

Southern Nuclear Operating Company

ND-19-1023

Enclosure 6

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Revised Proposed Changes to the Licensing Basis

Documents (LAR-19-005R1)

Note:

Added text is shown as bold Blue Underline

Deleted text is shown as bold ~~Red Strikethrough~~

Revised added text is shown as bold Violet Underline

Revised deleted text is shown as ~~Green Strikethrough~~

* * * indicates omitted existing text that is not shown.

(Enclosure 6 consists of 9 pages, including this cover page)

Revise COL Appendix C Table 3.3-1, and corresponding plant-specific Tier 1 Table 3.3-1, “Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building,” as shown below.

Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building ⁽¹⁾				
Wall or Section Description	Column Lines ⁽⁷⁾	Floor Elevation or Elevation Range ⁽⁷⁾⁽⁸⁾	Concrete Thickness ⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁹⁾⁽¹⁸⁾	Applicable Radiation Shielding Wall (Yes/No)
Containment Building Internal Structure ⁽¹⁵⁾				

* * *

15. Reconciliation of construction deviations in the nuclear island structures from the thickness and tolerances specified in this table is included in the reconciliation reports, and demonstrate that the as-built structures will withstand design basis loads without loss of structural integrity or safety functions and without ~~loss of shielding functions~~ impacting compliance with the radiation protection licensing basis, such as GDC 19, established radiological zoning and equipment qualification in accordance with ITAAC 3.3.00.02a.i.a, 3.3.00.02a.i.b, 3.3.00.02a.i.c, or 3.3.00.02a.i.d.
16. Construction deviations in the annex building from the thickness and tolerances specified in this table are evaluated in the thickness report to demonstrate that the as-built structures will withstand design basis loads without loss of structural integrity or safety functions and without ~~loss of shielding functions~~ impacting compliance with the radiation protection licensing basis, such as GDC 19, established radiological zoning and equipment qualification ~~during normal operation~~ in accordance with ITAAC 3.3.00.02a.ii.e.
17. Construction deviations in the turbine building from the thickness and tolerances specified in this table are evaluated in the thickness report to demonstrate that the as-built structures will withstand design basis loads without loss of structural integrity or safety functions in accordance with ITAAC 3.3.00.02a.ii.f.
18. Nonconformances from the thicknesses and tolerances specified in Table 3.3-1 (i.e. out of tolerance conditions) are addressed under the 10 CFR Part 50, Appendix B process and subsequently are screened in accordance with the 10 CFR Part 52, Appendix D, Section VIII process, to ensure that the licensing basis is adequately maintained. Construction deviations will continue to be assessed against the licensing basis requirements and will be addressed in accordance with licensee procedures and regulatory requirements and, if applicable, a license amendment will be obtained prior to implementation of the change.

Table 3.3-1 (cont.) Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building⁽¹⁾				
Wall or Section Description	Column Lines ⁽⁷⁾	Floor Elevation or Elevation Range ⁽⁷⁾⁽⁸⁾	Concrete Thickness ⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁹⁾⁽¹⁸⁾	Applicable Radiation Shielding Wall (Yes/No)

Shield Building⁽⁶⁾⁽¹⁵⁾				

Auxiliary Building Walls/Floors Radiologically Controlled⁽¹⁵⁾				

Auxiliary Building Walls/Floors Non-Radiologically Controlled⁽¹⁵⁾				

Annex Building⁽¹⁶⁾				

Turbine Building⁽¹⁷⁾				

Revise COL Appendix C Table 3.3-6, and corresponding plant-specific Tier 1 Table 3.3-6, "Inspections, Tests, Analyses, and Acceptance Criteria," as shown below.

Table 3.3-6 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria

760	3.3.00.02a.i.a	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.</p> <p><u>3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.</u></p>	<p>i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, <u>and for radiation shielding.</u></p>	<p>i.a) A report exists which reconciles deviations during construction, <u>including Table 3.3-1 wall and floor thicknesses,</u> and concludes that the as-built containment internal structures, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, <u>and that there is no loss of the shielding function without impacting compliance with the radiation protection licensing basis.</u></p>
761	3.3.00.02a.i.b	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.</p> <p><u>3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.</u></p>	<p>i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, <u>and for radiation shielding.</u></p>	<p>i.b) A report exists which reconciles deviations during construction, <u>including Table 3.3-1 wall and floor thicknesses,</u> and concludes that the as-built shield building structures, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, <u>and that there is no loss of the shielding function without impacting compliance with the radiation protection licensing basis.</u></p>

Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
762	3.3.00.02a.i.c	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.</p> <p><u>3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.</u></p>	<p>i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, <u>and for radiation shielding</u>.</p>	<p>i.c) A report exists which reconciles deviations during construction, <u>including Table 3.3-1 wall and floor thicknesses</u>, and concludes that the as-built structures in the non-radiologically controlled area of the auxiliary building, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, <u>and that there is no loss of the shielding function without impacting compliance the radiation protection licensing basis.</u></p>
763	3.3.00.02a.i.d	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.</p> <p><u>3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.</u></p>	<p>i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, <u>and for radiation shielding</u>.</p>	<p>i.d) A report exists which reconciles deviations during construction, <u>including Table 3.3-1 wall and floor thicknesses</u>, and concludes that the as-built structures in the radiologically controlled area of the auxiliary building, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, <u>and that there is no loss of the shielding function without impacting compliance with the radiation protection licensing basis.</u></p>

Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
764	3.3.00.02a.ii.a	<u>Not used per Amendment No. [XXX]</u> 2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.	ii) An inspection of the as-built concrete thickness will be performed.	ii.a) A report exists that concludes that the containment internal structures as-built concrete thicknesses conform to the building sections defined in Table 3.3-1.
765	3.3.00.02a.ii.b	<u>Not used per Amendment No. [XXX]</u> 2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.	ii) An inspection of the as-built concrete thickness will be performed.	ii.b) A report exists that concludes that the as-built concrete thicknesses of the shield building sections conform to the building sections defined in Table 3.3-1.
766	3.3.00.02a.ii.c	<u>Not used per Amendment No. [XXX]</u> 2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.	ii) An inspection of the as-built concrete thickness will be performed.	ii.c) A report exists that concludes that as-built concrete thicknesses of the non-radiologically controlled area of the auxiliary building sections conform to the building sections defined in Table 3.3-1.
767	3.3.00.02a.ii.d	<u>Not used per Amendment No. [XXX]</u> 2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.	ii) An inspection of the as-built concrete thickness will be performed.	ii.d) A report exists that concludes that the as-built concrete thicknesses of the radiologically controlled area of the auxiliary building sections conform to the building sections defined in Table 3.3-1.

Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
768	3.3.00.02a.ii.e	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.</p> <p><u>4.a) Walls and floors of the annex building as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.</u></p>	ii) An inspection of the as-built concrete thickness will be performed.	<p>ii.e) A report exists that concludes that the as-built concrete thicknesses of the annex building sections conform with the building sections defined in Table 3.3-1, <u>except for designed openings or penetrations, or the report documents an evaluation of thickness deviations identified during construction and demonstrates that the as-built structures will withstand the design basis loads without loss of structural integrity and that there is no loss of the shielding function without impacting compliance with the radiation protection licensing basis.</u></p>
769	3.3.00.02a.ii.f	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.</p>	ii) An inspection of the as-built concrete thickness will be performed.	<p>ii.f) A report exists that concludes that the as-built concrete thicknesses of the turbine building sections conform to the building sections defined in Table 3.3-1, <u>except for designed openings or penetrations, or the report documents an evaluation of thickness deviations identified during construction and demonstrates that the as-built structures will withstand the design basis loads without loss of structural integrity.</u></p>
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Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
777	3.3.00.03a	<u>Not used per Amendment No. [XXX]</u> 3. Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built nuclear island structures wall and floor thicknesses will be performed.	a) A report exists and concludes that the shield walls and floors of the containment internal structures as defined in Table 3.3-1, except for designed openings or penetrations, are consistent with the concrete wall thicknesses provided in Table 3.3-1.
778	3.3.00.03b	<u>Not used per Amendment No. [XXX]</u> 3. Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built nuclear island structures wall and floor thicknesses will be performed.	b) A report exists and concludes that the shield walls of the shield building structures as defined in Table 3.3-1 except for designed openings or penetrations are consistent with the concrete wall thicknesses provided in Table 3.3-1.
779	3.3.00.03c	<u>Not used per Amendment No. [XXX]</u> 3. Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built nuclear island structures wall and floor thicknesses will be performed.	c) A report exists and concludes that the shield walls and floors of the non-radiologically controlled area of the auxiliary building as defined in Table 3.3-1 except for designed openings or penetrations are consistent with the concrete wall thicknesses provided in Table 3.3-1.
780	3.3.00.03d	<u>Not used per Amendment No. [XXX]</u> 3. Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built nuclear island structures wall and floor thicknesses will be performed.	d) A report exists and concludes that the shield walls and floors of the radiologically controlled area of the auxiliary building as defined in Table 3.3-1 except for designed openings or penetrations are consistent with the concrete wall thicknesses provided in Table 3.3-1.

Table 3.3-6

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
781	3.3.00.04a	Not used per Amendment No. [XXX] 4.a) Walls and floors of the annex building as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built annex building wall and floor thicknesses will be performed.	A report exists and concludes that the shield walls and floors of the annex building as defined on Table 3.3-1 except for designed openings or penetrations are consistent with the minimum concrete wall thicknesses provided in Table 3.3-1.
782	3.3.00.04b	4.b) Walls of the waste accumulation room in the radwaste building except for designed openings or penetrations provide shielding during normal operations.	Inspection of the as-built radwaste building wall thicknesses will be performed.	A report exists and concludes that the shield walls of the waste accumulation room in the radwaste building except for designed openings or penetrations are consistent with the minimum concrete wall thicknesses of 1'-4", and a minimum concrete wall thickness of 1'-8" near the radwaste bunkers, <u>or the report documents an evaluation of thickness deviations identified during construction and demonstrates there is no loss of the shielding function impact to compliance with the radiation protection licensing basis.</u>
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