DEPARTMENT of the INTERIOR

BUREAU OF RECLAMATION

For Release April 8, 1971

STUDY INDICATES EARTHQUAKES NOT PRODUCED BY SAN LUIS RESERVOIR

A reservoir impounded by the Nation's fourth largest earthfill dam, located only 22 miles from the San Andreas Fault in California, has no apparent influence on the frequency of occurrence of local earthquakes according to a study by the Bureau of Reclamation.

The results of that study are included in a technical report, "Seismic Activity in the Vicinity of San Luis Reservoir," by Dr. George C. Rouse, supervisory structural engineer at the Bureau of Reclamation Engineering and Research Center in Denver, Colorado.

Based on investigations begun in 1966, before the 2 million acre-foot San Luis Reservoir began filling, Dr. Rouse concluded in the report that there is no apparent indication, based on the seismic information available at the present time, that the load imposed by the reservoir on the earth's crust has caused an increase in seismic activity. This is essentially the same conclusion reached by J. M. Raphael with regard to a similar seismic activity study made by the Bureau of Reclamation for the Lake Mead area, published in 1954.

San Luis Reservoir is located on the western edge of the San Joaquin Valley, 45 miles southeast of San Jose. San Luis Dam, 320 feet high and with a crest more than 3 miles long, contains more than 78 million cubic yards of rock and earthfill material.

A portion of the reservoir lies directly astride the Ortigalita Fault. The San Andreas Fault is 22 miles southwest of San Luis Dam.

During construction of the dam, the Bureau of Reclamation and the California Department of Water Resources, which is a joint user of the reservoir, arranged for the installation of a short-period seismograph located near the San Luis Dam. The seismograph was installed and maintained by the U. S. Coast and Geodetic Survey.

In addition to the seismograph station at San Luis, similar installations are located at the Bureau of Reclamation's Hungry Horse Dam in Montana, Glen Canyon Dam in Arizona, Flaming Gorge Dam in Utah, and at Hoover Dam in Nevada.

Copies of the study are available from the Bureau of Reclamation Engineering and Research Center, Denver Federal Center, Denver, Colorado 80225 or the National Technical Information Center, Operations Division, Springfield, Virginia 22152.