

March 23, 2015

MEMORANDUM TO: Lawrence J. Burkhart, Chief
Licensing Branch 4 (LB4)
Division of New Reactor Licensing
Office of New Reactors

FROM: Donald Habib, Project Manager */RA/*
Licensing Branch 4 (LB4)
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: SUMMARY OF A CLOSED MEETING ON DECEMBER 16, 2014,
WITH MEMBERS OF THE AP1000 DESIGN CENTER TO DISCUSS
CHANGES TO PROPRIETARY CALCULATIONS SUPPORTING
AP1000 CONDENSATE RETURN DESIGN CHANGE, DEPARTURE,
AND EXEMPTION REQUEST

The U.S. Nuclear Regulatory Commission (NRC) staff held a closed meeting on December 16, 2014, at 1:00 p.m. with members of the AP1000 design center. The purpose of the meeting was for members of the AP1000 design center to present its planned direction to resolve errors in proprietary calculations supporting an AP1000 condensate return design change, departure, and exemption request. The list of attendees is enclosed.

On December 16, 2014, the NRC staff conducted a closed meeting with representatives from the AP1000 design center and Westinghouse Electric Company (WEC) to discuss the applicant's and licensee's planned direction to resolve errors in proprietary calculations supporting an AP1000 condensate return design change, departure, and exemption request. Specifically, the meeting discussed (1) the errors discovered in proprietary calculations related to the condensate return analysis and their impacts, (2) a summary of the realistic assumptions in the analysis, and (3) proposed approaches to resolve the issues while assuring an adequate safety review by the NRC staff and supporting the construction schedules of the licensees. Handouts from the meeting can be found in the Agencywide Documents Access and Management System (ADAMS) under Accession Number ML15014A049.

In previous public teleconferences, WEC had informed the staff of an error in a WGOTHIC calculation and an error in a spreadsheet calculation related to the condensate return analysis. After the meeting with the Advisory Committee on Reactor Safeguards (ACRS) AP1000 subcommittee on September 17, 2014, WEC investigated the condensate return calculations to address questions from the ACRS about what was causing a difference in results between the LOFTRAN model and the spreadsheet calculation. During this investigation, WEC discovered

CONTACT: Donald Habib, NRO/DNRL
(301) 415-1035

an error in one of the spreadsheet calculations related to the in-containment refueling water storage tank (IRWST) saturation temperature not increasing with the containment pressure. Correcting the error leads to less condensate returning to the IRWST and reduces the amount of margin in design based accident scenarios.

WEC informed the staff that the code error in a WGOTHIC calculation was caused by a correction of the mass and energy balance introduced in an updated version of the code and consists of the use of an improper steam table to calculate saturation pressure in areas along the containment vessel walls. The WGOTHIC error is not related to the above-mentioned spreadsheet error. WEC informed the staff that correcting the WGOTHIC error has no impact on long term core cooling analysis, equipment qualification envelopes, and the methodology used in the AP1000 Design Control Document, Revision 19. The error results in a slight increase in containment pressure during accident analyses and only impacts the results of analyses associated with condensate return. The higher containment pressure results in a higher reactor coolant system (RCS) temperature such that the functional requirement of cooling the RCS below 420°F within 36 hours is not met.

WEC then outlined the major assumptions and inputs used in the calculations. They were described as a realistic approach instead of the conservative, non-bounding approach that had previously been proposed. The assumptions included decay heat with zero sigma margin, the modeling of the passive residual heat remover heat exchanger, RCS heat removal caused by the steaming of water touching the outside of the reactor vessel (RV), and less conservative heat transfer rates related to containment heat removal.

Recovery options were presented to the staff such that the functional requirement of cooling the RCS below 420°F within 36 hours could be met. Specifically, the three options evaluated further include crediting the RV steaming in the LOFTRAN calculations, heat transfer from the pressurizer water to the containment air, and reduced decay heat based on ORIGEN. WEC explained that RV steaming will be accounted for by reducing decay heat. It was noted that for decay heat the current model is a best estimate calculation based on ANS 5.1-1979, performed with zero sigma uncertainty. The proposed ORIGEN-S calculation was performed to determine conservatism in the ANS 5.1-1979 model and would represent a true best estimate analysis, recovering a significant amount of margin.

WEC and the AP1000 design center presented their recommended strategy to the staff after evaluating all of the risks and benefits of the applicable recovery options. This recommended plan includes adopting a realistic approach instead of the proposed conservative, non-bounding approach, crediting the RV steaming in the LOFTRAN calculations and the heat loss from the

pressurizer water to the containment air, and reducing the decay heat based on the ORIGEN-S calculation. WEC noted that all options present some challenge and schedule delay, but these proposed changes result in a RCS cooldown that is significantly shorter than the current licensing commitment.

Docket Nos.: 52-018, 52-019, 52-040, 52-041,
52-029, 52-030, 52-025, 52-026,
52-027, 52-028

Enclosure:
Meeting Attendees List

pressurizer water to the containment air, and reducing the decay heat based on the ORIGEN-S calculation. WEC noted that all options present some challenge and schedule delay, but these proposed changes result in a RCS cooldown that is significantly shorter than the current licensing commitment.

Docket Nos.: 52-018, 52-019, 52-040, 52-041,
52-029, 52-030, 52-025, 52-026,
52-027, 52-028

Enclosure:
Meeting Attendees List

DISTRIBUTION:

PUBLIC	DHabib	LBurkhart	BHughes	JHoellman
RidsOgcMailCenter	TGalletta	BBavol	RReyes	MComar
NRO_DNRL_LB4	DMcGovern	DJaffe	JMcKirgan	JDonoghue
TDrzewiecki	JMonninger	HWagage		

ADAMS Accession No.: ML15040A027

NRC-001

OFFICE	PM: DNRL/LB4	LA: DNRL/LB4	PM: DNRL/LB4	BC:DNRL/LB4
NAME	DHabib (c)	RButler	DHabib (s)	LBurkhart
DATE	3/18/15	3/1/15	3/23/15	3/23/15

OFFICIAL RECORD COPY

**PUBLIC MEETING
 UNITED STATES NUCLEAR REGULATORY COMMISSION
 Closed Public Meeting with AP1000 Design Center
 Tuesday, December 16, 2014
 1:00 p.m. – 4:00 p.m.**

List of Attendees

Purpose: To discuss AP1000 combined license review issues

Name	Organization
Representing the Nuclear Regulatory Commission	
Don Habib	NRO/DNRL/LB4
Jordan Hoellman	NRO/DNRL/LB4
Larry Burkhart	NRO/DNRL/LB4
Denise McGovern	NRO/DNRL/LB4
John McKirgan	NRO/DSRA/SCVB
Harry Wagage	NRO/DSRA/SCVB
Joe Donoghue	NRO/DSRA/SRSB
Tim Drzewiecki	NRO/DSRA/SRSB
Frank Akstulewicz	NRO/DNRL
John Monninger	NRO/DSRA
Representing Industry	
Gary Moffatt	SCANA
Bryan Barwick	SCANA
Bob Gamberg	Duke Energy
Eddie Grant	Southern Nuclear Operating Company
Brad Chamberlain	Southern Nuclear Operating Company
Steve Franzone	Florida Power and Light
Jason Eisenhauer	Westinghouse Electric Company
Terry Schulz	Westinghouse Electric Company
Andrew Pfister	Westinghouse Electric Company
Sylena Smith	Westinghouse Electric Company
Ryan Burda	Westinghouse Electric Company
Nicholas Powell	Westinghouse Electric Company

Enclosure

COL - Duke Energy - Lee Mailing List

(Revised 09/04/2014)

cc:

Mr. Christopher M. Fallon
VP, Nuclear Development
Progress Energy Florida, Inc.
P.O. Box 1006 - ECO9D
Charlotte, NC 28202

Dhiala M. Jamil
Group Executive and Chief Nuclear Officer
Duke Energy Carolinas, LLC
P.O. Box 1006 - EC03XM
526 South Church St.
Charlotte, NC 28201-1006

Ms. Ruth Thomas
354 Woodland Dr.
Columbus, NC 28722

Mr. James Thornton
Duke Energy / NuStart
ECO9D / P.O. Box 1006
Charlotte, NC 28201-1006

COL - Duke Energy - Lee Mailing List

Email

APH@NEI.org (Adrian Heymer)
awc@nei.org (Anne W. Cottingham)
christopher.fallon@duke-energy.com (Christopher M. Fallon)
collinlj@westinghouse.com (Leslie Collins)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
david.lewis@pillsburylaw.com (David Lewis)
delongra@westinghouse.com (Rich DeLong)
ed.burns@earthlink.net (Ed Burns)
fbelser@regstaff.sc.gov
gary@jonespartners.net (Gary Jones)
gsoult@regstaff.sc.gov (Gene G. Soult)
james.thornton@duke-energy.com (James Thornton)
jflitter@regstaff.sc.gov
john.oneill@pillsburylaw.com (John O'Neill)
Joseph_Hegner@dom.com (Joseph Hegner)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
majames@regstaff.sc.gov (Anthony James)
maria.webb@pillsburylaw.com (Maria Webb)
media@nei.org (Scott Peterson)
MSF@nei.org (Marvin Fertel)
murawski@newsobserver.com (John Murawski)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
RJB@NEI.org (Russell Bell)
russpa@westinghouse.com (Paul Russ)
sabinski@suddenlink.net (Steve A. Bennett)
sfrantz@morganlewis.com (Stephen P. Frantz)
shudson@regstaff.sc.gov (Shannon Hudson)
stephan.moen@ge.com (Stephan Moen)
Tansel.Selekler@nuclear.energy.gov (Tansel Selekle)
TomClements329@cs.com (Tom Clements)
Vanessa.quinn@dhs.gov (Vanessa Quinn)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
weave1dw@westinghouse.com (Doug Weaver)

COL - Duke Energy - Levy County Mailing List

Revised 01/12/2015

cc:

Mr. Christopher M. Fallon
VP, Nuclear Development
Progress Energy Florida, Inc.
P.O. Box 1006 - ECO9D
Charlotte, NC 28202

COL - Duke Energy - Levy County Mailing List

Email

APH@NEI.org (Adrian Heymer)
awc@nei.org (Anne W. Cottingham)
Bill.Jacobs@gdsassociates.com (Bill Jacobs)
billn@fcan.org (Bill Newton)
brian.mccabe@pgnmail.com (Brian McCabe)
christopher.fallon@duke-energy.com (Christopher M. Fallon)
collinlj@westinghouse.com (Leslie Collins)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
david.lewis@pillsburylaw.com (David Lewis)
david.waters@pgnmail.com (Dave Waters)
delongra@westinghouse.com (Rich DeLong)
ed.burns@earthlink.net (Ed Burns)
eddie.grant@excelservices.com (Eddie Grant)
gary@jonespartners.net (Gary Jones)
gsoult@regstaff.sc.gov (Gene G. Soult)
joe.w.donahue@pgnmail.com (Joe Donahue)
john.elnitsky@pgnmail.com (John Elnitsky)
Joseph_Hegner@dom.com (Joseph Hegner)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
levynuke@ecologyparty.org (Cara Campbell)
majames@regstaff.sc.gov (Anthony James)
maria.webb@pillsburylaw.com (Maria Webb)
marvlewis@juno.com (M. Lewis)
maryo@nirs.org (Mary Olson)
media@nei.org (Scott Peterson)
Mike.Halpin@dep.state.fl.us (Mike Halpin)
MSF@nei.org (Marvin Fertel)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
RJB@NEI.org (Russell Bell)
robert.kitchen@pgnmail.com (Robert H. Kitchen)
ronald_m_bright@bellsouth.net (Ronald Bright)
russpa@westinghouse.com (Paul Russ)
sabinski@suddenlink.net (Steve A. Bennett)
sfrantz@morganlewis.com (Stephen P. Frantz)
stephan.moen@ge.com (Stephan Moen)
Tansel.Selekler@nuclear.energy.gov (Tansel Selekler)
twinkletoesdms@aol.com (Robert and Deborah Smith)

COL - Duke Energy - Levy County Mailing List

Vanessa.quinn@dhs.gov (Vanessa Quinn)
weave1dw@westinghouse.com (Doug Weaver)

COL - Turkey Point Mailing List

(Revised 06/03/2014)

cc:

Mr. Steve Franzone
Florida Power & Light Company
Turkey Point Nuclear Plant
700 Universe Blvd.
Juno Beach, FL 33408

Mr. William Maher
Florida Power & Light Company
Turkey Point Nuclear Plant
700 Universe Blvd.
Juno Beach, FL 33408

Mano K. Nazar
Senior Vice President
and Chief Nuclear Officer
Florida Power & Light Company
Mail Stop NNP/JB
700 Universe Blvd
Juno Beach, FL 33408-0420

Jim Petro
Managing Attorney
Nuclear
Florida Power & Light Company
Mail Stop LAW / JB, 700 Universe Blvd.
Juno Beach, FL 33408

COL - Turkey Point Mailing List

Email

alliance4cleanfl@aol.com (Bob Krasowski)
APH@NEI.org (Adrian Heymer)
awc@nei.org (Anne W. Cottingham)
Bill.Jacobs@gdsassociates.com (Bill Jacobs)
billn@fcan.org (Bill Newton)
bwtamia@bellsouth.net (Barry White)
collinlj@westinghouse.com (Leslie Collins)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
david.lewis@pillsburylaw.com (David Lewis)
delongra@westinghouse.com (Rich DeLong)
ed.burns@earthlink.net (Ed Burns)
George.Madden@fpl.com (George Madden)
jerald.head@ge.com (Jerald G. Head)
john.elnitsky@pgnmail.com (John Elnitsky)
john.oneill@pillsburylaw.com (John O'Neill)
Joseph_Hegner@dom.com (Joseph Hegner)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
magolds@emory.edu (Mindy Goldstein)
maria.webb@pillsburylaw.com (Maria Webb)
MCCRAS@miamidade.gov (Sean McCrackine)
media@nei.org (Scott Peterson)
michael.lepre@pillsburylaw.com (Michael Lepre)
Mike.Halpin@dep.state.fl.us (Mike Halpin)
MSF@nei.org (Marvin Fertel)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
Paul.Jacobs@fpl.com (Paul Jacobs)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
Raymond.Burski@fpl.com (Raymond Burski)
Richard.Orthen@fpl.com (Richard Orthen)
RJB@NEI.org (Russell Bell)
russpa@westinghouse.com (Paul Russ)
sabinski@suddenlink.net (Steve A. Bennett)
sara@cleanenergy.org (Sara Barczak)
sfrantz@morganlewis.com (Stephen P. Frantz)
stephan.moen@ge.com (Stephan Moen)
Steve.Franzone@fpl.com (Steve Franzone)
steven.hamrick@fpl.com (Steven Hamrick)
toner-irene@monroecounty-fl.gov (Irene Toner)

COL - Turkey Point Mailing List

Vanessa.quinn@dhs.gov (Vanessa Quinn)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
weave1dw@westinghouse.com (Doug Weaver)
William.Blair@FPL.com (William Blair)
william.maher@fpl.com (William Maher)

Vogtle Units 3 & 4 Mailing List

(Revised 03/12/2015)

cc:

Office of the Attorney General
40 Capitol Square, SW
Atlanta, GA 30334

Resident Inspector
Plant Vogtle 3&4
7825 River Road
Waynesboro, GA 30830

Southern Nuclear Op. Co.
Document Control Coordinator
42 Inverness Center Parkway
Attn: B236
Birmingham, AL 35242

Elaine Sikes
Burke County Library
130 Highway 24 South
Waynesboro, GA 30830

Resident Manager
Oglethorpe Power Corporation
Alvin W. Vogtle Nuclear Plant
7821 River Road
Waynesboro, GA 30830

Mr. Jerry Smith
Commissioner
District 8
Augusta-Richmond County Commission
1332 Brown Road
Hephzibah, GA 30815

Anne F. Appleby
Oglethorpe Power Corporation
2100 East Exchange Place
Tucker, GA 30084

Gene Stilp
1550 Fishing Creek Valley Road
Harrisburg, PA 17112

County Commissioner
Office of the County Commissioner
Burke County Commission
Waynesboro, GA 30830

Mr. Robert E. Sweeney
IBEX ESI
4641 Montgomery Avenue
Suite 350
Bethesda, MD 20814

Mr. James C. Hardeman
Environmental Radiation Program Manager
Environmental Protection Division
Georgia Dept. of Natural Resources
4220 International Pkwy, Suite 100
Atlanta, GA 30354-3906

George B. Taylor, Jr.
2100 East Exchange Pl
Atlanta, GA 30084-5336

Mr. Reece McAlister
Executive Secretary
Georgia Public Service Commission
Atlanta, GA 30334

Brian H. Whitley
42 Inverness Center Parkway
BIN B237
Birmingham, AL 35242

Mr. Joseph A. (Buzz) Miller
Executive Vice President
Southern Nuclear Operating Company
241 Ralph McGill Blvd.
BIN 10240
Atlanta, GA 30308-3374

Vogle Units 3 & 4 Mailing List

Email

agaughtm@southernco.com (Amy Aughtman)
awc@nei.org (Anne W. Cottingham)
becky@georgiawand.org (Becky Rafter)
bhwhite@southernco.com (Brian Whitley)
Bill.Jacobs@gdsassociates.com (Bill Jacobs)
bjadams@southernco.com (Brad Adams)
bwwaites@southernco.com (Brandon Waites)
collinlj@westinghouse.com (Leslie Collins)
couturf@westinghouse.com (Gerald Couture)
crpierce@southernco.com (C.R. Pierce)
cwaltman@roe.com (C. Waltman)
dahjones@southernco.com (David Jones)
david.hinds@ge.com (David Hinds)
david.lewis@pillsburylaw.com (David Lewis)
david.siefken@hq.doe.gov (David Siefken)
delongra@westinghouse.com (Rich DeLong)
dgbost@southernco.com (Danny Bost)
dlfulton@southernco.com (Dale Fulton)
drculver@southernco.com (Randy Culver)
ed.burns@earthlink.net (Ed Burns)
edavis@pegasusgroup.us (Ed David)
erg-xl@cox.net (Eddie R. Grant)
fdhundle@southernco.com (Forrest Hundley)
G2NDRMDC@southernco.com (SNC Document Control)
graysw@westinghouse.com (Scott W. Gray)
james1.beard@ge.com (James Beard)
jamiller@southernco.com (Buzz Miller)
jbtomase@southernco.com (Janice Tomasello)
jenmorri@southernco.com (Jennifer Buettner)
jim@ncwarn.org (Jim Warren)
jlhall@southernco.com (Jennifer Hall)
Joseph_Hegner@dom.com (Joseph Hegner)
jpredd@southernco.com (Jason R. Redd)
jranalli@meagpower.org (Jerry Ranalli)
jtgasser@southernco.com (Jeff Gasser)
karen.patterson@ttnus.com (Karen Patterson)
karlg@att.net (Karl Gross)
kim.haynes@opc.com (Kim Haynes)
kmseiber@southernco.com (Kristin Seibert)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
ldperry@southernco.com (Leigh D. Perry)
maria.webb@pillsburylaw.com (Maria Webb)

Vogle Units 3 & 4 Mailing List

markus.popa@hq.doe.gov (Markus Popa)
mcintyba@westinghouse.com (Brian McIntyre)
mdmeier@southernco.com (Mike Meier)
media@nei.org (Scott Peterson)
Melissa.Smith@Hq.Doe.Gov (Melissa Smith)
mike.price@opc.com (M.W. Price)
mlgraves@southernco.com (Michelle Graves)
MSF@nei.org (Marvin Fertel)
myox@southernco.com (Mike Yox)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
r.joshi15@comcast.net (Ravi Joshi)
randall@nexusamlc.com (Randall Li)
rhenry@ap.org (Ray Henry)
rjarrett@southernco.com (Robyn Jarrett)
RJB@NEI.org (Russell Bell)
Ronald.Jones@scana.com (Ronald Jones)
russpa@westinghouse.com (Paul Russ)
rwink@ameren.com (Roger Wink)
sabinski@suddenlink.net (Steve A. Bennett)
sblanton@balch.com (Stanford Blanton)
sfrantz@morganlewis.com (Stephen P. Frantz)
shhuling@southernco.com (Steven Huling)
sjackson@meagpower.org (Steven Jackson)
skauffman@mpr.com (Storm Kauffman)
sroetger@psc.state.ga.us (Steve Roetger)
stephan.moen@ge.com (Stephan Moen)
taterrel@southernco.com (Todd Terrell)
tlubnow@mpr.com (Tom Lubnow)
Tom.Bilik@nrc.gov (Thomas Bilik)
TomClements329@cs.com (Tom Clements)
Vanessa.quinn@dhs.gov (Vanessa Quinn)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
wasparkm@southernco.com (Wesley A. Sparkman)
wayne.marquino@ge.com (Wayne Marquino)
weave1dw@westinghouse.com (Doug Weaver)
x2gabeck@southernco.com (Gary Becker)

COL SCE&G – VC Summer Mailing List
cc:

(Revised 02/09/2015)

Mr. Jeffrey B. Archie
Sr. Vice President, Nuclear Operations
South Carolina Electric & Gas Company
MC D304
220 Operation Way
Cayce, SC 29033-3172

Gregrey Ginyard
366 Lakeview Drive
Jenkinsville, SC 29065

Ms. Gidget Stanley-Banks
Director
Allendale County EPA
426 Mullberry Street
Allendale, SC 29810

COL SCE&G – VC Summer Mailing List

Email

abynum@scana.com (Al Bynum)
amonroe@scana.com (Amy Monroe)
andy.barbee@scana.com (Andy Barbee)
APAGLIA@Scana.com (Al Paglia)
April.Rice@scana.com (April Rice)
arice@scana.com (April R. Rice)
awc@nei.org (Anne W. Cottingham)
bedforbj@westinghouse.com (Brian Bedford)
Bill.Jacobs@gdsassociates.com (Bill Jacobs)
charles.baucom@cbi.com (Charles T. Baucom)
christina.barnett@scana.com (Christina Barnett)
collinlj@westinghouse.com (Leslie Collins)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
david.lewis@pillsburylaw.com (David Lewis)
DCRM-EDMS@SCANA.COM
delongra@westinghouse.com (Rich DeLong)
dgriffin@scana.com (Donna S. Griffin)
ed.burns@earthlink.net (Ed Burns)
ewingja@westinghouse.com (Jerrod Ewing)
fbelser@regstaff.sc.gov
gary@jonespartners.net (Gary Jones)
George_Stramback@Charter.net (George Stramback)
gsoult@regstaff.sc.gov (Gene G. Soult)
jarchie@scana.com (Jeffrey B. Archie)
jenkinse@dhec.sc.gov (Susan Jenkins)
jflitter@regstaff.sc.gov
Joseph_Hegner@dom.com (Joseph Hegner)
karlg@att.net (Karl Gross)
kinneyrw@dhec.sc.gov (Ronald Kinney)
kroberts@southernco.com (Kelli Roberts)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
majames@regstaff.sc.gov (Anthony James)
maria.webb@pillsburylaw.com (Maria Webb)
mcintyba@westinghouse.com (Brian McIntyre)
media@nei.org (Scott Peterson)
MSF@nei.org (Marvin Fertel)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
paul.mothena@scana.com (Paul Mothena)
Paul@beyondnuclear.org (Paul Gunter)

COL SCE&G – VC Summer Mailing List

pbessette@morganlewis.com (Paul Bessette)
porterhj@dhec.sc.gov (Henry Porter)
r.joshi15@comcast.net (Ravi Joshi)
randall@nexusamllc.com (Randall Li)
RJB@NEI.org (Russell Bell)
Ronald.Jones@scana.com (Ronald Jones)
russpa@westinghouse.com (Paul Russ)
rwink@ameren.com (Roger Wink)
sabinski@suddenlink.net (Steve A. Bennett)
sburdick@morganlewis.com (Stephen Burdick)
sbyrne@scana.com (Stephen A. Byrne)
sfrantz@morganlewis.com (Stephen P. Frantz)
shudson@regstaff.sc.gov (Shannon Hudson)
solleyda@dhec.sc.gov (David Solley)
stephan.moen@ge.com (Stephan Moen)
TGATLIN@scana.com (Thomas Gatlin)
threatsj@dhec.sc.gov (Sandra Threatt)
tom.miller@hq.doe.gov (Tom Miller)
TomClements329@cs.com (Tom Clements)
Vanessa.quinn@dhs.gov (Vanessa Quinn)
vcsnrc@scana.com (NRC Senior Resident Inspector
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
weave1dw@westinghouse.com (Doug Weaver)
William.Cherry@scana.com (William Cherry)
wmcherry@santeecooper.com (Marion Cherry)