SEP 2 0 1988

Docket No. 50-395

LICENSEE: South Carolina Electric & Gas Company

FACILITY: V. C. Summer Nuclear Station

SUBJECT: SUMMARY OF MEETING WITH SOUTH CAROLINA ELECTRIC & GAS COMPANY

General

On August 17, 1988, the NRC staff, consisting of representatives of the Office of Nuclear Reactor Regulation, met with the South Carolina Electric & Gas Company (SCE&G) to discuss the removal of the fire protection technical specifications for the V. C. Summer Nuclear Station and the recent issuance of Generic Letter 88-12, "Removal of Fire Protection Requirements from Technical Specifications." The meeting was held at the NRC offices in Rockville, Maryland. A list of those persons who attended the meeting is included as Enclosure 1.

Discussion

SCE&G's submittals of March 31, 1987 and June 20, 1988 were discussed in detail. Additional review of these submittals will be performed by SCE&G to ensure that they conform to Generic Letter 88-12. Schedule will be discussed later due to the beginning of the refueling outage on September 16, 1988. Enclosure 2 consists of the handouts which were discussed during the meeting.

151

John J. Hayes, Jr., Project Manager
Project Directorate II-1
Division of Reactor Projects I/II

Enclosures:
As stated

cc w/enclosures:
See next page

DFO1
1/1

OFC	:PM:PD2-1:DRPR	:D:PD2-1:DRPR	:	:	:	:	:
NAME	: JJHayes:ch	: SAVarga	:	:	:	:	:
DATE	: 9/19/88	: 9/20/88	:	:	:	:	:

OFFICIAL RECORD COPY

cc:

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ENCLOSURE 1

ATTENDANCE

August 17, 1988 Meeting

SCE&G	NRC	Observers
H. Donnelly	D. Kubicki	L. Trout, Jr.
T. Keckeisen	E. Reeves	(Alabama Power Co.)

ENCLOSURE 1

ATTENDANCE

August 17, 1988 Meeting

SCE&G	NRC	Observers
H. Donnelly	D. Kubicki	L. Trout, Jr.
T. Keckeisen	E. Reeves	(Alabama Power Co.)

ENCLOSURE 2

Handout distributed at NRR 8/17/88 agreed to as noted below.

NRR QUESTIONS RELATED TO REMOVAL OF FIRE PROTECTION REQUIREMENTS FROM TECHNICAL SPECIFICATIONS

Q/S Requirement for Section 6.2.2.c, Site Fire Brigade Requirements, should remain within the Technical Specifications.

A This determination will be made after discussion with NRR. Removed

Q/S Does a requirement exist in Technical Specifications to establish written procedures for the Fire Protection Program?

A Yes, Section 6.8 requires this. (See page 6-13 of the Technical Specifications.)

Q/S Present submittal uses words "equivalent level of limiting conditions...." Initial programs should use "identical" Technical Specifications requirements.

A Initial program does use identical requirement. (See letter of clarification.) add GL-88-012 ??

Q/S Does the FSAR/FPER address a commitment to the NFPA codes and are these codes met?

A Section 9.5.1 addresses the commitment. Codes are utilized as guides as described within the program.

Q/S The Fire Protection Program should be included in Section 9.5 of the FSAR or referenced in this section.

A The Fire Protection Program is included by reference. (See page 9.5-1.)

Q/S The related Fire Protection letters should be referenced with the FSAR/FPER. Especially letters dated April 23, 1986 and May 28, 1985. SER's should reflect complete program.

A The two letters are referenced in the FPER. (See page 3.1-5.) The most recent SER's address the re-evaluated Appendix R program and were incorporated into the FPER via Revision Notice #730 (attached).

SER — Agency — double check!

d. Critical operation of the unit shall not be resumed until authorized by the Commission.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
b. Refueling operations.
c. Surveillance and test activities of safety-related equipment.
d. Security Plan.
e. Emergency Plan.
f. Fire Protection Program.
g. PROCESS CONTROL PROGRAM.
h. OFFSITE DOSE CALCULATION MANUAL.
i. Effluent and environmental monitoring program using the guidance in Regulatory Guide 4.15, Revision 1, February 1979.

6.8.2 Each procedure of 6.8.1 above, and changes thereto, shall be reviewed prior to implementation as set forth in 6.5 above.

6.8.4 The following programs shall be established, implemented, and maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the chemical and volume control, letdown, safety injection, residual heat removal, nuclear sampling, liquid radwaste handling, gas radwaste handling and reactor building spray system. The program shall include the following:

(i) Preventive maintenance and periodic visual inspection requirements, and
(ii) Integrated leak test requirements for each system at refueling cycle intervals or less.

b. In-Plant Radiation Monitoring

A program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

(i) Training of personnel,
(ii) Procedures for monitoring, and
(iii) Provisions for maintenance of sampling and analysis equipment.

August 29, 1988

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

Subject: Virgil C. Summer Nuclear Station
Docket No. 50/395
Operating License NO. NPF-12
Fire Protection Technical
Specification Amendment Request

Gentlemen:

As described in our March 31, 1987 and December 21, 1987 letters, South Carolina Electric & Gas Company (SCE&G) has been evaluating the concept of amending the FSAR, by incorporating our Fire Protection Evaluation Report (FPER) into the FSAR Chapter 9 by reference and removing the fire protection elements from the Virgil C. Summer Technical Specifications. This will transfer the fire protection program commitments, reporting requirements and amendment from the jurisdiction of 10CFR50.73 and 10CFR50.90 to 10CFR50.71(e). The Summer Fire Protection Program will be completely described and controlled through the FSAR/FPER and Station Administrative procedures rather than through the combination of FSAR/FPER and Technical Specifications. This will be consistent with the recommendations contained in Generic Letter 86-10 and G.L. 88-12

The fire protection program in place at the Virgil C. Summer Nuclear Station meets the requirements of existing Technical Specifications. With relatively straightforward changes, the fire protection program can be incorporated into the FSAR/FPER as recommended by the Generic Letter. Based on discussions with the staff on August 17, 1988, the fire protection associated sections will be removed from the Technical Specifications and the existing Surveillance Test Procedures will be retained by converting them to Preventative/Fire Test Procedures. The limiting conditions and remedial action portions of these sections will be re-established by expanding an existing Station Administrative procedure. The same level of limiting conditions, and actions to be taken will be established within this procedure and other plant procedures to provide a level of protection as described in the existing Technical Specifications.

If your have any question, please advise.

Very truly yours,

D. A. Nauman

c: See page 2

HID/DAN:bgh

Attachments

c: D. A. Nauman
J. G. Connelly, Jr.
E. C. Roberts
W. A. Williams, Jr.
J. N. Grace
J. J. Hayes, Jr.
General Managers
C. A. Price/R. M. Campbell, Jr.
R. B. Clary
K. E. Nodland
J. C. Snelson
G. O. Percival
R. L. Prevatte
J. B. Knotts, Jr.
H. G. Shealy
NSRC
RTS
NPCF
File

9.5 OTHER AUXILIARY SYSTEMS

9.5.1 FIRE PROTECTION SYSTEM

9.5.1.1 Design Bases

The fire protection system is designed to provide adequate fire protection for each hazard. It provides prompt fire detection, alarm and extinguishment. The fire protection system is designed to supplement the other fire protection safeguards incorporated into the plant design, including a low combustible fire loading and adequate separation of fire areas. Included in the total fire protection system are a fire protection water supply and distribution system, a fire detection and alarm system and gaseous extinguishing systems, as well as fixed water spray and automatic sprinkler systems.

The fire protection systems are also addressed in the Fire Protection Evaluation Report (FPER), which is considered a part of this FSAR. The FPER has as its objective the evaluation of the potential effects of a fire in any location in the plant and to demonstrate that a fire would not adversely affect safe shutdown and would not result in an uncontrolled release of radioactivity.

The fire protection system has been designed to satisfy the interest and concerns expressed in the guidelines given in the National Fire Protection Association (NFPA) Standards 1973, the requirements of the American Nuclear Insurers (ANI) 1976, and the Factory Mutual (FM) Loss Prevention Guidelines 1973. In addition, it complies with Occupational Safety and Health Act (OSHA) regulations 1972 and the Southern Standard Building Code 1973. Fire protection devices, where possible, are listed or approved by the Underwriters Laboratories (UL) or FM.

Materials of construction for the plant are fire resistive or noncombustible. Where interior finishes are provided, such as in office or control room areas, these finishes are noncombustible with flame spread ratings less than 25. A rating of 25 or less is considered noncombustible by the National Building Code. Pipe and duct insulation, including adhesives, are noncombustible. Electrical cable jacketing is of the flame retardant, nonpropagating type. Building roof deck assemblies satisfy the requirements for FM Class 1 roof decks.

The plant is separated into various buildings, including: turbine building, service building, control building, reactor building, diesel generator building, fuel handling building, auxiliary building, intermediate building, water treatment building, radiological maintenance building, and auxiliary service building. The separations between these buildings consist of three hour fire barriers with Class A three hour rated fire doors, fire dampers or other fire stops with the exception of the ceiling of the west penetration access area which is of reinforced concrete on unprotected steel. Three hour fire rated floor assemblies are provided in the control building.

Extended vertical runs of cable trays which pass through non-rated floors and ceilings are fire stopped with silicone RTV foam to prevent propagation of fire. Fire stops are provided at floor levels in the reactor building for cable trays which rise vertically more than 7 feet above the floor and then penetrate building walls.

Stairways penetrating floors and elevators outside the reactor building are enclosed in one hour or two hour fire rated shafts. Extensive vertical runs of cable trays are within three hour fire rated chases or are provided with fire stops or fire seals at each floor. In addition, high hazard equipment, such as the main turbine lube oil reservoir and pumps, are enclosed in three hour fire rated rooms. Ventilation system ducts are provided with two-1 1/2 hour or one-3 hour approved fire damper where these ducts penetrate 3 hour fire rated floors and walls. Hydrogen and other combustible gas manifolds are located outdoors. Smoke and heat would be vented as described in Section 5.0 of the Fire Protection Evaluation Report.

Outdoor transformers are separated from each other by fire walls where there is less than 50 feet of spatial separation. The outdoor transformers are provided with concrete pads, curbs, and trapped drainage to remove oil and water to a remote area. Outdoor transformer pads are filled to one foot below the top of the curb with coarse crushed rock to limit the oil surface area exposed to the atmosphere. In a similar fashion, concrete floors of building areas having oil lines or oil equipment are provided with trapped floor drains to ensure safe removal of oil and water. Building floor areas without oil hazards are provided with standard floor drains and/or sumps to remove fire water from fixed systems and hose streams. Equipment is mounted on pedestals.

The fire protection system is classified as non-nuclear safety class. However, it is designed to ensure that operation or failure of any portion of the system does not produce unsafe conditions.

9.5.1.2 System Description

9.5.1.2.1 Fire Protection Water Supply and Distribution System

The fire protection water supply and distribution system, shown by Figure 9.5-1, provides fire protection water to the point of highest demand with one side of the loop out of service. Fire protection water is supplied at an adequate pressure and in sufficient volume to supply the largest fixed fire protection system plus 1000 gpm for hose streams. Alternatively, for a fire in a plant area containing safety related equipment, there is sufficient volume to supply the largest fixed fire protection system, plus 500 gpm for hose streams, and 1000 gpm for emergency diesel generator cooling. Monticello Reservoir is the water supply for the fire protection water supply and distribution system.

The system includes one electric motor driven, 20 gpm jockey pump to maintain system pressure between 95 and 120 psig at all times. Two 2500 gpm, UL listed, vertical centrifugal, turbine type fire pumps, located in the circulating water intake structure, supply water to the system. One of these fire pumps is electric motor driven. The other, backup fire pump is diesel engine driven. Electric power for the electric motor driven pump is supplied from the normal station service bus. The diesel driven pump provides 100 percent backup to the electric motor driven pump. Fuel oil for the diesel engine driven pump is supplied from an 8 hour capacity fuel oil tank located outside the circulating water intake structure. Each fire pump is controlled by a UL listed controller.

The electric motor driven fire pump starts automatically should system pressure drop to 95 psig. The diesel engine driven fire pump starts automatically at a system pressure of approximately 85 psig. Both pumps continue to operate until manually switched off.

Provisions are made for testing the operation of the fire pump through a fire service test connection outside the circulating water intake structure.

The fire protection water supply and distribution system includes a complete exterior, underground, yard hydrant loop, as well as an interior distribution piping system. Hydrants are provided at approximately 300 foot intervals along the loop and are approximately 50 feet from the buildings. Each hydrant has a hose house equipped with 250 feet of 2 1/2 inch fire hose, two combination spray nozzles and miscellaneous tools and hose couplings. The interior distribution headers supply continuous flow hose reels, fire hose cabinets, and various water type, fixed, fire extinguishing systems. Each hose reel is equipped with 75 feet (or 100 feet) of 1-1/2 inch, noncollapsible, hard rubber, suction type hose and a fog nozzle. Each fire hose cabinet is equipped with 75 feet (or 100 feet) of 1-1/2 inch rubber lined fire hose and a fog nozzle. Interior and exterior distribution system piping is provided with adequate sectionalizing valves located at strategic positions in the system in order to permit maintenance on portions of the system without shutting down the entire fire protection system.

9.5.1.2.2 Fire Detection and Alarm System

The fire detection and alarm system functions in conjunction with the plant security system in an integrated fire and security system. This system provides alarm information in each of three locations: the control room, the security central alarm station, and the security secondary alarm station. Whenever a fire is detected, an audible signal is sounded and the location of the fire is annunciated at each location.

The system includes a digital computer at the security office and remote multiplexing units (RMU) near groups of alarm devices. Communication with the RMU's is by means of redundant loops which operate simultaneously. Failure of one loop is alarmed. The system continues to function using the remaining loop.

Fire alarm signals are connected to the RMU's from local fire control panels by means of supervised circuits which qualify for Class B operation in accordance with NFPA 72D[2]. The fire detection systems used to actuate water suppression systems in safety related areas qualify for Class A operation in accordance with NFPA 72D[2]. Local fire alarms are provided at the local fire control panels.

The fire detection and alarm system is designed to provide rapid and reliable detection and location of fires in their early stages.

Ionization type smoke detectors are located in many areas and rooms of the plant in order to provide early warning of a fire condition. The specific areas and rooms containing smoke detectors are shown on the fire protection evaluation drawings in the Fire Protection Evaluation Report.

In addition to the above system, ionization type smoke detectors and high temperature alarms are provided in heating, ventilating and air conditioning (HVAC) ducts at the discharges of fans. These alarms are connected to a separate alarm system on the HVAC control board in the control room.

Detection devices for fixed fire protection systems are discussed in the description of the individual systems. Such fire detection devices are connected to the integrated fire and security system. The integrated fire and security system also monitors the fire protection water supply and distribution system and annunciates fire and trouble conditions in that system.

9.5.1.2.3 Carbon Dioxide Fixed Fire Extinguishing Systems

Carbon dioxide is used in the fixed fire extinguishing system for the relay room, computer room, and technical support center computer room at elevation 436'-0" in the control building. Carbon dioxide extinguishes fire by dilution of the oxygen concentration in the atmosphere to a level less than that required to support combustion (less than 12 volume percent). Extinguishing concentrations reduce the oxygen concentration below that required to support life. Therefore, special safety precautions are taken in areas where it is used, including alarms and time delay prior to discharge. Equipment is provided to permit disarming a portion of the system that serves an area which is to be occupied.

Areas subject to deep seated fires are provided with an adequate soaking period to ensure extinguishment. No decomposition products result from extinguishing a fire with carbon dioxide. The entire carbon dioxide system complies with NFPA 12[3].

The fixed carbon dioxide extinguishing system is automatically activated by heat-actuated detectors. In addition, each system is provided with a manual release capability.

9.5.1.2.4 Halon 1301 Extinguishing System

The permanent records storage room and telephone equipment room in the service building at elevation 436'-0" and the three individual rooms comprising the security computer room in the control building at elevation 436'-0" are protected by Halon 1301 extinguishing systems. These systems are automatically actuated by ionization type smoke detectors. Manual actuation by an electric breakglass station is provided at the entrance to each room.

9.5.1.2.5 Fixed Water Type Extinguishing Systems

Fixed water type extinguishing systems include automatic sprinkler systems, deluge water-spray systems and preaction sprinkler systems. Automatic, wet pipe sprinkler systems are installed in the following areas:

1. Turbine building, below the operating and mezzanine floors.

2. Service building, elevation 436'-0" between column lines 101-113 and elevation 448'-0" with the exception of rooms 104 and 118.

3. Control building, elevation 412'-0" and elevation 436'-0" room 36-06 and 36-08 and 36-12.

4. Diesel engine driven fire pump room in condenser circulating water intake screen and pumphouse.

5. Manual wet pipe sprinkler systems for the compactor area and truck bay in the auxiliary building, floor elevation 436'-0" and 447'-0" and the security computer room in the control building, floor elevation 436'-0".

The piping network for all sprinkler systems, except the turbine building system below the operating floor, are sized for ordinary hazard occupancy in accordance with the NFPA piping schedule. The system below the turbine building operating floor is hydraulically calculated for a 0.30 gpm/ft^2 density over any area including the most remote 3000 ft^2 and 0.20 GPM/ft^2 over any 10,000 ft^2 area. Each system, with the exception of the diesel engine driven fire pump room and compactor area and truck bay, includes an approved shutoff valve, alarm valve and shutoff valve position switch. The diesel engine driven fire pump room sprinkler system is provided with an approved shutoff valve, valve position switch and a flow switch. The compactor area and truck bay is provided with an approved shutoff valve and valve position switch. These systems are designed to extinguish fires and control spread beyond the point of origin. Each system, with the exception of the compactor area and truck bay, provides a fire alarm signal upon the fusing of a sprinkler head and a trouble alarm signal upon closure of the controlling shutoff valve.

The compactor area and truck bay sprinkler system provides a trouble alarm signal upon the opening of the controlling shutoff valve.

Hydraulically designed water spray systems, utilizing directional solid cone or fog type spray nozzles controlled by an approved deluge valve are provided for outside oil filled transformers and isolated phased bus ducts, the hydrogen seal oil unit, ventilating system charcoal filter plenums, feedwater pumps (a turbine lubricating oil hazard area) and the south and west wall of the turbine building (adjacent to the transformer area). These systems are designed to wash down oil leakage, cool equipment, protect equipment exposed to fires and extinguish fires. Transformer and oil equipment water spray systems are automatically activated by heat-actuated detectors and may be actuated manually at strategically located pull stations. Charcoal filter plenums have a thermistor sensor imbedded in the charcoal which actuates alarms upon detection of a bed temperature of 255°F and again at 310°F, which is less than the spontaneous ignition temperature of the charcoal. The charcoal water spray system can be initiated manually if the temperature cannot be controlled by other means.

Automatic preaction sprinkler systems are provided to protect the following:

1. The diesel generator building.

2. The control building, cable spreading rooms at elevation 425'-0" and 448'-0", and the cable chases at elevation 400'-0", 412'-0", 436'-0", and 463'-0".

3. Service water pumphouse - service water pump room, floor elevation 436'-0" and service water pumphouse supply fan rooms, floor elevation 441'-0".

4. Intermediate building, floor elevation 412'-0", rooms 12-02, 12-10, 12-13A, 12-13B, 12-13C, and floor elevation 436'-0" area approximately between column lines 6.8 and 8.3.

5. Auxiliary building, floor elevation 463'-0", between column lines 9.5 and 8.8 and column lines M and J.

A manual preaction sprinkler system is provided for the turbine generator bearings. The system is hydraulically calculated for a water application rate of at least 0.25 GPM/ft^2 of the protected surface area.

The preaction sprinkler system piping supplying the sprinklers is supervised with air pressure so that a trouble alarm will sound if a pipe break or leak occurs. Water will not discharge from these systems without operation of a heat or smoke detector and melting of a fusible link (with the exception of the turbine generator bearing deluge system which also requires manual operation of the deluge valve).

9.5.1.2.6 Portable Fire Protection Equipment

Portable fire extinguishers of the water, carbon dioxide and dry chemical types are provided for use on small fires. These extinguishers are selected and located in accordance with NFPA Standards.

9.5.1.3 System Evaluation

The fire protection system is designed to ensure that operation or failure of any portion of the system does not produce an unsafe condition. Areas where fire protection water could be released by system operation or a system failure are provided with floor drains and/or sumps. Critical equipment is supported above the normal floor elevation to prevent damage due to flooding. Special attention is given to sizing and routing of fire water lines to minimize exposure of safety class equipment. Each redundant charcoal filter is protected by its own independent fire protection system. Failure of the fire protection system for one safety-related system does not affect the operation of another safety-related system.

A failure mode and effects analysis of the fire protection and detection systems and major components is presented in Table 9.5-1. Where "Fire alarm" and "Trouble alarm" are used in the effect column, these terms refer to an alarm condition on the fire alarm CRT in the control room. "No Effect" is used to mean that the mode of failure does not affect plant safety or prevent fire protection system operation unless indicated otherwise.

9.5.1.4 Inspection and Testing Requirements

Administrative controls are provided through existing Plant Administrative and Operating Procedures, and the Operations Quality Assurance Program to

ensure that the Fire Protection Program and equipment is properly maintained. This includes QA audits of the program implementation, conduct of periodic test inspections, and remedial actions for systems and barriers out of service. This program emphasizes those elements of fire protection that are associated with safe shutdown as described in the Fire Protection Evaluation Report and their significance when evaluating program and equipment deficiencies.

All fire protection equipment and systems for areas containing safety related equipment are subjected to a complete inspection and acceptance test to demonstrate conformance with functional design criteria after installation is completed. Periodic inspections and tests are conducted as prescribed by Technical Specifications/Station Administrative procedures.

Fire pumps are inspected and tested periodically at 150 percent of rated pump capacity. The diesel driven pump is run periodically to bring it to normal operating temperature and pressure and ensure proper operation at rated speed.

Fire alarm and detection systems are subjected to "spot" tests and inspection on a periodic basis.

Carbon dioxide and Halon 1301 extinguishing systems are inspected and tested on a periodic basis. Inspection and test does not involve actual discharge of the gaseous agent.

Inspection and 2 inch drain tests are conducted on all wet pipe sprinkler systems on a periodic basis to ensure that the water supply is available.

Water spray deluge systems are inspected and flow tested, where possible, on a periodic basis to ensure proper nozzle positions and adequate water pressures. Deluge spray systems for the charcoal filters are subjected to a periodic 2 inch drain test to ensure that water is present at the deluge valve. Visual inspection of these systems is also performed periodically.

Fire extinguishers and hose reels are inspected periodically to ensure they are in operating condition. Extinguishers are also subjected to a hydrostatic test at regular intervals.

Equipment out of service including fire suppression, detection, and barriers will be controlled through the administrative program and appropriate remedial actions taken. The program requires all impairments to fire protection system to be identified and appropriate notification given to the Fire Protection Engineer for evaluation. Based on the condition, engineering analysis may be required to determine the extent of the fire hazard to safe plant operations. As conditions warrant, remedial actions would include compensatory measures to ensure equivalent level of fire protection in addition to timely efforts to effect repairs and restore equipment to service.

9.5.1.5 Personnel Qualification and Training

SCE&G and the fire protection consultant are qualified by training and experience to successfully undertake the design function and are either members or qualified to hold membership grade in the Society of Fire Protection Engineers.

The responsibility for training and maintaining the competence of fire fighting personnel rests with and is assumed by SCE&G.

9.5.2 COMMUNICATIONS SYSTEMS

9.5.2.1 Design Bases

The communication systems are designed to provide reliable communications between all essential areas of the station, and to essential locations remote from the plant during normal operations or under emergency conditions. This capability is provided by diverse types of communication systems.

9.5.2.2 Description

9.5.2.2.1 Intra-Plant Communications

The intra-plant communications network consists of the following systems:

1. A page/party public address with evacuation alarms and a fire alarm.

2. A maintenance communications system.

for the life of the plant. This long-term maintenance program uses the concept of a shutdown "path" for each fire area, zone, or subzone. It also uses the analysis technique of comparing the list of equipment and cables required by a specific shutdown path to the list of equipment and cables located in the fire area, zone, or subzone for which the path is to be used.

Equipment that needed modification to ensure compliance was identified during the analysis and documented. Requests for plant modifications were developed from these documents and described in the May 29, 1985, letter from SCE&G to Mr. H. R. Denton, NRR, and supplemented by letters dated September 16, 1985, September 20, 1985, and April 23, 1986.

The next step was to develop exemption requests based on the identified potential deviations as described in the SCE&G letters dated [redacted] r. H. R. Denton, NRR.

The final step was the development of Plant Emergency Procedures to bring the plant to stable hot standby and subsequently to cold shutdown. Fire Emergency Procedures FEP-1.0 and FEP-1.1 are the procedures to be used in the event of a control room evacuation and to bring the plant to cold shutdown within 72 hours. Additional procedures are being developed to provide specific direction for shutdown from the control room in the event of a major fire in general plant areas. These procedures are being based on the shutdown "path" identified for each fire area, zone, or subzone, and on the results of the analysis including the identified resolutions of potential deviations. These procedures will be revised once all plant modifications have been installed.

3.1.6 CONCLUSION

SCE&G considers that this method of analysis and the resulting documentation provide an adequate demonstration of the compliance of the Virgil C. Summer Nuclear Station with the criteria of 10CFR50, Appendix R. The results are presented in Section 4.0 of this report.

VIRGIL C. SUMER NUCLEAR STATION
FSAR/FPER REVISION NOTICE

DESCRIPTION: Administrative Change to reflect dates of NRR approval letters

No. 730

Date 7/20/91

AFFECTED ~~FSAR~~/FPER SECTION:

3.1.5, page 3.1-5

JUSTIFICATION FOR CHANGE:

Reflect SER's/Approval letters within the FPER

Does change involve plant design as described in FSAR/FPER?	Yes ___	No ✓
Does change involve procedures described in FSAR/FPER?	Yes ___	No ✓
Does change involve tests and experiments not described in FSAR/FPER?	Yes ___	No ✓

50.54a Review Required	Yes ___	No ✓	
50.54a Review Completed	Yes ___	No ✓	
50.59 Review Required	Yes ✓	No ___	Reference ___
50.59 Review Completed	Yes ✓	No ___	
Tech. Spec. Change Required	Yes ___	No ✓	Reference ___
50.59 Summary Paragraph Req'd	Yes ✓	No ___	
Submit to PSRC for Review	Yes ✓	No ___	

OTHER AFFECTED DOCUMENTS:

MRF N/A

SCE&G REVIEW:

Dept.	Review Req'd	Initials
Eng. Services*	✓	[illegible]
Nuc. Plant Operations	✓	[illegible]
QA	___	___
QC	___	___
Nuc. Ops. Ed. & Trng.	___	___
Health Physics	___	___
Nuc. Security	___	___
Corp Eng.	___	___

OTHER ORGANIZATION REVIEW:

	Review Req'd	Initials/FCN No.
W	___	___
G/C	___	___
D&M	___	___
Other	___	___

* Design Basis Document Revision Required.

Yes ___ No ✓

LICENSING APPROVAL

[signature] Senior Engineer Regulatory Interface — Date 7/24/91

[signature] Manager Nuclear Licensing — Date 8/1/91

EXHIBIT 1-1
NL 101
REVISION 10

for the life of the plant. This long-term maintenance program uses the concept of a shutdown "path" for each fire area, zone, or subzone. It also uses the analysis technique of comparing the list of equipment and cables required by a specific shutdown path to the list of equipment and cables located in the fire area, zone, or subzone for which the path is to be used.

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Add paragraph

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3.1.6 CONCLUSION

SCE&G considers that this method of analysis and the resulting documentation provide an adequate demonstration of the compliance of the Virgil C. Summer Nuclear Station with the criteria of 10CFR50, Appendix R. The results are presented in Section 4.0 of this report.

Modification methods/schedules and deviations were approved by NRR in letters dated May 22, 1986, July 1, 1986, November 26, 1986 and July 23, 1987.

SAMPLE

VIRGIL C. SUMMER NUCLEAR STATION
10CFR50.59 EVALUATION ANALYSIS

AFFECTED DOCUMENT NO. FPER

Check Applicable Yes [ ] and No [ ] Indications

Does this modification change the Final Safety Analysis Report or Fire Protection Evaluation Report?

Yes [✓] No [ ]

TECH. SPEC. REFERENCE	
Section	Page

*1

Not addressed in Tech Specs. [ ]

FPER/~~FSAR~~ REFERENCE		
Chapter	Section	Page
3	3.1.5	3.1-5

Not addressed in FSAR/FPER [ ]

Is a change in Tech. Specifications involved?

Yes [ ] No [✓]

*2

Nuc. Lic. Reviewer / Date

PSRC/NSRC Review

Request and Receive Nuclear Regulatory Commission Authorization For Change Prior To Implementation Of the Subject Change

Authorization Deleted

Abort Design Change

UNREVIEWED SAFETY QUESTION EVALUATION: Answer the following questions with a "yes" or "no", and provide specific reasons justifying the decision. (Attach additional sheets as required.)

1. Is the probability of an occurrence, the consequences of an accident, or malfunction of safety related equipment as previously evaluated in the FSAR increased?
   Yes [ ] No [✓]
2. Is the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR increased?
   Yes [ ] No [✓]
3. Is the margin of safety as defined in the basis for any Tech Spec reduced?
   Yes [ ] No [✓]

Administrative change to list NRR approval/operation letters only. No effect on plant safety.

Any Answer Yes [ ]

All Answers No [✓]

*3

Authorization Received

Initiate Design Change

Engineer / Date

Independent Reviewer / Date 8/1/86

Associate Manager/Supervisor / Date

*If either answers (2) or (3) are "yes", then the change is submitted to the NRC under 10CFR50.59. If answer (1) is "yes" but answers (2) and (3) are "no", then the change is reportable under 10CFR50.59b and a description of the change will be included in the Annual Report. All other changes are not reportable.

EXHIBIT III

NL-101

DISTRIBUTION FOR MEETING SUMMARY DATED: SEP 2 0 1988

Facility: V. C. Summer Nuclear Station

Docket File
NRC PDR
Local PDR
PDII-1 Reading
E. Adensam
P. Anderson
J. Hayes
OGC
E. Jordan (MNBB 3302)
B. Grimes (9A2)
D. Kubicki (8H7)
ACRS (10)
B. Troskoski (17D19)

cc: Licensee/Applicant Service List

DF01
1/1