

**RESPONSE TO PUBLIC COMMENTS ON DRAFT STANDARD REVIEW PLAN  
SECTION 2.0, "SITE CHARACTERISTICS AND SITE PARAMETERS"**

On May 27, 2015, a Notice of Opportunity for Public Comment was published in the Federal Register (80 FR 30285) on the proposed Revision 1 to NUREG-0800, Standard Review Plan (SRP) Section 2.0. This revision included a draft (revised) U.S. Nuclear Regulatory Commission (NRC) SRP 2.0 "Site Characteristics and Site Parameters" to provide staff guidance in reviewing site characteristics and site parameters for proposed sites in applications for licenses or amendments. Comments were received from one organization.

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The NRC staff's review and disposition of the comments are provided below:

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1	General	NEI	<p>The revision includes the use of parenthetical clarifications "(i.e., is bounded by)" in several locations to provide clarity on the term "falls within" and associated variations on this term (e.g., "does not fall within"). However, in numerous instances (as identified in specific comments below) the parenthetical clarification is incorrect or missing. We recommend the NRC reassess the need to use parenthetical clarifications, and if they are retained to ensure they are consistently and accurately used. As an alternative, SRP Section 2.0 could define in the beginning of the guidance the meaning of "falls within" and avoid needing to use parenthetical clarifications each time the terms are used. Such a definition could also provide additional clarity that would not be practical to include in each use of a parenthetical clarification. For example the terms could be defined as follows: "Falls within means that the characteristic is bounded by the parameter to which it is being compared. For parameters that are described as a maximum value, the characteristic is bounded by the parameter if it is less than or equal to the parameter. For parameters that are described as a minimum value, the characteristic is bounded by the parameter if it is greater than or equal to the parameter. For parameters that are described as a range, the characteristic is bounded by the parameter if it is greater than or equal to the lower range value and less than or equal to the upper range value. Does not fall within means that the characteristic is not bounded by the parameter."</p>	NRC agrees with comment and revised the text accordingly.
2	p. 2.0-2, Section I, first paragraph, last sentence	NEI	The word "grant" should be plural "grants."	NRC agrees with comment and revised the text accordingly.

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3	p. 2.0-2, Section I , second paragraph, third sentence	NEI	The following parenthetical statement "(as well as any additional site characteristics developed in support of the COL application that were not in the ESP)" does not appear in 10 CFR 52.79(b)(1), as is cited earlier in the sentence. Since the parenthetical statement is not based on 10 CFR 52.79(b)(1), it should either be deleted from this sentence or a regulatory basis for it should be provided.	NRC agrees with comment and revised the text as follows:  In evaluating its site, each ESP applicant bases its evaluation, in part, on a set of postulated reactor design parameters. These design parameters, if approved, will also be listed in the ESP. A COL applicant referencing an ESP is then obligated under 10 CFR 52.79(b)(1) to demonstrate that the design of the facility falls within the site characteristics and design parameters specified in the ESP. If the COL applicant references a DC as well as an ESP, the design of the facility is governed by the DC's site parameters and design characteristics. Therefore, the COL applicant must demonstrate that the site parameters specified in the DC bound the corresponding ESP and COL site characteristics, and that the design characteristics in the DC are bounded by the ESP design parameters. Note that the COL applicant may need to identify additional site characteristics that were not in the ESP to compare against relevant site parameters in the DC (for example, accident release Control Room and Technical Support Center X/Q values).
4	p. 2.0-3, Section I.3.a, second sentence	NEI	It appears that a few words are missing and the sentence should be revised to state "... parameters are reviewed to the level of detail needed ..."	NRC agrees with comment and revised the text accordingly.

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5	p. 2.0-3, Section I.3.b, last sentence	NEI	The parenthetical "(i.e., bounds)" should be "(i.e., is bounded by)," consistent with the meaning of "falls within."	NRC agrees with comment and revised the text accordingly.
6	Page 2.0-3; I.2, Footnote 1	NEI	The footnote should include Appendix E, which is the ESBWR design certification. This change should be made to make the footnote agree with the design certifications in the regulations when the SRP section is revised. Change "Appendices A through D" to "Appendices A through E."	NRC agrees with comment and revised the text accordingly.
7	p. 2.0-4, Section I.3.d	NEI	In two instances, the use of "i.e.," should include a comma.	NRC agrees with comment and revised the text accordingly.
8	p. 2.0-5, SRP Acceptance Criteria, first paragraph, first sentence	NEI	The double use of acceptable/acceptance is unnecessary and confusing. The word "acceptable" should be deleted so that the sentence reads, "Specific SRP acceptance criteria acceptable to meet ..."	NRC agrees with comment and revised the text accordingly.
9	p. 2.0-5, SRP Acceptance Criteria, 2, first sentence, item (b)	NEI	The criteria for the COL applicant to demonstrate that the design of the facility falls within "(b) any additional site characteristics specified in the COL application" is not clear. As mentioned in Comment #3 above, SRP Section 2.0 has not provided the regulatory basis for this criterion. This sentence should be modified as necessary to reflect the resolution of comment #3.	NRC agrees with comment and deleted the following text:  "(b) any additional site characteristics specified in the COL application"
10	p. 2.0-5, Section II, SRP Acceptance Criteria, 2, first sentence	NEI	The parenthetical "(i.e., bounds)" should be "(i.e., is bounded by)," consistent with the meaning of "falls within."	NRC agrees with comment and revised the text accordingly.
11	p. 2.0-4, Section II, Requirements, 4, last sentence	NEI	The phrase "(i.e., is bounded by)" should be included after the use of "falls within."	NRC agrees with comment and revised the text accordingly.

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12	p. 2.0-5, Section II, SRP Acceptance Criteria, 2, second sentence	NEI	The phrase "(i.e., is bounded by)" should be included after the use of "falls within."	NRC agrees with comment and revised the text accordingly.
13	p. 2.0-5, Section II, SRP Acceptance Criteria, 3, last sentence	NEI	The phrase "(i.e., are not bounded by)" should be included after the use of "do not fall within."	NRC couldn't find comment change requested on page noted.
14	p. 2.0-5, Section II, SRP Acceptance Criteria, 4, first sentence	NEI	In two instances, the use of "i.e.," should include a comma.	NRC agrees with comment and revised the text accordingly.
15	p. 2.0-5, Section II, SRP Acceptance Criteria, 4, second sentence	NEI	In order to be consistent with the first sentence in the same paragraph, the second sentence should be replaced with the following, "If the actual site characteristics presented in the ESP and COL do not fall within the postulated site parameters in the DC, or the actual design characteristics specified in the DC do not fall within the postulated design parameters specified in the ESP, the COL applicant must provide sufficient justification (e.g., by requesting an exemption from or amendment to the DC, or requesting a variance from the ESP) that the proposed facility is acceptable at the proposed site."	NRC agrees with comment and revised the text accordingly.
16	p. 2.0-5, Section II, SRP Acceptance Criteria, 4, last sentence	NEI	The phrase "(i.e., are not bounded by)" should be included after the use of "do not fall within."	NRC agrees with comment and revised the text accordingly.

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No.	Section of BTP	Originator	Industry Comment/Proposed Resolution	NRC Resolution
17	p. 2.0-6, Section III, 1, second sentence	NEI	It is not clear to which appendix the following text is referring "... (SER); this appendix will also be included in the ESP." If the appendix being referred to is providing the same information discussed in the first sentence of this section, then delete the end of the second sentence, as it is redundant to the first sentence. If the referenced appendix is not providing the same information as indicated in the first sentence, then reword so that it is clear what information is expected to be provided.	Deleted second part of the sentence. The sentence now reads "The licensing project manager should summarize this information in tabular form in an appendix to the safety evaluation report (SER)."
18	p. 2.0-6, Section III, 3, first paragraph, first sentence	NEI	The parenthetical "(i.e., bounds)" should be "(i.e., is bounded by)," consistent with the meaning of "falls within."	NRC agrees with comment and revised the text accordingly.
19	p. 2.0-6, Section III, 3, first paragraph, first sentence (carried over to pg. 2.0-7)	NEI	The criteria for the COL applicant to demonstrate that the design of the facility falls within "any additional site characteristics specified in the COL application" is not clear. As mentioned in Comment #3 above, SRP Section 2.0 has not provided the regulatory basis for this criterion. This sentence should be modified as necessary to reflect the resolution of comment #3.	NRC agrees with comment and deleted the following text:  " any additional site characteristics specified in the COL application"
20	p. 2.0-7, Section III, 3, first paragraph, last sentence	NEI	The phrase "(i.e., are not bounded by)" should be included after the use of "do not fall within."	NRC agrees with comment and revised the text accordingly.
21	p. 2.0-7, Section III, 3, second paragraph, last sentence	NEI	The phrase "(i.e., are not bounded by)" should be included after the use of "do not fall within."	NRC agrees with comment and revised the text accordingly.
22	p. 2.0-7, Section III, 3, third paragraph, first sentence	NEI	In two instances, the use of "i.e.," should include a comma.	NRC agrees with comment and revised the text accordingly.

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No.	Section of BTP	Originator	Industry Comment/Proposed Resolution	NRC Resolution
23	p. 2.0-7, Section III, 3, third paragraph, second sentence	NEI	In order to be consistent with the first sentence in the same paragraph, the second sentence should be replaced with the following, "If the actual site characteristics presented in the ESP and COL do not fall within the postulated site parameters in the DC, or the actual design characteristics specified in the DC do not fall within the postulated design parameters specified in the ESP, the COL applicant must provide sufficient justification (e.g., by requesting an exemption from or amendment to the DC, or requesting a variance from the ESP) that the proposed facility is acceptable at the proposed site." This is related to comment #15.	NRC agrees with comment and revised the text accordingly.
24	p. 2.0-7, Section III, 3, third paragraph, last sentence	NEI	The phrase "(i.e., are not bounded by)" should be included after the use of "do not fall within."	NRC agrees with comment and revised the text accordingly.
25	p. 2.0-7, Section III, 3, fourth paragraph	NEI	The paragraph is a long sentence, and it is difficult to understand to which document the last phrase is associated "...and include the necessary information for the staff to confirm that the conditions of the ESP and COL action items have been met." Please clarify which document should contain this necessary information (e.g., the ESP and DC SERs, the COL application). Furthermore, the phrase should be revised to more accurately state, "... and include the necessary information for the staff to confirm that the conditions of the ESP conditions and COL action items...".	The paragraph has been revised to read "For a COL application referencing either an ESP or DC or both, the staff should also review the corresponding sections of the ESP and DC Final SERs to ensure that any early site permit conditions, restrictions to the DC, or COL action items identified in the Final SERs are appropriately addressed. The staff should also ensure that the COL application includes the necessary information for the staff to confirm that the ESP conditions and COL action items have been met.
26	p. 2.0-8, Section IV, 1, first sentence	NEI	The statement should be revised as follows for consistency with other parts of SRP Section 2.0: "...by a summary of the actual site characteristics and postulated design parameters to be included in any ESP..."	NRC agrees with comment and revised the text accordingly.

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No.	Section of BTP	Originator	Industry Comment/Proposed Resolution	NRC Resolution
27	p. 2.0-9, Section IV, 3, a, first sentence	NEI	The parenthetical "(i.e., bounds)" should be "(i.e., is bounded by)," consistent with the meaning of "falls within."	NRC agrees with comment and revised the text accordingly.
28	p. 2.0-9, Section IV, 3, a, last sentence	NEI	The phrase "(i.e., is bounded by)" should be included after the use of "falls within."	NRC agrees with comment and revised the text accordingly.
29	p. 2.0-9, Section IV, 3, a, second paragraph	NEI	The parenthetical "(i.e., does not bound)" should be "(i.e., is not bounded by)," consistent with the meaning of "does not fall within."	NRC agrees with comment and revised the text accordingly.
30	p. 2.0-9, Section IV, 3, a, third paragraph, first sentence	NEI	The parenthetical "(i.e., bounds)" should be "(i.e., is bounded by)," consistent with the meaning of "falls within."	NRC agrees with comment and revised the text accordingly.
31	p. 2.0-9, Section IV. 3. b, third paragraph, last sentence	NEI	The phrase "(i.e., are bounded by)" should be included after the use of "fall within."	NRC agrees with comment and revised the text accordingly.
32	p. 2.0-9, Section IV, 3, b, first and third paragraphs, last sentences of each paragraph	NEI	The word "meets" should be singular "meet", and should read, "and thus meet the requirements of 10 CFR 52.79(d) (1)."	NRC agrees with comment and revised the text accordingly.
33	p. 2.0-10, Section IV, 3, c, first paragraph, last sentence	NEI	The phrase "(i.e., are bounded by)" should be included after the use of "fall within."	NRC agrees with comment and revised the text accordingly.

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34	p. 2.0-10, Section IV. 3.c, third paragraph, last sentence	NEI	The phrase "(i.e., are bounded by)" should be included after the use of "fall within."	NRC agrees with comment and revised the text accordingly.
35	p. 2.0-11, Section VI	NEI	Delete commas from the end of references 1, 6, 7, and 9. Delete quote from end of reference 6. Add closed parenthesis to end of reference 8.	NRC agrees with comment and revised the text accordingly.
36	p. 2.0-13, Table 1, Outer Boundary of Low Population Zone (LPZ)	NEI	The reference to Footnote 3 appears to be a typographical error. Footnote 3 is related to the scope of external hazards in a DC. It is noted that a similar entry on "Exclusion Area Boundary (EAB)" has a reference to Footnote 2, which is related to the distances to the EAB and LPZ. We recommend the NRC evaluate whether Footnote 2 was intended to be referenced in this entry, and if so, change the reference to Footnote from "(3)" to "(2)" in the second row for the Outer Boundary of Low Population Zone (LPZ).	The reference has been changed from Footnote (3) to (2).
37	p. 2.0-13, Table 1, Meteorological Conditions Resulting in Minimum Water Cooling in the UHS	NEI	The reference to Footnote 6 appears to be a typographical error. Footnote 6 is related to the ambient temperatures. It is noted that a similar entry on "Meteorological Conditions Resulting in Maximum Evaporation and (if applicable) Drift Loss of Water from the Ultimate Heat Sink (UHS)" has a reference to Footnote 5, which is related to the UHS. We recommend the NRC evaluate whether Footnote 5 was intended to be referenced in this entry, and if so, change the reference to Footnote from "(6)" to "(5)" in the last row for the Meteorological Conditions Resulting in Minimum Water Cooling in the UHS.	The reference has been changed from Footnote (6) to (5).

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38	p. 2.0-13, Table 1, Note 1	NEI	Note 1 should be clarified to indicate that a single site characteristic value that bounds all of the DC site parameter values should be provided. Suggested rewording of Note 1 is: "An ESP application should contain site characteristic values corresponding to all the site parameter values listed in each of the DCs referenced in the ESP application. All of the referenced DC site parameter values should fall within (i.e., be bounded by) the corresponding site characteristic value."	NRC agrees with comment and revised the text accordingly.
39	p. 2.0-13, Table 1, Note 3, second sentence	NEI	It is unclear how the DC would demonstrate that potential external hazards are not design basis accidents. The DC will discuss fires, explosions, toxic chemicals, gases, etc. stored onsite and should demonstrate that the plant is designed to handle the related fires, explosions, etc. Possible effects on the plant from offsite sources are dealt with in the COLA. Footnote 3 should be revised to clarify that only onsite sources are evaluated in the DC. Make "chemical" plural "chemicals".	NRC agrees with comment and revised the text accordingly.
40	Page 2.0-13; Table 1, Footnote 6	NEI	Footnote 6 is on Page 2.0-13 and, as discussed in comment #38, is not associated with the last row on the table. Also, the references that are associated with Footnote 6 are on Page 2.0-14. Move Footnote 6 to the next page (Page 2.0-14).	NRC agrees with comment and revised the text accordingly.
41	p. 2.0-13, Table 1, Footnote 5	NEI	It is unclear what the term "actively designed plants" means. This could be interpreted to mean designs that contain active systems (e.g., AC powered safety/cooling systems), or it could be interpreted to mean designs that are currently DC applications actively being reviewed by the NRC. This term should be defined and clarified, or replaced with a more commonly understood description.	Text of Footnote (5) on page 2.0-13 to read "For those plants with emergency active cooling system designs...."

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42	p. 2.0-14, Table 1, Dry-Bulb Temperature, and Wet-Bulb Temperature	NEI	<p>The reference to Footnote 7 should be removed as it appears to be a typographical error. Dry and Wet Bulb temperatures are used in establishing heat loads for the design of normal plant heat sink systems, post-accident containment heat removal systems, and plant HVAC systems. Footnote 7 describes the calculation of <math>\chi/Q</math> and appears to be unrelated to the wet and dry bulb temperatures. It is noted that there are two entries related to the accident release of <math>\chi/Q</math>, and we recommend the NRC evaluate whether Footnote 7 was intended to be referenced in these entries, and if so, change the reference to Footnote from "(7)" to "(6)" in two rows:</p> <p>Dry-Bulb Temperature and Wet-Bulb Temperature (Non-concurrent)</p>	NRC agrees with comment and revised the text accordingly.
43	Page 2.0-14; Table 1, Footnote 7	NEI	Footnote 7 is on Page 2.0-14, but it does not appear to be associated with a row on Page 2.0-14. The first row of the table on Page 2.0-15 is marked for Footnote "(7)" and fits with the subject matter in Footnote 7 from Page 2.0-14. Relocate Footnote 7 to Page 2.0-15.	NRC agrees with comment and revised the text accordingly.
44	p. 2.0-15, Table 1, Routine Release of $\chi/Q$ and D/Q Values at Locations of Interest	NEI	The reference to Footnote 9 appears to be a typographical error. Footnote 9 is related to the UHS. It is noted that a similar entry on "Routine Release $\chi/Q$ and D/Q Values at Site Boundary" has a reference to Footnote 8, which is related to the release $\chi/Q$ and D/Q site parameter values. We recommend the NRC evaluate whether Footnote 8 was intended to be referenced in this entry, and if so change the reference to Footnote from "(9)" to "(8)" for the Routine Release $\chi/Q$ and D/Q Values at Locations of Interest.	The reference has been changed from Footnote (9) to (8).
45	p. 2.0-15, Table 1, Footnote 9	NEI	Replace "9.25" with "SRP Section 9.2.5".	NRC agrees with comment and revised the text accordingly.

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46	p. 2.0-16, Table 1, Tornado Missile Spectra	NEI	This entry should also reference Footnote 13, which is related to the scope of external hazards (including tornado missiles) in the DC. Currently this entry only references Footnote 12. It is noted that both Footnotes 12 and 13 are associated with table entries for "Tornado Missile Spectra" and "Hurricane Missile Spectra."	Footnote 13 was added as a reference to Tornado Missile Spectra.
47	p. 2.0-16, Table 1, Hurricane Missile Spectra	NEI	This entry should also reference Footnote 12, which is related to the scope of hurricane missile spectra in the ESP. Currently this entry only references Footnote 13. It is noted that both Footnotes 12 and 13 are associated with table entries for "Tornado Missile Spectra" and "Hurricane Missile Spectra."	Footnote 12 was added as a reference to Hurricane Missile Spectra.
48	p. 2.0-16, Table	NEI	We recommend that the NRC evaluate whether Footnote 13 was	No staff action taken as the comment was not complete.
49	p. 2.0-16, Table 1, Footnote 13	NEI	It is unclear how the DC would demonstrate that potential external hazards are not design basis accidents. The DC will discuss fires, explosions, toxic chemicals, gases, etc. stored onsite and should demonstrate that the plant is designed to handle the related fires, explosions, etc. Possible effects on the plant from offsite sources are dealt with in the COLA. Footnote 3 should be revised to clarify that only onsite sources are evaluated in the DC. Make "chemical" plural "chemicals." This is related to comment #40.	NRC agrees with comment and revised the text accordingly.
50	p. 2.0-17, Table 2, Footnote 14	NEI	Consider renumbering Footnote 14 to Footnote 1 for Table 2.	NRC agrees with comment and revised the text accordingly.