

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'86 FEB -7 P12:43

Before the Atomic Safety and Licensing Appeal Board

In the Matter of)		OFFICE OF SECRETARY
)		DOCKETING & SERVICE
)		BRANCH
THE CLEVELAND ELECTRIC)	Docket Nos.	50-440 OL
ILLUMINATING CO. ET AL.)		50-441 OL
)		
(Perry Nuclear Power Plant,)		
Units 1 and 2))		

MOTION TO REOPEN THE RECORD AND TO SUBMIT A NEW CONTENTION

I. INTRODUCTION

At 11:47 AM on Friday, January 31, 1986 an earthquake with a magnitude of 5.0 on the Richter scale struck Northeast Ohio. The epicenter of the earthquake is estimated to be near Thompson, Ohio, less than 10 miles from the Perry Nuclear Power Plant. Because of this event, intervenor Ohio Citizens for Responsible Energy ("OCRE") hereby moves to reopen the record for the purposes of submitting and litigating the following contention:

Applicants have not demonstrated that the seismic design of the Perry Nuclear Power Plant is adequate in light of observed local seismicity.

II. BASIS FOR THE CONTENTION

While only preliminary information is available on the earthquake at this time, this information strongly indicates that, at a minimum, the FSAR analysis of site area seismicity needs to be redone. The January 31 earthquake clearly shows the conclusions in the FSAR and SER (NUREG-0887) to be erroneous. For example, it is concluded that no capable faults exist in the vicinity of the plant. FSAR Section 2.5.3.6; SER at P. 2-21. The plant site is also said to be an area of low seismicity.

FSAR Section 2, Appendix D, P. D-94.

Even more disturbing are news accounts (see Attachment) stating that accelerations from the earthquake were estimated to range from 0.19 g to 0.25 g. Perry is designed to withstand 0. g (safe shutdown earthquake). FSAR Section 2.5.2.6. This, along with the definition of the operating basis earthquake in 10 CFR 100 Appendix A (an earthquake which could reasonably be expected to affect the plant site during the operating life of the plant), indicates that the SSE and OBE should be more severe than presently postulated, and the seismic capability of safety-related structures, systems, and components at Perry should be upgraded accordingly.

III. STANDARDS FOR REOPENING THE RECORD

There is a tripartite standard for reopening the record: the motion must be timely, it must address a significant issue, and the newly proffered material, had it been considered initially, might have caused a different result to have been reached. Pacific Gas and Electric (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-598, 11 NRC 876 (1980). OCRE's motion meets all of these standards.

The motion is timely. The earthquake occurred Friday, January 31, and this motion is being filed Monday, February 3, 1986.

The motion also raises a significant matter. The seismic design of a nuclear power plant is an extremely serious matter,

and the occurrence of the earthquake raises significant doubt about the adequacy of Perry's seismic design. Had the Licensing Board been aware of this situation, it is virtually certain that a different result would have been reached.

OCRE has thus met the standards for reopening the record.

IV. STANDARDS FOR LATE-FILED CONTENTIONS

10 CFR 2.714(a)(1) delineates the five factors which must be balanced in determining whether to admit a late-filed contention. These factors weigh in OCRE's favor.

Factor (i) concerns good cause for late filing. As shown above, there is certainly good cause for filing on this date.

Factor (ii) concerns the availability of other means for protecting OCRE's interests. OCRE knows of no other meaningful ways of protecting its interests. While it is certainly possible to file a petition under 10 CFR 2.206 requesting that a proceeding be initiated to hear this matter, practical experience with these petitions illustrates that the overwhelming majority of them are denied. Thus, this is not a meaningful option.

Factor (iii) concerns the extent to which OCRE's participation will assist in developing a sound record. The record of the operating license proceeding demonstrates that OCRE is very capable of making a significant contribution to the record by cross-examination and proffering documentary evidence.

In addition, OCRE is actively seeking seismologists to serve

as expert witnesses. The fact that this earthquake is being studied extensively by numerous scientists increases the likelihood that OCRE will be able to utilize their work and findings for presentation at the hearing.

Factor (iv) concerns the extent to which other parties will represent OCRE's interests. OCRE is not aware of any other party willing or able to represent OCRE's interests. As has been made amply apparent in this proceeding, Applicants and Staff will not act in OCRE's interests.

Factor (v) concerns the extent to which the proceeding will be delayed or the issues broadened. The admission of this contention will undoubtedly cause some delay and broadening of the issues. However, these consequences pale in comparison to the significance of the issue; compare Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-124, 6 AEC 358, 365 (1973) (delay in the issuance of an operating license is proper when serious safety problems have been uncovered).

Thus, the factors on the whole weigh in the interest of admitting the contention. OCRE prays that the Appeal Board is so moved.

Respectfully submitted,



Susan L. Hiatt
OCRE Representative

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DATED: FEB. 3, 1986

ATTACHMENT

LAKE CO. TELEGRAPH FEB. 1, 1986

Nuclear plant put on alert

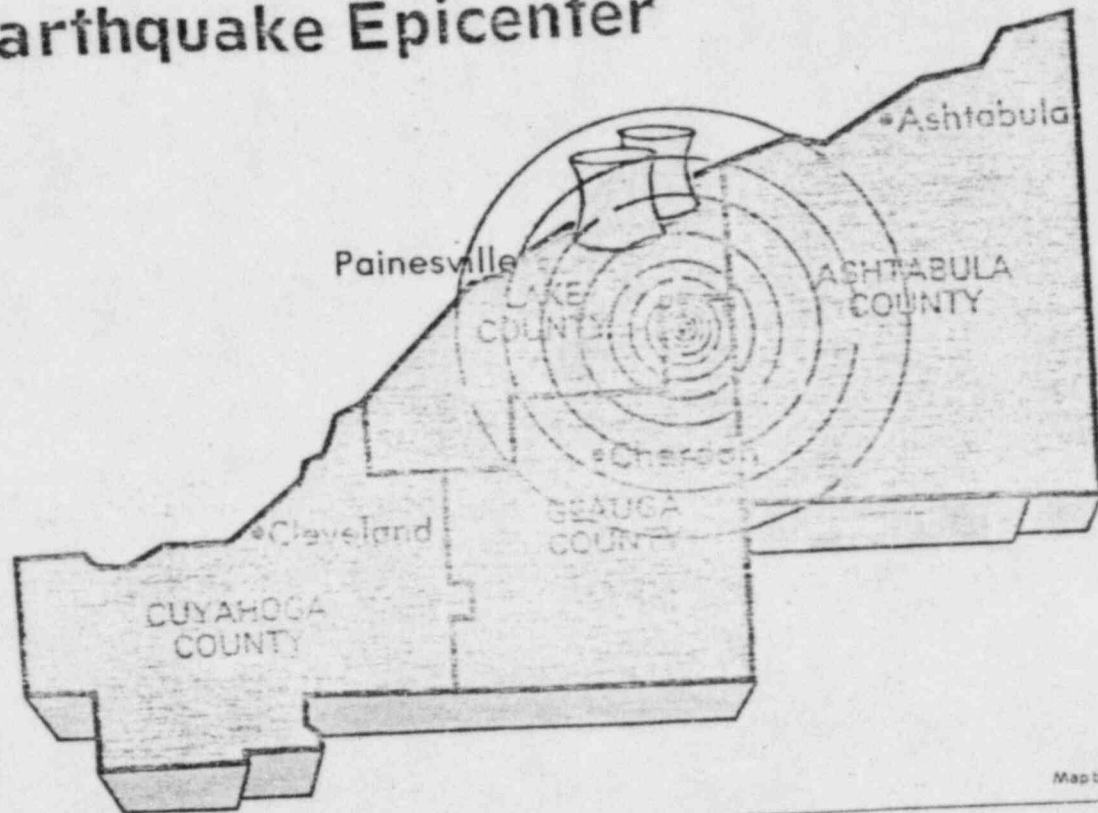
By DOUGLAS KOERNER
Staff Writer

NORTH PERRY VILLAGE — About 1,500 workers were evacuated from the Perry Nuclear Power Plant Friday when an earthquake prompted the plant operator to declare a precautionary site area emergency, the second-highest of Nuclear Regulatory Commission emergency classifications.

The quake involved ground acceleration that apparently surpassed the limit the \$6.4 billion Perry plant is designed to withstand, said Sam W. Swan, senior engineer with the San Francisco-based Earthquake Engineers Inc. The earthquake may have significant influence on NRC design regulations, he said.

The quake marked one of the "very few" instances a modern nuclear power plant was subjected to a tremor near the level it was designed to withstand, he said. The Perry plant is designed to withstand .15 g.

Earthquake Epicenter



Map by Dan Foote

Swan said, but various sources, including the plant operator, estimated the quake to generate anywhere between .19 g and .25 g.

A "g" is a measure of ground acceleration in relation to gravity during an earthquake, Swan said. That measure has no relation to the Richter scale.

William King, spokesman for

the Cleveland Electric Illuminating Co., the plant operator, said the quake caused no damage to major plant systems. CEI crews were continuing to inspect for damage, he said.

Regarding the report of high ground acceleration, King said, "We've been trying to find someone to check this out." He

said he could not confirm or deny the reports.

"The point is the plant isn't operating," King said. "If there are problems, the NRC wants to know about them, and we want to know about them now."

NRC spokesman Russ Marabito, of the commission's regional office in suburban

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Chicago, said a five-member NRC team is being dispatched to the Perry plant to examine the situation. He said CEI reported no significant damages and added that leaking pipes in non-safety systems could not be considered significant.

When asked about the ground-acceleration issue, Marabito acknowledged hearing a figure similar to .19 g, but he said, "I have no idea what that means." The five-member NRC will determine if the quake was within or outside the design basis, he said.

Marabito said he does not know what effect the quake will have on licensing at the Perry plant, which is awaiting its operating license. Regional NRC officials and CEI personnel were scheduled to meet Tuesday to discuss licensing and fuel loading.

The earthquake, which was centered near the Lake-Geauga county border, measured 5 on the Richter scale.

The utility, however, declared a precautionary site area emergency immediately after the tremor, which occurred at 11:47 a.m. The classification was lowered to a precautionary alert a short time later, and the plant returned to normal status at 2:25 p.m.

Marabito said the NRC was informed of the quake immediately and set up a three-way phone hookup with Perry, the NRC Chicago-area office and its main headquarters in Bethesda, Md. Since it does not have a license, the utility was not required to declare any emergency status, he said.

Declaring a site area emergency and then an alert seems to show the conservative and cautious nature of the operator, he said.

CEI technical spokesman Bill Coleman said between 1,500 to

2,000 of the plant's 4,000 employees were sent home after the quake. Most of the employees evacuated were construction and office workers.

Second shift employees were to report to work as usual after the complete downgrade.

No danger of radioactive release existed since the nuclear plant was not operating, Coleman said.

Plant operators were alerted to the quake by sensors in the control room that measured the tremor at .25 g, according to Coleman. "On a design basis, .25 g is significant in that it required us to declare a site area emergency," he said.

Coleman said CEI walkdown teams discovered three leaks, all of them in non-safety systems. No injuries were reported.

Ohio's other nuclear generating facility, Davis-Besse near Port Clinton, also off line, took no emergency actions other than contacting the county, state and NRC as required, said Richard Kelly, a spokesman for Davis-Besse operator Toledo Edison. The tremor at Davis-Besse, which had about 740 workers on site, was not strong enough to trigger the plant's seismic alarms, he said.

Swan said Earthquake Engineers Inc. is involved with electric utility companies around the United States. Most electric-generating plants, especially nuclear plants, are well-constructed and can withstand most earthquakes, even those slightly exceeding their limit to withstand a tremor, he said.

Factors, such as the height of acceleration measuring devices, could lead to deceptively high "amplified acceleration," he said. However, he said, "What I'm hearing is you had a significant quake."

Swan said he heard figures ranging from .08 g to .25 g. Most nuclear plants in the eastern United States have thresholds ranging from .10 g to .20 g, depending on the area and the earthquake probability, he said.

In comparison, the Diablo Canyon nuclear plant in earthquake-prone California is designed to withstand .66 g. Swan said.

The quake originating near Perry comes at a "very sensitive" time, he said, referring to pending licensing. The key will be how high ground acceleration is determined to be, he said.

Swan said he anticipates the issue will be "studied to death." It could result in "chaos" in terms of new regulatory design requirements, he said.

CERTIFICATE OF SERVICE

DOCKETED
USNRC

This is to certify that copies of the foregoing were served by deposit in the U.S. Mail, first class, postage prepaid, this 7 12:43 86 FEB -7 P12:43 3rd day of FEB, 1986 to the Service List.

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