

## PMVictoriaESPPEm Resource

---

**From:** Govan, Tekia  
**Sent:** Tuesday, August 23, 2011 12:21 PM  
**To:** 'david.distel@exeloncorp.com'  
**Cc:** VictoriaESP Resource  
**Subject:** Courtesy Copy of RAI  
**Attachments:** ML112340674.pdf; VCS ESP RAI Ltr#11 08-22-2011.doc

David:

Please find attached RAI letter number 11 which contains a question related to the NRC's review of 02.03.01 of your ESP application. The official copy has been sent via US mail.

Tekia

Tekia V. Govan, Project Manager  
U.S. Nuclear Regulatory Commission  
Office of New Reactors  
MS T-6-D48  
Washington DC 20555-0001  
301-415-6197  
[Tekia.Govan@nrc.gov](mailto:Tekia.Govan@nrc.gov)

**Hearing Identifier:** Victoria\_ESP\_Public  
**Email Number:** 352

**Mail Envelope Properties** (F5A4366DF596BF458646C9D433EA37D79E9545C5BE)

**Subject:** Courtesy Copy of RAI  
**Sent Date:** 8/23/2011 12:20:46 PM  
**Received Date:** 8/23/2011 12:20:47 PM  
**From:** Govan, Tekia

**Created By:** Tekia.Govan@nrc.gov

**Recipients:**  
"VictoriaESP Resource" <VictoriaESP.Resource@nrc.gov>  
Tracking Status: None  
"david.distel@exeloncorp.com" <david.distel@exeloncorp.com>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	437	8/23/2011 12:20:47 PM
ML112340674.pdf	84552	
VCS ESP RAI Ltr#11 08-22-2011.doc		55802

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

August 23, 2011

Ms. Marilyn C. Kray  
Vice President  
New Plant Development  
Exelon Generation  
200 Exelon Way  
Kennett Square, PA 19348

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 11  
(SRP SECTIONS: 02.03.01 –REGIONAL CLIMATOLOGY) RELATED TO THE  
VICTORIA COUNTY STATION EARLY SITE PERMIT APPLICATION

Dear Ms. Kray:

By letter dated March 25, 2010, Exelon Nuclear Texas Holdings, LLC (Exelon) submitted an early site permit application for Victoria County Station pursuant to 10 CFR Part 52. The Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. Exelon is requested to respond within 30 days of the date of this letter.

If the RAI response involves changes to application documentation, Exelon is requested to include the associated revised documentation with the response.

Should you have questions, please contact Tekia Govan at (301) 415-6197 or [Tekia.Govan@nrc.gov](mailto:Tekia.Govan@nrc.gov).

Sincerely,

**/RA/**

Tekia V. Govan, Project Manager  
BWR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors

August 23, 2011

Ms. Marilyn C. Kray  
Vice President  
New Plant Development  
Exelon Generation  
200 Exelon Way  
Kennett Square, PA 19348

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 11  
(SRP SECTIONS: 02.03.01 –REGIONAL CLIMATOLOGY) RELATED TO THE  
VICTORIA COUNTY STATION EARLY SITE PERMIT APPLICATION

Dear Ms. Kray:

By letter dated March 25, 2010, Exelon Nuclear Texas Holdings, LLC (Exelon) submitted an early site permit application for Victoria County Station pursuant to 10 CFR Part 52. The Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. Exelon is requested to respond within 30 days of the date of this letter.

If the RAI response involves changes to application documentation, Exelon is requested to include the associated revised documentation with the response.

Should you have questions, please contact Tekia Govan at (301) 415-6197 or [Tekia.Govan@nrc.gov](mailto:Tekia.Govan@nrc.gov).

Sincerely,

/RA/

Tekia V. Govan, Project Manager  
BWR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-042

Enclosure: Request for Additional Information

Docket No. 52-042

Enclosure: Request for Additional Information

Distribution:

TGovan, NRO

LGoldin, OGC

NRO\_DNRL\_BWR

SGreen, NRO

SPrice, OGC

KQuinlan, NRO

RSchaaf, NRO

E-RAI Tracking No: 5862

ADAMS Accession No.: ML112340674

OFFICE	BC: NRO/RSAC	BC:NRO/RSAC	PM:DNRL:BWR
NAME	KQuinlan*	RSchaaf*	TGovan*
DATE	6/20/2011	7/14/2011	8/23/2011

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

Request for Additional Information No. 5862 Revision 0

Victoria County Station ESP  
Exelon Texas  
Docket No. 52-042  
SRP Section: 02.03.01 - Regional Climatology  
Application Section: Regional Climatology

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

02.03.01-1

10 CFR 52.17(a)(1)(vi) states, in part, that an application must contain the meteorological characteristics of the proposed site with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and time in which the historical data have been accumulated. NUREG-0800, Standard Review Plan (SRP), Section 2.3.1, Regional Climatology, establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations. SRP Section 2.3.1 states that the basic 100-year return period 3-second gust wind speed should be based on appropriate standards, with suitable corrections for local conditions.

VCS SSAR Section 2.3.1.3.1 describes the methodology that was used to derive the site characteristic basic wind speed of 121 mph from Figure 6-1A of ASCE 7-05. According to Table C6-2 of ASCE/SEI 7-05, the 100 year return period 3-second gust basic wind speed site characteristic value of 121 mph is equivalent to a Saffir-Simpson Category 2 hurricane. SSAR Section 2.3.1.3.3 presents information from the NOAA Coastal Service Center (CSC) historical hurricane track database on the number of tropical cyclone storm tracks that have passed within a 100-nautical mile (nm) radius of the VCS site from 1851 through 2008. SSAR Section 2.3.1.3.3 states that there have been five Category 3, four Category 4, and one Category 5 hurricanes to pass within 100 nautical-miles of the VCS site.

Using this same NOAA-CSC database for the same period of record, the staff identified 6 hurricanes that were classified as Saffir-Simpson Category 4 or 5 at the time they made landfall within 100 nm of the VCS site. For each of these 6 major hurricanes, the staff used the sustained wind speeds reported in the NOAA-CSC database at landfall along with information presented in Table C6-2 and Figure 6-1A of ASCE/SEI 7-05 to estimate the corresponding 3-second gust wind speed potential at the VCS site. The staff determined that each of these storms potentially result in a 3-second gust wind speed that exceeds the 3-second gust basic wind speed site characteristic value of 121 mph. The last paragraph in SSAR Section 2.3.1.3.1 states that peak 1-minute wind speeds associated with hurricanes in the site area have reached at least 154 mph on multiple occasions.

Please provide additional justification regarding how the proposed 100-year return period 3-second gust wind speed site characteristic value for safety-related structures suitably accounts for the historically reported hurricanes, or revise the site characteristic value to suitably correct for these local conditions.

August 23, 2011

Ms. Marilyn C. Kray  
Vice President  
New Plant Development  
Exelon Generation  
200 Exelon Way  
Kennett Square, PA 19348

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 11  
(SRP SECTIONS: 02.03.01 –REGIONAL CLIMATOLOGY) RELATED TO THE  
VICTORIA COUNTY STATION EARLY SITE PERMIT APPLICATION

Dear Ms. Kray:

By letter dated March 25, 2010, Exelon Nuclear Texas Holdings, LLC (Exelon) submitted an early site permit application for Victoria County Station pursuant to 10 CFR Part 52. The Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. Exelon is requested to respond within 30 days of the date of this letter.

If the RAI response involves changes to application documentation, Exelon is requested to include the associated revised documentation with the response.

Should you have questions, please contact Tekia Govan at (301) 415-6197 or [Tekia.Govan@nrc.gov](mailto:Tekia.Govan@nrc.gov).

Sincerely,

/RA/

Tekia V. Govan, Project Manager  
BWR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors

August 23, 2011

Ms. Marilyn C. Kray  
Vice President  
New Plant Development  
Exelon Generation  
200 Exelon Way  
Kennett Square, PA 19348

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 11  
(SRP SECTIONS: 02.03.01 –REGIONAL CLIMATOLOGY) RELATED TO THE  
VICTORIA COUNTY STATION EARLY SITE PERMIT APPLICATION

Dear Ms. Kray:

By letter dated March 25, 2010, Exelon Nuclear Texas Holdings, LLC (Exelon) submitted an early site permit application for Victoria County Station pursuant to 10 CFR Part 52. The Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. Exelon is requested to respond within 30 days of the date of this letter.

If the RAI response involves changes to application documentation, Exelon is requested to include the associated revised documentation with the response.

Should you have questions, please contact Tekia Govan at (301) 415-6197 or [Tekia.Govan@nrc.gov](mailto:Tekia.Govan@nrc.gov).

Sincerely,

/RA/

Tekia V. Govan, Project Manager  
BWR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-042

Enclosure: Request for Additional Information

Docket No. 52-042  
Enclosure: Request for Additional Information  
Distribution:  
TGovan, NRO                      LGoldin, OGC                      NRO\_DNRL\_BWR  
SGreen, NRO                      SPrice, OGC  
KQuinlan, NRO                      RSchaaf, NRO

E-RAI Tracking No: 5862  
ADAMS Accession No.: ML112340674

OFFICE	BC: NRO/RSAC	BC:NRO/RSAC	PM:DNRL:BWR
NAME	KQuinlan*	RSchaaf*	TGovan*
DATE	6/20/2011	7/14/2011	8/23/2011

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

Request for Additional Information No. 5862 Revision 0

Victoria County Station ESP  
Exelon Texas  
Docket No. 52-042  
SRP Section: 02.03.01 - Regional Climatology  
Application Section: Regional Climatology

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

02.03.01-1

10 CFR 52.17(a)(1)(vi) states, in part, that an application must contain the meteorological characteristics of the proposed site with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and time in which the historical data have been accumulated. NUREG-0800, Standard Review Plan (SRP), Section 2.3.1, Regional Climatology, establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations. SRP Section 2.3.1 states that the basic 100-year return period 3-second gust wind speed should be based on appropriate standards, with suitable corrections for local conditions.

VCS SSAR Section 2.3.1.3.1 describes the methodology that was used to derive the site characteristic basic wind speed of 121 mph from Figure 6-1A of ASCE 7-05. According to Table C6-2 of ASCE/SEI 7-05, the 100 year return period 3-second gust basic wind speed site characteristic value of 121 mph is equivalent to a Saffir-Simpson Category 2 hurricane. SSAR Section 2.3.1.3.3 presents information from the NOAA Coastal Service Center (CSC) historical hurricane track database on the number of tropical cyclone storm tracks that have passed within a 100-nautical mile (nm) radius of the VCS site from 1851 through 2008. SSAR Section 2.3.1.3.3 states that there have been five Category 3, four Category 4, and one Category 5 hurricanes to pass within 100 nautical-miles of the VCS site.

Using this same NOAA-CSC database for the same period of record, the staff identified 6 hurricanes that were classified as Saffir-Simpson Category 4 or 5 at the time they made landfall within 100 nm of the VCS site. For each of these 6 major hurricanes, the staff used the sustained wind speeds reported in the NOAA-CSC database at landfall along with information presented in Table C6-2 and Figure 6-1A of ASCE/SEI 7-05 to estimate the corresponding 3-second gust wind speed potential at the VCS site. The staff determined that each of these storms potentially result in a 3-second gust wind speed that exceeds the 3-second gust basic wind speed site characteristic value of 121 mph. The last paragraph in SSAR Section 2.3.1.3.1 states that peak 1-minute wind speeds associated with hurricanes in the site area have reached at least 154 mph on multiple occasions.

Please provide additional justification regarding how the proposed 100-year return period 3-second gust wind speed site characteristic value for safety-related structures suitably accounts for the historically reported hurricanes, or revise the site characteristic value to suitably correct for these local conditions.