

September 25, 2003

Kamau Marcharia, Councilman  
Fairfield County Council  
P.O. Drawer 49  
Jenkinsville, South Carolina 29065

SUBJECT: INFORMATION CONCERNING THE DIABETES AND CANCERS RATES IN  
THE VICINITY OF THE V.C. SUMMER NUCLEAR STATION

Dear Councilman Marcharia:

I would like to thank you for your comments during the public meeting held in Jenkinsville, South Carolina on August 25, 2003, regarding South Carolina Electric and Gas Company's (SCE&G) application to renew the operating license for the V.C. Summer Nuclear Station (V.C. Summer) for an additional 20 years. In addition to our discussions during the meeting, the following information provides some background of the sources used by the staff in preparing the V.C. Summer Supplemental Environmental Impact Statement (SEIS). The Final SEIS contains a complete discussion of the environmental impacts of license renewal.

During the public meeting on the Draft SEIS, you raised concerns about the high rate of occurrence of diabetes in the vicinity of the V.C. Summer. The staff researched this issue and confirmed that there are no known correlations between exposure to radioactive materials or emissions and the incidence of diabetes. The risk factors that are known to contribute to diabetes include smoking, a sedentary or inactive lifestyle, overweight, and high blood cholesterol. African American women have the highest risk for developing diabetes in the United States. In the course of the review, the U.S. Nuclear Regulatory Commission (NRC) staff contacted the State of South Carolina to obtain more site specific information on the occurrence of diabetes in the state and in Fairfield County. According to the South Carolina Department of Health and Environmental Control, Division of Diabetes Prevention and Control, South Carolina has one of the highest rates of diabetes in the country. In 2001, over eight percent of the residents of South Carolina were diagnosed with diabetes and 1,089 actual deaths were attributed to diabetes. During this same time period, five and one half percent (5.5%) of Fairfield County residents were reported as having diabetes and 10 actual deaths were attributed to diabetes. For comparison, the state of South Carolina estimates that for every 10,000 people in the state, approximately 2.7 will die from diabetes while for Fairfield County, for every 10,000 people, approximately 4.2 will die from diabetes. In other words, the estimated death rate due to diabetes in Fairfield County is almost twice as great as for the entire state of South Carolina. Again, there is no linkage between operation of V.C. Summer and the occurrence of diabetes, and this epidemiologic data is provided for your information.

All of the information provided above is available from the South Carolina Division of Diabetes Prevention and Control. In fact, they can provide additional information in terms of prevention programs and local organizations that are available to help. Two possible points of contact are the Division Director, Dr. Rhonda Hill (803-898-0757) and the State Epidemiologist, Dr. Patsy Myers (803-545-4920).

Regarding your concerns about the occurrence of unknown cancers in the vicinity of the V.C. Summer Nuclear Station, the NRC staff reviewed the records of V.C. Summer radioactive emissions and effluents that are discharged to the environment. In all cases, discharges of radioactive emissions and effluents were found to be well below allowable limits. In fact, the doses to the public from radioactive materials in air and water discharges were below one percent of the allowable dose limits set by the NRC. Solid radioactive wastes from the V.C. Summer Nuclear Station are transported to and disposed of at licensed offsite facilities at the rate of about one shipment a month and therefore have only a minimal contribution to potential radiation doses received by the public from station operations. Because the amount of radioactive materials released by V.C. Summer is so low and well within allowable limits and the amount of solid radioactive waste transported over public roads is also very low, the NRC staff concludes that there is no correlation between station operations and the occurrence of any cancers in the vicinity of the station.

In addition to reviewing the discharge records of the V.C. Summer Nuclear Station, the NRC staff had contacted the South Carolina Department of Health and Environmental Control to determine if they were aware of any studies concerning unusual or high numbers of cancers in the vicinity of the station. State officials that were contacted included Dr. Patsy Myers, Nancy Whittle (803-896-8967), and Susan Bolik-Aldrich (803-898-3626). Based on discussions with these state officials, no unusual or high numbers of cancers are known to exist in the vicinity of the V.C. Summer Nuclear Station. In addition, the cancer death rate estimated by the state for Fairfield County for all cancer types combined was about the same as for the entire state (22.4 cancer deaths per 10,000 people in Fairfield County versus 20.3 cancer deaths per 10,000 people across the state).

Enclosed is a copy of Supplement 15 to the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," for the Virgil C. Summer Nuclear Station (Supplement 15 to NUREG-1437). The topics of radioactive emissions, effluents, and solid wastes including doses to the public are discussed in Sections 2.1.4 and 2.2.7 starting on page 2-9 of the report.

If you need additional information regarding this matter, please contact me at (301) 415-1124.

Sincerely,  
**/RA/**

Gregory Suber, Project Manager  
Environmental Section  
License Renewal and Environmental Impacts Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosures: As stated

Regarding your concerns about the occurrence of unknown cancers in the vicinity of the V.C. Summer Nuclear Station, the NRC staff reviewed the records of V.C. Summer radioactive emissions and effluents that are discharged to the environment. In all cases, discharges of radioactive emissions and effluents were found to be well below allowable limits. In fact, the doses to the public from radioactive materials in air and water discharges were below one percent of the allowable dose limits set by the NRC. Solid radioactive wastes from the V.C. Summer Nuclear Station are transported to and disposed of at licensed offsite facilities at the rate of about one shipment a month and therefore have only a minimal contribution to potential radiation doses received by the public from station operations. Because the amount of radioactive materials released by V.C. Summer is so low and well within allowable limits and the amount of solid radioactive waste transported over public roads is also very low, the NRC staff concludes that there is no correlation between station operations and the occurrence of any cancers in the vicinity of the station.

In addition to reviewing the discharge records of the V.C. Summer Nuclear Station, the NRC staff had contacted the South Carolina Department of Health and Environmental Control to determine if they were aware of any studies concerning unusual or high numbers of cancers in the vicinity of the station. State officials that were contacted included Dr. Patsy Myers, Nancy Whittle (803-896-8967), and Susan Bolik-Aldrich (803-898-3626). Based on discussions with these state officials, no unusual or high numbers of cancers are known to exist in the vicinity of the V.C. Summer Nuclear Station. In addition, the cancer death rate estimated by the state for Fairfield County for all cancer types combined was about the same as for the entire state (22.4 cancer deaths per 10,000 people in Fairfield County versus 20.3 cancer deaths per 10,000 people across the state).

Enclosed is a copy of Supplement 15 to the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," for the Virgil C. Summer Nuclear Station (Supplement 15 to NUREG-1437). The topics of radioactive emissions, effluents, and solid wastes including doses to the public are discussed in Sections 2.1.4 and 2.2.7 starting on page 2-9 of the report.

If you need additional information regarding this matter, please contact me at (301) 415-1124.

Sincerely,

**/RA/**

Gregory Suber, Project Manager

Environmental Section

License Renewal and Environmental Impacts Program

Division of Regulatory Improvement Programs

Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosures: As stated

Accession no.: **ML032730427**

**Distribution:** RLEP R/F      G. Suber      J. Tappert      LA

Document name: C:\ORPCheckout\FileNET\ML032730427.wpd

OFFICE	RLEP:DRIP:GE	RLEP:DRIP:LA	RLEP:ES:SC
NAME	G. Suber	M. Jenkins	J. Tappert
DATE	9/24/03	9/24/03	9/25/03

OFFICIAL RECORD COPY