



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MAR 05 1986

Mr. David Loeb
6318 Amelia Avenue
Ashtabula, OH 44004

Dear Mr. Loeb:

This is in response to your letter dated February 4, 1986 to the Nuclear Regulatory Commission (NRC) concerning the January 31, 1986 earthquake which occurred in the vicinity of the Perry nuclear plant.

The information you provided with your letter is being considered by the NRC staff in its evaluation of the earthquake's impact on the Perry plant design. The NRC staff's evaluation of the event will be published as a supplement to the Perry Safety Evaluation Report (NUREG-0887).

In your letter you address two general issues, the earthquake which occurred in the vicinity of the Perry plant on January 31, 1986 and the issue of the geology of the Perry site.

As you may know, NRC regulations require nuclear plants to be designed and built to withstand earthquakes likely to occur in the area around the plant. The NRC staff thoroughly reviewed the issue of site geology and published its conclusions in the Construction Permit Safety Evaluation Report (CPSER), issued in July 1974, and Supplement 3 to the CPSER issued November 1975. The Staff affirmed its conclusions in the Operating License SER (NUREG-0887) issued in May 1982 regarding the geology and seismology of the area, and determined the design of the Perry plant was sufficient to withstand earthquakes of the magnitude likely to occur near the plant.

As for the recent earthquake at Perry, the NRC staff has conducted a thorough investigation of the earthquake and its implications for the Perry plant. In addition, the NRC staff has been conducting extensive reviews of the seismic data recorded from instruments installed in the plant at the time the earthquake occurred. As a part of its investigation, the NRC staff has taken appropriate actions to ensure that all data connected with the earthquake is being preserved so as to permit a thorough and complete investigation. Consistent with NRC Confirmatory Action Letters issued by the NRC regional staff beginning on the day of the earthquake, the Cleveland Electric Illuminating Company (CEI), has maintained, to the extent practical, all plant equipment, structures, and instrumentation in the "as-found" condition, pending evaluation for potential earthquake-related damage. A procedure is in place at Perry to assure that all potential earthquake related conditions are reported to the NRC staff and fully evaluated.

8603120203 860131
PDR COMMS NRCC
CORRESPONDENCE PDR

Mr. David Loeb

- 2 -

On February 11, 1986, the NRC staff held a technical meeting at the Perry plant site to discuss with CEI and its consultants the results to date of CEI's review and evaluation of the earthquake and the plant response. On February 12, 1986, CEI submitted a written report of its findings, which the NRC staff is now carefully evaluating. The NRC staff's initial reports to the Commission's Advisory Committee on Reactor Safeguards were made on February 12 and 13, 1986.

To date, CEI's reviews and NRC inspection teams have found no significant physical damage to plant structures or equipment. According to CEI, a large number of plant systems were energized at the time of the earthquake, and those systems were not adversely impacted. CEI has also submitted to the NRC staff its analysis of earthquake-related data, and its analysis of the impact of the earthquake on the plant design, concluding that the earthquake: 1) did not exceed the design capacity of the Perry plant; 2) did not damage the Perry plant; and 3) provides no reason to change the design basis for the Perry plant.

The NRC staff and its consultants are carefully reviewing CEI's analysis and conclusions. Based on that review, and its own physical inspections and engineering analysis, the NRC Staff will determine whether the earthquake adversely affected the plant and whether, on the basis of the new data, it is able to reaffirm its prior favorable determination regarding the adequacy of the Perry plant design. The NRC staff expects to complete its technical assessment of the earthquake issue by March 1986.

The NRC Advisory Committee on Reactor Safeguards is expected to provide its assessment of the staff's technical findings and conclusions by mid-March 1986.

I trust that this letter has satisfactorily responded to your inquiry.

Sincerely,

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

*Previously concurred:

OFC	:PD#4	:PD#4	:OELD	:DD:NRR	:D:NRR	:DIV:DD	:DIV:D
NAME	:*JStefano	:*WButler	:*CWoodhead	:DEisenhut	:HDeDon	:*RHouston	:*RBernero
DATE	:2/19/86	:2/25/86	:2/20/86	:2/ /86	:3/5/86	:2/26/86	:2/27/86

GREEN TICKET NO. 001416

Docket File
NRC PDR
Local PDR
EDO #001416
EDO Reading
HDenton/DEisenhut
PD#4 Reading
OELD
VStello
DMossburg (EDO #001416)
LKreiesael/RBernero
JStefano
MRushbrook
PD#4 Reading/LBrandenburg
GCunningham
JKeppler
JTaylor
JSniezek
JRoe
TRehm

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Handwritten signature

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The NRC Advisory Committee on Reactor Safeguards was briefed by the applicant and the NRC staff on February 12 and 13, 1986 as stated above and is expected to provide its assessment of the staff's technical findings and conclusions prior to the decision to issue a low power operating license for Perry Unit 1.

I trust that this letter has satisfactorily responded to your inquiry.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

OFC	: PD#1	: PD#1	: OELD	: DD:NRR	: D:NRR	: DIV:DD	: DIV:D
NAME	: JStefano	: WButler	: CWood	: DEisenhut	: HDenton	: RHouston	: RBernero
DATE	: 2/ /86	: 2/2/86	: 2/20/86	: 2/ /86	: 2/ /86	: 2/16/86	: 2/27/86

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90/86

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ROSEANNS

Author's Name:
Woodhead

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letter to david loeb



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NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Mr. David Loeb
6318 Amelia Avenue
Ashtabula, OH 44004

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The information you provided with your letter ~~will be forwarded to~~ *is being considered by* the NRC staff ~~for consideration~~ in its evaluation of the earthquake's impact on the Perry plant design. The NRC staff's evaluation of the event will be published as a supplement to the Perry Safety Evaluation Report (NUREG-0887).

In your letter you address two general issues, the earthquake which occurred in the vicinity of the Perry ~~power~~ plant on January 31, 1986 and the issue of the geology of the Perry site.

As you may know, NRC regulations require nuclear plants to be designed and built to withstand earthquakes likely to occur in the area around the plant.
The balance of ~~this~~ *your* letter addresses the actions taken since the January 31, 1986 earthquake. As to the issue of the geology in the vicinity of the site, the staff thoroughly reviewed the issue of site geology and published its conclusions in the Construction Permit Safety Evaluation Report (CPSER), issued in July, 1974; Supplement 3 to the CPSER issued November 1975, and *The Staff* again affirmed its ~~favorable~~ *favorable* conclusions in the Operating License SER (NUREG 0887) issued in May, 1982, *regarding the geology and seismology of the area, and determined the design of the Perry plant was sufficient to withstand earthquakes of that magnitude likely to occur near the plant.*
As for the recent earthquake at Perry, the NRC staff has taken the following actions in its assessment of the impact of the earthquake on Perry:

As prior conclusions and of
the NRC staff has conducted a thorough investigation of the earthquake and its implications for the Perry plant. In addition, the NRC staff has been conducting extensive reviews of the seismic data recorded from instruments installed in the plant at the time the earthquake occurred. As a part of its investigation, the NRC staff has taken appropriate actions to ensure that all data connected with the earthquake is being preserved so as to permit a thorough and complete investigation. Consistent with NRC Confirmatory Action Letters issued by the NRC regional staff beginning on the day of the earthquake, the Cleveland Electric Illuminating Company (CEI), has maintained, to the extent practical, all plant equipment, structures, and instrumentation in the "as-found" condition, pending evaluation for potential earthquake-related damage. A procedure is in place at Perry to assure that all potential earthquake related conditions are reported to the NRC staff and fully evaluated.

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Office of Nuclear Reactor Regulation

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Harold R. Denton, Director
Office of Nuclear Reactor Regulation

[Signature]
PD#4
JStefano:1b
2/19/86

[Signature]
PD#4
WButler
2/20/86

See ed. changes
NHO
OELD
[Signature]
2/20/86

DD:NRR
DEisenhut
/ /86

DIV::DD
RHouston
/ /86

D:NRR
HDenton
/ /86

DIV:D
RBenaro
/ /86



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

EDO PRINCIPAL CORRESPONDENCE CONTROL

FROM:

DUE: 03/04/86

EDO CONTROL: 001416
DOC DT: 02/04/86
FINAL REPLY:

DAVID LOEB
ASHTABULA, OH

TO:

NRC

FOR SIGNATURE OF:

** GREEN **

SFCY NO:

DENTON

DESC:

COMMENTS RE EARTHQUAKE NEAR PERRY NUCLEAR PLANT

ROUTING:
LTR ONLY:
GOUNNINGHAM
KEPPLER
TAYLOR

DATE: 02/11/86

ASSIGNED TO: NRR

CONTACT: DENTON

SPECIAL INSTRUCTIONS OR REMARKS:

Butler

NRR RECEIVED: 02/12/86

ACTION: DBL - BERNERO

NRR ROUTING: DENTON/EISENHUT
PPAS
MOSSBURG/TOMS