. SOUTH CAROLINA ELECTRIC & GAS COMPANY

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O. W. DIXON, JP VICE PRESIDENT NUCLEAR OPERATIONS

July 23, 1982

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

> Subject: Virgil C. Summer Nuclear Station Docket No. 50/395 Earthquake Instrumentation

Dear Mr. Denton:

This letter concerns one of the earthquake monitoring instruments at the Virgil C. Summer Nuclear Station. South Carolina Electric and Gas Company (SCE&G) has determined that a change in the location of the instrument is necessary.

The particular instrument involved is the triaxial peak accelerograph on the B steam generator. The original location for the instrument was on a lifting lug on the top of the steam generator; however, the instrument could not be installed at that location because of physical interferences. As a result, the instrument has been installed on a bracket on the side of the steam generator near the top. Accurate instrument responses and design accelerations can be obtained for this location.

Included as Attachment A is a marked up copy of the FSAR changes. Included as Attachment B is a marked up copy of the Technical Specification change.

If there are any questions, please advise.

Very truly yours,

Dixon, Jr.

JT:OWD/fjc

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cc: V. C. Summer G. H. Fischer H. N. Cyrus T. C. Nichols, Jr. O. W. Dixon, Jr. M. B. Whitaker, Jr. J. P. O'Reilly H. T. Babb D. A. Nauman C. L. Ligon (NSRC) W. A. Williams, Jr. R. B. Clary O. S. Bradham A. R. Koon M. N. Browne G. J. Braddick J. L. Skolds J. B. Knotts, Jr. B. A. Bursey J. Todd NPCF File

The output of both triaxial sensor units (accelerometers) is recorded by arrecording and playback system in the control building. A seismic trigger (see Figure 3.7-47) is provided at the reactor building foundation mat to start the recorder. An alarm is sounded when the recorder is started.

2. Triaxial Peak Accelerographs

One triaxial peak accelerograph is located at each of the following locations:

a. On the top of the steam generator, as shown by Figure 3.7-49.

b. On the pressurizer surge line, as shown by Figure 3.7-49.

c. On the residual heat removal system heat exchanger (see Figure 3.7-50).

3. Triaxial Response Spectrum Recorder

One triaxial response spectrum recorder, capable of permanently recording peak response as a function of frequency for both horizontal motions and vertical motion, is provided at each of the following locations:

- Reactor building foundation mat outside the reactor building (see Figure 3.7-47).
- b. Steam generator support (see Figure 3.7-51).
- c. On the intermediate building roof at elevation 463'-0" (see Figure 3.7-52).

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SECTION A-A



Accelering raph IYM-1788 Thermal Barrier Angle CAHACH to bracket located on steam generator SECTION "A:A"

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AMENDMENT -32 JUNE, 1982



INSTRUMENTATION

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TABLE 4.3-4

SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

IN	STRUMENTS AND SENSOR LOCATIONS	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST		
1.	Triaxial Time-History Accelerographs, including the following components:					
	a. Reactor Building Foundation Mat Accelerometer	м	R	SA		
	 Reactor Building Ring Girder Accelerometer 	м	R	- SA		
	c. Reactor Building Foundation Mat Trigger*	м	R	SA		
2.	Triaxial Peak Accelerographs					
	a. Top of Steam Generator	NA	R	NA		
	b. Bottom of Reactor Vessel	NA	R	NA		
	c. RHR System Heat Exchanger	NA	R	NA		
3.	Triaxial Seismic Switches					
	a. Reactor Building Foundation Mat*	м	R	SA		
4.	Triaxial Response-Spectrum Recorders					
	 a. Reactor Building Foundation Mat* b. Steam Generator Support c. Intermediate Bldg. Elev. 463' d. Auxiliary Bldg. Foundation 	M NA NA	R R R R	SA NA NA NA		

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With control room indications and/or alarm.

INSTRUMENTATION



TABLE 3.3-7

SEISMIC MONITORING INSTRUMENTATION

INST	RUMENTS AND SENSOR LO	MEASUREMENT RANGE	MINIMUM INSTRUMENTS OPERABLE			
۱.	Triaxial Time-Histor System, including th components:	y Accelerographs e following				
	a. Reactor Buildin Accelerometer	g Foundation Mat	0.1 to 40 Hz 0.01 to 1.0g	1		
	b. Reactor Buildin Accelerometer	g Ring Girder	0.1 to 40 Hz 0.01 to 1.0g	1		
	c. Reactor Buildin Trigger	g Foundation Mat	1 to 10 Hz 0.005 to 0.02	g 1*		
2.	Triaxial Peak Accelographs					
	a. Top of Steam Ge	nerator	0-32 Hz -5g to +5g	1		
	b. Bottom of React	or Vessel	0-32 Hz -5 to +5g	1		
	c. RHR System Heat	: Exchanger	0-20 Hz -2g to +2g	1		
3.	Triaxial Seismic Switches					
	a. Reactor Buildin	ng Foundation Mat	0.1 to 30 Hz 0.01 to 0.25	g 1*		
4.	Triaxial Response-Spectrum Recorders					
	 a. Reactor Buildin b. Steam Generator c. Intermediate B d. Auxiliary Bldg 	ng Foundation Mat r Support ldg., Elev. 463 . Foundation	(1) (1) (1) (1)	1* 1 1		

*With control room, indication and/or alarm. (1) Range varies for the multiple elements of the instrument, i.e., 1.6g at 2 Hz, 10g at 5 Hz, 34g at 10 Hz, 12g at 16 Hz.