

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael M. Gibson, Chairman
Dr. Anthony J. Baratta
Dr. Mark O. Barnett

In the Matter of

EXELON NUCLEAR TEXAS HOLDINGS, LLC

(Victoria County Station Site)

Docket No. 52-042

ASLBP No. 11-908-01-ESP-BD01

August 12, 2011

MEMORANDUM AND ORDER

(Granting in Part and Denying in Part Exelon's Motion for Clarification)

This proceeding concerns the early site permit (ESP) application of Exelon Nuclear Texas Holdings, LLC (Applicant or Exelon) for the possible future construction of a nuclear power plant at the Victoria County Station (VCS) site. If approved, the ESP would authorize Exelon to resolve key site-related environmental, safety, and emergency planning issues before selecting the design of a nuclear power facility for the subject site.¹ In its June 30, 2011 decision in LBP-11-16, this Board granted the intervention petition of Texans for a Sound Energy Policy (Intervenor or TSEP) and admitted eight of their proffered contentions.² On Monday, July 11, 2011, Exelon moved for clarification of the scope of admitted contentions TSEP-SAFETY-1, TSEP-SAFETY-2, and TSEP-ENV-16 (respectively, SAFETY-1, SAFETY-2, and ENV-16).³ On July 21, 2011, TSEP submitted a response to this motion.⁴ We grant

¹ 10 C.F.R. Part 52, Subpart A; see also Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 247 (2007).

² LBP-11-16, 73 NRC __ (slip op.) (June 30, 2011).

³ Exelon Nuclear Texas Holdings, LLC's Motion for Clarification (July 11, 2011) (Motion).

Exelon's motion in part by providing clarification on the scope of those contentions, but deny the motion insofar as it seeks an interpretation of the scope of those contentions that is contrary to the clarification we provide below.

I. CLARIFICATION ON SAFETY-1 AND SAFETY-2

- A. The Board declines to state whether or not Exelon must design the cooling basin to withstand growth faults, even if failure of the cooling basin due to growth faults would have no impact on plant safety but might impact the ability of the plant to continue to operate at full power.

In its motion, Exelon requests clarification on whether the Board, in admitting SAFETY-1 and SAFETY-2, ruled that "Exelon must design the cooling basin to withstand growth faults, even if failure of the cooling basin due to growth faults would have no impact on plant safety but might impact the ability of the plant to continue to operate at full power."⁵ Exelon states that such an interpretation would not be consistent with the provisions in 10 C.F.R. Part 100, and that such an interpretation was not intended by the Board.⁶

In LBP-11-16, we admitted SAFETY-1 and SAFETY-2 as follows:

SAFETY-1: The Exelon application does not satisfy the requirements of 10 C.F.R. § 100.23(d)(2) because it does not provide sufficient geological data regarding growth faults or present an adequate evaluation of the potential for subsurface deformation. As a result, Exelon underestimates the risk of surface deformation.⁷

SAFETY-2: Exelon fails to satisfy 10 C.F.R § 100.23(d)(2) because the SSAR greatly understates the rate of recent surface movement of the growth faults, as established by field studies showing rates of movement 1000 to 10,000 times greater than Exelon estimates.⁸

⁴ Texans for a Sound Energy Policy's Response to Exelon Nuclear Texas Holdings, LLC's Motion for Clarification (July 21, 2011).

⁵ Motion at 2-3.

⁶ Id. at 3.

⁷ LBP-11-16, 73 NRC at ___ (slip op. at 9).

⁸ Id. at 17.

In our analyses admitting SAFETY-1 and SAFETY-2, we recognized that the cooling pond, by itself, might not be a structure, system or component necessary to the safety of a nuclear power plant at the proposed VCS site.⁹ As such, we acknowledged that the cooling pond might not be a safety-related structure, or “safety feature,” of a nuclear power plant at the proposed VCS site.¹⁰

Regardless, in admitting SAFETY-1 and SAFETY-2, the Board concluded that these contentions established a dispute among the parties satisfying the six admissibility criteria of 10 C.F.R. § 2.309(f)(1) with regard to the adequacy under 10 C.F.R. § 100.23 of growth fault data, and analyses Exelon predicated on that data, in Exelon’s ESP application.¹¹ Because this data is central to the surface deformation analysis, it is likewise critical to whether Exelon’s ESP application complies with surface deformation analysis requirements of 10 C.F.R. § 100.23, including the need to provide “reasonable assurance that a nuclear power plant can be constructed and operated at the proposed site without undue risk to the health and safety of the public.”¹²

We concluded in LBP-11-16 that SAFETY-1 and SAFETY -2 state admissible disputes among the parties regarding whether Exelon has indeed provided sufficient data and analysis to satisfy 10 C.F.R. § 100.23. Without the benefit of further litigation of the issues raised in these contentions, the Board declines to state whether Exelon must design the cooling basin to withstand growth faults, even if failure of the cooling basin due to growth faults would have no impact on plant safety but might impact the ability of the plant to continue to operate at full power.

⁹ Id. at 16, 19.

¹⁰ Id.

¹¹ Id. at 9-20.

¹² 10 C.F.R. § 100.23.

- B. Exelon's ESP application must comply with the seismic siting criteria of 10 C.F.R. § 100.23, not Appendix A to 10 C.F.R. Part 100, although Appendix A provides foundational background that may inform the Board's interpretation of 10 C.F.R. § 100.23.

In its motion, Exelon states that Appendix A to 10 C.F.R. Part 100 does not apply to ESP applicants, but only applies to licensees whose construction permits were issued prior to January 10 1997.¹³ Exelon states that it interprets the Board's discussion of Appendix A as merely providing background information, rather than ruling that its ESP application must comply with Appendix A.¹⁴

We agree, and clarify that while Appendix A informs our interpretation of 10 C.F.R. § 100.23, the ESP application must comply with 10 C.F.R. § 100.23, not Appendix A. The Commission explains the applicability of 10 C.F.R. § 100.23 as follows.

(a) Applicability. The requirements in paragraphs (c) and (d) of this section apply to applicants for an early site permit or combined license pursuant to Part 52 of this chapter on or after January 10, 1997. However, for either an operating license applicant or holder whose construction permit was issued prior to January 10, 1997, the seismic and geologic criteria in Appendix A to Part 100 of this chapter continues to apply.¹⁵

Accordingly, 10 C.F.R. § 100.23 states the effective siting requirements for ESP applications.

In promulgating 10 C.F.R. § 100.23, the Commission intended to “[p]rovide a stable regulatory basis for seismic and geologic siting and applicable earthquake engineering design of future nuclear power plants that will update and clarify regulatory requirements and provide a flexible structure to permit consideration of new technical understandings.”¹⁶ The Commission aimed to “simplify the language” of the seismic criteria, but also to “provide needed regulatory

¹³ Motion at 3 (citing 10 C.F.R. § 100.23(a)).

¹⁴ Id.

¹⁵ 10 C.F.R. § 100.23(a).

¹⁶ Reactor Site Criteria Including Seismic and Earthquake Engineering Criteria for Nuclear Power Plants, 61 Fed. Reg. 65,157, 65,158 (Dec. 11, 1996).

flexibility to incorporate state-of-the-art improvements in the geosciences and earthquake engineering.”¹⁷ The Commission clarified when promulgating 10 C.F.R. § 100.23 that

[t]he new requirements . . . apply to applicants who apply for [an] . . . early site permit, . . . on or after the effective date of the final regulations. However, for those operating license applicants and holders whose construction permits were issued prior to the effective date of this final regulation, the reactor site criteria in 10 CFR Part 100, and the seismic and geologic siting criteria and the earthquake engineering criteria in Appendix A to 10 CFR Part 100 would continue to apply in all subsequent proceedings, including license amendments and renewal of operating licenses pursuant to 10 CFR Part 54.¹⁸

. . . .
Because the revised criteria presented in this final regulation does not apply to existing plants, the licensing bases for existing nuclear power plants must remain a part of the regulations. Therefore, the non-seismic and seismic reactor site criteria for current plants is retained as Subpart A and Appendix A to 10 CFR Part 100, respectively. The revised reactor site criteria is added as Subpart B in 10 CFR Part 100 and applies to site applications received on or after the effective date of the final regulations. Non-seismic site criteria is added as a new § 100.21 to Subpart B in 10 CFR Part 100. The criteria on seismic and geologic siting is added as new § 100.23 to Subpart B in 10 CFR Part 100.¹⁹

The Commission stated further that “[t]he final regulation is streamlined, becoming a new section in Subpart B to 10 CFR Part 100 rather than a new appendix to Part 100.”²⁰ Further “the definition of safety-related structures, systems, and components is included in Part 50 definitions.”²¹

Accordingly, the old regulations in Appendix A were updated in the promulgation of 10 C.F.R. § 100.23. However, the requirement in the introductory paragraph of that section promulgates into binding regulation the Commission’s purpose in amending Part 100 in 1973 to include Appendix A:

The purpose of the criteria is to set forth the principal seismic and geologic considerations which guide the Commission in its evaluation of the suitability of proposed sites for nuclear power plants and the suitability of the plant design bases established in consideration of the seismic and geologic characteristics of the proposed

¹⁷ Id.

¹⁸ Id.

¹⁹ Id. at 65,158, 65, 163.

²⁰ Id. at 65,164.

²¹ Id. at 65,166.

sites in order to provide reasonable assurance that the nuclear power plant can be constructed and operated at a proposed site without undue risk to the health and safety of the public.²²

Similarly, the introductory paragraph to 10 C.F.R. § 100.23 states that

[t]his section sets forth the principal geologic and seismic considerations that guide the Commission in its evaluation of the suitability of a proposed site and adequacy of the design bases established in consideration of the geologic and seismic characteristics of the proposed site, such that, there is a reasonable assurance that a nuclear power plant can be constructed and operated at the proposed site without undue risk to the health and safety of the public.²³

Therefore, the Board appropriately looks to Appendix A as foundational background for its interpretation of the requirements in 10 C.F.R. § 100.23. However, we agree with Exelon that the operative regulation at issue in this proceeding is 10 C.F.R. § 100.23.²⁴

II. CLARIFICATION ON ENV-16

A. ENV-16 as it pertains to water availability at the VCS is not limited to the potential impacts of climate change on water availability.

We admitted ENV-16 as follows:

The Exelon ER does not comply with 10 C.F.R. § 51.50(b)(1) because it fails to rigorously explore and objectively evaluate all alternative sites. A comparison of the Matagorda County site and the Victoria County Station site shows that the Matagorda County site presents an obviously superior site for the construction and operation of a nuclear power plant. The alternative Matagorda County site considered by Exelon does not have the serious problems and large impacts identified at the Victoria site.²⁵

²² Part 100—Reactor Site Criteria, Seismic and Geologic Siting Criteria, 38 Fed. Reg. 31,279 (Nov. 13, 1973) (emphasis added).

²³ 10 C.F.R. § 100.23 (emphasis added).

²⁴ On pages 15-16 of the slip opinion for LBP-11-16, we made the following statement: “As a result, SAFETY-1 addresses a potential failure of the ESP application to satisfy 10 C.F.R. Part 51, which sets forth the applicable safety regulations regarding geologic/seismic conditions at the VCS site and, therefore, alleges an inadequacy within the scope of this ESP proceeding that is material to the findings the NRC must make on whether to grant the ESP.” *Id.* at 15-16. We correct this statement by replacing “Part 51,” with “Part 50.”

²⁵ LBP-11-16, 73 NRC at ___ (slip op. at 66).

ENV-16 challenges the alternatives analysis section of Exelon's Environmental Report (ER) section of its ESP application.²⁶ Specifically, it challenges the adequacy of the discussion in the alternatives analysis comparing the Matagorda County site alternative to the VCS with regard to water availability, threatened and endangered species, downstream ecological impacts, and transmission line impacts.²⁷ As Exelon restates in its motion, we admitted ENV-16 as a challenge to "the alternatives analysis, not the impacts analysis, of Exelon's ER."²⁸

However, we disagree with Exelon's reading of our ruling on ENV-16. According to Exelon, by rejecting contentions TSEP-ENV-2, TSEP-ENV-3, and TSEP-ENV-4 (ENV-2, ENV-3, and ENV-4, respectively) for failure to satisfy the pleading requirements of 10 C.F.R. § 2.309(f)(1), ENV-16 cannot encompass the substantive aspects of those contentions rejected for insufficient pleading. The practical effect of Exelon's interpretation would be to preclude any consideration of TSEP's allegations in ENV-16 relating to water appropriation. To the contrary, our ruling on the inadequacy of TSEP's pleadings of ENV-2, ENV-3, and ENV-4²⁹ in no way limits the scope of another contention that concerns the same subject matter in another section of the ER.

As such, we clarify that ENV-16 as it pertains to water availability at the VCS is not limited to the potential impacts of climate change on water availability, as admitted in ENV-6. ENV-16 appropriately does encompass issues related to water appropriations and the comparative impacts of future population on water availability to the VCS site as well as to the alternative site in Matagorda County.

²⁶ See id. at 66-70; see also Exelon Generation – Victoria County ESP, Part 3 – Environmental Report (Apr. 20, 2010) (ADAMS Accession No. ML101120186).

²⁷ LBP-11-16, 73 NRC at ___ (slip op. at 69).

²⁸ Motion at 4 (citing LBP-11-16, 73 NRC at ___ (slip op. at 70)) (emphasis in Motion).

²⁹ See LBP-11-16, 73 NRC at ___ (slip op. at 42-53).

III. CONCLUSION AND ORDER

Exelon's motion is GRANTED according to the Board's clarification on the scope of contentions SAFETY-1, SAFETY-2, and ENV-16, stated herein.

To the extent Exelon's motion requests specific clarification or interpretation that contradicts this clarification, the motion is DENIED

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Michael M. Gibson, Chairman
ADMINISTRATIVE JUDGE

/RA/

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

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Dr. Mark O. Barnett
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 12, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
EXELON NUCLEAR TEXAS HOLDINGS, LLC) Docket No. 52-042-ESP
(Victoria County Station))
)
)
(Early Site Permit))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Granting in Part and Denying in Part Exelon's Motion for Clarification)** have been served upon the following persons by Electronic Information Exchange.

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Docket No. 52-042-ESP

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Exelon's Motion for Clarification)**

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[Original signed by Nancy Greathead]
Office of the Secretary of the Commission

Dated at Rockville, Maryland
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