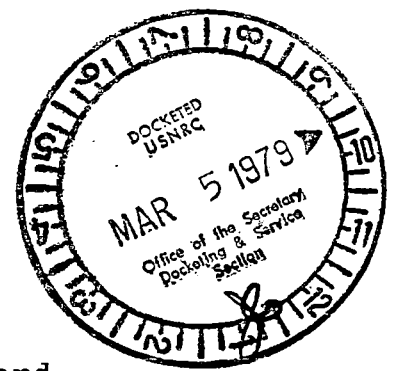


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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



Before the Atomic Safety and Licensing Board

SERVED MAR 12 1979

In the Matter of
Consumers Power Co.)
Palisades Nuclear Plant)
South Haven, Michigan)

Docket No. 50-255 SP

PETITION FOR LEAVE TO INTERVENE

Pursuant to the notice of hearing on the intention of Consumers Power Company to shut down the Palisades Plant in 1981 in order to replace defective steam generators, the Great Lakes Energy Alliance, an unincorporated association of citizens' groups in the State of Michigan, hereby petitions for leave to intervene in the above proceedings before the Nuclear Regulatory Commission.

IDENTIFICATION OF PETITIONER AND INTEREST

A) The Great Lakes Energy Alliance is an unincorporated association of citizens' groups which has formed in the State of Michigan and the Great Lakes area to study energy problems and policies and to disseminate information and stimulate public awareness and involvement in the study of nuclear power and safe energy alternatives.

B) Many citizens belonging to several member organizations of the Great Lakes Energy Alliance reside in close proximity to the Palisades nuclear plant at which the repair on defective steam generators allegedly will take place. Among these groups are the Coho Alliance of St. Joseph, Michigan, United for Survival at Benton Harbor, Michigan, and the Grand

Haven Alliance of Grand Rapids, Michigan. These groups have a special concern in regard to the environmental and social impact of the replacement of defective steam generators which is the subject of this licensing proceeding.

C) Fifteen of the total of twenty-two citizens' groups from Michigan and Illinois who comprise the Great Lakes Energy Alliance (hereafter referred to as "Petitioners") are ratepayers of Consumers Power Company and therefore have a special economic as well as social and environmental interest in the replacement of defective steam generators which is the subject of this licensing proceeding.

STATEMENT OF CONTENTIONS

1) The shutting down of the Palisades nuclear plant to replace defective generators will require exposing workmen to hazardous levels of radiation. Recently, studies have shown that the radiation standards that have been purported to be safe for workers in nuclear installations have resulted in a higher incidence of cancer among those workmen than in a comparable group in the general population. The NRC is now proposing more conservative radiation standards for workmen. The Petitioners want to know how adequate protection from radiation hazards will be given to the workmen involved in this project.

2) The defective steam generators that must be replaced will be contaminated with radioactivity. The Petitioners want to know the nature and extent of the environmental and safety review procedure which the NRC will undertake to protect the public during the repair operations.

3) Petitioners want to know the type of procedure which will be employed for replacement of the steam generators.

4) The defective steam generators constitute a type of long-lived, toxic radioactive waste which will have to be stored and disposed of permanently. The Petitioners want to

know what plans are being made for disposal of this defective equipment.

5) The Michigan Legislature has passed a bill banning the disposal of nuclear waste in the State of Michigan. In view of this law, Petitioners want to know where the defective and radioactive contaminated steam generators will be shipped for storage, since it cannot be stored in this State, and what routes for its transportation in the State will be used.

6) Petitioners want to know the environmental and safety risks that are associated with the long-term storage and/or disposal of these defective radioactive parts of the Palisades n-plant.

7) It has been reported that replacement of defective steam generators can take approximately two years' time and can cost a quarter of a billion dollars. (See Exhibit A, attached.) Petitioners want to know who will pay for the power that will be purchased during that period of time and who will pay for the new steam generators and the labor and supervision involved.

8) Petitioners want to know what the cost of the permanent storage of the defective radioactive parts will be and who will pay those costs.

9) Petitioners want to know how this type of problem can be prevented from reoccurring in the other nuclear plants that Consumers Power Co. has under construction and is contemplating for future construction.

VERIFICATION

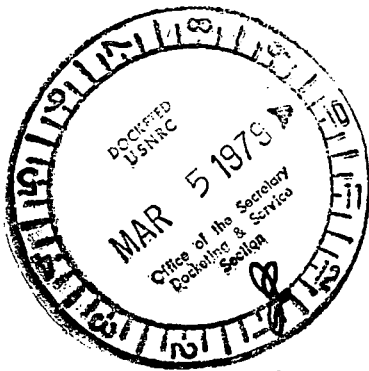
I, Mary P. Sinclair, am a duly authorized spokesperson for the Petitioner, the Great Lakes Energy Alliance. As such, I have drafted the foregoing Petition to Intervene, and affirm that all statements made therein are true to the best of my knowledge and belief.

I am authorized to sign this petition and make this affirmation on behalf of the above named Petitioner.

Mary P. Sinclair
Mary P. Sinclair

Feb. 27, 1979
Date

Subscribed and sworn to before me this 27th day of February, 1979.



Veronica L. Winslow

Veronica L. Winslow
Notary Public
Midland County, Michigan
My Comm. exp: 11/14/81

Corrosion in reactor pipes is bleeding U.S. nuclear industry

By MIKE TONER
Knight-Ridder Newspapers

Corrosion, cracks, dents and leaks are slowly crippling a growing number of the country's nuclear power plants.

The wave of unforeseen problems, so far detected in at least 20 U.S. plants, threatens the nuclear industry, and ultimately its customers, with a repair bill already calculated in the hundreds of millions of dollars.

At least two plants — Florida Power & Light Co.'s Turkey Point reactors and Virginia Electric Power Co.'s Surry nuclear station — are scheduled to be shut next year for massive overhauls. There are growing fears that other plants may face similar problems.

When the Turkey Point work is finished after two years, the repair bill — including an estimated \$150 million in increased fuel costs that Florida Power & Light customers may have to pay while the plant is out of service — is expected to total more than a quarter of a billion dollars.

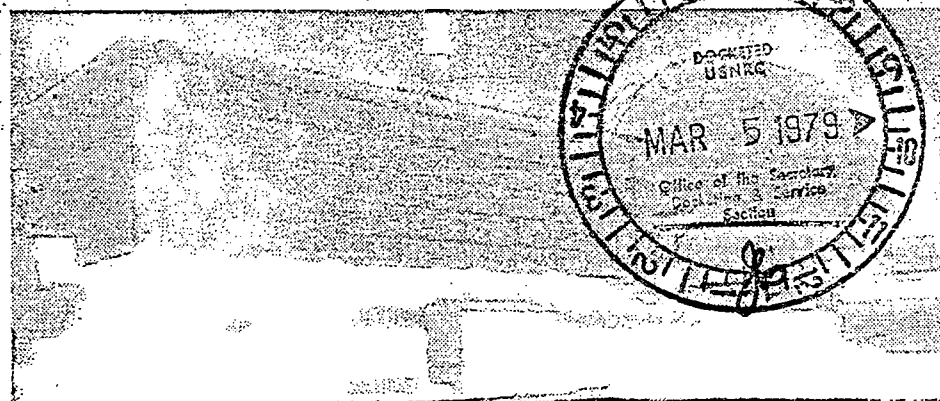
That's about what it cost to build the plant in 1972.

IN ADDITION to the unprecedented cost of repairs, the deterioration of the plants' steam generators is responsible for:

- Numerous reactor shutdowns, often in the midst of peak demand periods, to prevent any leakage of radiation outside the plant and to assure its safe operation in the event of an accident.

- Sporadic outages for repairs that may require extended shutdowns and often expose power plant workers to increased radiation.

So far, the corrosion-related problems have been found at 20 of the 46 operating



UPI Photo

Cracks were found in 1975 in this nuclear power plant in Morris, Ill., and it became one of many to be shut down for inspection.

nuclear power plants in the United States, but they are most severe at the Surry station in northern Virginia and the Turkey Point plant in southern Dade County.

The problems — cracks and dents in the bundles of slender tubes in the plants' steam generators — are less severe in the other plants. But they have stirred growing fears in the industry that the overhauls at Surry and Turkey Point may be merely the beginning of a wave of repairs that the country's current generation of reactors will face.

EARLY NEXT year, the white-domed Surry station, barely out of its infancy as the life expectancy of such installations is figured, will begin undergoing \$50 million worth of repairs. The increased cost of oil and gas to generate replacement power will cost the company and its customers about \$250,000 a day.

Repairs are expected to begin at Turkey Point a few months later.

After only six years of operation, both plants are suffering from a rapid accumulation of corrosion-related defects, most of them traceable to the growth of a tough,

scaly deposit, dubbed "green grunge" by engineers.

The material builds up in the plants' steam generators, the portion of the plant that converts the heat of its nuclear chain reaction into steam.

Both utilities tentatively have decided that only the complete replacement of the plants' deteriorating steam generators, originally expected to last for the full 40-year life of the reactors, will enable them to continue to run at full power.

Both utilities are openly dismayed at the prospect.

The Florida utility was so sure that the steam generators would last when the Turkey Point plant was built that they were permanently installed. They will literally have to be torn out of their concrete and steel supports.

THE COMPANY has sued the Westinghouse Electric Corp., which supplied the steam generators for Turkey Point as well as most of the other nuclear power plants in the country.

"A lot of people are upset," says John T. Benton, the firm's supervisor of nuclear engineering. "You'd be upset

too if you bought a new car and it broke down after a day's driving."

Even many of the power plants now free of corrosion may not be immune for long. Some have been in service for only a year or two.

"It appears to be only a matter of time until a unit experiences problems," says John Mudis, who helps coordinate a \$40 million research program on the matter for the Electric Power Research Institute.

"Unless appropriate corrective actions are taken, all pressurized water reactors face a significant probability of steam generator replacement prior to the end of the 40-year plant life time," he warns.

CHEMICAL and mechanical cleaning shows some signs of easing the accumulation of "green grunge" but early signs of deterioration have appeared at some units after less than two years of operation.

"It is a very widespread problem," agrees Darrell G. Eisenhut, assistant director of the U.S. Nuclear Regulatory Commission's division of operating reactors.

Steam supply systems of

all three major U.S. manufacturers, Westinghouse, Babcock & Wilcox and Combustion Engineering, have experienced problems.

But the widening scope of the problem poses more than a mere technical headache for the industry. It also threatens its public image.

"We have to eliminate the occurrence of corrosion," explains Tom Anderson, manager of the nuclear safety department for Westinghouse. "We can't just go out wholesale and replace steam generators; that would undermine public confidence."

NUCLEAR CRITICS already have seized on the situation as "the Achilles' heel" of the country's commercial nuclear power program.

"Our position is that there

is nothing safer than a nuclear power plant that is shut down," says David Comey, president of the Chicago-based Citizens for a Better Environment.

"If the steam generators continue to corrode, there will be no better incentive for not building a nuclear plant in the first place," he says.

Even though the extended overhauls at Surry and Turkey Point haven't begun, steam generator problems are already a major contributor to nuclear power plant outages throughout the country.

The most minute leak in any of the thousands of slender tubes bundled together inside the steam generator indirectly results in some increase of radioactivity released into the environment around the plant.

The leaks may also increase the chances that operation of the plant's safety systems will be impaired in the event of a major reactor accident.

No steam generator leaks have ever released radioactivity that exceeded legal limits or interfered with the plants' safety systems.

ONE PARTICULARLY beleaguered power plant, Michigan's Consumers Power Co.'s Palisades unit, has been shut down more in its seven years of operation than it has been in-service.

The company says that "improper design and manufacture" of the plant's steam generators has been a major reason that it has been able to operate at only about one-third of its potential capacity since it went into service in

1971.

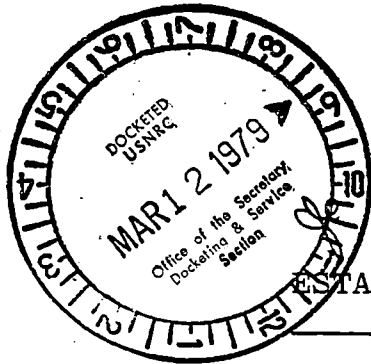
So far the company has collected \$40.5 million in out-of-court settlements from Combustion Engineering, the company that furnished the steam supply system for the plant.

Palisades is currently operating at nearly full power, but its problems aren't over. Company officials say the buildup of corrosion seems to have slowed, but the damage is already so extensive that they plan to close it down in 1982 for "major steam generator modifications."

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

[Docket No. 50-255-SP]

CONSUMERS POWER CO..



ESTABLISHMENT OF ATOMIC SAFETY AND LICENSING BOARD
TO PRESIDE IN PROCEEDING

Pursuant to delegation by the Commission dated December 29, 1972, published in the Federal Register (37 F.R. 28710) and Sections 2.105, 2.700, 2.702, 2.714, 2.714a, 2.717 and 2.721 of the Commission's Regulations, all as amended, an Atomic Safety and Licensing Board is being established in the following proceeding to rule on petitions for leave to intervene and/or requests for hearing and to preside over the proceeding in the event that a hearing is ordered.

CONSUMERS POWER CO.

(Palisades Nuclear Plant)

Provisional Operating License No. DPR-20

This action is in reference to a notice published by the Commission on January 29, 1979, in the Federal Register (44 F.R. 5732) entitled "Proposed Issuance of Amendment to Provisional Operating License".

The Chairman of this Board and his address is as follows:

Charles Bechhoefer, Esq.
Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

- 2 -

The other members of the Board and their addresses
are as follows:

Dr. George C. Anderson
Department of Oceanography
University of Washington
Seattle, Washington 98195

Dr. M. Stanley Livingston
1005 Calle Largo
Santa Fe, New Mexico 87501



James R. Yore, Chairman
Atomic Safety and Licensing
Board Panel

Dated at Bethesda, Maryland
this 9th day of March 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

CONSUMERS POWER COMPANY

(Palisades Nuclear Plant)

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) Docket No.(s) 50-255SP
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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document(s) ^v
upon each person designated on the official service list compiled by
the Office of the Secretary of the Commission in this proceeding in
accordance with the requirements of Section 2.712 of 10 CFR Part 2 -
Rules of Practice, of the Nuclear Regulatory Commission's Rules and
Regulations.

Dated at Washington, D.C. this

12th day of March 1979.

Deputy T. Lawning

Office of the Secretary of the Commission

* 1- Petition for leave to Intervene - Great Lakes
Energy Alliance dtd 2/27/79

2- Establishment of ASLB to Preside in Proceeding
dtd 3/9/79

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)

CONSUMERS POWER COMPANY)

(Palisades Nuclear Plant))
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Docket No.(s) 50-255SP

SERVICE LIST

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