

August 6, 2002 RC-02-0126

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

Attention:

Mr. Rajender Auluck

Gentlemen:

Subject:

VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50/395

SYSTEM DRAWINGS SUPPORTING THE

APPLICATION FOR RENEWAL OF OPERATING

LICENSE

Reference: Letter from SCE&G (S. A. Byrne) to NRC (Document Control Desk) dated August

6. 2002 (RC-02-0123)

South Carolina Electric & Gas (SCE&G) Company has submitted an application in accordance 10 CFR 54 for renewal of the Operating License for the Virgil C. Summer Nuclear Station (VCSNS). During preparation of the application, system drawings were prepared that show the portion of the mechanical systems within scope of license renewal. These drawings were developed using existing system flow diagrams. The drawings have been highlighted to show the system boundaries associated with fulfilling one or more system intended functions as discussed in 10 CFR 54.4(b). These drawings are not part of the official application for license renewal; however, SCE&G is making them available to the NRC staff as additional information to support a more efficient review.

An index of the drawing is provided with each of the five sets of drawings that are provided. In addition, files containing the system drawings have been included on the compact disc copies of the License Renewal Application, submitted separately, as an aid to the reviewers of the application.

Should have any questions, please call Mr. Ron Clary at (803) 345-4757.

Very truly yours,

Stephen A. Byrne

A094

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WRH/SAB/wh **Enclosures**

C:

N. O. Lorick (without enclosures)

N. S. Carns (without enclosures)
T. G. Eppink (without enclosures)

R. J. White (without enclosures)

L. A. Reyes

NRC Resident Inspector

Paulett Ledbetter (without enclosures)

5

K. M. Sutton

T. P. O'Kelley

R. B. Clary

W. R. Higgins

File (813.20)

DMS (RC-02-0126)

THE FOLLOWING IS A LISTING OF OVERSIZED DRAWINGS CONTAINED WITHIN THIS DOCUMENT.

TO VIEW A DRAWING,
REFERENCE THE
DRAWING NUMBER
DESIRED ON THE LIST
AND LOCATE IT WITHIN
THIS PACKAGE, OR
PERFORM A SEARCH
USING THE DRAWING
NUMBER

DWG. Number

P

<u>Title</u>

DWG. Number

<u>Title</u>

	Site Facilities Drawing
1MS-05-141-1	Personnel Escape Airlock
1MS-05-142-1	Personnel Escape Airlock
1MS-05-143-07	Personnel Escape Airlock - Airlock Cross
	Sections & Details
1MS-05-150-1	Personnel Escape Airlock
	Reactor Building Liner
1MS-05-198-1	Personnel Access – Remote Test Panel
1MS-09-012-11	AL-623C Waste Gas Compressor
	Waste Evaporator Package
	Recycle Evaporator Package
	Charging/Safety Injection Pumps
	Oil Piping
	Actuator Cylinder Assembly
	Fuel Oil System
	Lube Oil System
1MC 22 005 5 15	Jacket Water System
1MC 32 005 6 20	Intercooler & Injector Cooling System
1MC 22 005 7	Starting & Control Air System - Colt Ind
1MS-44-014 1	Air Intake & Exhaust
11410-444-014-1	3 Loop Plant Bottom Mounted Inst. Standard
1MS-54-064-2 6	VU Mechanical Chillers
· · · · · · · · · · · · · · · · · · ·	Low Pressure CO ₂ Fire Extinguishing System
HVIO-00-40-1-4	
1MS-55-40-2-1	Schematic Arrangement Low Pressure CO ₂ Fire Extinguishing System
11VIO-00-40-2-1	Schematic Arrangement
1MS-55-040-03-5	Low Pressure CO ₂ Fire Extinguishing System
	Low Pressure CO ₂ Fire Extinguishing System Low Pressure CO ₂ Fire Extinguishing System
11110 00-040-1044	Schematic Arrangement
1MS-55-059-1-9	Deluge Water Spray Systems – Deluge Valve
55 555-1-5	Station – Turbine Building
1MS-55-059-9-7	Deluge Water Spray Systems Turbine Building
	Boiler feed Pump Protection
1MS-55-085-10-3	Automatic Sprinkler
1MS-55-085-11-8	Cable Spreading Room El. 425'-0" Pre-Action
	Sprinkler System Automatic Sprinkler 47-200
1MS-55-085-12-7	Cable Spreading Room El 448'-0" Pre-Action
1100-00-000-12-7	Sprinkler System Automatic Sprinkler 47-200
1MS-55-085-13-7	Control Complex, Cable Chase El 463'-0" Pre-
11110 00 000 10 7	Action Sprinkler System 47-200
1MS-55-085-26-11	Diesel Generator Building Diesel Fire Pump
	Room
1MS-55-085-27-2	Charcoal Filter Plemum System
	Valve Details Charcoal Filler Plenums
	Service Water Pump House Pre-Action
50 .00	System DW44-85151
1MS-55-137-4-6	Automatic Sprinkler DW 44-85151
1MS-55-137-5-8	Automatic Sprinkler DW 44-85151
1MS-55-137-6-8	Automatic Sprinkler DW 44-85151
1MS-55-137-6A-2	Automatic Sprinkler DW44-85151
	(Intermediate Bldg El 412'-0")
B-816-061-4	Instrument Air Supply Diagram Intermediate
	Building
B-816-062-4	Instrument Air Supply Diagram Intermediate
	Building
B-817-026-13	Control Air Supply Tubing Diagram
B-817-042-10	Control Air Supply Tubing Diagram
B-817-047-6	Control Air Supply Tubing Diagram
B-817-048-11	Control Air Supply Tubing Diagram
B-817-056-1-14	Control Air Supply Tubing Diagram
B-817-062-11	Control Air Supply Tubing Diagram Control Air Supply Tubing Diagram
B-817-113-14	Control Air Supply Tubing Diagram
B-817-130-0	PZR PORV Control Air Supply Tubing
_ 0., 100 0	Diagram
D-302-001-24	Diagram Symbols & Schedule System &
	Instrument Identification
D-302-011-34	Main Steam (Nuclear)
D-302-011-04	Main Steam (Nuclear) Main Steam (Non-Nuclear)
D-302-012-24	Main & Reheat Steam (Non-Nuclear)
D-302-014-3	
D-302-031-14	Main Steam Dump System
	Extraction Steam Auxiliary Steam
	Feedwater (Nuclear)
D-302-085-40	Emergency Feedwater (Nuclear)
D-302-101-50	Condensate Main Steam Prains
D-302-121-10	Main Steam Drains
D-302-122-10	Feed Pump Start-Up, Extraction & Misc.
	Steam Drains
D 200 444 45	Turking Olevel Otto
D-302-141-15	Turbine Gland Steam
D-302-181-13	Turbine Cycle Sampling
D-302-181-13 D-302-221-20	Turbine Cycle Sampling Service Water Cooling
D-302-181-13 D-302-221-20 D-302-222-42	Turbine Cycle Sampling Service Water Cooling Service Water Cooling
D-302-181-13 D-302-221-20 D-302-222-42 D-302-231-1-30	Turbine Cycle Sampling Service Water Cooling Service Water Cooling Fire Service Pumps
D-302-181-13 D-302-221-20 D-302-222-42 D-302-231-1-30 D-302-231-2-5	Turbine Cycle Sampling Service Water Cooling Service Water Cooling Fire Service Pumps Fire Service Hydrants & Loop
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D-302-181-13 D-302-221-20 D-302-222-42 D-302-231-1-30 D-302-231-2-5 D-302-231-3-3 D-302-231-4-1 D-302-231-5-4	Turbine Cycle Sampling Service Water Cooling Service Water Cooling Fire Service Pumps Fire Service Hydrants & Loop Fire Service RB, AB, IB, DB, FH, CB Fire Service TB & WTB Fire Service Valve Manifolds
D-302-181-13 D-302-221-20 D-302-221-42 D-302-231-1-30 D-302-231-2-5 D-302-231-3-3 D-302-231-4-1 D-302-231-5-4 D-302-232-3	Turbine Cycle Sampling Service Water Cooling Service Water Cooling Fire Service Pumps Fire Service Hydrants & Loop Fire Service RB, AB, IB, DB, FH, CB Fire Service TB & WTB Fire Service Valve Manifolds Fire Service-Halon & Low Pressure
D-302-181-13 D-302-221-20 D-302-222-42 D-302-231-1-30 D-302-231-2-5 D-302-231-3-3 D-302-231-4-1	Turbine Cycle Sampling Service Water Cooling Service Water Cooling Fire Service Pumps Fire Service Hydrants & Loop Fire Service RB, AB, IB, DB, FH, CB Fire Service TB & WTB Fire Service Valve Manifolds
	1MS-05-167-1 1MS-05-168-1 1MS-05-168-1 1MS-05-169-1 1MS-05-194-1 1MS-05-194-1 1MS-05-196-1 1MS-05-198-1 1MS-09-012-11 1MS-09-238-16-5 1MS-09-269-6 1MS-12-004-2-1 1MS-17-125-1 1MS-25-898-0 1MS-32-005-3-20 1MS-32-005-3-20 1MS-32-005-4-16 1MS-32-005-5-15 1MS-32-005-6-20 1MS-32-005-7 1MS-44-014-1 1MS-54-064-2-6 1MS-55-40-1-4 1MS-55-040-10-4 1MS-55-040-10-4 1MS-55-085-11-8 1MS-55-085-11-8 1MS-55-085-12-7 1MS-55-085-12-7 1MS-55-085-13-7 1MS-55-085-26-11 1MS-55-085-26-11

2-273-11 2-274-11 2-293-2 2-311-12 2-351-10 2-352-26 2-353-11 2-606-0 2-611-32 2-612-23 2-613-19 2-614-13 2-651-39 2-661-31 2-772-19 2-772-19 2-781-26 2-791-23 2-811-9 2-821-26 2-821-30 2-843-15 2-852-11 2-861-30 2-6001-7 16-002-6	Reactor Building Instrument Air Instrument Air Backup EH System Hydraulic Power Unit Nitrogen Blanketing Diesel Generator – Fuel Oil Non-Nuclear Plant Drains Diesel Generator Miscellaneous Services Reactor Coolant Pumps Oil Collection System Component Cooling System Component Cooling System (Inside Reactor Building) Component Cooling System (Non ESS Equipment cooling) Component Cooling System to NSSS Pumps Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric Radiation Monitoring System Diagram
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2-293-2 2-311-12 2-351-10 2-352-26 2-353-11 2-606-0 2-611-32 2-612-23 2-613-19 2-613-19 2-614-13 2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-824-6 2-824-6 2-844-23 2-842-17 2-843-15 2-852-11 2-861-30	EH System Hydraulic Power Unit Nitrogen Blanketing Diesel Generator – Fuel Oil Non-Nuclear Plant Drains Diesel Generator Miscellaneous Services Reactor Coolant Pumps Oil Collection System Component Cooling System Component Cooling System (Inside Reactor Building) Component Cooling System (Non ESS Equipment cooling) Component Cooling System to NSSS Pumps Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
2-613-19 2-614-13 2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-824-6 2-841-23 2-842-17 2-843-15 2-852-11 2-861-30	Nitrogen Blanketing Diesel Generator – Fuel Oil Non-Nuclear Plant Drains Diesel Generator Miscellaneous Services Reactor Coolant Pumps Oil Collection System Component Cooling System Component Cooling System (Inside Reactor Building) Component Cooling System (Non ESS Equipment cooling) Component Cooling System to NSSS Pumps Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
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2-613-19 2-614-13 2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-824-6 2-841-23 2-842-17 2-843-15 2-852-11 2-861-30	Component Cooling System (Inside Reactor Building) Component Cooling System (Non ESS Equipment cooling) Component Cooling System to NSSS Pumps Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
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2-614-13 2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-821-26 2-824-6 2-841-23 2-842-17 2-843-15 2-852-11 2-861-30	Component Cooling System (Non ESS Equipment cooling) Component Cooling System to NSSS Pumps Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
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2-614-13 2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-821-26 2-824-6 2-841-23 2-842-17 2-843-15 2-852-11 2-861-30	Component Cooling System to NSSS Pumps Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-821-26 2-824-6 2-844-23 2-842-17 2-843-15 2-852-11 2-861-30	Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
2-651-39 2-661-31 2-715-23 2-771-35 2-772-19 2-781-26 2-791-23 2-811-9 2-812-16 2-821-26 2-824-6 2-844-23 2-842-17 2-843-15 2-852-11 2-861-30	Spent Fuel Cooling Reactor Building Spray System Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
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2-791-20 2-791-23 2-811-9 2-812-16 2-821-26 2-824-6 2-841-23 2-842-17 2-843-15 2-852-11 2-861-30	Demineralized Waste Nuclear Services Nuclear Sampling Normal & Post-Accident Sampling Steam Generator Blowdown Reactor Make-up Water System Reactor Building Leak Rate Testing System ECCS Check Valve Testing Reactor & Auxiliary Building Sump Pumps Reactor Building Cooling Unit Drains Chilled Water Pump & Chiller Area Chiller Water – To Cooling Coils Chilled Water – To Cooling Coils CRDM Cooling Water Post Accident Hydrogen Removal & Alternate Purge System Atmospheric
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