

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD PANEL

In the Matter of

South Texas Project Nuclear Operating Co.

Application for the South Texas Project

Units 3 and 4

Combined Operating License

Docket Nos. 52-012, 52-013

May 9, 2011

**INTERVENORS' INITIAL STATEMENTS OF POSITION IN SUPPORT
OF CONTENTIONS CL-2 AND DEIS-1**

Pursuant to 10 C.F.R. § 2.1207(a)(1), this Board's Initial Scheduling Order entered October 20, 2009, and this Board's Memorandum & Order of March 11, 2011, the Intervenor offers their initial statements of position in support of Contentions CL-2 and DEIS-1.

Introduction

On February 28, 2011, in LBP-11-07 motions for summary disposition were denied related to Contention CL-2¹ and Contention DEIS-1 was admitted under 10 C.F.R. §

¹ Contention CL-2 is the subject of Staff's petition for review filed with the Commission on March 15, 2011. Applicant filed its answer in support of the petition for review on March 24, 2011. Intervenor answered in opposition on March 25, 2011. On April 15, 2011, the Commission entered an order extending the time for review of the petition until further order of the Commission. No further Order has been entered as of May 9, 2011.

2.309(f)(1)(i-vi). Pursuant to this Board's Memorandum & Order of March 11, 2011, these contentions are now the subject of an evidentiary hearing set to commence on August 17, 2011.

Burden of Proof for Evidentiary Hearing

The Administrative Procedure Act, 5 U.S.C. § 556(d) and 10 C.F.R. §2.325 require that the burden of proof is on the proponent of a rule or order. As for Contention CL-2, the Applicant has the burden of proof and persuasion because it seeks a license on the basis of its Environmental Report that asserts no SAMDAs are cost effective.² As for Contention DEIS-1, the Staff bears the burden of proof for issues related to environmental impact statements.³

Under National Environmental Policy Act (NEPA) , 42 U.S.C.A. §§ 4321-4347, the environmental impact statement must contain sufficient discussion of relevant issues and opposing perspectives to allow decision makers and the public to take hard look at environmental impacts and to make reasoned decisions. An EIS must be sufficiently adequate to enable those who did not participate in its preparation to understand the environmental factors involved with the proposed action.⁴

Standard of Proof for Evidentiary Hearing

The standard of proof in this adjudication is preponderance of the evidence.⁵

² 5 U.S.C. § 556(d), 10 C.F.R. §2.325

³ 10 C.F.R. §2.732

⁴ *Limerick Ecology Action, Inc. v. U.S. Nuclear Regulatory Com'n*, 869 F.2d 719, 737 (1989), rehearing denied,(internal cites omitted).

⁵ “[T]o prevail on ... factual issues, the ... position must be supported by a preponderance of the evidence”; *Tennessee Valley Authority* (Hartsville Nuclear Plant, Units 1A, 2A, 1B, and 2B), ALAB-463, 7 NRC 341, 360 (1978)

Contention CL-2

Contention CL-2 raises issues under the Applicant's analyses of severe accident mitigation design alternatives (SAMDA).⁶ The underlying purpose of the SAMDA analysis is to consider design alternatives that may bear on whether NEPA's mandate to consider alternatives has been met.⁷ Consideration of mitigation design alternatives is required under 10 C.F.R. § 51.71(d).⁸ Contentions related to SAMDAs are germane to the licensing adjudication if "it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis, whose goal is only to determine what safety enhancements are cost effective to implement."⁹

The general question for the Board is whether "the SAMA analysis resulted in erroneous conclusions on which SAMAs and SAMDAs are found cost-beneficial to implement."¹⁰ As framed by this Board, the issue that emerges from the extant record is "whether Intervenors' challenges to the replacement power costs estimate are bounded by Applicant's SAMDA

⁶ Contention CL-2 states: The Applicant's calculation in ER Section 7.5S of replacement power costs in the event of a forced shutdown of multiple STP Units is erroneous because it underestimates replacement power costs and fails to consider disruptive impacts, including ERCOT market price spikes. LBP 07-11, p.

⁷ 42 U.S.C. §4332(c); *Natural Resources Defense Council v. Nuclear Regulatory Commission*, 606 F.2d 1261, 1271 (1979)(programmatic EIS on storage tank use did not obviate NEPA requirement to consider alternatives in the EIS).

⁸ 10 C.F.R. §51.71(d) provides in pertinent part as follows: "[T]he draft supplemental environmental impact statement prepared at the license renewal stage under § 51.95(c) need not discuss the economic or technical benefits and costs of either the proposed action or alternatives except if benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation."(emphasis added)

⁹ *In the Matter of Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station)*, CLI-10-11, slip op. at 39, 2010 WL 1235387 at *19.

¹⁰ LBP-11-7, p. 10 (citations omitted)

analysis conclusion.”¹¹ Resolution of this issue will be informed by determinations of (1) what inflation rate should be used to adjust SAMDAs costs, (2) whether SAMDA costs should account for regional economic differences, (3) whether Applicant’s projection of market effects caused by loss of all four STP units is reasonable ¹² and (4) whether a 3% or 7% discount rate should be applied to SAMDA costs. ¹³

The SAMDA analysis includes the cost of replacement power in the event there is an outage that causes multiple STP units to cease power generation operations.¹⁴ Intervenors maintain that the Applicant has understated replacement power costs. This understatement causes Applicant’s erroneous replacement power costs to unjustifiably tip the balance against implementation of additional SAMDAs. However, Intervenors’ expert, Clarence Johnson, concludes that because the Applicant has failed to use realistic replacement power costs and does not reasonably consider disruptions in the market, including price spikes, caused by loss of all four STP units, the Applicant’s cost-benefit analysis is not reliable.¹⁵

Mr. Johnson’s methodology utilizes a more refined method of projecting replacement power costs that includes a more precise measurement of inflation and cost of living.¹⁶ Applicant relies on a generic model that lacks the more precise inflation and cost of living calculations and does not account for specifics in the relevant market (Electric Reliability Council of Texas commonly referenced as ERCOT).¹⁷ For instance, some of ERCOT’s unique attributes, including limited interconnectedness with other regions, arguably makes it less able to

¹¹ Id. at p. 20.

¹² Id.

¹³ Johnson Direct Testimony, pp. 18-19.

¹⁴ LBP-11-07, p. 4.

¹⁵ Johnson Direct Testimony, p. 4.

¹⁶ Id. at pp.15-17.

¹⁷ Johnson Direct Testimony, pp. 6-10.

moderate the effects of long-term loss of all STP units by having access to alternate power sources outside ERCOT.

Mr. Johnson's more refined analysis yields a SAMDA cost of \$128,159 - \$131,515.¹⁸ This is below the threshold \$141,211 monetized impact Applicant projects. Accordingly, in the hearing phase, the Applicant needs to demonstrate that Mr. Johnson's conclusion that SAMDA costs calculated with a more precise methodology should be ignored.

Applicant will likely assert that its methodology is not, *per se*, unreasonable and therefore should be accepted as conclusive. And Applicant would be correct but for the fact that the more precise Johnson methodology yields a result that makes a material difference in the cost benefit conclusion. In *Pilgrim* the Commission did not *per se* prohibit application of additional factors or alternative assumptions in considering whether a particular SAMA candidate should be evaluated. "Unless it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis, whose goal is only to determine what safety enhancements are cost effective to implement."¹⁹ The instant case fits the exception described in *Pilgrim*. Mr. Johnson's more precise methodology changes the cost benefit conclusions and shows that SAMDAs are cost effective. Applicant's reliance on the generic methodology may yield the desired result but it does so at the expense of precision.

Unless Applicant's evidence, as developed in the CL-2 motion practice related to contention admissibility and summary disposition, changes substantially in the hearing phase and

¹⁸ Johnson direct testimony, p. 19.

¹⁹ *In the Matter of Entergy Nuclear Generation Co .and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station)*, CLI-10-11, 2010 WL 1235387 at *19.

causes its benefit calculation to fall below Mr. Johnson's SAMDA cost projection of \$128,159 - \$131,515, the Order from this Board should be that Intervenors have established by a preponderance of the evidence that the SAMDA costs are less than projected benefits.²⁰

Contention DEIS-1

Contention DEIS-1 was admitted as an omission contention²¹ and asserts that the Staff's DEIS need for power analysis is deficient because it fails to consider the energy savings associated with the adoption of an energy efficient building code in Texas.²² This contention references the DEIS need for power analysis.²³ However, the FEIS does not make any specific quantifications to correct the deficiency in the DEIS that Contention DEIS-1 addresses.²⁴ Accordingly, Contention DEIS-1 is still germane to this adjudication because Staff does not

²⁰ The Intervenors have the burden of going forward on whether the Johnson SAMDA cost calculation should be (1) accepted because it is more reliable and precise than Applicant's and (2) such cost is less than the Applicant's monetized SAMDA impact. Applicant has the ultimate burden of persuasion. 10 C.F.R. §2.325

²¹ LBP-07-11, p. 48.

²² DEIS-1 states: NRC Staff's DEIS analysis of the need for power is incomplete because it fails to account for reduced demand caused by the adoption of an energy efficient building code in Texas, the implementation of which could significantly reduce peak demand in the ERCOT region. LBP 11-07, p. 48.

²³ The need for power from STP Units 3 & 4 is a germane question under 10 C.F.R. 51.107(a)(3). This point is uncontested. LBP 07-11, p. 44, fn. 240.

²⁴ Neither the DEIS nor the FEIS include any adjustments for energy conservation in the calculated ERCOT reserve margin. See DEIS Table 8-2, p. 8-16 and FEIS Table 8-2, p. 8-18. The FEIS makes no attempt to integrate the quantifications of energy savings despite the uncontested evidence that by 2023 the energy efficient building code will save Texas 2,362 MW of peak summer demand energy annually. See LBP-11-07, p. 43, fns. 236-238. Staff nor Applicant have contested this factual assertion.

consider the energy saving benefits that stem from the energy efficient building code.²⁵

Under 10 C.F.R. 2.337(g)(2)(iv) Staff is to offer into evidence “[A]ny environmental impact statement or environmental assessment prepared in the proceeding under subpart A of part 51 of this chapter by the Director, Office of Nuclear Reactor Regulation, Director, Office of New Reactors, or Director, Office of Nuclear Material Safety and Safeguards, as appropriate, or his or her designee if there is any, but only if there are contentions/controverted matters with respect to the adequacy of the environmental impact statement or environmental assessment.” (Emphasis added) DEIS-1 calls into question the adequacy of the EIS and therefore, it is a document the Staff is required to offer into evidence under 10 C.F.R. 2.337(g)(2)(iv).²⁶

Staff has the burden of proof to establish that the EIS is consistent with the requirements of NEPA.²⁷ Intervenors have the burden of going forward to establish that including savings from the energy efficient building code makes a material difference in the licensing outcome.²⁸

As the Board articulated in LBP-07-11²⁹ the Contention DEIS-1 is material because if the energy efficient building code can effect reductions in demand, as quantified by Mr. Mosenthal, then it is an alternative that could change the licensing decision. To the extent that the energy

²⁵ In any event, the FEIS is required to be considered in the adjudication under 10 C.F.R. 51.74 which states: “The final environmental impact statement, together with any comments and any supplement, will accompany the application or petition for rulemaking through, and be considered in, the Commission's decision making process. The final environmental impact statement, together with any comments and any supplement, will be made a part of the record of the appropriate adjudicatory or rulemaking proceeding.”

²⁶ Staff has not specified the the DEIS in its exhibit list though it does include the FEIS at NRC00003A-D. Intervenors have included the DEIS in its exhibit list.

²⁷ 10 C.F.R. 2.732

²⁸ LBP-07-11, p.46, fns. 251 and 252.

²⁹ LBP-07-11 at p. 46.

efficient building code can offset a substantial portion of the capacity of STP 3 & 4 the Staff's assessment of the need for power has been overstated by Staff.

Intervenors rely on the testimony of Phil Mosenthal to demonstrate that the projected savings in 2025 of 2,805 MW in peak demand materially alters the need for power from STP Units 3 & 4. Mr. Mosenthal discusses this question at pp. 9-11 of his testimony. His conclusion is that "given ERCOT's estimates of forecasted load, the energy reductions that will come from building codes and standards, and ERCOT's projections of generating capacity. Rather, ERCOT should enjoy an excess reserve margin as late as 2020 (without retirements) after taking these issues into account, resulting in no need for additional power."³⁰ The Mosenthal analysis of the need for power is conservative based on the totality of the ERCOT circumstances.³¹

To the extent that Mr. Mosenthal's analysis and conclusions regarding the need for power are accepted by this Board, the Staff's and Applicant's conclusions regarding the need for power should be rejected. An alternative to STP Units 3 & 4 exists in the form of the energy efficient building code. This alternative is practicable, as demonstrated by its adoption in Texas, and demonstrates quantifiable reductions in demand. In contrast, the Staff attributes no quantifiable savings to the building code and does not include such in its EIS Tables 8-2. The failure to fully consider the effects of the energy efficient building code violates NEPA.³² The drastic difference in Staff's determination that the savings from the energy efficient building code are not significant enough to attempt to quantify and Mr. Mosenthal's empirically based conclusions that such could cause savings of more than 2,800MW calls into question the adequacy of Staff's analysis

³⁰ Mosenthal Direct Testimony, p. 17.

³¹ Id. at pp. 14-16.

³² *Ohio River Valley Environmental Coalition V. Kempthorne*, 473 F.3d 94, 102 (5th Cir. 2006)(agency decision that does not consider relevant factors is a clear error of judgment.

of this question. This is particularly noteworthy because Staff did not contest the energy efficient building code savings asserted in the original contention.³³

The Board's order should find and conclude that the Staff's EIS is defective because it did not consider these energy efficient building code savings.

Respectfully submitted,

/s/Robert V. Eye
Robert V. Eye
Kauffman & Eye
123 S.E. 6th Ave., Suite 200
Topeka, KS 66603
785-234-4040
E-mail: bob@kauffmaneye.com

³³ See footnote 24, supra.

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

**In the Matter of
South Texas Project Nuclear Operating Co.
Application for the South Texas Project
Units 3 and 4
Combined Operating License**

Docket Nos. 52-012, 52-013

May 9, 2011

CERTIFICATE OF SERVICE

I hereby certify that on May 9, 2011 a copy of “INTERVENORS’ INITIAL STATEMENTS OF POSITION IN SUPPORT OF CONTENTIONS CL-2 AND DEIS-1” was served by the Electronic Information Exchange on the following recipients:

Administrative Judge
Michael M. Gibson, Chair
Atomic Safety and Licensing Board Panel
Mail Stop T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: mmg3@nrc.gov

Administrative Judge
Dr. Randall J. Charbeneau
Atomic Safety and Licensing Board Panel
Mail Stop T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: Randall.Charbeneau@nrc.gov

Administrative Judge
Dr. Gary S. Arnold
Atomic Safety and Licensing Board Panel
Mail Stop T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: gxa1@nrc.gov

Office of the General Counsel
U.S. Nuclear Regulatory Commission
Mail Stop O-15D21
Washington, DC 20555-0001
Michael Spencer, Sara Kirkwood,
Jessica Bielecki, Anthony Wilson
E-mail: Michael.Spencer@nrc.gov
Sara.Kirkwood@nrc.gov
Jessica.Bielecki@nrc.gov
Anthony.Wilson@nrc.gov

Office of the Secretary
U.S. Nuclear Regulatory Commission
Rulemakings and Adjudications Staff
Washington, DC 20555-0001
E-mail: hearingdocket@nrc.gov

Office of Commission Appellate
Adjudication
U.S. Nuclear Regulatory Commission
Mail Stop: O-16C1
Washington, DC 20555-0001
E-mail: ocaamail@nrc.gov

Steven P. Frantz
Stephen J. Burdick
Alvin Gutterman
John E. Matthews
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Phone: 202-739-3000
Fax: 202-739-3001
E-mail: sfrantz@morganlewis.com
sburdick@morganlewis.com
agutterman@morganlewis.com
jmatthews@morganlewis.com

Andrea L. Silvia
Counsel for the NRC staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-8554
Andrea.Silvia@nrc.gov

Signed (electronically) by Robert V. Eye

Robert V. Eye

Counsel for the Petitioners

Kauffman & Eye

123 S.E. 6th Ave., Suite 200

Topeka, KS 66603

E-mail: bob@kauffmaneye.com