U.S Radioactive Waste Technical Review
Board Meeting, Nov.1-2, Dallas, Tx.

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National Energy Policy Committee, Sierra Club
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The U.S. Radioactive Waste Technical Review Board is to be commended for including in its deliberations the viewpoints of a wide range of persons who are involved in studying and working on radioactive waste disposal policies from many different perspectives.

This nation is at a very critical stage in its policy decisions on high level and "low-level" radioactive waste disposal from commercial nuclear power plants. Reactor spent fuel pools are filling up and no federal repository has been established. All the plans and methods proposed so far for the storage and disposal of nuclear waste are still experimental. They have not been tested for any meaningful length of time considering the longevity of this waste and its toxicity.

There is a grave danger that economic pressures together with a desperate need for solutions will result in very poor decisions being made at this moment in history. These decisions will be irreversible in their impacts on some of our most valued natural resources and will adversely affect all our future generations.

The current placement of high level nuclear waste in untested concrete casks at the Palisades nuclear plant site, in my view, is one such decision. These casks are 150 yards from the shore of Lake Michigan.

Every cask that has been designed and constructed for storage of high level nuclear waste in this country up until these casks were built has had to meet rigid construction and testing requirements devised by the Nuclear Regulatory Commission. Each cask had to undergo a rigorous site-specific licensing procedure. But with the VSC-24 casks, these types of requirements that would give assurance of due regard for public health and safety have not been met. I will describe some of these regulatory failures.

The VSC-24 casks were the first that were to be approved under the generic ruling, Subpart K and Subpart L of the Federal Code of Regulations which the NRC adopted in August, 1990. (10 CFR 72.230). With this rule, the NRC intended to implement the Nuclear Waste Policy Act (NWPA) of

1983 [Section 218 (a)] which provides that "the Secretary [of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [NRC] may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission." (Emphasis added) There is nothing in this or any other provision of the NWPA which states that, where site-specific determinations must be made by the NRC--as has been the case with Palisades--the public's right to an adjudicatory hearing may be obliterated by a generic rule making process. Yet this is what has happened at Palisades.

By presenting some of the highlights of the violations of NRC's own rules in the process of expediting the construction and loading of these VSC-24 casks at Palisades, I hope to demonstrate the harsh realities of what is happening at the grassroots level that is at great odds with the technical planning and intent of organizations such as the one meeting here today. I will describe the institutional problems and breakdowns that are a part of the process, and the dangers they pose in making policies for the storage of high level nuclear waste in this nation.

In 1990, in adopting Subpart K and Subpart L as the route by which they could approve dry storage technologies generically, the NRC was careful to spell out many important safeguards for the process. However, in what was to be the first implementation of this rule with the VSC-24 casks at Palisades, the NRC made numerous exemptions and allowed significant contradictions to this rule in order to approve it expeditiously and generically. The NRC was driven by the fuel loading time table of Consumers Power Co. at its Palisades plant, rather than by a conscientious application of the rules it had set out for the process of generic approval of this technology which were intended to protect public health and safety.

For example, the eight concrete casks and three metal baskets that have been built for storage of high level nuclear waste at Palisades were constructed 11 months before the Certificate of Compliance was issued for that cask and before the public comment period was even announced. Yet, one crucial requirement for "generic" approval of cask technology is that "fabrication of a cask under the Certificate of Compliance must not start prior to the receipt of the Certificate of Compliance." The rule further states, "If a vendor has not received a certificate, then the vendor does not

have the necessary approved specifications and may design and fabricate casks to meet incorrect criteria."(55 Fed. Reg. 29,185)

The NRC conducted an inspection of the cask construction in the spring of 1992 after most of the casks were already constructed. It found that workers were not handling the concrete according to the American Concrete Institute Standard 301, and did not know what the code was or its requirements. The inspectors also "identified examples of work activities and quality assurance/quality control implementation which failed to meet applicable specifications and standards. Oversight of the contractor activities on site was weak." The utility had to shut down construction to correct these problems. (CPCo. letter to J. Massey, Sierra Nuclear Corporation, May 29, '92) In contrast to the way in which these casks were constructed, the 1990 final rule for generic approval states that the "NRC...will ensure that each cask is fabricated under an NRC-approved quality assurance program."

Also, the 1990 rule for generic approval specifically provides that, "to the extent practicable in the design of storage casks, consideration should be given to compatibility with removal of the stored spent fuel from a reactor site." [10 CFR 72.236 (m)] In approving the use of the VSC-24 cask at Palisades, however, the NRC contradicted this requirement, and simply asserted, "there is no need for the VSC-24 cask to be compatible with transportation requirements." (58 Fed. Reg. 17,960)

A good deal of concern was expressed in the public comments on the lack of monitoring devices for these casks. In addition, NRC's generic requirements provide that "storage confinement systems must have the capability for continuing 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)] However, in approving the VSC-24 casks, the NRC deviated from its generic requirement adopted in 1990 and said, "the NRC does not consider such continuous monitoring to be necessary for the VSC-24 cask."(58 Fed. Reg. 17,954, Apr. 7, 1993)

Drive-by or walk-by surveillance of the exterior of the inlets and outlets of the cask was required in the Final Rule. However, the casks stand upright 18 ft. high on the storage pad, and no mention is made as to how checking of air vents above 6 to 8 feet would be possible with this kind of surveillance. The Safety Evaluation Report (SER, May 6, '92, p. 14-14) states that, in the event of complete blockage of all vents, the concrete

can reach the accident temperature of 350°F in a time period between 24 hours and one week.

This summer a new turn of events took place on what could be contained in the casks. On June 14, 1993, six weeks after the final Certificate of Compliance was approved, the manufacturer of the casks sent a letter to F. Sturz of the NRC in which he enclosed the first revision to the VSC Safety Analysis Report. This revision addressed the need to store the fuel with control components within the VSC system. It stated, "The need to include the storage of control components in the fuel assemblies is to be consistent with the standard contract between the utilities and the U.S. Department of Energy (DOE) for disposal of spent nuclear fuel." We don't know if the casks already built and loaded at Palisades include these components or were designed and constructed to allow this.

The contradiction in the evaluations of these components has to be a concern. A paper delivered at the high level nuclear waste meeting in Las Vegas, NV, April 26-30, '93, (R. Stigers, et al.) states, "Most nonfuel component wastes contain a large number of curies and produce significant gamma radiation fields and therefore present special handling concerns during storage, processing, transportation and disposal." But the manufacturer of the VSC-24 casks states, in dicussing adding these components to this cask in the June 14 letter to the NRC, "The neutron and gamma sources remain unchanged since the addition of control components would not add significantly to the total fuel assembly source terms...(and)...no significant changes to the factors of safety." He asked expedited approval by the NRC for this evaluation. Whose evaluation is correct? Isn't this an example of an unresolved safety issue being considered after the rule was final? Shouldn't the public have had the opportunity to have this issue resolved?

In a letter dated Aug. 31, '92, while the public comment period for the final rule on the VSC-24 casks was in progress, but when eight casks had already been built, the manufacturer, Sierra Nuclear Corp. (SNC), indicated that it would agree to make changes in the cask design in response to NRC's safety concerns. However, the project manager of the cask system, John Massey, stated that he preferred "to get the subject documents and our generic certificate approval as-is and as-soon-as-possible in order to support our efforts at Palisades." The final rule on the VSC-24 casks and their Certificate of Compliance were issued and became final on May 7, '93. Two months later, on July 16, '93, the manufacturer of

the casks wrote a letter to the NRC saying that he was ready to take up the amendments to the Safety Analysis Report at a meeting scheduled for July 28, '93.

Was this was to include the technical issues which had been held in abeyance as he had requested a year earlier in order to complete their "efforts at Palisades"? Were other safety issues considered at this meeting? No public information is available on this meeting. Were other more recent safety issues considered? Shouldn't the public be informed about this and be allowed to comment?

The question is when does a Final Rule on the safety of a cask become final? What will utilities be ordering? The VSC-24 cask as approved is the cheapest of all cask designs that have already been approved. Will revised versions become more and more expensive? Why would a utility buy anything except the least expensive one already approved by the NRC?

In addition, with no data available to the public about the resolution of these SAR licensing amendments, another letter was sent to the NRC (Frederick Sturz) on August 10, '93, in which John Massey, the manufacturer, gave notice that he intended to start fabrication of more VSC-24 casks in 45 days. After many phone calls in trying to find out where this was happening, Region III of the NRC finally acknowledged that they were being constructed at Palisades. Will these casks include safety features that the initial 8 casks do not have?

The major issues,--construction of the casks prior to the issuance of the Certificate of Compliance, the violation of NRC's own rules, as well as concerns for the environment of Lake Michigan and the Great Lakes prompted thousands of people to send petition signatures, calls and letters to Attorney-General Frank Kelley of Michigan. In response to these citizens' requests, he asked for a public hearing on this project at Palisades. Our elected officials, Michigan Senators Levin and Riegle, Michigan Congressman John Dingell, and Senators from the neighboring states of Illinois and Wisconsin also followed up these citizens' concerns with the NRC. But no public hearing was granted by the NRC who is apparently accountable to no one except the nuclear industry.

Through all of this period of time, the NRC reiterated that no public hearing was indicated because the VSC-24 cask system was generic and not specific to the Palisades site. However, there were numerous site-specific requirements at Palisades that the NRC asked for and reviewed before the final rule was issued.

For example, the NRC's own Safety Evaluation Report on the VSC-24 cask indicated in no uncertain terms that there were novel site-specific features that would involve new and previously unresolved safety considerations when used at a particular location. (Mar., '91 SER, p.8-1). The NRC noted that "since the VSC is a new system that has not been built and tested, site-specific procedures will be contingent upon successful demonstration of most 'first-of-a-kind' features." (Id.) There are numerous other such features.

In February 1993, Consumers Power Co. submitted a revision to the NRC of its security plans as related to the storage casks, and in April, '93 , it submitted its emergency plan revisions. Both of these revisions are site-specific issues. These revisions were approved, but these findings were not subject to any public input, even through public comment.

Although the National Environmental Policy Act requires that an environmental impact statement be made for any federal agency action that can have a substantial impact on the human environment, no environmental impact statement was produced for this action, i.e., placing high level nuclear waste in untested concrete casks 150 yards from the shore of Lake Michigan. Yet in approving this VSC-24 cask, the NRC has made it available for use--with no public input--by any utility in the country under its general license, including those situated on the Great Lakes. In fact, it is already scheduled for use at Point Beach, Wisconsin, on the other side of Lake Michigan.

Seventeen nuclear plants on the U.S. side of the Great Lakes will be needing spent fuel storage within ten years. Nationally, 54 reactors nationwide will have their spent fuel pools filled and will be seeking storage by the year 2004. Will the VSC-24 cask as it has been approved for use through its Final Rule by the NRC without any public review become the cask of choice since it is the cheapest cask and everyone knows of the nuclear industry's staggering economic problems?

Other safety issues that have been ignored are what the process of recovery will be in the case of cask or metal basket failure and decommissioning problems. Of special concern are the potential corrosion problems that are possible with this cask and that generally plague the nuclear industry. The NRC staff has expressed concern about corrosion from metal to metal contact between the metal basket and the caskliner in case of buckling deformation which would make it impossible to unload the metal basket in case of failure of the basket, or for transport offsite if a Federal repository is established. Another study states that "irradiation...potentially has some deleterious effect upon corrosion rates...if the canister becomes wet and remains wet for some time during the storage period." (Rept. by Quinn, Lehnert, and Rosa of Pacific Nuclear, Rad. Waste Mgement, p. 2224) Humidity is an important site-specific issue to be considered on the shore of Lake Michigan.

Without making any full scale field testing of this cask, the VSC-24, the NRC concluded in their 5 page environmental assessment that there was no significant impact on the environment from this project. The first test of these casks was to be at the Palisades site because, as the NRC wrote, "This preoperational test is viewed by the NRC staff as necessary because the fuel clad temperature predicted by the vendor is only 4°F below the design criteria for off-normal conditions. Also, the concrete temperature is very close to the design criteria under the same conditions." (Revision of Draft COC, letter from Sturz, NRC, to Massey, SNC, July 8, '92) That is to say, there may be only a 4° F difference between normal operation and a nuclear accident.

The only tests that were conducted were at the Idaho Engineering Laboratories with a smaller cask, the VSC-17, and in a controlled environment. This cask had a different configuration, and a different kind of fuel. The NRC <u>did not</u> use these test results in their rulemaking, but the manufacturer <u>did use</u> the results in the design of the VSC-24.

Furthermore, Consumers Power Co. did not have the type of fuel specified in the draft Certificate of Compliance for the VSC-24 at Palisades to be able to perform the preoperational test required by the NRC. They had fuel with less heat content than needed for the test. The NRC made an exemption to allow them to load this fuel--surely a site-specific decision. Now the fact remains that this cask has been released for use by any

utility--with no public review--without its having had any real test of its heat removal capacity.

These casks have been set on a storage pad in a fragile sand dune area which is geologically characterized as a high risk erosion area. No information is available in any public documents concerning the design and construction of that storage pad. Yet this pad is expected to hold 25 casks each of which will weigh 130 tons when loaded. When the NRC was asked for these data, the director of the project, Frederick Sturz, said that this was not NRC's responsibility because the VSC is a generic cask and can be placed anywhere. The Coastal Management Division of the Michigan Department of Natural Resources who had issued a permit for the storage pad said that details of the storage pad construction were not their responsibility since these decisions were preempted by the Nuclear Regulatory Commission. The utility spokesperson on the site of Palisades said that numerous contractors were involved in building the storage pad, but that this information was not available to the public.

However, the final Certificate of Compliance states at No. 8 that the VSC-24 cask is approved for use for any utility under a general license subject to 10 CFR 72.212. This section of the code states that the licensee must "perform written evaluations, prior to use, that establish that... cask storage pads and areas have been designed to adequately support the statis load of the stored casks." (Emphasis added) Although two casks have been loaded, the public has yet to see those written evaluations of the adequacy of the storage pad to support the load that it must hold in a fragile dunes area of shifting sands in the heart of the Great Lakes, which contain 20% of the world's fresh water supply,-- 90% of the fresh water supply of this nation.

The NRC received many public comments on this cask design once the proposed rule to add it to the available cask designs was announced in the Federal Register on June 26, 1992. They included, among many others, important observations by other cask manufacturers and a utility executive who noted that numerous requirements for construction and testing had been relaxed in the construction and deployment of the VSC-24 cask compared to those that had been previously required. It was generally characterized as a substandard cask. One commenter suggested that the "expedited approval of the VSC is based on reasons other than full compliance with these established standards which all previous applicants have been required to satisfy. By virtue of its actions, NRC has established

a new precedence which has lowered the standard for all future dry storage systems." (Letter from PNS to NRC, Dec. 4, '91)

Questions were raised during the comment period on the possible build-up of fission gases in the metal basket containing the fuel. In their response, the NRC dismissed this as a concern. We now find that the Dept. of Energy is abandoning plans to put plutonium-contaminated bomb waste into underground storage in new Mexico for a test. One of the uncertainties about the waste storage program is whether corroding wastes would create gas that would build up under pressure, opening cracks deep in the earth. (NYT, Oct. 22, '93, p. 11A) There is also a recent London Observer story stating that nuclear wastes storage in Britain which have also been stored in concrete silos and metal casks at reactor sites are leaking and deteriorating at an alarming rate and pose a grave threat to public safety.(Reprinted in the Plain Dealer, Oct. 15, '93) Let us try to learn from these developments.

Many political leaders and national environmental groups believe a national commission should be appointed by this Administration that includes all stakeholders which can address this severest of all environmental problems as the national issue that it is. The piecemeal solutions that are now going on in attempts to solve both the "low-level" and high level nuclear waste problems can lead to national disaster.

The curbing and eliminating of public participation in key decisions on nuclear power and nuclear waste issues has been increasing throughout the last decade. Yet it is the public--not the Atomic Energy Agency, the Nuclear Regulatory Commission or our political leaders--that has been responsible for most of the advances in the safety of this technology.

For example, the failure of all the tests in Idaho of the initial ECCS design was brought out in the Midland hearing. This resulted in the national safety hearings of the early '70's where numerous other safety issues surfaced as a result of discovery procedures. Better hydrogen control and improved control room design were raised by the public as issues to be corrected after TMI. Design errors and weld defects at Diablo Canyon, and management failures in inspection and maintenance at Vermont Yankee were made known by whistleblowers, to name just a few instances.

This trend, to exclude the public, is not only politically unhealthy, but it withholds a rich source of valuable insights from the decision-making process on the nuclear fission technology at a time when we most need them.

I hope that this statement has been of some value to the deliberations of this Board.

U.S. Drops Test Plan at Bomb Waste Site

By JOHN H. CUSHMAN Jr.
Special to The New York Times

WASHINGTON, Oct. 21 — The Department of Energy abandoned plans today to put the first plutonium-contaminated bomb waste into underground storage in New Mexico to test the site's suitability. Instead, it will conduct laboratory tests of the project and seek further Federal review of its environmental merits.

Hazel R. O'Leary, the Secretary of Energy, called the decision "a major break with the last Administration's approach."

Last year the Bush Administration won Congressional approval for early on-site testing of the nation's first permanent storage site for highly radioactive and toxic equipment, chemicals, clothing and other items contaminated in the production of nuclear weapons.

The new plan means that the first shipments of waste to the storage site, built 2,150 feet underground in salt deposits near Carlsbad, N. M., will not take place until near the end of the decade, perhaps in 1998. It had been scheduled to start next year.

Early Operation Expected

But Energy Department officials also said that they expected the laboratory tests to go quickly and that the full-scale operation of the storage site could begin earlier than would have been possible under the old plan, which would have required at least five years of testing before permanent storage.

The site, known as the Waste Isolation Pilot Plant, has touched off years of debate in Washington and New Mexico. Scientists have questioned whether enough testing would be done to insure that the wastes, which will remain toxic for thousands of years, could be successfully isolated in the deep tomb.

The project has already cost $1.5 billion, and will cost that much more again by the year 2000.

Critics of the project heartily endorsed the change of direction, saying that they would now press for rigorous tests of the storage site's feasibility and that they believed the tests would demonstrate the project's flaws.

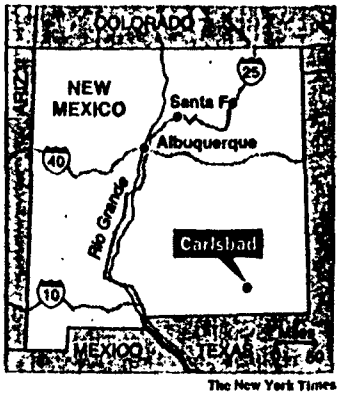
Termination Predicted

"If the analysis is done properly and independently, carefully, with an unbiased approach, these flaws are going to become very clear very quickly," said Scott Denman, executive director of the Safe Energy Communication Council, a coalition of environmental organizations. "We believe that a truly comprehensive review would yield a termination as opposed to going forward."

Under a law that went into effect last year, the Environmental Protection Agency must review the New Mexico site's compliance with environmental laws before it begins full-scale operations, but the Energy Department was allowed to store some wastes at the site on a test basis.

The Government has been trying to find a way to store the wastes safely since the 1950's, and it has been working for nearly 20 years to open the New Mexico site, known as the Waste Isolation Pilot Plant.

The Energy Department, in charge of the nation's nuclear weapons programs, was confronted with a huge buildup of toxic and radioactive wastes for which there is no other permanent storage site, and considered on-site tests the only way to keep momentum going for opening the New Mexico site.



A nuclear waste storage site near Carlsbad, N.M., will probably sit empty until 1998.

A $1.5 billion project is subject to lab tests.

With disclosures in recent years of environmental problems throughout the bomb-building system, the problem of what to do with the wastes has become politically pressing, with states like Idaho pressing to move the waste that was building up at temporary storage sites.

The Clinton Administration still faces these pressures, but it no longer appears interested in opening the New Mexico storage site under the rubric of a test plan without first meeting the requirements of environmental laws for storing dangerous wastes.

Energy Department officials said the new plan would save more than $100 million by delaying the costs of bringing the storage site into operation for test purposes.

The department now intends to apply to the E.P.A. in the spring of 1995 for a certification, based on the laboratory test results, that the waste storage scheme complies with Federal environmental requirements.

"The test plan was indefensible," said Margret Carde of Concerned Citizens for Nuclear Safety, based in Santa Fe, N.M. "If D.O.E. hadn't withdrawn it, E.P.A. would have had to deny approval."

Buildup of Gas Feared

Among the uncertainties about the waste storage program is whether corroding and rotting wastes would create gas that would build up under pressure, perhaps opening cracks deep in the earth that would allow contaminants to escape into aquifers, or perhaps propelling the contaminants upward if a well was drilled above the site in the distant future.

Only a small fraction of the existing inventory of waste was to have been buried at first, and the waste would have been removed if the underground tests indicated that was necessary.

But scientists who reviewed the underground testing plan reported a few months ago that there was no "scientific, regulatory or operational imperative" to do the tests with actual wastes underground, according to Energy Department data made public today.

The new plan will use non-radioactive simulated wastes in carefully controlled laboratory experiments, as well as actual waste. The simulated wastes will be easier for experimenters to measure in detail, while the actual wastes will help fine-tune the results and detect any unanticipated phenomenon not disclosed by the simulations.

The sites of the tests have not been chosen, but will probably include one or more of the national laboratories in California, Idaho or New York where nuclear energy research is conducted.

Safety official warns Britons of dangerous nuclear waste

LONDON OBSERVER

PD 10/15/93 LONDON

Nuclear waste stores across Britain are deteriorating at an alarming rate, posing a threat to public safety, the government's chief nuclear safety adviser has warned.

The problem is so serious that John Horlock, chairman of the Advisory Committee on the Safety of Nuclear Installations, has urged Prime Minister John Major's Cabinet that democratic procedures be overridden by the urgent need to find a permanent safe underground repository for Britain's nuclear legacy.

At present, nuclear waste is stored in concrete silos or metal drums at dozens of nuclear power stations and other installations across Britain.

Inspections of these facilities, carried out by the advisory committee, were so alarming that Horlock decided to raise the alarm in Whitehall. He wrote Energy Minister Tim Eggar on Aug. 4 and sent copies to Scottish Secretary Ian Lang, Environment Secretary John Gummer, Employment Secretary David Hunt and Agriculture Minister Gillian Shephard.

In his letter, he says the temporary radioactive waste stores are "deteriorating" and "unsatisfactory for long-term storage."

As a result, he warns that delays in the industry's plans to transfer the waste to a permanent deep underground dump are "producing a situation in which safety at nuclear sites could be compromised in terms of operator handling and the potential for accidental releases."

The nuclear disposal company, Nirex, officially hopes to complete the planned deep dump at the Sellafield nuclear complex in Cumbria by 2007. But Horlock's letter questions whether the dump will be built "before 2010 or even within a few years of that date."

He warns that the longer the delay, "the more potential there is for safety to be compromised" at temporary surface stores.

Horlock points out the safety problems are made more acute by the "natural reluctance" of nuclear operators to repackage radioactive waste more securely in temporary sites until they know what kind of packaging will be needed for its eventual burial.

Horlock concludes that the risks to public safety are "sufficient to warrant urgent steps" to make sure that a permanent nuclear dump is provided quickly, avoiding "unnecessary planning hurdles."

John Large, an independent nuclear consultant, said Horlock's letter exposed a "terrifying crisis" at the heart of the nuclear industry.

"Professor Horlock and his committee are saying we have got to get a deep underground nuclear waste store in place immediately before there is a major accident at a nuclear site and we haven't got two years to spare for a public inquiry," Large said. "That has frightening implications both for safety and democracy."

FACT SHEET--DRY CASK STORAGE OF HIGH-LEVEL NUCLEAR WASTES AT THE PALISADES NUCLEAR PLANT

The Federal Government encouraged private utilities to build nuclear plants in the '50's with the understanding that the government would be responsible for the storage of the high level waste that is the by-product of this process for generating electricity. In the past 4 decades, the Federal Government has not been able to establish any site for the safe storage of these wastes.

Now the storage pools that contain the spent fuel from the operation of these plants are almost filled to capacity. These wastes are extremely toxic and will remain hazardous for centuries. A new stop-gap method for dealing with these wastes has been devised that will continue to allow the plants to keep operating and generating the wastes without any solution for their disposal. It is storing these long-lived nuclear wastes in non-transportable concrete casks at nuclear plant sites.

Following are the facts regarding the concrete dry cask storage casks being planned for use at the Palisades n-plant less than 200 yards from the shoreline of Lake Michigan.

1) The concrete casks that are planned to be used to store high level nuclear waste (spent fuel) from the Palisades n-plant have never been constructed before. (Letter from NRC, April 22, 1992)

2) These casks have also never been tested,(SER, Mar.'91,p.8-1) yet the Nuclear Regulatory Commission (NRC) allowed 8 casks to be constructed at the Palisades site and 3 metal baskets that will hold the nuclear wastes within the casks even before they issued a certificate of compliance to establish the criteria for their construction.

3) Dept. of Energy's (DOE) 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." (p1-5) The casks are certified for 20 years. There are no tests that confirm this expectation in the harsh freeze-thaw environment of Michigan winters.

4) However, the NRC is licensing these storage-only casks with no plans for transportation of these wastes off the shores of Lake Michigan and can continue to relicense these casks for at least the next 140 years. (GAO/RCED 91-194, p.42)

5) The Nuclear Waste Fund which ratepayers have been paying into for years to pay for a solution to the nuclear waste problem cannot be used to pay for this project. (DOE/RW-0220, p.1-8-9) This project will have to be paid for through a new assessment in utility rates while the Federal Government continues to collect through our rate base for the Nuclear Waste Fund in their attempts to find a solution to the problem.

6) Nuclear power is subsidized by the Federal Government to the tune of $20 billion dollars a year, according to Dr. Henry Kendall, Nobel Laureate nuclear physicist at MIT, founder of the Union of Concerned Scientists, which is opposed to this method of generating electricity because of the safety and waste problems. WRITE A LETTER TO YOUR STATE LEGISLATORS, CONGRESSMAN AND SENATORS, SEND THIS FACT SHEET AND OPPOSE NON-TRANSPORTABLE DRY CASK STORAGE OF NUCLEAR WASTES ON THE SHORES OF THE GREAT LAKES.

DON'T WASTE MICHIGAN, P.O. BOX 142, RIGA, MI 49276