

OHIO CITIZENS FOR RESPONSIBLE ENERGY, INC.

8275 MUNSON ROAD MENTOR, OHIO 44060

(216) 255-3158

April 18, 1992

Mr. James R. Hall, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Perry Nuclear Power Plant, Unit 1, Docket No. 50-440

Dear Mr. Hall:

I am writing to inform you of the recent decision of the John Carroll University to close its seismology laboratory. As outlined on the following pages, this action will have an adverse effect on nuclear safety by reducing our ability to accurately monitor seismic activity in Northeast Ohio.

It is OCRE's position that the Perry licensees should be required to fund seismic monitoring, and additional geophysical research, to ensure that the public health and safety are not threatened by earthquake-induced nuclear accidents.

OCRE also believes there should be increased federal funding for such research. OCRE is aware of the unfortunate impact of budget cuts over the past decade on NRC-sponsored research and is willing to provide assistance in urging Congress to restore this vital funding.

Please let me know if OCRE can be of service in this or other matters promoting nuclear safety.

Sincerely,



Susan L. Hiatt
OCRE Representative

4002 1/1

OHIO CITIZENS FOR RESPONSIBLE ENERGY

P.O. BOX 22 • GRAND RIVER, OHIO 44045

CLOSING OF JOHN CARROLL UNIVERSITY SEISMOLOGY LABORATORY IMPACTS NUCLEAR POWER SAFETY

The recent decision of John Carroll University in Cleveland to close its seismology department and laboratory, including monitoring stations in Lake and Geauga counties (see attached news article), has an unfortunate impact on nuclear power safety. With the loss of this instrumentation, our ability to detect, size, and accurately locate earthquakes, especially smaller quakes, in the vicinity of the Perry Nuclear Power Plant will be severely impaired. Our understanding of the seismic threat to the safe operation of Perry will be diminished.

Our ability to accurately detect, size, and locate earthquakes depends on having a network of seismology stations employing sensitive instrumentation. The more monitoring stations we have, the better we will be able to characterize seismic activity. Having such stations close to a seismically active area will result in better data. As indicated by the attached article, the closing of John Carroll's seismology program means that the closest station to Northeast Ohio will be in New York.

Northeast Ohio is a seismically active area. Within the last month several small earthquakes have occurred; the largest, on March 15, 1992, had a magnitude of 3.4. On January 25, 1991, a quake with a magnitude of 3.2 occurred in Northeast Ohio. After the occurrence of the January 31, 1986 magnitude 5.0 earthquake, which had an epicenter just 19 miles from the Perry plant, OCRE sponsored research by an expert seismologist, Dr. Yash Aggarwal. Dr. Aggarwal found that historical seismicity and data from the 1986 quake and its aftershocks correlated with a tectonic structure called the Akron Magnetic Boundary. Dr. Aggarwal concluded that a magnitude 6.5 earthquake is probable in Northeast Ohio, and that the seismic design of the Perry plant, which is designed to withstand a magnitude 5.3 earthquake, is inadequate. Dr. Aggarwal also recommended further research to study the seismology of Northeast Ohio.

The loss of this seismic monitoring capability will also impair site selection and characterization efforts necessary to site the low-level radioactive waste disposal facility which Ohio, as host state for the Midwest Compact, is responsible for developing.

In the Summer/Fall 1991 edition of *Ohio Geology*, State Geologist Thomas M. Berg wrote: "Research on seismic risk in Ohio is urgently needed, and mapping of geologic materials susceptible to failure during earthquakes is imperative."

We should continually be making progress in the science of seismology, particularly when the potential for loss of life and widespread destruction caused by earthquakes is so high. The closing of the John Carroll seismology station is a step backward. It is essential that funding for seismic monitoring (and preferably, additional types of seismic research) in Northeast Ohio be restored and expanded.

John Carroll closes department, Lake, Geauga seismology stations

By Robin L. Daugherty
News-Herald Staff Writer

The closing of John Carroll University's seismology department and laboratory will put an end to operations at five network stations in Lake and Geauga counties.

The Rev. William Ott, department director, said tracking stations in Willoughby/Mentor, Leroy Township, Chester Township and East Claridon Township will close with the department this summer.

Ott said closing the stations will make it difficult to track seismic activity in Northeast Ohio.

"Small quakes won't even be detected at all except by those who feel them," Ott said.

University officials plan to shut down seismology operations over the summer because funding has run out and Ott will be leaving the university for work in La Paz, Bolivia.

"Since there is no ready funding available, the university had to make the decision whether to keep the lab open or close it," Ott said. "After thought and because I was leaving, they decided to shut it down."

Ott said the Perry Nuclear Power Plant will continue to have a few seismic tracking instruments in operation. Other than that, the nearest station will be in New York State, he said.

There have been facilities in Western Ohio operated by the University of Michigan at Ann Arbor, but the federal grant funding the project will expire in September, Ott said. The university has decided against seeking alternate funding.

John Carroll opened its network stations in 1986 following an earthquake in Lake and Geauga that registered 5.0 on the Richter Scale.

Funding for the project came from the university and one-time donations from CEI through the Perry Nuclear Power Plant and ICI Americas Inc. in Perry. Funding totaled about \$120,000 over the past six years, Ott said. The university had to cut the program funding following recent, severe budget cuts from the state.

Ott said he suggested a proposal that would keep several stations open and supervised by a retired seismology department director for about \$12,000 to \$15,000, so there would still be some seismic tracking. The university declined the proposal, he said.

The impact of closing the stations is hard to predict, Ott said, but the stations have been helpful in tracking seismic movement. He said research has proven that a fault or weakness — called the Akron Magnetic Boundaries by researchers — lies below the surface of Northeast Ohio.

4-11-92