar by itself. And Section 7.1.2.2.3 discusses demand side management (including energy efficiency) by itself. Sierra Club's contention makes clear that its position is that all forms of renewable energy and energy efficiency in combination, together with an adequate transmission grid, must be evaluated as a replacement for River Bend.

Entergy's and NRC Staff's attempt to ridicule Sierra Club's discussion of alternatives to relicensing River Bend as being the same as comments regarding the licensing of Turkey Point 6 and 7 notwithstanding, Sierra Club has presented clear and extensive facts to support its contention that the ER's discussion of alternatives was inadequate. Sierra Club went into great detail, including extensive quotes from the authorities relied on, to ensure that it was providing sufficient information to support its contention.

As noted with respect to Contention 1, the authorities presented by Sierra Club explain that renewable energy and energy efficiency, together with a robust transmission grid, can supply baseload power. And this can be done without any storage. Lack of storage technology was the reason advanced by Entergy in the ER as to why renewable energy was not a reasonable alternative. Furthermore, the authorities relied on by Sierra Club establish that renewable energy and energy efficiency are currently commercially viable, or will become so in the relatively near term.

The problem with Entergy's treatment of renewable energy and energy efficiency in the ER is that each element, wind, solar and demand side management are treated independently in isolation of the other elements. Entergy then concludes that each element by itself will not replace the power from River Bend. Sierra Club's contention, however, makes clear that if all of the elements, wind, solar, energy efficiency, and a robust transmission grid, are combined, River Bend can be replaced. This integration of renewable energy and energy efficiency should have been considered as reasonable for further analysis and not discounted as not being a reasonable replacement for River Bend.

NEPA, through 40 C.F.R. § 1502.14, requires agencies to:

- (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

As shown by Sierra Club's discussion on Contention 2, renewable energy and energy efficiency, taken together, are a reasonable alternative. The very brief discussion in the ER concerning these alternatives is not the rigorous evaluation required by 40 C.F.R. § 1502.14.

CONTENTION NO. 3 IS ADMISSIBLE

Contention 3 states:

The LRA does not undertake an adequate aging management review of the concrete on the containment vessel.

Entergy and the NRC Staff assert that alkali-silica reaction (ASR) was addressed in Sections 3.5.2.2.1.8, 3.5.2.2.2.1, and 3.5.2.2.2.3 of the LRA. Even if that is true, the discussion in those sections of the LRA is extremely brief and simply refers to Entergy's Structures Monitoring Program. This does not address the specific concerns expressed in the information notice, IN 2011-20, referred to in Sierra Club's Petition to Intervene.

Furthermore, the information notice referenced several technical standards that have been updated and should not be relied upon to determine concrete reactivity. The notice says:

As noted above, ASTM has several standards for testing aggregates during construction to verify that only non-reactive aggregates are present, thereby preventing future ASR-induced degradation. However, ASTM issued updated standards ASTM C1260 and ASTM C1293 and provided guidance in the appendices of ASTM C289 and ASTM C1293 that cautions that the tests described in ASTM C227 and ASTM C289 may not accurately predict aggregate reactivity when dealing with late- or slow-expanding aggregates containing strained quartz or microcrystalline quartz. Therefore, licensees that tested using ASTM C227 and ASTM C289 could have concrete that is susceptible to ASR-induced degradation.

The discussion in the River Bend LRA makes no reference to any of these standards or any indication that the concerns set forth in the information notice are being addressed at River Bend.

CONCLUSION

Sierra Club's contentions should be admitted for adjudication by the ASLB.

/s/ *Wallace L. Taylor*

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CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305 (revised), I hereby certify that copies of the foregoing Reply to Answers Opposing Sierra Club's Petition to Intervene dated November 13, 2017, have been served upon the Electronic Information Exchange, the NRC's E-Filing System, in the above captioned proceeding, on this 13th day of November, 2017.

/s/ *Wallace L. Taylor*

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