

SOUTH CAROLINA ELECTRIC & GAS COMPANY

POST OFFICE 764

COLUMBIA, SOUTH CAROLINA 29218

August 2, 1985

O. W. DIXON, JR.  
VICE PRESIDENT  
NUCLEAR OPERATIONS

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Virgil C. Summer Nuclear Station  
Docket No. 50/395  
Operating License No. NPF-12  
40 Year Operating License  
Amendment

Dear Mr. Denton:

South Carolina Electric and Gas Company (SCE&G) hereby requests an amendment to the Operating License for the Virgil C. Summer Nuclear Station to extend the duration of the license to 40 years from its date of issuance. This change, as shown on the attached page of the License, Attachment "A", will extend the expiration date from midnight on March 21, 2013 to midnight on August 6, 2022.

The current Operating License is effective for a term of 40 years commencing from the date of issuance of the Construction Permit. Construction of the plant entailed a period of nine years, thereby reducing the licensed term of the plant to 31 years. SCE&G is therefore requesting, on the basis of the regulations found in Title 10 of the Code of Federal Regulation, Part 50.51, the license term to be a period of 40 years, commencing from the date of issuance of the Operating License.

SCE&G maintains that the Virgil C. Summer Nuclear Station will continue to remain a safe, useful and productive electric generating unit beyond the present licensed term of the plant. The plant contributes to the overall economic welfare of the Company and its service area by its contributions to the property tax base and its expenditures for local goods and services. Extending the licensed operating life of the plant would postpone the need to provide an alternate means of power generation or the need to purchase additional power from another source outside of SCE&G. The additional years of operation also provide continued jobs for individuals both internal and external to SCE&G and decrease the country's future dependence on foreign fuel supplies such as oil.

SCE&G has investigated both the safety and environmental impacts of this request and has determined that the extension does not adversely affect these issues. Class 1E electrical equipment at the Virgil C. Summer Nuclear Station has been designed for 40 years of operation. The equipment required to function post accident is designed to operate an additional year in the event an accident should occur during the final year of operation. Remaining plant equipment and components were designed considering a 40 year service life of the plant. While all equipment is not expected to last for 40 years, surveillance and maintenance procedures are implemented (according to various industry codes and the plant Technical Specifications) into operations to assure that degradation is promptly identified and corrective measures are taken as well as periodic change out of equipment and components. These inspection and maintenance activities ensure that plant structures, equipment and components operate safely and as designed.

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SCE&G has also reviewed environmental impact evaluations presented in the Final Environmental Statement (FES) and the Operating License Environmental Report (OLER) in light of the environmental data collected to date at the Virgil C. Summer Nuclear Station. Radiological and non-radiological effects were examined, and in both cases the impact assessments found in the original FES and OLER were adequate for the extension in plant operating time. From a non-radiological standpoint, preoperational and operational environmental monitoring programs have shown that plant operations have had no measureable deleterious effects on the biota, land use in the vicinity and water resources. No significant ecological impacts have been observed or are expected to occur as a result of the proposed extended License. Analysis of several years of meteorological data have revealed insignificant effects from plant operation on the climatology of the area. In fact, the ongoing meteorological monitoring program has revealed that meteorological stability estimates presented in the FES are conservative when compared to actual operational values. Land use in the vicinity of the plant remains largely unchanged from original estimates and continues to consist of primarily timber and agricultural uses.

No significant additional environmental effects are expected due to radioactive effluent releases from the proposed extended operation of the plant. Radiation doses to the public, as discussed in the OLER and FES, are insignificant when compared with doses due to natural background. Extension of the life of the plant would not substantially change this position. A comparison of doses between those projected in the OLER and FES with those observed during the first 2.5 years of operation of the plant shows that the projections are significantly higher than actual operational doses found in the area. Thus, sufficient conservatism exists in the projections prescribed in the OLER and FES to allow for extension of the operating license to a full 40 years without the expectation of any adverse effects to the environment from the release of radioactive effluents.

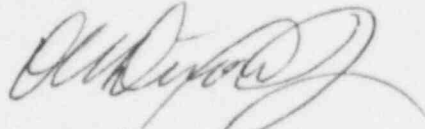
There are some instances in the FES where a 30 year operating life was assumed or implied, such as the Cost-Benefit Analysis and the discussion on the Uranium Fuel Cycle. However, these assumptions have negligible impact on the overall conclusions reached in assuming a full 40 year operating life. Therefore, SCE&G concludes that the FES evaluation of environmental effects due to the operation of Virgil C. Summer Nuclear Station is adequate for the proposed Operating License extension.

Enclosed as Attachment "B" is the proposed "No Significant Hazards Determination." This Operating License amendment has been reviewed and approved by both the Plant Safety Review Committee and the Nuclear Safety Review Committee. As required by Title 10 of the Code of Federal Regulations, Part 170, the application fee of one hundred fifty dollars (\$150.00) is enclosed.

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If you should have any questions, please advise.

Yours very truly,



O. W. Dixon, Jr.

AMM/csw  
Attachment

cc: V. C. Summer	C. A. Price
T. C. Nichols, Jr./O. W. Dixon, Jr.	C. L. Ligon (NSRC)
E. H. Crews, Jr.	K. E. Nodland
E. C. Roberts	R. A. Stough
W. A. Williams, Jr.	G. O. Percival
D. A. Nauman	C. W. Hehl
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Group Managers	H. G. Shealy
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	File

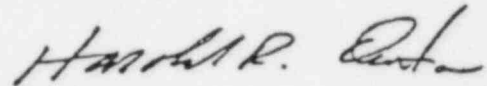
Attachment "A"

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J. This license is effective as of the date of issuance and shall expire at midnight on ~~March 21, 2013.~~

August 6, 2022.

FOR THE NUCLEAR REGULATORY COMMISSION



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Appendix A (Technical Specifications)
2. Appendix B (Environmental Protection Plan)

Date of Issuance: AUG 6 1982

Attachment B

Proposed "No Significant Hazards Determination"

The present Operating License term for the Virgil C. Summer Nuclear Station expires on midnight March 21, 2013 which is 40 years from the issuance of the Construction Permit; plant construction required nine years, thereby leaving an effective operating term for the plant of 31 years.

SCE&G designed plant equipment, components and structures considering a 40 year service life of the plant. Some equipment, such as Class 1E electrical components, was designed for 40 years of service life. The equipment required to function post accident was designed to operate an additional year assuming an accident occurred during the 40th year of operation. Other equipment is not expected to last for a full 40 years; however, in those cases surveillance and maintenance procedures were implemented into the plant operation to assure that degradation is promptly identified and corrective actions are taken. These procedures were designed according to various industry codes and the plant Technical Specifications to ensure that plant structures, equipment and components would operate safely and as designed.

Based on this information SCE&G has concluded that extension of the Operating License to a period of 40 years from the date of its issuance will not: 1) involve any significant increase in the probability or consequences of an accident previously evaluated; 2) create the possibility of a new or different kind of accident from any accident previously evaluated; 3) involve any significant reduction in a margin of safety.