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COMMITTEES:
FOREIGN RELATIONS
AGRICULTURE, NUTRITION AND FORESTRY

United States Senate

WASHINGTON, D.C. 20510

September 7, 1990

Mr. Lando Zech, Jr.
Chairman
Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Dear Mr. Zech:

Because of the desire of this office to be responsive to all inquiries and communications, your consideration of the attached is requested.

Your findings and views, in duplicate form, along with the return of the enclosure, will be greatly appreciated. Please direct your reply to the attention of Darlee Williams of my Washington office.

Thank you for your thoughtful attention.

Sincerely,

Richard Lugar

Richard G. Lugar

RGL/dw
Enclosure

— Gary Kirves
90 [redacted]

Senator Richard Lugar
U.S. Senate
Washington, D.C. 20510

August 12,1990

Dear Sen ator Lugar:

I am writing in reference to a policy ado.ted by the Nuclear Regulatory Commission known as Below Regulatory Concer (BRC). My understanding of this policy is that the NRC decided to set exposure levels below which it does not wish to regulate in order to save .oney on clean up and enable re,ulators to focus on materials that pose more significant risks to the public.

However,low-level waste does not mean low-risk waste. The NRC itself has estimated that widespread deregulation of radioactive waste could result in 3.5 in 1,000 lifetime fatal cancer risk, or about one cancer death for every 285 Americans exposed. This is clearly unacceptable.

The BRC policy will create more problems that it solves. It will lead to un necessarily increasing the publics exposure to dangerous levels of radiation, con tamination ground water and air su.lies,and undermining states' pl.ns for properly handling their solid and radioactive wastes. I am asking you to co-sponsor S. 2979, the "Radiation Protection Act of 1990" recently introduced by Sen. George Motchell. This bill will overtun the BRC policy and help .ut us on the road to a cleaner and greener planet.

Sincerely Yours,

Gary Kirves

Thomas A. Flynn [redacted]

Hand Delivered

3/15/93

Honorable Richard Lugar
U.S. Senate
Washington DC 20510

Re: Nuclear Regulatory Commission

Dear Senator Lugar:

I am writing to you to ask for your assistance in a very important matter relating to one of Indiana's most valuable natural resources; the Indiana Dunes on Lake Michigan. The NRC has refused to require a full public hearing as required by their own rules. There is a very severe lack of due process here . As you know Indiana receives a great deal of its water supply from the lake.

The storage of highly radioactive nuclear waste 150 feet from the shoreline on very fragile and ever changing sand dunes is quite questionable. Moreover, the producer of this waste and the NRC assert that this waste is to be stored in these casks only temporarily. However, how can this be. They have opted to use casks that are not designed to be transported.

We honestly have to ask the question why it is appropriate to allow this storage without a full public hearing which would include an environmental impact study. If an accident happens the damage to this valuable natural resource is irreversible. Twenty years from now if this would occur the question will be asked; "on whose watch did this happen?"

When asking either the utility generating this waste or the NRC responsible for regulating this industry and assure our health and safety they point the finger at Congress. Congress points back to the NRC. It really is the classic example of inside the Beltway Gridlock". Please ask the sensible questions to protect our citizens.

Sincerely,

Thomas A. Flynn
President
Palisades Park Homeowners Assoc.

Statement for Public Meeting
on High Level Nuclear Waste Storage in an
Untested Concrete Cask System at
Palisades Nuclear Plant
Feb. 23, 1993

By Mary P. Sinclair, PhD.

My name is Mary Sinclair. I am here as co-chair of a coalition of citizens' groups called Don't Waste Michigan, and as a long term member of the National Energy Policy Committee of the Sierra Club, a national environmental organization, with a combined membership of approximately 600,000 citizens.

We welcome this meeting as a forum for setting out a number of significant safety issues in regard to the proposed storage of high level nuclear waste in untested concrete cask systems. These casks will stand upright on a concrete pad approximately 150 yards from the shore of Lake Michigan at the Palisades nuclear plant site. We will demonstrate that these issues can only be addressed through a public hearing conducted under the rules of the Administrative Procedures Act.

The Nuclear Regulatory Commission (NRC) has stated that it will license these casks for storage only, and they are explicit about the fact that there is no provision for transportation offsite. The casks will weigh about 128 tons when loaded and they are not transportable. (Letter from NRC, R. B. Samworth, Apr. 22, '92, Letter from WEPCO, Jan. 17, '92) (Ref.1&2) Given these facts, we can only reach the conclusion that the Nuclear Regulatory Commission is in the process of establishing a permanent high level nuclear waste storage dump in the heart of the Great Lakes Region.

There are already 3200 sites in the country that have been contaminated by the DOE in its weapons program, many of them with nuclear waste. (Nat'l Academy Press, '89) (Ref. 3) We cannot allow our Federal agencies to continue to contaminate our land.

In addition, the Nuclear Regulatory Commission is violating its own rules in proceeding with this project in this manner without a public hearing.

These violations are as follows:

1. NRC's Final Rule (10 CFR Parts 50, 72 and 170, Fed. Reg. vol. 55, No. 138, July 18, 1990) states that "hearing processes do not apply when issues are resolved generically by rulemaking." (p. 29182-col 3) (Ref. 4) However, there are significant safety issues that have not and cannot be resolved through the rulemaking process in connection with this cask system. According to the NRC, these tests have to do with the most critical function of the cask, i. e., verifying its heat removal capacity. The NRC itself has ordered this first test of this cask when the first cask system is used at the Palisades plant. A letter from the NRC to the vendor of the cask discusses the fact that the NRC views this preoperational test as necessary because the fuel clad temperatures predicted by the vendor are only 4 degrees below the accident conditions for the metal basket within the concrete cask which will actually hold the fuel. The letter also states the concrete temperatures predicted are very close to the accident conditions for the concrete cask. (Letter from F.Sturz to J. V. Massey, July 8, 1992) (Ref. 5)

Furthermore, the NRC's Safety Evaluation Report (SER), May 6, 1992, states that during this first test if "excessive temperatures cause the cask to perform in an unacceptable manner, and/or temperatures cannot be controlled to within acceptable limits, the cask shall be unloaded." (Ref. 6) This indicates that this is an experiment for resolving certain safety issues which have not and cannot be resolved through the rulemaking process.

The Safety Evaluation Report (SER) of the NRC, Mar. 29, '91, states that the VSC is a new system that has not been built or tested before and that approval of site-specific procedures is contingent on successful demonstration of "first-of-a-kind" features. (p. 8-1, Ref. 7) These tests must be done on site of a nuclear plant with spent fuel pool facilities. This means that the first testing of the VSC-24

cask is to take place with the loading of fuel within the spent fuel facility at the Palisades n-plant.

Among these "first-of-a-kind" features are many parts and much equipment that is a part of the first test of the casks in the fuel transfer operation at the spent fuel pool at Palisades. These parts are frequently referred to in the SER's as needing further review and approvals. They include lifting cables, lifting yoke, lugs, the transfer vehicle, etc. For example, SER, Mar. '91, Rev. 2, p.1-10, (Ref. 8) refers to "a sling or cable set which is attached to lifting eyes bolted to the top cover plate of MSB and attached to a lifting hook for a hoist. No information was presented for this cable set. The above two pieces of equipment are used only in the spent fuel pool building. Therefore, the approval for their use is subject to 10 CFR Part 50 review."

The use of the metal transfer cask (MTS) also occurs entirely inside the spent fuel pool building. The SER evaluated this cask as a special lifting device and because of the location for its use, "final approval for the design must come from a separate Part 50 review." (p.1-9) (Ref. 9) This calls for a licensing procedure. In other words, this cask should not be considered for approval by itself but only in conjunction with all the equipment, as well as operator training, that must be available and proved safe for fuel transfer. All these are safety problems that cannot be resolved through the rulemaking process and should be a part of a public review.

2. The NRC has established a rule, Subpart K of 10 CFR 72, on which the Commission relies to go forward with this project without a public hearing under the general license. However, in section 72.218 of that ruling, we find that management of spent fuel at the reactor "must include a plan for the removal of the spent fuel stored under this general license from the reactor site." (Ref. 10) Since the NRC is licensing these casks for storage only with no plans for offsite transport, it is again in violation of its own rule.

3. NRC's regulation, 10 CFR 72 Subpart L (72. 236 (m), states

the stored spent fuel from a reactor site, transportation and ultimate disposition by the DOE." (Ref. 11) Since the NRC is now in the process of licensing this cask for storage only and it is not compatible with any offsite transport system, it is again in violation.

4. Furthermore, in their comments for DOE's Final Version Dry Cask Storage Study, (p.11-53) the NRC stated, "The Commission is concerned that inadequate attention is being given to ensure the compatibility of the various steps in the storage, transport and disposal of spent fuel and thereby enhance the safety and efficiency of fuel handling." Noting their concern with the proliferation of storage options, the Commission recommended "system analysis and action at this early stage could result in minimizing these handling risks." (Ref. 12) The VSC-24 cask contradicts this policy position on the part of the NRC. It only adds to the lack of standardization and integration of the whole waste system since it is not compatible with any other storage system or transport method. This will increase the possibility of handling accidents, public exposure and escalate the costs. Through a cost/benefit analysis in a hearing, we could determine how much more costly this system will ultimately be.

5. There is no monitoring of this cask system so that if pressures or excessive temperatures were building up, they could not be detected in time. This is in violation of NRC's rules on dry storage confinement systems which states: "Storage confinement systems must have the capability for continuous monitoring in a manner such that the licensee will be able to determine when corrective action needs to be taken to maintain safe storage conditions."(10 CFR 72.122 (h) (4). (Ref. 13) Only a public hearing can further explore the need for monitoring and make a determination of what is needed to protect the public and the environment.

6. Consumers Power Co.'s comments to the NRC during this rulemaking on the casks indicate that they do not have the kind of fuel that was specified in the certificate of compliance which has been approved for use in the casks at Palisades. It is difficult to

believe that the NRC does not know what kind of fuel it is licensing a cask for, but that seems to be the case here. Any approval given by the NRC would have to be site specific and not generic and therefore would require a hearing. (NRC)

7. The NRC has failed to comply with the National Environmental Policy Act of 1969, as amended, which requires an Environmental Impact Statement for any Federal action affecting the quality of the human environment in a significant way not already considered. The adoption of this rule to use the VSC-24 could lead to the adoption of this cask nationwide. Therefore, an environmental impact statement is imperative.

There is a good example of why having no environmental impact statement drawn is a serious defect. The first sentence of the detailed response to Attorney General Frank Kelley in his request for a hearing from the Chairman of the NRC, Ivan Selin, states that the NRC has adopted a procedure for using the general license of a utility for storage of spent fuel at reactor site--which means allowing the project to go forward without a public hearing--because the safety of cask technology is not dependent on site-specific conditions. This statement is based on a false premise, since one of the important site-specific conditions at Palisades and the Great Lakes area is the impact of the freeze-thaw environment of the severe winters in the Midwest on the integrity of concrete. There is a good deal of information on these impacts on concrete in the literature which could be brought forward in a hearing. (Ref. 15) In addition, DOE's Final Version Dry Cask Storage Study (DOE/RW-0220) states that a potential safety issue "is the structural integrity of concrete at the temperatures expected in the cask" (p.1-5) (Ref.16).

Another site-specific aspect of the Lake Michigan environment which the NRC failed to consider is the heavy amount of moisture in the form of fog, rain, mist, sleet, ice storms and snow that are prevalent here. In discussing the effects of corrosion on the metal cannister intended for the VSC-24, a report from Pacific Nuclear

states, "It is concluded that radiation, especially that from gamma emitters, potentially has some deleterious effect upon corrosion rates on the occasions if the canister becomes wet and remains wet for some time during the storage period." (R. Quinn, R. Lehnert, J. Rosa, Pacific Nuclear Report, Radioactive Waste Management, p. 2224)(Ref 17) The NRC has not addressed these safety issues during their rulemaking procedure because they don't even recognize them. These matters would be brought to their attention in a hearing.

The Chairman of the NRC, Ivan Selin, has stated that Palisades is perhaps the next plant that will have to be shut down because of an embrittlement problem in its pressure vessel. (New York Times, Apr. 14, 1992) (Ref.17a) A cost/benefit analysis in a hearing could determine the extent of the embrittlement problem and how soon the plant may be shut down. It may be more cost effective to shut down the plant now rather than create another nuclear waste dump on the shore of Lake Michigan in addition to the wastes in their spent fuel pool. An environmental impact statement requires the consideration of alternatives to the impending action.

We go to further discrepancies in the way that this cask system has been designed and produced. The NRC has not accepted the results of the tests that have been run at the Idaho Engineering facility on a small prototype of this cask system, the VSC-17, because of concerns that calculated temperatures are too close to the accident conditions of both the interior metal basket and the concrete cask, as mentioned previously.

However, the vendor did accept the test results of the VSC-17 and proceeded to build the casks on site before the certificate of compliance by the NRC was issued--and they were built with NRC approval. (Letter from Gunderson, NRC, Ref. 18) We need to explore how this discrepancy in applying the test data to the casks that have been constructed affect the capacity of the casks to perform their intended function.

8. The Final Rule published on July 18, 1990, states that the "NRC...will ensure that each cask is fabricated under an NRC-approved quality assurance program." (Ref. 19) However, as was pointed out previously, the eight casks now on site were constructed before the NRC had issued a certificate of compliance. Five casks were built before the NRC conducted an inspection last spring. The NRC inspectors found that a number of welds were omitted, that the workers were not aware that certain work had to meet construction codes, that they did not know what those codes were, and that the management oversight was very weak. Consumers Power Co. was required to shut down construction on the casks as a result. (Letter from Cons. Power Co. to the vendor, J. V. Massey of Pacific Sierra Nuclear, May 29, '92). (Ref. 20) We have no indication that the five casks that were already built under substandard conditions that did not pass NRC inspection will not be used, or what will happen to them. We need to have this determined through a hearing.

Further questions about the construction and safety of these casks comes from a letter from Pacific Nuclear to C. Haughney of the NRC, (Jan. 28, '92), a company which was initially involved in their construction, but which now wants to distance itself from the project. R.L. Shingleton, a vice-president of Pacific Nuclear states, "On December 31, 1991, Pacific Nuclear completed a divestiture of all interest and participation in Pacific Sierra Nuclear Associates (PSNA). As a result of this divestiture, Pacific Nuclear now has no ownership of, or relationship to PSNA, including the Ventilated Storage Cask (VSC) design."(Ref. 21) It is obvious that the divestiture is related to any liability or negligence issues that may surface in the future with this cask. Probing the reasons for this action can only come about in a public hearing.

Another comment questioning the safety of this system comes from the B and W Fuel Co. They pointed out that the NRC staff failed to identify a significant safety issue, e.i., that the closure welds of the interior metal basket holding the fuel are not sufficient to meet the structural strength requirements of an ASME Section III, pressure

vessel. (Ref. 22) We need to probe this claim with expert witnesses in a hearing.

9. The Final Rule, July 18, 1990, p. 29182 states, " There is a possibility that the use of a certified cask at a particular site may entail the need for a site-specific licensing action. For example, an evaluation under 10 CFR 50.59 for a new cask loading procedure could require a part 50 license amendment in a particular case. In this event the usual formal hearing requirements would apply." (Ref. 23) "A new loading procedure" is exactly what we have with this VSC-24 Cask system, with a great deal of new equipment that has had to be developed for the loading of this exceptionally large cask. The NRC should have evaluated this procedure under 10 CFR 50.59 and required an amendment for the use of this equipment that allowed for public review, but they failed to do so.

The description of the surveillance requirements should, of itself, cause reason for concern. On p. 14-30 of the May 6, 1992, SER, we find the following : "A visual surveillance (a drive-by or walk through examination) of the exterior of the air inlets and outlets shall be conducted at an interval not to exceed 1 week." Further down on the same page, we find the following: "A conservative analysis...of complete blockage of all air inlets or outlets indicates that the concrete can reach the accident temperature limit of 350º F in a time period between 24 hours and one week." (Emphasis added) (Ref. 24)

This is a serious contradiction in the evaluation of the safety of this type of surveillance. In addition, these casks will stand 18 ft. high on a concrete pad, and, therefore, the mode of surveillance required will make it impossible to view the top 12 to 14 feet of the cask vents.

Besides this weak surveillance, the lack of any monitoring system for these casks has been the subject of concerned comment by numerous persons within the nuclear industry as well as the

For example, this Board wrote: "The importance of heat transfer mechanisms to overall cask performance requires that all reasonable monitoring requirements, not simply visual surveillance, be utilized to ensure the appropriate performance of the cask." (Ref. 25)

Numerous other comments from the nuclear industry indicate various reasons why this is a substandard cask compared to others that the NRC has licensed. Each of these concerns should be probed for their validity in a public hearing. (Three comments as Ref. 26)

I must make one final regrettable observation. The NRC rule state that if the emergency plan is in compliance with NRC regulation, then the utility does not have to notify either State or local governments before beginning loading the casks. (Ref. 27) Yet the essence of any emergency plan is to make sure that local services such as the sheriff and police departments and hospital services know what is going on and how to respond if necessary. It would appear that the NRC is encouraging a covert operation in nuclear waste disposal that might be harmful to people.

These are only some of the major issues that surround the VSC-14 cask system that should be addressed in a public hearing and cannot be resolved through a public meeting of this kind.

In the next few days, I plan to submit questions on the possibility of combustible gases being generated within the casks and the effects of pinhole leaks in the fuel cladding within the cask.

Albert Einstein was not only a brilliant scientist whose work forshadowed the fission process, but also a visionary philosopher. He said, "We have fissioned the atom, and all things have changed, except our mode of thinking--and thus we drift to unparalled catastrophies."

We need to rethink our approach to nuclear waste disposal or this nation will soon find itself engulfed in these unparalled catastrophies.

I thank you for your time and the attention that you may give these issues.

Attorney General
Frank J. Kelley

For further information contact:
Chris De Wit 517-373-8060 (w)
517-627-1690 (h)

FOR IMMEDIATE RELEASE

January 28, 1993

Attorney General Frank J. Kelley commented today that he is pleased the Nuclear Regulatory Commission (NRC) has agreed to hold a public meeting regarding the dry cask system Consumers Power plans to use for storage of high-level radioactive waste at their Palisades Nuclear facility near South Haven. The NRC has also agreed to extend the public comment period for thirty days to provide concerned citizens and groups with adequate time to express their concerns.

Kelley said: "On December 30, I asked the Nuclear Regulatory Commission to give the public an opportunity to be heard regarding the proposed use of the dry cask storage system at the Palisades facility. This week, I received a letter from Dr. Ivan Selin of the Nuclear Regulatory Commission assuring me that the Commission will hold a public meeting to allow comment about the proposed system before a final decision is made. I am extremely pleased the Commission has agreed with me that the public must be given an opportunity to be heard before a long-range decision like this is made."

Kelley added: "The Commission must be provided with every piece of information available so that they can consider the grave concerns that citizens and environmental groups have regarding this new storage technology. Unless the Commission hears and considers fully every side of the issue, they will not be able to make a decision that is in the best interests of the people of Michigan."

An announcement regarding details of the meeting with the NRC will be released within the next two weeks.

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Chicago Tribune
Monday, January 25, 1993
North
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Nuclear plant's waste problem looms at lakeside

By Stevenson Swanson
Environment writer

COVERT, Mich.—On the eastern shore of Lake Michigan, next to the Palisades nuclear power plant, a row of 16-foot-tall concrete cylinders stands on a slab just 150 yards from the water.

Those cylinders are the key to the plant's future. If its owner, Consumers Power Co., is allowed to use them to temporarily store used radioactive fuel rods, the plant will be able to refuel and keep operating. If not, it will have to shut down in June, turning off almost a quarter of the utility's capacity to generate electricity.

But Michigan environmentalists fear that the storage would not be just temporary. And eventually, they say, the concrete casks might crack open and leak radioactive debris into the Great Lakes, the drinking water source for 23 million people.

Palisades, one of the nation's oldest nuclear reactors, is facing a problem that an increasing number of America's 110 nuclear plants will encounter in coming years.

It is almost out of space for its old radioactive fuel rods, which have been accumulating in a special pool of water inside the plant since it started generating electricity in 1971.

There is still no long-term solution to the storage of nuclear power plant waste, which will remain dangerously radioactive for thousands of years. And while the federal government searches for one, the rods are piling up.

Consumers Power says that without the cylinders, it will have no place to put the rods that are due to be removed from the reactor in June.

Utility spokesman Mark Savage said the utility no more wants the used fuel to stay at the plant site

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Reactor

Continued from page 1

than the environmentalists do.

"It's a necessary evil to keep the plant running," Savage said. "We don't want the fuel here. We at Palisades are a symptom of the larger problem, and we are not alone."

The larger problem stems from the federal government's failure so far to find a permanent answer to the nation's nuclear fuel quandary.

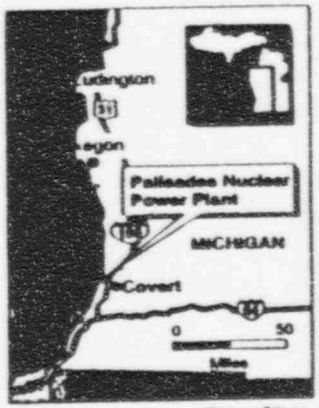
At one time, the government intended to reprocess old fuel so it could be reused, but President Jimmy Carter canceled those plans because of concerns that terrorists would steal reprocessing by-products and manufacture nuclear weapons.

In 1982, the government promised to build a repository where all of the nation's spent fuel rods could be dumped safely, but the U.S. Department of Energy has run into stiff opposition and technical problems in its attempts to build such a facility at Yucca Mountain, Nev.

That has meant that each utility must fend for itself and find ways to hold more and more old fuel on site while waiting for the federal government.

At first, Consumers Power bought time the way that many other utilities have, including Commonwealth Edison, which has more nuclear reactors than any other utility in the country.

By rearranging the racks that hold old fuel assemblies in



Chicago Tribune

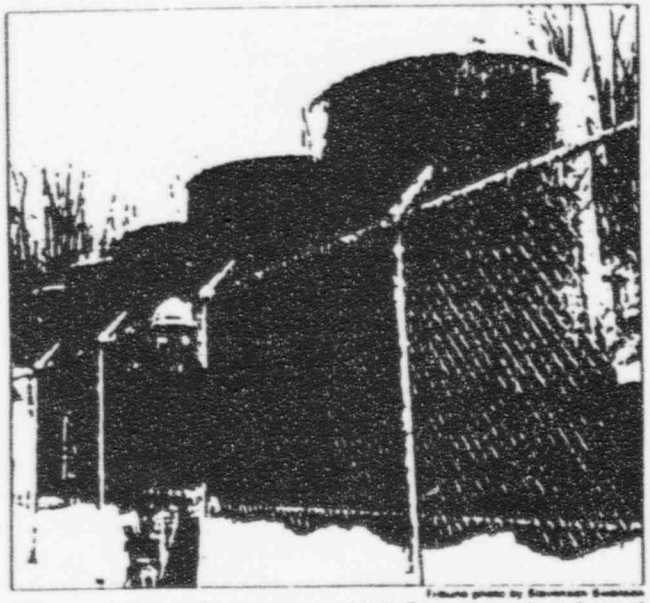
Palisades was able to increase its storage capacity to 892 assemblies from 272.

Each assembly is a bundle of fuel rods about 12 feet high and 8 inches square.

"Re-racking," as the process is called, will give Edison's 12 reactors breathing room until at least 1997, when one of two units at the Zion plant will run out of space.

At Palisades, only 24 empty slots remain. When it refuels in June, it will need space for 68 old fuel assemblies, or else it will have to shut down.

Last summer, a contractor built eight concrete cylinders, with 29-inch thick walls, to hold old fuel rods. Similar systems, called "dry-cask storage," are in use at or planned for reactors in Virginia, South Carolina, Wisconsin and



Tribune photo by Stevenson Swanson

Consumers Power Co. spokesman Mark Savage stands in front of the five concrete cylinders where spent fuel rods are to be stored.

But the design of the Palisades casks, which cost $500,000 each, is different from those already in use, and so must be certified by the Nuclear Regulatory Commission as safe before any utility can use it.

If Consumers wins approval, it will remove 48 of the oldest, least radioactive fuel assemblies in its storage pool and place them in two casks. First, the fuel assemblies will be loaded into a metal

a steel cylinder that will be welded shut. That steel cask will then be lowered into the concrete cylinder, which will be sealed shut.

Each concrete cask will weigh 130 tons when loaded and is said to be able to withstand earthquakes, tornadoes, and even an automobile traveling at 120 miles per hour.

Ventilation ducts in the outer concrete casing are designed to allow heat to escape and keep the

ing. But because of the thick casing, Savage said, a human who stood next to the cask for one hour would receive the same radiation as he would from a chest X-ray.

"One of the benefits of the dry casks is that there are no moving parts," Savage said. "It is absolutely the most uncomplicated thing we have in our business today. In the spent-fuel pool, you're relying on pumps and filters and heat exchangers, but this is a passive system."

But environmentalist Mary Sinclair, of the anti-nuclear group Don't Waste Michigan, questions what will happen to the fuel rods if the ventilation ducts become clogged. Also, NRC regulations call for dry casks to be inspected once a week, but one test of the Palisades design indicated that the concrete could overheat in less time than that if the ventilation ports were clogged.

Savage said plant personnel will check the casks twice a day, and the air holes are covered with screens to keep out birds or other animals that could jam them.

The plant ordered the casks before the NRC approved the design so that they would be ready for immediate use following government approval.

But NRC spokesman Ian Strasma said the commission could reject the design or approve it with modifications, in which case the Palisades casks would have to be altered to meet government specifications.

The NRC is taking public comment on the design until Feb. 22, and will then "take as much time

view, Strasma said.

In the meantime, Sinclair's group has persuaded the Michigan attorney general to ask NRC chairman Ivan Selin for a public hearing on using storage casks at Palisades. Selin has yet to respond.

At its heart, the debate over casks comes down to the basic, decades-old question of whether society can live with or do without nuclear power.

To Sinclair and Don't Waste Michigan, the simplest and safest solution to Palisades' fuel storage problem is to shut the plant down in June. They note that the reactor is of a design that is susceptible to embrittlement, a weakening of the reactor's walls as it ages due to the impact of neutrons from the fissioning of uranium fuel.

But Savage says the utility has demonstrated to the NRC that its method of arranging fuel bundles in the reactor will minimize embrittlement during the life of the plant, which is licensed to operate until 2007.

Palisades supplies about 22 percent of Consumers' generating capacity, about the same proportion as nuclear power represents nationwide.

Without the plant, Consumers would have to pay high prices to buy electricity from other utilities.

"We enjoy the benefits of nuclear power," Savage said, indicating with a sweep of his arm the lights, the videocassette player and other electrically powered equipment in his office. "It all gets back to the waste issue. It's something we've

TOM FLYNN
Will waste dump be permanent?

Palisades residents fear for future

By DENNIS COGSWELL
H-P Van Buren Bureau

LANSING — Tom Flynn has been going to Palisades Park, an area of 200 summer homes and rustic cottages next to the Palisades nuclear power plant in Covert Township, for more than 40 years.

"My parents spent their honeymoon there, a quarter mile from where the reactor is now," he recalled. "I used to play on those sand dunes when I was a kid."

In the spring, he said, the area offers one of the most varied collection of wildflowers in Michigan.

But Flynn, who is president of the Palisades Park Homeowners Association, worries that his children, who are the fourth generation of his family to spend their summers at Palisades Park, won't have the same opportunities if something goes wrong with a controversial plan to store high-level radioactive waste from the plant outdoors in concrete casks 150 yards from Lake Michigan.

His neighbors' biggest concern, he says, is that the plant will become a permanent waste dump once the casks are filled with spent fuel assemblies.

"No one has been able to answer our concern that once they are loaded, it won't be permanent," he said.

"Lake Michigan is such a valuable resource and the dunes are so unique, why risk the future?"

Flynn was among more than 20 people who called for a public hearing on the issue during a 2½ hour meeting Tuesday set up by Attorney General Frank Kelley. Kelley, who claimed that the plant's operator, Consumers Power Co., is more interested in profits than safety, told Nuclear Regulatory Commission officials at the meeting that a hearing, where formal testimony can be heard and witnesses and their scientific conclusions challenged, is needed to address technical issues such as whether the casks could be transported to a permanent waste site.

Consumers wants to use the casks to hold spent fuel rods, which are now in a 40-foot deep pool of water at the plant. The rods would be placed in a steel canister that would be welded shut and placed inside an 18 foot-

see PALISADES, page 4A

PALISADES

continued from page 1A

tall concrete cask. The casks have vents to allow cooling air to flow around the canisters.

NRC Chairman Ivan Selin has said that NRC regulations do not require a hearing, although there have been two public comment periods. NRC officials also said they would take written comments for another five days.

"It would appear that this meeting was convened only after the fact to placate critics," said Ellen Beal, legislative director of Michigan Environmental Defense. "This is not the way to conduct public policy."

Kelley noted that Congress authorized a nuclear waste repository 35 years ago but that the NRC admits that the preferred site at Yucca

Bob Bernero, who is the NRC's director of the office of nuclear materials, responded that Yucca Mountain won't be ready until at least 2001, but noted that the casks are designed to last at least 100 years.

Consumers officials did not speak during the meeting, but afterward Charles MacInnis, director of news and information communications, said the company would prefer to put the spent fuel rods in permanent storage immediately, but since that can't be done the only alternative is the casks.

"We have more than two decades experience (storing spent fuel) and we're confident we can continue that safety record," he said.

Dave Hoffman, Consumers vice president of nuclear operations, also disputed statements by some activists that on-site storage shouldn't be allowed because the plant will be

Most of the concerns brought up during the meeting have been raised before. They included what critics said were inadequate efforts to monitor the casks to make sure they would not overheat, the possibility the concrete could crack and the fact that the specific design that will be used has not been tested before.

Charles Haughney, an NRC official, said the agency is considering upgrading requirements for monitoring, and that periodic inspections of the interior of the casks be required.

Berneo said that even if there was a blockage of the vents that cool the casks, any damage would require a long period to build up, and should be caught during an inspection. The NRC is now reviewing citizen comments and technical issues and will probably make a ruling on the use of the casks by this spring, he said.

THE HERALD PALLADIUM
2-24-95

"SINCLAIR BATTLES NUCLEAR WASTE"
FACT SHEET

* Frank Kelley, Michigan's Attorney General, will be holding a press conference on this issue this Wednesday, Feb. 10 at 10AM at his office in Lansing, MI. Please contact his office at (517) 373-1110 for more information.

* Mary P. Sinclair, Phd., is available for interviews. She may be contacted at her home office (517) 835-1303 in Midland, MI. Her fax number is (517) 835-7954.

* Senators Reigle and Levin can also be contacted for a view from the Hill. Reigle (202) 224-4822 and Levin (202) 224-6221.

* The Nuclear Regulatory Commission (NRC) can be called at (800) 368-5642 or the regional office in Chicago at (708)-790-5500. Contact: Jan Strasma. **The NRC is taking public comment on the casts until February 22nd.**

* Palisades Park is located approx. 10 miles north of Benton Harbor, MI in Van Buren County, Covert Township. It is a two hour drive from Chicago and a 4.5 hour trip from Detroit. The plant is operated by Consumers Power Co., contact is Mark Savage.

* The nearest residents are in a vacation community 1/2 mile south of the plant. About 180 homes and cottages are nestled in an historic community built around 1900 in a very, unique dune area-one of only four places in the world with similar topography. The home association president is Thomas A. Flynn in Indianapolis at (317) 236-0900.

* The casts in question have already been built-prior to NRC approval. The testing/specifcation information given to the NRC is partially hand-written and is illegible when being retrieved in the Public Information room at the NRC in Washington, D.C.-no chance for independent research or review.

* Dept. of Energy also tried to find a temporary site in Wyoming, but local officials and Governor Michael Sullivan successfully denied DOE a site. (See *Post* article listed below).

* Related articles on this story include:
  - The Chicago Tribune, Jan. 25, 1993; p.A1, A6
  - The New York Times, Dec. 8, 1992; p.C1, p.D1. (attached)
  - The New York Times, Oct. 11, 1992, p.13 sec.1
  - The Washington Post, Sept. 14, 1992; p.A13

Caldwell VanRiper, Inc., 334 N. Meridian Street, P.O. Box 7046, Indianapolis, IN 46207-7046, 317/632-6501

NewsRelease

February 8, 1993

Ms. Ellen Weiss
ALL THINGS CONSIDERED
National Public Radio
2025 M Street N.W.
Washington, D.C. 20036
Fax (202) 822-2329

Dear Ms. Weiss;

Attached is a local story with national implications that your highly involved listeners will find disconserting and a bit frightening. It is a very current topic-especially given the Clinton/Gore tough talk on environmental policy.

Caldwell VanRiper
PublicRelations

It's a fascinating story about a fiesty, 72 year old Phd. who is taking on a major U.S. utility and the Nuclear Regulatory Commission to stop the storage of nuclear waste along the eastern shore of Lake Michigan.

Her name is **Dr. Mary P. Sinclair**, of Midland, Michigan and she is fighting **Consumers Power**, which plans to store spent-fuel rods in untested, cement casts just 150 yards from Lake Michigan at its Palisades Park plant. She has enrolled **Michigan's Attorney General, Frank Kelley**, who has taken on the cause to protect the health and safety of area residents.

The issue is national in scope and has been brewing since the Carter Administration failed to secure a national site in Nevada to store spent-fuel rods from the country's 110 nuclear facilities. Palisades is one of the nation's oldest plants and the first to run out of storage space. Consumers says it does not want to store them on-site, but no one else will take them and the plant will have to shut down in June if it cannot store them.

Sinclair has recently appeared in articles in *The New York Times* and *The Chicago Tribune*, and has met with and gotten support from Michigan **Senators Don Riegle and Carl Levin. Senator Bob Kerry** sent her a hand written note pledging his support after he read the *Times* article.

Attached is a copy of that article as well as a fact sheet with relevant contact names and numbers. If you need any additional inforamtion, please contact me at (317) 632-6501. Thanks in advance for your attention.

Sincerely,

FYI —
Tom + Jody

February 9, 1993

TO: Dr. Mary Sinclair
Don't Waste Michigan

FROM: Kevin Flynn
Caldwell VanRiper

This provides a list of media contacts that I have faxed with your story and the main players in this issue. Please let me know if any of them call you.

Good luck. Hope to see you on network news very soon!

MEDIA QUERY LIST AS OF 2/8/93

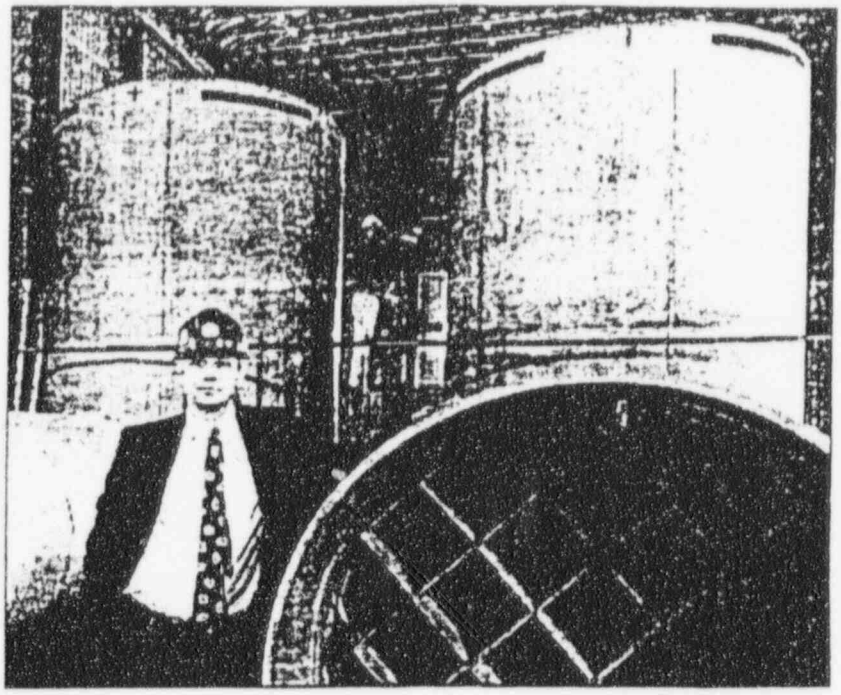
CONTACT	AFFILIATION	PROGRAM
Lauren, Editor	U.of Michigan	Daily Newspaper
Jamie Zahn	ABC TV	Primetime Live
Arnot Walker	ABC TV	World News Tonight
Ellen Weiss	National Public Radio	All Things Considered
Karolyn Lord	NBC TV	News Assignment Editor
Joe Peyronnin	CBS TV	News Assignment Editor
Bailey Barash	CNN	Science/Tech Producer
Bill Freeman	WOOD TV, Grand Rapids	News Assign. Edtr.
Bill Wagmnag	WZZM TV, Grand Rapids	" " "
Randy Lube	WWMT TV, Kalamazoo	" " "
Oralander Williams	WDIV TV, Detroit	" " "
Gladys Lindsay	WMAQ TV, Chicago	" " "
Jim Lichtenstein	WLS TV, Chicago	" " "
Robert Borelli	WSBT TV, South Bend	" " "
Cheryl Dyer	WNDU TV, South Bend	" " "
Bob Giles	WXYZ TV, Detroit	" " "
Kristin Schendon	WJBK TV, Detroit	" " "
Doug Chalgain	WILX TV, Lansing	" " "
Tamara McClaran	WLNS TV, Lansing	" " "

JOHN SEXTON C.

12/8/82 NY Times

Battling Nuclear Waste in Michigan

Steve Kagan for The New York Times



Matthew L. Wald for The New York Times

Mary P. Sinclair, left, an antinuclear activist, is fighting a plan by Consumers Power to store spent fuel from its Palisades nuclear reactor in concrete and steel casks, right. Dr. John Massey, the president of Pacific Sierra Nuclear Associates, which makes the casks, says they are safe.

By MATTHEW L. WALD

Special to The New York Times

COVERT, Mich. — Here on the shore of Lake Michigan sits a row of 100-ton concrete-and-steel storage casks designed to hold nuclear waste for decades and keep it safe from earthquakes, tornados and even plane crashes.

Across the Michigan peninsula in Midland, Mich., just off Saginaw Bay, is Mary P. Sinclair and her fax machine, office-sized photocopier, reams of files and network of activists, which she is using to pepper everyone she can think of with letters about why the Covert solution to nuclear waste disposal is a bad one.

Dr. Sinclair is at the forefront of a battle cropping up sporadically around the country, as utilities seek to build casks to hold the spent fuel their reactors were never intended to store for more than a few years. The utilities say the casks are necessary because the Federal Government, despite 30 years of promises, has yet to find a permanent storage site for the nation's nuclear waste.

Alternative Is Shutdown

The Consumers Power Corporation, the owner of the Palisades reactor, must shut the reactor next spring unless it finds a home for some of the two decades' worth of fuel.

This is Dr. Sinclair's third time on the leading edge of efforts to stop nuclear power — and her second stand against Consumers Power. In 1984, her opposition helped force Consumers to abandon a twin-reactor nuclear station in Midland, after $4.1 billion and 17 years of effort. Today the plant, a 10-minute drive from her house, runs on natural gas.

Dr. Sinclair, a 74-year-old swimmer who competes in senior-division races, went back to school after the Midland fight to earn a Ph.D. in environmental communication, because she was tired of people calling her "that housewife." Though she said she had never intended another nuclear crusade, in the late 1980's she helped torpedo a plan by Michigan to establish a dump for radioactive waste from neighboring states.

"I consider environmental work 'parenting,' " of the planet, she said, explaining why she was drawn back into the fight. When she began getting letters and documents from other activists about the casks, she started doing research and was outraged. "It is our land, and it is our children, our children's children, who will be paying for it," she said.

Dr. Sinclair entered this battle late in the process, after Michigan legisla-

Continued on Page C8

THE NEW YORK TIMES, TUESDAY, DECEMBER 8, 1992

A Battler Takes on Nuclear Waste in Michigan

Continued From First Business Page

tors had laid the groundwork for approval. And Consumers contends that the Nuclear Regulatory Commission is on the verge of granting permission to fill the casks.

Dr. Sinclair and regulators in several states argue that electricity customers should not have to pay for the casks, through rate increases, because they have already been billed for nuclear waste disposal, through fees of a tenth of a cent for each kilowatt-hour generated at the reactors. That money goes to the Energy Department, which has spent $2 billion studying waste-disposal without finding a solution.

Dr. Sinclair is also raising other questions with Federal and state regulators. How long, she asks, will the fuel be in the casks in Covert, and is anyone studying whether this spot, amid the sand dunes 300 yards from Lake Michigan, is a good place for a permanent waste repository? Why has the Government resisted a formal public hearing for a project that could last for centuries? And is building the casks a better option than retiring the reactor?

The chairman of the Nuclear Regulatory Commission, Ivan Selin, said earlier this year that the crucial metal parts at Palisades were becoming brittle, a condition that could lead to a catastrophic accident and that recently prompted the closing of the Yankee Rowe plant in Rowe, Mass.

Environmentalists credit Dr. Sinclair with a crucial role in the cancellation of the Midland reactors, but Consumers differs. "Midland died for a lot of reasons," said Charles Maclnnis, a spokesman for Consumers. "I want to blame her, but I don't want to give her any credit."

Midland was already faltering from engineering problems and soaring costs — factors that ultimately killed scores of similar projects.

Still, when she took up the cause, nuclear power had wide backing at all levels of business and government, and she was vilified and shunned. Her husband, William, a lawyer, lost clients, and, according to the Sinclairs, the owner of a fast-food restaurant even threatened to dismiss the couple's teen-age daughter. Midland, the home of Dow Chemical, is a company town, and Dow said it needed the reactors to provide electricity and steam — enough of a justification for most residents.

Mr. Sinclair, now 74, said he delayed retirement for 10 years to make up for the money his wife spent fighting Midland. Despite the many sacrifices, he said, there are no regrets, and, in fact, no real choice. "Mary is trapped by the truth," he said.

Now, the question is what to do with Palisades' hundreds of used-up nuclear fuel assemblies, each about a foot wide and 12 feet high. After a few months in the reactor, they can deliver a lethal dose of radiation in a few moments, and so must be kept shielded. They give off so much heat that they must be kept under water to avoid melting; storage within the plant is in a special pool.

Waste-storage casks are already in use at one reactor site in Virginia and two in South Carolina. They are being considered by several others, including plants that have been retired but cannot be torn down because of the need to maintain these storage pools.

At Palisades' fuel pool, 738 of 772 slots hold spent assemblies. It will run out of space at the next refueling. Consumers contends that the oldest assemblies are safe to take out of the pool because they give off less radiation now, each producing only about as much heat as a hair dryer.

> A reactor will have to be shut unless a home is found for its spent fuel.

So the company has ordered 8 cylindrical casks, 16½ feet tall and 11 feet in diameter. Inside each cask is a steel "basket" or honeycomb, which holds 24 assemblies or 30 tons of spent fuel.

Once loaded, the metal baskets are dried, filled with an inert gas and sealed. Unlike the spent fuel pools, which employ complex mechanical systems to cool and filter the water, a cask is cooled by the natural circulation of air around the steel basket, with ventilation slots in the concrete at the top and bottom of the cask. Radiation levels near the cask are low enough for quick inspections.

"It just sits there," said Dr. John Massey, the president of Pacific Sierra Nuclear Associates of Scotts Valley, Calif., which designed the casks and sells them for nearly $500,000 apiece.

Privately, experts say that the casks are probably safer than the spent fuel pools, but nuclear engineers shy away from this argument because it raises questions about the pools. Dr. Sinclair does not buy into that argument either, preferring to stop producing the waste entirely by shutting the plant.

Casks Not Approved

The Pacific Sierra casks, she added, have not been approved by the Nuclear Regulatory Commission, which warned in 1989 that a company building receptacles before approval "may design and fabricate casks to meet incorrect criteria."

Dr. Massey and Consumers Power say that the commission has approved similar casks and should approve these soon. If the company waited for the casks to be approved, they would not be finished in time to allow uninterrupted operation of Palisades.

From one of her many file cabinets, Dr. Sinclair pulled copies of N.R.C. documents showing that commission inspectors discovered errors in Pacific Nuclear's calculations of the strength of radiation fields outside the casks. And in May, the documents show, the commission ordered construction halted because workers were trying to make concrete flow by using a vibrator, which could possibly have separated the components of the concrete. The vibrator is supposed to be used at the end of the pour to eliminate voids. The commission said workers were not aware of the proper procedure and that oversight by Consumers Power was "weak."

The company attributed the problem to a misunderstanding over who would provide quality-control inspectors, and said that work was stopped before any harm was done and later resumed under proper supervision.

During her investigation, Dr. Sinclair found correspondence indicating a bitter split between Pacific Sierra and an equity partner who she says was trying in advance to avoid liability if the casks fail. Dr. Massey will not explain the dispute.

'Drive-By' Inspections

Dr. Sinclair also takes issue with the N.R.C. rules requiring utility workers to perform "drive-by" inspections of the casks once a week. If the vent holes are blocked, Government documents show, the casks at Palisades could in a week's time reach a temperature far higher than the limits set for the concrete and could also damage the fuel. And Dr. Sinclair questioned whether the vents would be visible in a "drive-by."

The company, however, promises daily inspections. "We never planned a once-a-week drive-by," said the project manager, Michael A. Ferens. "That's just the minimum requirement from N.R.C."

Still, Dr. Sinclair asks, how will the operators assure that the temperature never exceeds permissible levels if the cask has no monitors?

To answer these questions and others, she has urged the state or Federal Government to order a public hearing, which Consumers has resisted until this week. The utility had argued that no local hearing was required for national issues like the disposal of nuclear waste. "She is trying to take a national issue and look at it at the local level," said Kelly Farr, a spokesman for Consumers Power. "The national issues have to be solved at a national level."

Dr. Sinclair, however, asserts that disposal is not what Consumers is doing here; it is only storing the waste, which is a local issue.

Not so, says Consumers, which argues that the casks will be used for shipment, making them part of a disposal system.

Perhaps because of her persistence, the N.R.C. will send representatives who will appear at an open session at Palisades Dec. 8, with members of the Van Buren County Commission.

That might also help focus attention on how long the waste will be in the casks. The Department of Energy has signed contracts to begin accepting wastes for disposal in 1998, but needs interim storage since it has no permanent solution. It has not found even an interim site and has said that it will not take the wastes until it does.

As for permanent storage, the department is looking into the suitability of Yucca Mountain, in southern Nevada, but has been blocked by political and technical problems.

But Dr. Sinclair insisted that waiting for Washington is not prudent. "If a law is fundamentally flawed, you're supposed to point that out," she said.

But Mr. Farr said Dr. Sinclair's goals were contradictory. "If you shut this plant down tomorrow," he said, "then you'd have more casks, not less."

> The utility says it needs the site because the U.S. doesn't have one.

STANLEY D. STEINBORN
Chief Assistant Attorney General

FRANK J. KELLEY
ATTORNEY GENERAL
P.O. Box 30212
LANSING

48909

December 30, 1992

Dr. Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Mail Stop 16G15
Washington, D.C. 20555

RE: Proposal by Consumers Power Company to construct a ventilated storage cask system, Model No.: VSC-24 (Pacific Sierra Nuclear Associates)
NRC Docket No.: 72-1007

Dear Dr. Selin:

It has been brought to my attention that Michigan-based Consumers Power Company is constructing a ventilated storage cask (VSC) system for its spent nuclear fuel at its Palisades Nuclear Power facility located on the shores of Lake Michigan. It is also my understanding that Nuclear Regulatory Commission (NRC) licensing proceedings for the VSC are being conducted pursuant to the general rule-making provisions of 10 C.F.R. Part 72. While it appears that the NRC is not required to conduct a public hearing prior to authorizing Consumers Powers' use of the VSC, I believe that the NRC does have the option to require such a hearing.

On behalf of the citizens of the State of Michigan, I hereby request that a public hearing be held prior to the loading of the VSC system at the Palisades Nuclear facility. I believe that a public hearing should be held in accordance with the Administrative Procedures Act and should afford Michigan citizens and Michigan representatives the opportunity to cross-examine Consumers Power Company officials, NRC officials and officials from Pacific Sierra Nuclear Associates, the company constructing the VSC system. Such a hearing should also include the opportunity to present evidence to the Commission from Michigan citizens and state representatives.

The storage of spent nuclear fuel within the State of Michigan must be accomplished with priority given to the health, safety and welfare of the citizens of Michigan. In recent years, the Nuclear Regulatory Commission has increasingly adopted

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general licensing procedures, thereby avoiding public hearings on site specific licenses. While this trend may have value in the ever increasingly complex regulatory environment of nuclear materials, I believe that it is ill-advised when applied to the storage of spent nuclear fuel at the Palisades Nuclear Power Plant. While the certificate of compliance in Docket No. 72-1007 expires after 20 years, it is my understanding that it may be extended for successive periods of 20 years up to the life of the VSC system which may be as long as 140 years. Furthermore, because of the Department of Energy's difficulty in siting a high level nuclear repository by the end of this decade, it appears that the temporary "storage" of the spent nuclear fuel at the Palisades Facility may very likely last for several decades, at a minimum. Consequently, any existing questions regarding the safe disposal of the spent fuel should be fully aired before the public in an appropriate public hearing conducted under Administrative Procedure Act safeguards.

I have been advised that the type of VSC system under construction at Palisades has never before been constructed. Consequently, there is no operational history to evaluate it. It is also my understanding that the original developer of the VSC model number VSC-24 has terminated all involvement with this system. This fact alone calls its safety into question. While I do not have answers for the concerns addressed in this letter and numerous other concerns brought to my attention by the citizens of this State, I do believe that a public hearing to properly air these concerns is imperative. Many of these concerns appear to be well researched and documented. The potential long-term storage of high level nuclear waste on the shores of Lake Michigan should only be authorized after a full hearing subject to appropriate procedural safeguards.

I again urge your consideration of my request for a complete public hearing on these issues. Thank you for your consideration.

Very truly yours

FRANK J. KELLEY
Attorney General

c: Congressional Delegation
of the State of Michigan

cihlon/sabn

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 11, 1993

The Honorable Bob Dole
United States Senate
Washington, DC 20510-7020

Dear Senator Dole:

Thank you for your letter of July 22, 1993, to Chairman Ivan Selin of the Nuclear Regulatory Commission (NRC) on behalf of [redacted] who is presently under consideration for the position of Director of the Office of Public Affairs.

During the past several months, an extensive nationwide search has been conducted to find the most qualified individual who would, as Public Affairs Director, provide strong leadership for the NRC in carrying out major public information programs, plans and policies. This search has produced a number of highly qualified candidates. [redacted] among those candidates. A careful and thorough review of these candidates' qualifications is being conducted at present.

Thank you for calling [redacted] qualifications to our attention. Please be assured that his application will be given every appropriate consideration.

Sincerely,

James M. Taylor
Executive Director
for Operations

BOB DOLE
KANSAS

United States Senate

OFFICE OF THE REPUBLICAN LEADER

WASHINGTON, DC 20510-7020

July 22, 1993

Mr. Ivan Selin
Chairman
Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Selin:

I understand that [redacted] is a finalist in your search for a new Director, Office of Public Affairs, at the Nuclear Regulatory Commission.

I have known of [redacted] experience and accomplishments for some time and believe he is an outstanding candidate for this important position. He not only has senior executive experience in both industry and government, but quite specific capabilities in public affairs, news media relations and crisis communications -- important assets to the NRC mission.

As [redacted] and earlier as [redacted] he received outstanding ratings and an award for his leadership.

I hope you will have an opportunity to meet [redacted] and assess for yourself his excellent qualifications for this job. I believe he would make a fine addition to the NRC team. He has my full support.

Sincerely,

Bob Dole

BOB DOLE
United States Senate

BD:jlk

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