



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

December 16, 2008

South Carolina Electric & Gas Company
Mr. Jeffrey B. Archie
Vice President, Nuclear Operations
Virgil C. Summer Nuclear Station
P.O. Box 88
Jenkinsville, SC 29065

SUBJECT: PUBLIC MEETING SUMMARY, VIRGIL C. SUMMER NUCLEAR STATION,
DOCKET NO. 05-395

Dear Mr. Archie:

This refers to the Category 1 public meeting conducted at your request in the Region II Office on December 11, 2008, at 10:00 a.m. The meeting's purpose was to discuss and review accomplishments achieved during the spring 2008 refueling outage and work force for the planned units at Virgil C. Summer Nuclear Station. Enclosed is a list of attendees (Enclosure 1) and the presentation handouts (Enclosure 2).

This meeting was mutually beneficial and provided the NRC staff with an understanding of your focus goals and direction for the operating unit and planned units.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact me at (404) 562-4655.

Sincerely,

/RA/

James S. Dodson, Acting Chief
Reactor Projects Branch 5
Division of Reactor Projects

Enclosures: 1. List of Attendees
2. Licensee Presentation Handouts

Docket No.: 50-395
License No.: NPF-12

cc w/encls: (See page 2)

December 16, 2008

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Mr. Jeffrey B. Archie
Vice President, Nuclear Operations
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SUBJECT: PUBLIC MEETING SUMMARY, VIRGIL C. SUMMER NUCLEAR STATION, DOCKET NO. 05-395

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PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE

ADAMS: Yes ACCESSION NUMBER: _____ SUNSI REVIEW COMPLETE

OFFICE	RII:DRP					
SIGNATURE	/RA/					
NAME	JDodson					
DATE	12/ /2008	12/ /2008	12/ /2008	12/ /2008	12/ /2008	12/ /2008
E-MAIL COPY?	YES NO					

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DRPII\RPB5\SUMMER\MEETINGS\VCS MEETING 121108\SUM
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cc w/encl:

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LIST OF ATTENDEES

Licensee

J. Archie, Site Vice President
D. Gatlin, Plant Manager
R. Ray, Operations Training Supervisor
D. Shue, Planning & Outage Management Manager

Region II

L. Reyes, Regional Administrator
V. McCree, Deputy Regional Administrator
L. Wert, Director, Division of Reactor Projects
R. Croteau, Deputy Director, Division of Reactor Safety
M. Widmann, Chief, Operator Licensing Branch
J. Dodson, Acting Chief, Reactor Projects Branch 5



Refuel 17 Post Outage Review

V.C. SUMMER NUCLEAR STATION

Don Shue
Manager, Planning & Outage Management




Outage Overview:

- Duration: April 25 to June 14, 2008
- Focus Of Goals:
 - Nuclear Safety
 - Radiological Safety
 - Industrial Safety
- Outage Milestones:
 - 53 of 54 Met (98%)



V.C. SUMMER NUCLEAR STATION



REFUEL-17 PLAN GOALS

GOAL	MINIMUM	TARGET	MAXIMUM	Actual
Nuclear Safety Significant Events	≥1	0	0	0
Recordable Injuries	2	1	0	1 SCE&G 4 Supplemental
Dose Goal	75 REM	70 REM	65 REM	56.8 REM
Human Performance Events	2	1	0	0
Schedule Duration	38.5 to 41 Days	37.5 to 38.5 Days	< 37.5 Days	49.2 Days
90 Day Run After Reaching 100% Power	95% Capacity	98% Capacity	98% Capacity	99.9%

V.C. SUMMER NUCLEAR STATION



Preoutage Focus Areas:

- Supplemental Workers:
 - 500 General Workers (Various Disciplines)
 - 200 Specialty Contractors
 - Able To Fill All Required Positions

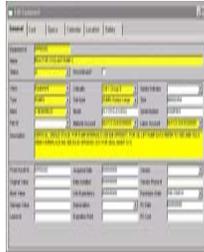


V.C. SUMMER NUCLEAR STATION



Preoutage Focus Areas:

- Computerized Maintenance Management System (CMMS)
 - Danger Tagging
 - Work Control
 - Materials Management
 - Condition Reports
 - On Site Information Services Technology (IST) Support



V.C. SUMMER NUCLEAR STATION



RF-17 Major Projects:

- Items To Be Reviewed:
 - Major Modifications
 - Items Having Significant Schedule Impact
 - Items Previously Discussed At Pre-Outage Meeting



V.C. SUMMER NUCLEAR STATION

Pressurizer Weld Overlay (Plan):

- Required By Material Reliability Program Number 139 (MRP-139).
- VC Summer Allowed Deviation to 2008
- Overlay Six Nozzles
 - Surge Line (1)
 - Safety Valves (3)
 - Spray Line (1)
 - Power Operated Relief (1)
- Repair Vendor: WSI



V.C. SUMMER NUCLEAR STATION

Pressurizer Weld Overlay (Results):

- Overlay Went Very Well
- Second Lowest Dose In Nation (10.17R)
- Completed Ahead of Schedule
- Attributable To:
 - Preoutage Planning
 - Highly Qualified Vendor
 - VC Summer Employee Ownership Of Project



V.C. SUMMER NUCLEAR STATION

"C" RCP Gasket Replacement (Plan):

- Slow Weep on Startup Under Cold Conditions
- Does Not Weep Under Hot Conditions




- Upgrade Flange Using Hydranuts
- Repair Vendor: AREVA

V.C. SUMMER NUCLEAR STATION

"C" RCP Gasket Replacement:

- No External Leakage
- Completed In Scheduled Duration
- VC Summer Stepped In To Support
- Hydranuts Were Successful
- Shaft Scratch Issue



V.C. SUMMER NUCLEAR STATION

B.5.B Large Area Fire Enhancements

- Completed Online Plant Changes in 2007
- RF System Modifications:
 - Main Feedwater
 - Condensate
 - Reactor Building Spray

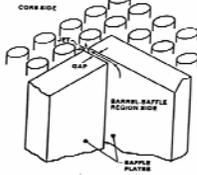



- Modifications Completed
- B.5.B NRC Inspection Completed In June 2008

V.C. SUMMER NUCLEAR STATION

Refueling Focus Items:

- Visual Inspection Of Lead Test Assembly
- Installation Of New Control Rods

- No Fuel Leaks
- Core Reloaded Per Design
- Will Perform Upflow Conversion In RF-18

V.C. SUMMER NUCLEAR STATION

Turbine & Generator Inspection:

- Turbine Inspection:
 - Cleaning
 - Inspection
 - NDE




- Generator Inspection:
 - Robotic
 - Wedge Tapping

V.C. SUMMER NUCLEAR STATION

Turbine & Generator Inspection:

- Alterex Refurbishment:
 - Refurbished Offsite
 - Stiffened
 - Realigned




- Results:
 - Very Low Vibration
 - No. 9 Bearing is Less Than 0.5 mils

V.C. SUMMER NUCLEAR STATION

Secondary Inspections: Flow Accelerated Corrosion (FAC)

- Inspected 302 Grid Locations:
- No FAC Replacements Were Required




V.C. SUMMER NUCLEAR STATION

Feedwater Booster Pump Repairs:

- "A" Pump Has New Design Seals
- "B" Pump Was Refurbished Including New Design Seals




- New Style Seals Are Performing Well
- "C" & "D" Pumps Previously Refurbished

V.C. SUMMER NUCLEAR STATION

Circulating Water Pump Motors:

- Began Purchase of New Motors Over 2 Years Ago
- Installed New Motor Onto "A" CW Pump




- The "Old" CW Motor Will Now Be A Spare
- New Motors Are More Reliable

V.C. SUMMER NUCLEAR STATION

Positives:

- Outage Communication Was Very Good
- Shutdown to Mode 5 Increasing Went Well:
 - Record Short Duration For VC Summer
 - Total Duration of 569 Hours
 - VC Summer Previous Best 595 Hours
- Resolved Preoutage 2 MW Loss
 - Turbine Gland Seal Loss via HP Shell To Packing Gland
 - Replace Divider Gaskets In HP Heaters 1A & 1B
 - Repair Tube Issues In LP Heaters Including 6A

V.C. SUMMER NUCLEAR STATION

SCE&G

Positives:

- Installed New Control Rod Drive Cooling Tower:
 - Inspected Existing Tower Early In Outage
 - Had Contingency In Place For New Tower



V.C. SUMMER NUCLEAR STATION

SCE&G

Positives:

- Upgraded FW Control Valve Air System:
 - New Air Filters
 - Air Gag System
 - Stainless Steel Tubing
 - New Solenoids



V.C. SUMMER NUCLEAR STATION

SCE&G

Significant Challenges:

- Four Major Contributors
 - DG Governor Replacement
 - Addition Of SW Valves On RB Return To Pond
 - "B" Train RHR Discharge To RCS Valve Leakage
 - Digital Rod Position Indication
- All Were From Mode 5 To Plant On Line
- Performing Causal Evaluation (CR-08-02965)
- Outage Critique Information
 - Approximately 400 Items Reviewed
 - Resolution At Management Level

V.C. SUMMER NUCLEAR STATION

SCE&G

Challenges:

- DG Governor Replacement (ECR-50466):
 - Improve Reliability
 - Old Governor No Longer Vendor Supported
 - Replacement Requires Precise Tuning
 - Quick Speed Response on Start
 - Long Term Stability
 - Proved Very Difficult
 - 73 Hour Delay

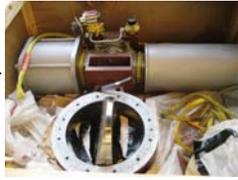


V.C. SUMMER NUCLEAR STATION

SCE&G

Challenges:

- Service Water to RB Upgrades (GL 96-06)
 - New Butterfly Valves
 - XVB-3107 A&B
 - Prevent Water Hammer
 - Specifications:
 - VCS Supplied Critical Specifications
 - Valves Certified By Vendor
 - Did Not Meet Dynamic Specifications



V.C. SUMMER NUCLEAR STATION

SCE&G

Challenges:

- Service Water to RB Upgrades
 - VCS Redesign Required
 - 78 Hour Delay



V.C. SUMMER NUCLEAR STATION



Challenges:

- RHR Discharge Valve XVG-8887B
 - Found Packing Leak
 - In ECCS Post Accident Flowpath






- Led to Discovery Of Scratched Stem
- Required Complete Valve Disassembly
- 65 Hour Delay

V.C. SUMMER NUCLEAR STATION



Challenges:

- Digital Rod Position Indication (DRPI)
 - Control Room Rod Position Indication
 - Computer Card Based System
 - Inconsistencies In Rod Indication
 - Removed Panel From MCB
 - Tested Cards



V.C. SUMMER NUCLEAR STATION



Challenges:

- Misaligned Cards led to Overload
- Overload Damaged Wires
- Solder Dislodged





- Allowed Pin Shorts
- 76 Hour Delay

V.C. SUMMER NUCLEAR STATION

Questions?



V.C. SUMMER NUCLEAR STATION

VCS Operator Staffing Plans

- ▶ Unit 1 Attrition
- ▶ Units 2 and 3 Initial Staffing

Unit 1 Staffing Needs through 2015

- ▶ Replace 23 Licensed Operators lost through attrition:
 - This includes anticipated losses of 2 licensed operators per year and adjusts for current shortfall due to recent losses
- ▶ Provide 32 Experienced Licensed Operators to Units 2 and 3:
 - 21 Senior Reactor Operators
 - 11 Reactor Operators
- ▶ An estimated 55 new licenses will be required on Unit 1

Staffing Units 2 and 3

- ▶ Current staffing plans for Units 2 and 3 are built around providing a solid core of Unit 1 staff to ensure preservation of our safety culture.
- ▶ 40% of Licensed Operators will be Unit 1 transfers, including 21 Senior Reactor Operators
- ▶ The Operations Training staff for Units 2 and 3 will come from Unit 1.

Units 2 and 3 staff

- ▶ Totals:
 - Licensed Operators - 73
 - Non-Licensed Operators - 54
- ▶ Through 2011, majority of new hires for Units 2 and 3 will be trained and qualified on Unit 1
- ▶ Licensed Operator training for Units 2 and 3:
 - starts in 2012
 - combines qualified Unit 1 candidates with new hires
- ▶ Starting in 2012, new hires for Units 2 and 3 will go directly into Unit 2 organization.

Instructor Resources

- Unit 1 Training staff increased in 2008
- Hiring one third of Unit 2 and 3 Instructor staff annually from 2008 through 2010
- Future Unit 2 and 3 instructors will be trained on Unit 1 to:
 - Imbed the VCS culture
 - Assist with increased training classes to support Unit 2 and 3 pipeline
- One third of Unit 2 and 3 Instructor staff will transfer from Unit 1 annually, starting in 2010

Licensing Exams

Licensing exam schedule needed to support staffing projections:

- Unit 1 – 2009 through 2015
- 8 initial license exams, up to 12 candidates per exam

Licensing Exams

Unit 2 – 2014 through 2015

- Four initial exams
- Up to 16 candidates per exam
- First exam anticipated Spring 2014
- Second exam Fall 2014
- Two classes (32 candidates) examine spring 2015.
- Up to 2 additional exams to support Unit 3 – dates TBD