

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
SOUTH CAROLINA ELECTRIC & )  
GAS COMPANY ) Docket No. 50-395  
 )  
(Virgil C. Summer Nuclear )  
Station, Unit 1) )

AFFIDAVIT OF O. S. BRADHAM ON  
ANTICIPATED TRANSIENTS WITHOUT SCRAM

My name is O. S. Bradham.

I am the Manager, Virgil C. Summer Nuclear Station for South Carolina Electric & Gas Company. My statement of professional qualifications is provided in Attachment A. I am responsible for operating activities and personnel of the Virgil C. Summer Nuclear Station. This affidavit addresses the procedures and training to detect and take required corrective action for ATWS events consistent with the requirements of the NRC Staff as set forth in the Safety Evaluation Report, Chapter 15.3.5, in regard to (1) development of ATWS emergency procedures and (2) operator training.

PROCEDURES

Plant emergency operating procedures at the Virgil C. Summer Nuclear Station address actions to be taken by the operators if an ATWS event should occur. Specifically, manual reactor scram is initiated, emergency feedwater initiation is verified or initiated, if required, turbine trip is verified or initiated, if required, and emergency boration is initiated, if required.

It should be recognized that emergency procedures related to ATWS events are not fundamentally new information for plant operators. Alternate methods of scrambling the reactor have routinely been addressed in procedures for commercial nuclear power plants.

#### OPERATOR TRAINING

The operator training and testing program is described in FSAR Chapter 13.2. This existing process ensures that the Virgil C. Summer Nuclear Station licensed operator is competent to recognize emergency conditions, to take the proper corrective action, and to protect the health and safety of the public. A strong knowledge of plant systems and emergency procedures is required of all licensed operations personnel.

ATWS training of the operators has been conducted in special one day classes. It included the definition of ATWS, types of events and scenarios of potential concern in regard to ATWS, and recognition of and actions to be taken in an ATWS event. Also, actions to be taken by the operator if an ATWS event should occur have been discussed in the training sessions on plant emergency procedures. ATWS will continue to be addressed in future operator training classes.

#### SUBMISSIONS TO NRC

We have addressed ATWS and related procedures and training in FSAR Sections 5.5.13.4, 15.2, 15.2.7, 4.3.1.7 and 15.2.15 in our response to Question 211.122.

#### SUMMARY

In summary, it is South Carolina Electric & Gas Company's position that the existing operator training sessions

including special ATWS sessions and the plant emergency operating procedures which address actions taken if an ATWS event occurs satisfactorily address those steps recommended and accepted in the Safety Evaluation Report by the NRC Staff for reducing the risk from ATWS.

I hereby certify that the foregoing information is true and correct to the best of my knowledge and belief.

*O. S. Bradham*  
O. S. BRADHAM

Subscribed and sworn to before me  
this 6th day of May, 1981.

*Robert H. Storer* (L.S.)  
Notary Public

My Commission expires: 12-22-88.

O. S. BRADHAM

## PROFESSIONAL QUALIFICATIONS

I am the Manager of the Virgil C. Summer Nuclear Station. I have overall operating and personnel responsibility for the Summer Plant and am responsible for plant operations in a safe, reliable, and efficient manner by ensuring compliance with all requirements of the operating license.

Upon high school graduation in 1947, I entered the United States Army, graduating from Officers Candidate School in 1951, taking communications and engineering courses, leaving the Army in 1953.

From 1953 to 1961 I was employed by the Savannah River Plant as an Instrument Technician on production reactors.

From 1961 to 1967 I was employed at the CVTR Reactor Plant, Parr, South Carolina as I&C Technician and Instrument and Electrical Supervisor.

From 1967-1978 I was employed by Duke Power Company in the respective positions of I&C Engineer for Oconee Nuclear Station (1967-1973), Technical Support Group Superintendent for Oconee Nuclear Station (1973-74), and Superintendent of Maintenance for Oconee Nuclear Station (1974-78). In the last capacity I reported directly to the Plant Manager.

In 1978 I accepted employment with South Carolina Electric & Gas Company as Plant Manager for the V. C. Summer Nuclear Station.

In my positions with Duke Power Company I was responsible at various times for selection, hiring, and training of

plant staff for the I&C Group; for I&C portion of preoperations, start-up, power ascension program and maintenance of all instrumentation for Units 1 and 2; zero power physics and power ascension test program for Unit 3; I&C Section, Chemistry Section, Performance Section, and Health Physics Section activities for Units 1, 2, and 3; all Mechanical Maintenance Section, Instrument & Electrical Section; Planning/Scheduling and Material Section activities for Oconee Station, consisting, among other things, of managing six refueling outages in addition to numerous maintenance outages and normal maintenance outages and normal operational support activities. In my last capacity I frequently and for periods of weeks at a time assumed the job of Acting Plant Manager while the Plant Manager was on vacation or out of town.