

Southern Nuclear
Operating Company, Inc.
42 Inverness Center Parkway
Post Office Box 1295
Birmingham, AL 35242



FEB 27 2013

Docket Nos.: 52-025
52-026

ND-13-0415
10 CFR 50.90
10 CFR 52.63

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Request for License Amendment and Exemption:
Changes to the Chemical and Volume Control System (CVS) (LAR-13-002S) Supplement 1

Ladies and Gentlemen:

On January 11, 2013, in accordance with the provisions of 10 CFR 50.90, Southern Nuclear Operating Company (SNC) requested an amendment to the combined licenses (COLs) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92, respectively). The amendment request proposed to depart from approved Design Control Document (DCD) Tier 2 information that has been previously incorporated into the VEGP Units 3 and 4 Updated Final Safety Analysis Report (UFSAR) and the associated certified Tier 1 information that is involved with this Tier 2 information and to revise the associated information that has been included in Appendix C of each COL. License Amendment Request (LAR) 13-002 provided by the January 11, 2013, letter (SNC Letter No. ND-13-0028) proposed changes to the Chemical and Volume Control System (CVS). SNC has subsequently determined that six mark-ups to the UFSAR provided in Enclosure 3 of LAR-13-002 contained editorial errors. The enclosure to this letter provides revised mark-ups that correct the editorial errors.

With this supplement, SNC provides six revised marked-up pages to replace those provided in Enclosure 3 of the original submittal. The revised mark-ups are added as Enclosure 4 of the LAR. The information provided in Enclosure 4 does not change the scope of the amendment request submitted on January 11, 2013, because the text in Enclosure 1 of the LAR accurately described the proposed changes. Consequently, because the LAR text accurately described the proposed changes, this supplement does not require a revised Significant Hazards Consideration determination. This letter contains no regulatory commitments.

In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia of this LAR supplement by transmitting a copy of this letter and enclosure to the designated State Official.

Should you have any questions, please contact Mr. Wesley A. Sparkman at (205) 992-5061.

Ms. Amy G. Aughtman states that she is a Licensing Manager of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of her knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



A. G. Aughtman

AGA/TEA/kms

Sworn to and subscribed before me this 27th day of February, 2013

Notary Public: Kristin Marie Seibert

My commission expires: August 16, 2016



Enclosure: 4. Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Revised Licensing Basis Documents – Proposed Changes (LAR-13-002S)

cc: Southern Nuclear Operating Company/ Georgia Power Company

Mr. S. E. Kuczynski (w/o enclosure)
Mr. J. A. Miller
Mr. D. A. Bost (w/o enclosure)
Mr. B. L. Ivey
Mr. M. D. Rauckhorst (w/o enclosure)
Mr. J. T. Gasser (w/o enclosure)
Mr. D. H. Jones (w/o enclosure)
Mr. J. R. Johnson (w/o enclosure)
Mr. T. E. Tynan
Mr. D. M. Lloyd
Mr. B.H. Whitley
Mr. C. R. Pierce
Mr. D. L. Fulton
Mr. C. H. Mahan
Ms. A. G. Aughtman
Mr. M. C. Medlock
Mr. W. A. Sparkman
Mr. J. M. Giddens
Document Services RTYPE: GOV0208
File AR.01.02.06

Nuclear Regulatory Commission

Mr. V. M. McCree (w/o enclosure)
Mr. F. M. Akstulewicz (w/o enclosure)
Mr. M. E. Tonacci (w/o enclosure)
Mr. R. G. Joshi
Ms. D. L. McGovern
Mr. B. M. Bovol
Ms. M. A. Sutton
Mr. L. M. Cain
Mr. J. D. Fuller
Mr. G. Khouri
Mr. C. Abbott
Mr. C. Huffman

State of Georgia

Mr. J. H. Turner

Oglethorpe Power Corporation

Mr. M. W. Price
Mr. K. T. Haynes

Municipal Electric Authority of Georgia

Mr. J. E. Fuller
Mr. S. M. Jackson

Dalton Utilities

Mr. D. Cope

CB&I

Mr. M. Glover (w/o enclosure)
Mr. G. Grant (w/o enclosure)
Ms. K. Stoner (w/o enclosure)
Mr. C. A. Castell

Westinghouse Electric Company, LLC

Mr. T. C. Geer (w/o enclosure)
Mr. T. H. Dent (w/o enclosure)
Mr. P. A. Russ
Mr. R. A. DeLong
Mr. S. A. Bradley
Mr. T. J. Ray

Other

Mr. J. S. Prebula, Bechtel Power Corporation (w/o enclosure)
Mr. R. W. Prunty, Bechtel Power Corporation
Ms. K. K. Patterson, Tetra Tech NUS, Inc.
Dr. W. R. Jacobs, Jr., Ph.D., GDS Associates, Inc.
Mr. S. Roetger, Georgia Public Service Commission
Ms. S. W. Kernizan, Georgia Public Service Commission
Mr. K. C. Greene, Troutman Sanders
Mr. S. Blanton, Balch Bingham
Ms. A. Monroe, South Carolina Electric & Gas Company
Mr. B. Kitchen, Duke Energy
Mr. S. Franzone, Florida Power & Light

Southern Nuclear Operating Company

ND-13-0415

Enclosure 4

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

**Revised Licensing Basis Documents – Proposed Changes
(LAR-13-002S)**

Notes:

1. Enclosures 1 through 3 were provided with the original LAR submittal on January 11, 2013
2. The sheet numbers and the total number of sheets for the marked-up Tables provided in this Enclosure may be changed by the incorporation of this and other departures. These changes are considered editorial and do not require evaluation in this submittal.

ND-13-0415

Enclosure 4

LAR-13-002S, Revised Licensing Basis Documents – Proposed Changes

Replace page 16 of Enclosure 3 with the following page.

UFSAR Table 3.9-16 (Sheet 2 of 26) is revised by adding a reference to Note 6 in the IST Notes Column for CVS-PL-V067.

UFSAR Table 3.9-16 (Sheet 2 of 26)
Valve Inservice Test Requirements

Valve Tag Number	Description ⁽¹⁾	Valve/Actuator Type	Safety-Related Missions	Safety Functions ⁽²⁾	ASME Class/IST Category	Inservice Testing Type and Frequency	IST Notes
CVS-PL-V001	RCS Purification Stop	Remote MO GATE	Maintain Close Transfer Close	Active Safety Seat Leakage Remote Position	Class 1 Category B	Remote Position Indication, Exercise/2 Years RCS Isolation Leak Test/Refueling Exercise Full Stroke/Cold Shutdown Operability Test	6, 31, 32
CVS-PL-V002	RCS Purification Stop	Remote MO GATE	Maintain Close Transfer Close	Active Safety Seat Leakage Remote Position	Class 1 Category B	Remote Position Indication, Exercise/2 Years RCS Isolation Leak Test/Refueling Exercise Full Stroke/Cold Shutdown Operability Test	6, 31, 32

CVS-PL-V041	Resin Flush ORC Isolation	Manual	Maintain Close	Containment Isolation Safety Seat Leakage	Class 2 Category A	Containment Isolation Leak Test	27
CVS-PL-V042	Flush Line Containment Isolation Relief	Relief	Maintain Close Transfer Open Transfer Close	Active Containment Isolation Safety Seat Leakage	Class 2 Category AC	Containment Isolation Leak Test Class 2/3 Relief Valve Tests/10 Years and 20% in 4 Years	27
CVS-PL-V045	Letdown Containment Isolation IRC	Remote AO GLOBE	Maintain Close Transfer Close	Active-to-Failed Containment Isolation Safety Seat Leakage Remote Position	Class 2 Category A	Remote Position Indication, Exercise/2 Years Containment Isolation Leak Test Exercise Full Stroke/Quarterly Failsafe Test/Quarterly Operability Test	27, 31
CVS-PL-V047	Letdown Containment Isolation ORC	Remote AO GLOBE	Maintain Close Transfer Close	Active-to-Failed Containment Isolation Safety Seat Leakage Remote Position	Class 2 Category A	Remote Position Indication, Exercise/2 Years Containment Isolation Leak Test Exercise Full Stroke/Quarterly Failsafe Test/Quarterly Operability Test	27, 31
CVS-PL-V058	Letdown Line Containment Isolation Relief	Relief	Maintain Close Transfer Open Transfer Close	Active Containment Isolation Safety Seat Leakage	AC	Containment Isolation Leak Test Class 2/3 Relief Valve Tests/ 10 Years and 20% in 4 years	27
CVS-PL-V067	Makeup Return Line Bypass Check Valve	Check	Maintain Close Transfer Open Transfer Close	Active Safety Seat Leakage	Class 1 Category C	Check Exercise/Cold Shutdown RCS Isolation Leak Test/Refueling	6, 32
CVS-PL-V080	RCS Purification Return Line Check Valve	Check	Maintain Close Transfer Close	Active Safety Seat Leakage	Class 3 Category C	Check Exercise/Cold Shutdown RCS Isolation Leak Test/Refueling	6, 32

ND-13-0415

Enclosure 4

LAR-13-002S, Revised Licensing Basis Documents – Proposed Changes

Replace page 17 of Enclosure 3 with the following page.

UFSAR Table 3.9-16 (Sheet 3 of 26) is revised by identifying the Valve/Actuator Type for CVS-PL-V094 as a “Remote AO GLOBE” valve.

UFSAR Table 3.9-16 (Sheet 3 of 26)
Valve Inservice Test Requirements

Valve Tag Number	Description ⁽¹⁾	Valve/Actuat or Type	Safety-Related Missions	Safety Functions ⁽²⁾	ASME Class/ IST Category	Inservice Testing Type and Frequency	IST Notes
CVS-PL-V081	RCS Purification Return Line Stop Valve	AO Stop Check	Maintain Close Transfer Close	Active Safety Seat Leakage	Class 1 Category C	Check Exercise/Cold Shutdown RCS Isolation Leak Test/Refueling	6, 8, 32
CVS-PL-V082	RCS Purification Return Line Check Valve	Check	Maintain Close Transfer Close	Active Safety Seat Leakage	Class 1 Category C	Check Exercise/Cold Shutdown RCS Isolation Leak Test/Refueling	6, 32

CVS-PL-V085	Auxiliary Pressurizer Spray Line	Check	Maintain Close Transfer Close	Active Safety Seat Leakage	Class 1 Category C	Check Exercise/Cold Shutdown RCS Isolation Leak Test/Refueling	22, 32
CVS-PL-V090	Makeup Line Containment Isolation	Remote MO GATE	Maintain Close Transfer Close	Active Containment Isolation Safety Seat Leakage Remote Position	Class 2 Category A	Remote Position Indication, Exercise/2 Years Containment Isolation Leak Test Exercise Full Stroke/Quarterly Operability Test	27, 31
CVS-PL-V091	Makeup Line Containment Isolation	Remote MO GATE	Maintain Close Transfer Close	Active Containment Isolation Safety Seat Leakage Remote Position	Class 2 Category A	Remote Position Indication, Exercise/2 Years Containment Isolation Leak Test Exercise Full Stroke/Quarterly Operability Test	27, 31
CVS-PL-V092	Hydrogen Addition IRC <u>Zinc Injection</u> Containment Isolation <u>ORC</u>	Remote AO GLOBE	Maintain Close Transfer Close	Active-to-Failed Containment Isolation Safety Seat Leakage Remote Position	Class 2 Category A	Remote Position Indication, Exercise/2 Years Containment Isolation Leak Test Exercise Full Stroke/Quarterly Operation Failsafe Test/Quarterly Operation Operability Test	27, 31
CVS-PL-V094	Hydrogen Addition IRC Zinc Injection Containment Isolation	Check <u>Remote AO GLOBE</u>	Maintain Close Transfer Close	Active-to-Failed Containment Isolation Safety Seat Leakage Remote Position	Class 2 Category A	Remote Position Indication, Exercise/2 Years Containment Isolation Leak Test Check Exercise/Quarterly Operation <u>Exercise Full Stroke</u> <u>/Quarterly Operation</u> <u>Operability Test</u> <u>Failsafe Test/Quarterly</u>	27, <u>31</u>
<u>CVS-PL-V098</u>	<u>Zinc</u> Hydrogen <u>Addition</u> <u>IRC</u> <u>Relief Valve</u>	<u>Thermal Relief</u>	<u>Maintain Close Transfer Close Transfer Open</u>	<u>Active Containment Isolation Safety Seat Leakage</u>	<u>Class 2 Category AC</u>	Containment Isolation Leak Test <u>Class 2/3 Relief Valve Tests/10 Years and 20% in 4 years</u>	<u>27</u>
CVS-PL-V100	Makeup Line Containment Isolation Relief	Check	Maintain Close Transfer Close Transfer Open	Active Containment Isolation Safety Seat Leakage	Class 2 Category AC	Containment Isolation Leak Test/2 Years Check Exercise/Refueling Shutdown	23, 27
CVS-PL-V136A	Demineralized Water System Isolation	Remote AO Butterfly	Maintain Close Transfer Close	Active-to-Failed Remote Position	Class 3 Category B	Remote Position Indication, Exercise/2 Years Exercise Full Stroke/Quarterly Failsafe Test/Quarterly Operability Test	31

ND-13-0415

Enclosure 4

LAR-13-002S, Revised Licensing Basis Documents – Proposed Changes

Replace page 23 of Enclosure 3 with the following page.

UFSAR Table 3.11-1 (Sheet 19 of 51) is revised by adding the sheet number to the table header.

UFSAR Table 3.11-1 (Sheet 19 of 51)
Environmentally Qualified Electrical and Mechanical Equipment

Description	AP1000 Tag No.	Envir. Zone (Note 2)	Function (Note 1)	Operating Time Required (Note 5)	Qualification Program (Note 6)
Makeup Line Containment Isolation	CVS-PL-V091	1	ESF	5 min	M *
Limit Switch	CVS-PL-V091-L	1	PAMS	1 yr	E *
Motor Operator	CVS-PL-V091-M	1	ESF	5 min	E *
Hydrogen Addition Zinc Injection Containment Isolation	CVS-PL-V092	10	ESF	5 min	M *
Limit Switch	CVS-PL-V092-L	10	PAMS	2 wks	E *
Solenoid Valve	CVS-PL-V092-S	10	ESF	5 min	E *
Hydrogen Addition Zinc Injection Containment Isolation IRC	CVS-PL-V094	1	ESF	5 min	M *
Limit Switch	CVS-PL-V094-L	1	PAMS	1 yr	E*
Solenoid Valve	CVS-PL-V094-S	1	ESF	5 min	E*
Zinc/Hydrogen Addition Line Injection Containment Isolation Thermal Overpressurization Relief Valve	CVS-PL-V098	1	ESF	24 hrs	M*
Makeup Containment Isolation	CVS-PL-V100	1	ESF	24 hrs	M *

Demineralized Water System Isolation	CVS-PL-V136B	7	ESF	5 min	M **
Limit Switch	CVS-PL-V136B-L	7	PAMS	2 wks	E **
Solenoid Valve	CVS-PL-V136B-S	7	ESF	5 min	E **
Hydrogen Injection Cont Isolation Check IRC	CVS-PL-V217	1	PB	1 yr	M
Hydrogen Injection Containment Isolation	CVS-PL-V219	10	ESF	5 min	M*
Limit Switch	CVS-PL-V219-L	10	PAMS	2 wks	E*
Solenoid Valve	CVS-PL-V219-S	10	ESF	5 min	E*
Demin Water Supply Containment Isolation – Inside	DWS-PL-V245	1	PB	1 yr	M *

Fire Water Containment Supply Isolation – Inside	FPS-PL-V052	1	PB	1 yr	M *

ND-13-0415

Enclosure 4

LAR-13-002S, Revised Licensing Basis Documents – Proposed Changes

Replace page 27 of Enclosure 3 with the following page.

UFSAR Table 3I.6-3 (Sheet 4 of 32) is revised by adding CVS-PL-V217 to the section of the table that identifies Active Valves.

UFSAR Table 3I.6-3 (Sheet 4 of 32)
List of AP1000 Safety-Related Electrical
and Mechanical Equipment Not High Frequency Sensitive

Description	AP1000 Tag Number	Comment
Hydrogen <u>Zinc</u> Addition Containment Isolation	CVS-PL-V092	2
Hydrogen <u>Zinc</u> Addition Containment Isolation	CVS-PL-V094	2
Hydrogen Addition Containment Isolation	CVS-PL-V092	2
Hydrogen Addition Containment Isolation	CVS-PL-V094	2
<u>Zinc Injection Containment Isolation Thermal Overpressurization Relief Valve</u>	<u>CVS-PL-V098</u>	<u>2</u>
Makeup Containment Isolation	CVS-PL-V100	2
Demineralizer Water System Isolation	CVS-PL-V136A	2
Demineralized Water System Isolation	CVS-PL-V136B	2
<u>Hydrogen Injection Containment Isolation Check Valve</u>	<u>CVS-PL-V217</u>	<u>2</u>
<u>Hydrogen Injection Containment Isolation</u>	<u>CVS-PL-V219</u>	<u>2</u>
Demin Water Supply Containment Isolation – Inside	DWS-PL-V245	2
Fuel Transfer Tube Gate Valve	FHS-PL-V001	2
Fire Water Containment Supply Isolation – Inside	FPS-PL-V052	2
PCCWST Isolation Valve	PCS-PL-V001A	2
PCCWST Isolation Valve	PCS-PL-V001B	2
PCCWST Isolation Valve	PCS-PL-V001C	2
PCCWST Isolation Valve	PCS-PL-V002A	2
PCCWST Isolation Valve	PCS-PL-V002B	2

Water Bucket Makeup Line Isolation Valve	PCS-PL-V020	2
PCS Recirculation Isolation	PCS-PL-V023	2
PCCWST Long-Term Makeup Check Valve	PCS-PL-V039	2
PCCWST Long Term Makeup Isolation Drain Valve	PCS-PL-V042	2
PCCWST Long Term Makeup Isolation Valve	PCS-PL-V044	2
Emergency Makeup to the Spent Fuel Pool Isolation Valve	PCS-PL-V045	2

ND-13-0415

Enclosure 4

LAR-13-002S, Revised Licensing Basis Documents – Proposed Changes

Replace page 28 of Enclosure 3 with the following page.

UFSAR Table 3I.6-3 (Sheet 12 of 32) is revised by adding the sheet number to the table header and deleting CVS-PL-V217 from the section of the table that identifies Nonactive Valves.

UFSAR Table 3I.6-3 (Sheet 12 of 32)
List of AP1000 Safety-Related Electrical
and Mechanical Equipment Not High Frequency Sensitive

Description	AP1000 Tag Number	Comment
PXS B To Sump	WLS-PL-V071 C	2
CVS To Sump	WLS-PL-V072 A	2
PXS A To Sump	WLS-PL-V072 B	2
PXS B To Sump	WLS-PL-V072 C	2
<u>Miscellaneous</u>		
<u>Nonactive Valves</u>		
Containment Penetration Test Connection Isolation	CAS-PL-V027	2
Service Air Supply Outside Containment Isolation	CAS-PL-V204	2

Resin Flush IRC Isolation	CVS-PL-V040	2
Resin Flush ORC Isolation	CVS-PL-V041	2
Letdown PZR Instrument Root	CVS-PL-V046	2
H2 Mkup Containment Isolation Thermal Relief Valve <u>Zinc Addition – IRC Shutoff</u>	CVS-PL-V065	2
Hydrogen <u>Zinc</u> Add Cont Isolation Test Connection	CVS-PL-V095	2
Hydrogen <u>Zinc</u> Addition Containment Isolation Test Connection	CVS-PL-V096	2
<u>Hydrogen Injection Containment Isolation Test Connection Valve</u>	<u>CVS-PL-V218</u>	<u>2</u>
Demin Water Supply Containment Isolation – Outside	DWS-PL-V244	2
Containment Penetration Test Connection Isolation	DWS-PL-V248	2
Fire Water Containment Test Connection Isolation	FPS-PL-V049	2
Fire Water Containment Supply Isolation	FPS-PL-V050	2

ND-13-0415

Enclosure 4

LAR-13-002S, Revised Licensing Basis Documents – Proposed Changes

Replace page 29 of Enclosure 3 with the following page.

UFSAR Table 6.2.3-1 (Sheet 1 of 4) is revised by centering the “No” entry in the Closed Sys IRC column for valves CVS-PL-V219 and CVS-PL-V217.

UFSAR Table 6.2.3-1 (Sheet 1 of 4)

Containment Mechanical Penetrations and Isolation Valves

System		Containment Penetration			Isolation Device					Test			
		Line	Flow	Closed Sys IRC	Valve/Hatch Identification	Pipe Length	DCD Subsection	Position N-S-A	Signal	Closure Times	Type ¹ & Note	Medium	Direction
CAS	Service air in		In	No	CAS-PL-V204 CAS-PL-V205	9 -	9.3.1	C-O-C C-O-C	None None	N/A N/A	C.5	Air	Forward
	Instrument air in		In	No	CAS-PL-V014 CAS-PL-V015	9 -	9.3.1	O-O-C O-O-C	T None	d. N/A	C.5	Air	Forward

CVS	Spent resin flush out		Out	No	CVS-PL-V041 CVS-PL-V040 CVS-PL-V042	19 - 21	9.3.6	C-C-C C-C-C C-C-C	None None None	N/A N/A N/A	C	Air	Forward
	Letdown		Out	No	CVS-PL-V047 CVS-PL-V045 CVS-PL-V058	36 - -	9.3.6	C-O-C C-O-C C-C-C	T T None	std. std. N/A	C	Air	Forward Forward Reverse
	Charging		In	No	CVS-PL-V090 CVS-PL-V091 CVS-PL-V100	31 - -	9.3.6	C-O-C C-O-C C-C-C	HR, PL2, S+PL1, SGL HR, PL2, S+PL1, SGL None	std. std. N/A	C	Air	Forward
	H ₂ Zinc injection to RCS		In	No	CVS-PL-V092 CVS-PL-V094 CVS-PL-V098	223 -	9.3.6	O-C-C C-O-C-C C-C-C	T None-I, S None	std. N/A-std. N/A	C	Air	Forward
DWS	Hydrogen injection to RCS		In	No	CVS-PL-V219 CVS-PL-V217	22	9.3.6	O-C-C O-C-C	I None	std. N/A	C	Air	Forward
	Demin. water supply		In	No	DWS-PL-V244 DWS-PL-V245	28 -	9.2.4	C-O-C C-O-C	None None	N/A N/A	C.5	Air	Forward

PSS	RCS/PSX/CVS samples out		Out	No	PSS-PL-V011 PSS-PL-V010A,B	13 -, "	9.3.3	C-C-C C-C-C	T T	std. std.	C	Air	Forward
	Cont. air samples out		Out	No	PSS-PL-V046 PSS-PL-V008	13 -	9.3.3	O-C-C O-C-C	T T	std. std.	C	Air	Forward
	RCS/Cont. air sample return		In	No	PSS-PL-V023 PSS-PL-V024	16 -	9.3.3	O-C-C O-C-C	T None	std. N/A	C	Air	Forward