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SUBJECT: Forwards info re 861211 seismic event near Jocassee Hydro station, per 791029 request. Two earthquakes felt in area surrounding Salem, SC.

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July 9, 1987

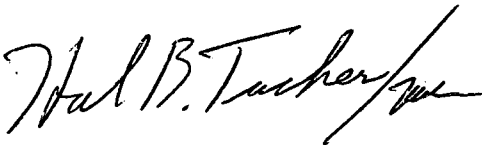
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
December 11, 1986 Seismic Activity

Gentlemen:

In accordance with a Staff request of October 29, 1979 the attached information is provided concerning the December 11, 1986 seismic event near Jocassee Hydro Station. This event was neither heard nor felt at Oconee Nuclear Station or Jocassee Hydro Station and was not considered significant. This event was previously reported by phone.

Very truly yours,



Hal B. Tucker

PJN/175/jgc

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PDR ADOCK 05000269
S PDR

The Lake Keowee Earthquakes of December 11, 1986

Two earthquakes were felt in the area surrounding Salem, S.C., shortly after 9:00 a.m. EST on the morning of December 11, 1986. These events were located using stations of the South Carolina seismic network, the Lake Jocasee network, and data supplied by the Tennessee Earthquake Information Center. The locations are listed in the accompanying table and depicted on the enclosed map. The magnitudes of the earthquakes, using the local magnitude - duration relationship,

$$\text{Magnitude} = -1.83 + 2.04 \text{ Log (Duration in seconds)}$$
were 2+ and 2.6 respectively. It was not possible to ascertain the precise magnitude of the first shock since the motion of first was continuing when the second earthquake arrived. The depths calculated for these events cannot be considered to be precise as the closest station was over 8 km away.

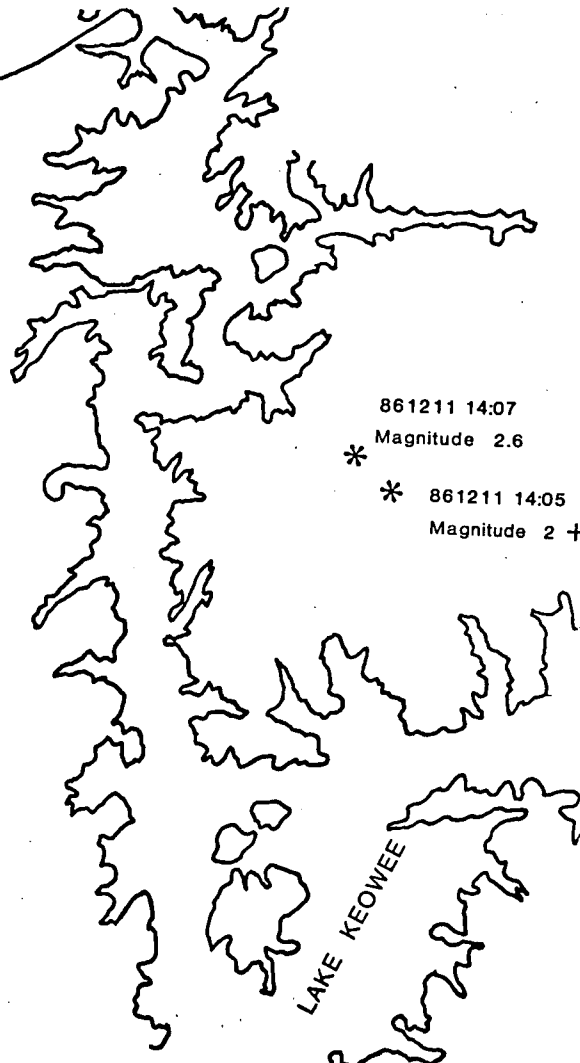
EARTHQUAKE LOCATIONS

DATE	UCT		LAT		LONG	DEPTH	MAGNITUDE
	HR:MIN	SEC	°N	MIN	°W MIN	(KM)	
861211	14:05	50.82	34-53.37		82-53.37	3.5	2+
861211	14:07	12.09	34-53.51		82-53.53	2.9	2.6

59' 58' 57' 56' 55' 54' 53' 82° W

HIGHWAY 11

SALEM



* 861211 14:07
Magnitude 2.6
* 861211 14:05
Magnitude 2 +

- 55'
- 54'
- 53'
- 52'

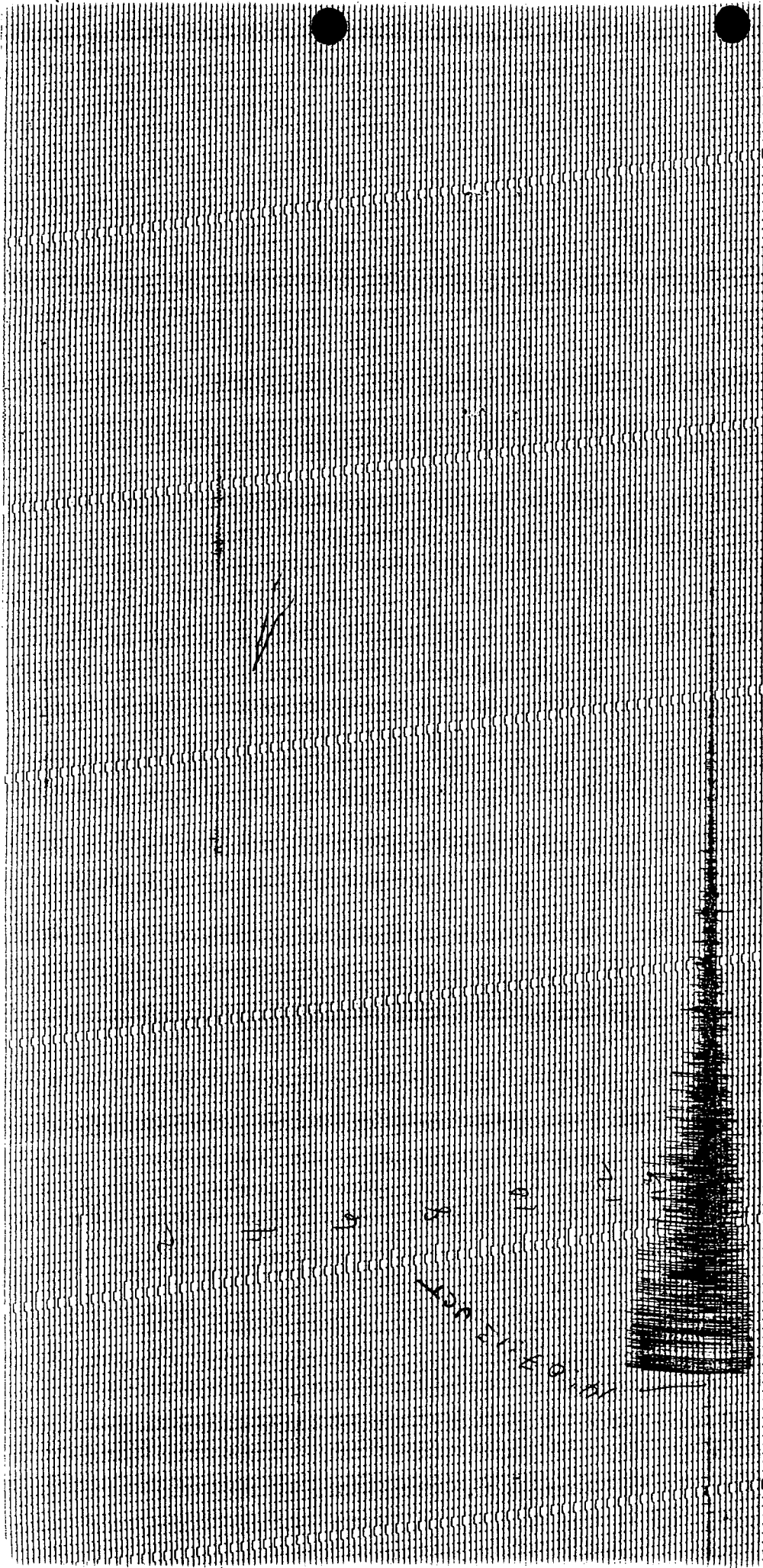
0 1 2
Kilometers



34° N

Station
SMT

1524



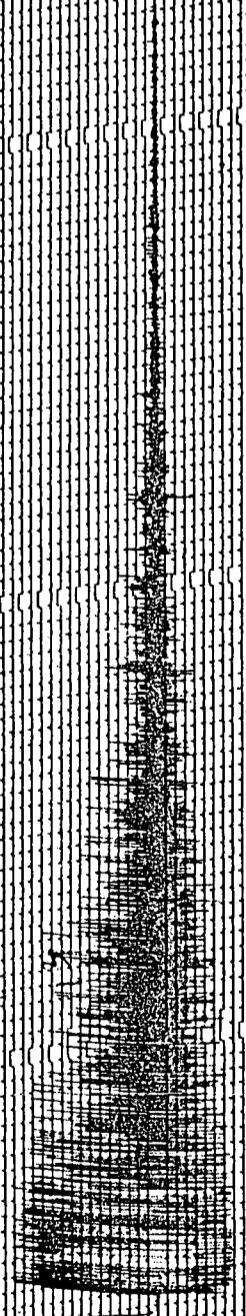
861211

Salem, SC earthquake

Station
SMT

1524^h

2
4
6
8
10
12



861211

Salem, SC earthquake