

# Three Mile Island Alert

The Newsletter of Three Mile Island Alert

May 1996

## Chernobyl Staff Mark 10 Years Since Explosion

Workers from the Chernobyl power station stood in silence on Friday to remember colleagues killed when the plant's fourth reactor, now encased in concrete, exploded 10 years ago.

Hundreds of members of the 6,000-strong staff, facing the plant's closure by the end of the century, heard one of Ukraine's top nuclear industry officials say they had the power to recapture public opinion -- by running their station safely.

"The political environment is changing. Fortune is not smiling on you now, but you have a powerful weapon which could turn that around," said Mikhail Umanets, former director of both the Chernobyl station and Ukraine's nuclear authority. "This weapon is the safe operation of the Chernobyl station and I hope you will use it faultlessly."

A nearby meter showed the level of radiation between 80 and 85 milliroentgens per hour -- far less than the 750 measured at the spot 10 years ago but still four times higher than what are regarded as safe levels.

The 10th anniversary commemorations were marred by a minor release of radiation this week which officials blamed on lax working practices. But Ukraine's nuclear industry, sent into a tailspin by the disaster and then by the collapse of the Soviet Union, now enjoys great prestige. Salaries, once far

lower than in Russia, have been improved and industry officials bask in the knowledge that their 15 reactors provide 40 percent of Ukraine's electricity.

On April 26, 1986, staff conducting an unauthorized experiment lost control of the reactor and it exploded, blowing the unit's roof into the air and sending a cloud of radioactivity over most of Europe.

Ukraine says 4,300 people died as a direct result of the accident and many of its 350,000 clean-up workers are now ill. Millions were affected -- mostly in Ukraine, Belarus and Russia. Officials say Chernobyl's two working reactors are safe, but President Leonid Kuchma has promised under Western pressure to close them down. In exchange, Ukraine has received pledges of \$3 billion in Western aid for decommissioning and more to replace the cracking "sarcophagus" around the ruined reactor.

"Chernobyl was definitely a technical fault. Very serious mistakes were made in the safety system but now there is no reason for concern," one of the station's top safety experts, Vladimir Chugunov, told Reuters.

The mother and son of the first person to die in the disaster wept as they

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## CHERNOBYL: 10 YEARS LATER AMERICA IS STILL IN DENIAL

*by James Riccio, staff attorney for Public Citizen's Critical Mass Energy Project*

On April 26, 1986, a nuclear reactor in the Soviet Union exploded and the word 'Chernobyl' was seared into the consciousness of people around the world. Ten years have passed and we have yet to glimpse the consequences of the disaster. The most reliable figures available to date already establish Chernobyl as the worst technological accident in the history of humankind.

The U.S. nuclear industry and the agency that regulates it have learned little from this disaster. The immediate response to Chernobyl was to belittle the Soviet design and to claim that the accident could not happen at a U.S. nuclear reactor. While technically correct -- there are no soviet designed reactors in the U.S. -- the industry's denial missed the point.

Nuclear accidents with consequences comparable to that of Chernobyl are possible at U.S. reactors. During the political fallout that followed the disaster, the Nuclear Regulatory Commission testified before congress that there is about a 45% chance of a core melt accident somewhere in the U.S. in the next 20 years.

Nuclear utility executives claimed that U.S. designed reactors had containment structures to prevent the release of radiation and that the Chernobyl reactor

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### Three Mile Island Alert

Three Mile Island Alert (TMIA) is a non-profit citizens' organization dedicated to the promotion of safe-energy alternatives to nuclear power, especially the Three Mile Island nuclear plant.

Formed in 1977 after the construction and licensing of TMI Unit-1 and the construction of the infamous Unit-2, TMIA is the largest and oldest safe-energy group in central Pennsylvania.

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placed flowers in his memory at the foot of a bronze statue depicting a man fighting a blaze. Oleg Khodymchuk, 19, and his grandmother Anna donned white smocks for protection, looking just like the hundreds of thousands of "liquidators" who risked and lost their lives trying to deal with the disaster's aftermath.

"I learned of my father's death on the second day, when a teacher told me at school that my father's body could not be found," Oleg told Reuters on Friday. The body of Valery Khodymchuk, a 34-year-old operator who was working on the night shift of April 26, has never been recovered and is thought to lie buried in the reactor.

Many people in Ukraine, which won independence from Moscow in 1991, blame the accident on Soviet authorities, accused of sacrificing safety for cheap energy.

Staff member Tatyana Borets, who was also working at Chernobyl on April 26 1986, saw no reason to fear a new accident at the plant and, like many, firmly opposed its closure. "There would be nothing to gain from closing it down," she said. "The radiation already in the soil would not suddenly go away. Chernobyl is not a symbol of horror, but a symbol of political gain."

### TMIA Holds Annual Meeting

On March 6, 1996, TMIA held its annual meeting. This year's topic was "Pennsylvania's Proposed Radioactive Waste Dump/Holding our Elected Officials Accountable." Representatives of Organizations United for the Environment (OUE), along with representatives from environmental groups in Fulton county and the Peach Bottom area exchanged ideas about how best to reduce radioactive poisoning in the Commonwealth, both from existing nuclear power plants and from potentially hazardous sites. Also discussed was the latest scheme by state officials and Chem-Nuclear to try and convince local officials to accept a nuclear waste dump in exchange for lower taxes and scholarships for local students. (See related article on page 3.)

Principal questions raised during the meeting were: How best can we generate a statewide struggle against Chem-Nuclear if it tries to locate the dump in an unwilling community? What should we do if local officials, so besotted by dreams of riches from radioactive waste, step forward to offer their little niche of the planet as a site for a nuclear dump?



## Please renew your TMIA membership

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Intervention Fund Contribution:     \$10             \$20             \$50             \$100

Checks of \$50 or more can be made payable to the TMI Legal Fund for tax deduction purposes.

RETURN TO: TMIA, 315 Peffer Street, Harrisburg, PA 17102

The official registration and financial information for Three Mile Island Alert may be obtained from the PA Department of State by calling toll free, within PA, 1-800-732-0999. Registration does not imply endorsement.

## Volunteer Sought for PA Nuclear Dump

from Pittsburgh Post-Gazette, DEP Press Release, and Nukenet Internet Mailing List

Recently, the state Department of Environmental Protection and Chem-Nuclear Systems, the company hired by the state to build and operate the facility, issued the final step-by-step guide for communities interested in becoming the site of a nuclear dump.

Based on public comments gathered at meetings across the state, Chem-Nuclear's guidelines will encourage -- but not require -- public officials to tell their constituents before they request information about volunteering their town.

The final plan says the volunteer sites must meet the same safety criteria the state originally required when it was conducting a technical search for the best sites in the state. The guidelines also urge -- but not require -- potential host communities to tell neighboring communities about their plans and to share payments they would receive from the state in return for accepting the site.

Jeff Schmidt, a Harrisburg lobbyist for the Sierra Club, said the changes are a sop to public concerns because they are mere suggestions, not mandates. "There are admonitions to local public officials to talk, but there's no commitment on the part of Chem-Nuclear to share the information with the residents if the community officials don't," Schmidt said. "We still have the potential for backroom negotiations." Schmidt also objected that the company will protect the anonymity of private individuals -- such as farmers and real estate developers who own the land for the 500-acre waste site -- who discuss volunteering their towns.

Of about 200 people who submitted comments on the guidelines, Jones said, roughly half said the name and address of those individuals should be published immediately. "An equal number said, 'No. They will get rocks thrown through their windows.'" Schmidt said the final plan seems to back away from an earlier commitment to require a voter referendum for towns seeking to volunteer, instead of just allowing municipal officials to make the decision. Jones said many of those who commented on the plan didn't think a referendum was the best way to test the will of the community. Instead, the guidelines suggest municipal officials

gauge the desire of the residents in other ways, such as a poll or a town meeting vote.

The final plan says that if the state cannot find three towns with suitable sites by late 1997, it will probably go back to the technical search.

### The Incentives For "Volunteering"

- a commitment from CNSI to hire most employees locally, with an estimated 70 employees earning about \$4 million annually in salary and benefits.
- preference to local suppliers for purchasing, estimated at \$12 million annually.
- direct payments to municipalities, estimated at \$350,000 to \$600,000 a year.
- an education grant to the nearest community college or equivalent institution of \$50,000 the first year and \$10,000 annually thereafter.
- a \$1,000-a-year academic scholarship for each high school in the host county.
- payment of school district and municipal property taxes for primary residences within two miles of the facility.
- purchase of properties within two miles of the facility for two years at pre-license prices, at request of the property owner.
- funding for emergency response training and planning.
- funding for the municipality to hire two full-time qualified inspectors to independently monitor activities and review records at the facility.

And if that still does not convince you:

- CNSI will negotiate additional benefits with the host municipality.

### DEP and CNSI Sponsor Meetings to Recruit Dump Sites

Chem-Nuclear Systems, Inc. (CNSI), will conduct nine open houses across the state to provide residents with information on the state's proposed nuclear waste disposal facility.

Open houses are scheduled from noon until 9 p.m. as follows:

- May 7, Hampton Inn, Chambersburg
- May 9, Sunnybrook Ballroom, Pottstown
- May 13, Mansfield, Mansfield University
- May 15, Oliveri's Crystal Lake Hotel, Carbondale
- May 16, Luzerne County Community College, Nanticoke
- May 21, The Inn at Franklin, Franklin
- May 23, Edgewood Inn, St Marys
- May 29, Mountain View Inn, Greensburg
- May 30, Comfort Inn, Johnstown

A meeting had been scheduled on May 13, in Towanda, Bradford County. The Board of Directors of the Inn that was to host the event, however, realized who they had booked and voted unanimously to cancel the booking. Similar cancellations could occur at other locations if local citizens expressed their opposition to the meeting hosts. If you live in a locale that is hosting a CNSI meeting, call the host facility to express your opposition.

Alternatively, you can express your opposition by calling DEP's Hotline at 1-800-232-2786. You can contact CNSI at 800-424-2848.

## Is Chernobyl the Next Chernobyl?

*The Moscow Times, April 27, 1996*

*by Alexander Kurchatov, president of the non-profit environmental research group Evrika.*

Since May 1986, much work has been devoted to isolating the damaged reactor at the Chernobyl atomic energy plant. In record time, workers and soldiers - who were all irradiated - built a sarcophagus for the reactor from 200,000 tons of reinforced concrete. It separates the damaged reactor from another power-generating unit that was put back into use in 1987. Originally, the sarcophagus was supposed to last 30 years. But natural processes will make it unreliable much sooner.

By the beginning of the '90s, the environmental group I head had already written about the problem. A year and a half ago, similar statements were made on the pages of the British newspaper *The Observer* which published the conclusions of Western scientists on the condition of the Chernobyl plant based on materials gathered by British intelligence. Here are some of the main conclusions:

There is a threat of another meltdown of the reactor. According to various sources, 180 to 190 tons of atomic fuel remain. The fuel, combined with water from a cavity on the lower floor of the ruins of the unit, could reach dangerous levels of concentration. "Europe," wrote *The Observer*, "is on the threshold of a new and possibly more frightening catastrophe than what occurred on April 26, 1986."

The State Atomic Committee of Ukraine has long categorically denied the possibility of such a development of events, but it is now giving more sober evaluations. The Ukrainian Minister of the Environment and Nuclear Safety, Yury Kostenko, said such a critical concentration of water and atomic fuel is possible given the thermo-chemical migration of atomic fuel deep within the remains of reactor No. 4 at Chernobyl. This could lead to rapid initial heating and explosion of the fuel. Kostenko's main conclusion was, "The present condition of the sarcophagus would lead to a repetition of the situation of 1986."

The possibility of the worst-case scenario is not even denied today by Vladimir Shcherbin, director of the interbranch scientific and technological center, Ukrytiye, the organization

created especially to oversee the condition of the sarcophagus.

There is a possibility the sarcophagus' foundation will collapse. High levels of radiation preclude building a special foundation for the sarcophagus, which lies only on the damaged unit. The unit was not intended to hold such an enormous weight and is bound to collapse. Moreover, water is dripping into the sarcophagus, thus posing the threat of an electrochemical reaction and destruction of the concrete structure.

Radioactive dust escapes from the unit. Since the roof of the unit was closed with the help of robots in conditions of extreme radioactivity, several cracks

and weak points have formed, on a general area of 1,500 square meters. Radioactive dust freely passes through them.

In several parts of the area, radioactivity in the past few years has significantly risen and is reaching dangerous levels. Attempts to seal the holes with special patches have been unsuccessful. The roof could not remain hermetic because of pressure, and scraps from it flutter in the wind. The sarcophagus that was built in 1986 has thus only slowed down the tragedy of Chernobyl and made it less visible.

Today, official Ukrainian organizations, with the support of International Agency for Atomic Energy, the European Union and the Group of Seven leading industrialized nations, are putting forward a plan to close the Chernobyl plant down completely by 2000 and construct an

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had no containment. This difference in designs is often cited as the reason Chernobyl could not happen here. This second denial, too, is incorrect. NRC Commissioner Asselstine testified before Congress that Chernobyl had a containment structure that was stronger than those surrounding some U.S. nuclear reactors. The Chernobyl containment design was based upon the theory of pressure suppression containment. This same concept is used in nearly half the reactors in the U.S., 38 designed by General Electric and 9 designed by Westinghouse. According to the NRC, GE Mark I designs have a 90% chance of containment failure during a core melt accident. The NRC has acknowledged that the containments are not designed to cope with such accidents. If a meltdown occurs, containment failure and the release of radiation into the environment can not be ruled out for any of these designs.

By denying that a 'Chernobyl' could happen here, the nuclear industry has denied itself the opportunity to learn from this tragedy. One of the most poignant lessons of the disaster comes from the children of Chernobyl. The thyroid cancer rate in Belarussian children has increased 100% since the accident. Health officials expect the cancer rate to continue rising since pre-cancerous thyroid conditions are more common than carcinomas. These

effects could have been mitigated by the distribution of potassium iodide, an inexpensive drug that protects the thyroid from radiation.

The nuclear industry is well aware of the usefulness of potassium iodide. Many nuclear utilities store it at the reactor site to distribute to workers in the event of an accident. While providing potassium iodide for their workers, the industry has blocked attempts by the NRC staff to provide the same protection to the public. Nuclear industry officials have argued that such a policy would adversely affect the public's confidence in nuclear power. They have chosen perception over protection and have persuaded the Nuclear Regulatory Commission to do the same.

Ten years after the Chernobyl disaster, the U.S. nuclear industry and its regulators are still in denial. The public is already keenly aware of the dangers posed by nuclear reactors, after all, what other source of electricity requires an emergency evacuation zone. Rather than protecting nuclear power's tarnished image, the NRC should be protecting the public health and safety by requiring the stockpiling of potassium iodide for public distribution. Since the agency can not prevent the next Chernobyl from occurring, it should at least provide the public with the means of mitigating the consequences.

## Chronology of Nuclear Accidents

from Reuters, April 20, 1996

Following is a chronology of major nuclear incidents over the last 40 years.

**October 7, 1957** Fire destroyed the core of a plutonium-producing reactor at Britain's Windscale nuclear complex—since renamed Sellafield—sending clouds of radioactivity into the atmosphere.

**1957/8** According to Western experts, a serious Soviet accident occurred during the winter of 1957-58 near the town of Kyshtym in the Urals. A Russian scientist who first reported the disaster estimated that hundreds died from radiation sickness.

**January 3, 1961** Three technicians died at a U.S. plant in Idaho Falls in an accident at an experimental reactor.

**July 4, 1961** The captain and seven crew members died when radiation spread through the Soviet Union's first nuclear-powered submarine. A pipe in the control system of one of the two reactors had ruptured.

**1965** The U.S. Atomic Energy Commission purposely caused a nuclear reactor accident that produced a low intensity radioactive cloud over Los Angeles.

**October 5, 1966** The core of an experimental reactor near Detroit partly melted when a sodium cooling system failed.

**October 17, 1969** In Saint-Laurent, France, a fuel-loading error sparked a partial meltdown at a gas-cooled power reactor.

**1974** Reported explosion in a Soviet breeder plant at Shevchenko, on the Caspian Sea.

**December 7, 1975** An accident occurred at the Lubmin nuclear power complex near Greifswald on the Baltic in former East Germany. A short-circuit caused by an electrician's mistake started a fire. Some news reports said there was almost a meltdown of the reactor core.

**March 28, 1979** America's worst nuclear accident occurred at the Three Mile Island plant near Harrisburg, Pennsylvania.

**Aug 7, 1979** Highly enriched uranium spewed out of a top-secret nuclear fuel

plant in Tennessee. Around 1,000 people were contaminated with up to five times as much radiation as they would normally receive in a year.

**April 25, 1981** Officials said that around 45 workers were exposed to radioactivity during repairs to a problem-ridden plant at Tsuruga, Japan.

**November 1983** Britain's Sellafield plant, scene of the 1957 fire, accidentally discharged radioactive waste into the Irish Sea, prompting environmentalists' demands for its closure.

**August 10, 1985** An explosion devastated the Shkotovo-22 ship repair facility which services Soviet navy nuclear-powered vessels. Ten people were killed and many died later from radiation exposure.

**January 6, 1986** One worker died and 100 were injured at a plant in Oklahoma when a cylinder of nuclear material burst after being improperly heated.

**April 26, 1986** Date of the world's worst nuclear accident. An explosion and fire at the Chernobyl nuclear plant spewed radiation over much of Europe. Thirty-one people died in the immediate aftermath of the explosion. Hundreds of thousands of people were moved from the area and a similar number were believed to have suffered from the effects of radiation.

**March 24, 1992** Radioactive iodine and inert gases escaped into the atmosphere after a loss of pressure in a reactor channel at the Sosnovy Bor station near St Petersburg in Russia, triggering international concern.

**November 1992** In France's most serious nuclear accident, three workers were contaminated after entering a nuclear particle accelerator in Forbach without protective clothing. Executives were jailed in 1993 for failing to take proper safety measures.

**November 1995** At the Chernobyl nuclear power station, serious contamination occurred when fuel was being removed from one of the reactors.

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enormous concrete vault - sarcophagus II - resembling a hangar over the old sarcophagus in order to prevent radioactive dust from escaping in the next few decades.

The European Community, G-7 and the International Monetary Fund have promised between \$ 2 billion to \$ 4 billion for the construction of the new sarcophagus, the closing down of Chernobyl, the building of a storehouse for the nuclear waste and compensation for several other expenditures. Arguments continue over the conditions and level of the possible subsidies.

In such a transaction, the interested parties include very influential forces such as officials to whom the sums will be paid, those who would like to see Russia withdrawn from the world market for nuclear energy and especially the firms involved in the cleanup. The fact is that the 21st century alone will require building a third, fourth and perhaps even a fifth version of the "sarcophagus-matryoshka." Firms are guaranteed to get orders for repairs for many years to come.

There is an alternative project for solving the Chernobyl plant problem. Three steps can be taken to render it harmless.

First, the radioactive dust could be removed from the sarcophagus to permanently stop it from reaching the environment. Second, the remains of the atomic fuel could be removed to prevent a second explosion from occurring. Third, the entire damaged unit, together with the sarcophagus, could be buried in special deep mines.

This process would require several months of well-organized work. Once the material was buried, additional sarcophaguses could be cheaply built and would not require repairs for a long time to come.

Last Saturday, at the nuclear safety summit in Moscow, Ukrainian President Leonid Kuchma gave an oral agreement on the complete closing down of Chernobyl by 2000. He did not sign a written agreement. He was promised \$ 3 billion, but the final amount of the subsidies will be determined in October, after an inspection by experts of the state of the present sarcophagus.

## PECO Energy Wants to Use Plutonium for Power

from U.S. Newswire, Greenwire, The Houston Chronicle

On March 29, Greenpeace announced its opposition to a plan by the U.S. Department of Energy (DOE) in which commercial nuclear power utilities are being solicited to produce tritium for nuclear weapons, and use fuel made from weapons-grade plutonium.

One of the interested utilities, Philadelphia's Peco Energy Co., is interested in an Energy Department proposal to use fuel made from decommissioned nuclear warheads to generate electricity at Peco's Limerick nuclear plant near Pottstown, PA and the Peach Bottom plant near York, PA. Peco spokesman William Jones: "It is just something we've expressed interest in, if the DOE picks up the cost and there is a net benefit for our customers."

Seventeen U.S. utilities and one Canadian utility with a combined total of 41 reactors have expressed interest in using plutonium fuel, a plutonium-uranium mixture (mixed oxide fuel or MOX) which would contain weapons-grade plutonium. Fourteen U.S. utilities with 22 reactors, many of which are also interested in MOX, are interested in the tritium mission.

"Consumers now will be forced to produce bomb material and encourage international plutonium use by simply flipping their light switch," said Tom Clements of Greenpeace's anti-nuclear campaign. "Greenpeace will support a consumer rebellion against this taxpayer subsidized insanity." "This program threatens to break the longstanding taboo against using commercial reactors for military purposes," said Damon Moglen, coordinator of Greenpeace's anti-plutonium campaign. "It will help justify, even encourage the international trade in weapons-usable plutonium, which threatens U.S. and international security."

DOE is currently undertaking an Environmental Impact Statement process to determine what to do with some 50 tons of "surplus" weapons plutonium. A decision is expected this fall. Of all the options under consideration, Greenpeace supports pursuit of the vitrification option, as plutonium is a dangerous nuclear waste which must be isolated from the

environment.

A facility to fabricate MOX fuel in the U.S. does not exist, and it is estimated that it could cost \$1 billion or more of taxpayer money to construct such a high-tech facility.

As tritium has a radioactive half-life of 12.5 years, DOE claims that a new tritium production source will be needed by 2011 to fuel about 6,000 warheads. In December 1995, DOE issued a decision that tritium production in commercial reactors as well as by linear accelerator at Savannah River Site would be pursued.

MOX, according to the International Atomic Energy Agency is a "direct use" material for nuclear weapons, because the plutonium in it can be easily removed. Shipments of the fuel therefore require military escort. New production of tritium runs contrary to disarmament trends and reveals U.S. intention not to disarm as required by the Nuclear Nonproliferation Treaty (NPT).

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Here is the list of U.S. utilities interested in using plutonium fuel: Arizona Public Services Co.; CEIC (Ohio); Duke Power/ Commonwealth Edison; Entergy Operations Inc. (Miss., La.); Florida Power and Light; Georgia Power Co.; IES Utilities (Iowa); Niagara Mohawk Power Co. (N.Y.); North Carolina Municipal Power Agency; #1/Piedmont Municipal Power Agency; PECO Energy Co. (Pa.); Southern Nuclear Operating Co. (Ala.); Tennessee Valley Power Authority; Virginia Power; Wisconsin Public Service Co.; Washington Public Power Supply System.

Here is the list of U.S. utilities interested in tritium production: Arizona Public Services Co.; CEIC (Ohio); Florida Power and Light; Georgia Power Co.; Houston Lighting and Power Co.; Illinois Power Co.; Niagara Mohawk Power Co. (N.Y.); North Carolina Municipal Power Agency; #1/Piedmont Municipal Power Agency; South Carolina Gas and Electric Co.; Tennessee Valley Power Authority; Virginia Power; Wisconsin Public Service Co.; Washington Public Power Supply System.

## Supreme Court Declines Review of TMI Plaintiffs' Right to Punitive Damages

from Greenwire and USA Today

On April 22, the U.S. Supreme Court declined without comment to hear the nuclear power industry's appeal seeking to block suits by more than 2,000 individuals who claim they were injured by radiation from the 1979 Three Mile Island nuclear plant accident from seeking punitive damages under Pennsylvania law.

The decision allows plaintiffs to begin suing for punitive damages, which are meant to punish and deter bad conduct, as well as compensatory damages, which reimburse losses, opening the door to possible multi-million dollar awards.

"The families have gone through so much," says Kay Pickering of Three Mile Island Alert, a watchdog group in Harrisburg, Pa., near the plant. Several families have lost members to unusual cancers, she says, and calls come in routinely from residents who have become ill.

The first cases are due to come to trial summer -- 17 years after the accident. Part of the delay came because illnesses in some cases did not appear for several years. Other legal issues have been raised by TMI's lawyers questioning the reliability of the evidence linking the accident with any illnesses at all.

"The cause and effect is very tenuous," says John Reding, lawyer for the Nuclear Energy Institute, which supports Met Ed. He says trials might still be put off past this summer.

A group of 10 test cases is scheduled to go to trial in June 1996 to consider whether the partial meltdown at Three Mile Island caused the alleged injuries and whether damages should be awarded.

A federal appeals court in Philadelphia last year ruled that individuals injured by the accident could try to recover punitive damages under state law. It rejected the defendants' argument that such claims were barred under amendments adopted by Congress in 1988 to the Price-Anderson Act that governs the U.S. nuclear power industry.

## Watchdogs Call For Closing of Salem Nuclear Plant

from a Critical Mass Energy Press Release  
March 12, 1996

Three public interest watchdog groups, NJPIRG Citizen Lobby, the Nuclear Information and Resource Service, and Public Citizen's Critical Mass Energy Project, joined today in calling for the permanent closure of the Salem Nuclear Generating Station. Public Service Electric and Gas (PSE&G), the utility that owns and operates the two reactors at Salem, has revealed that critical components of the generators at Salem are disintegrating, drastically increasing the chances of a radioactive release or, in the worst case, a core meltdown. This discovery is the latest in a long series of problems at Salem, which resulted in PSE&G temporarily closing Salem 1 and Salem 2 in May and June of last year, respectively.

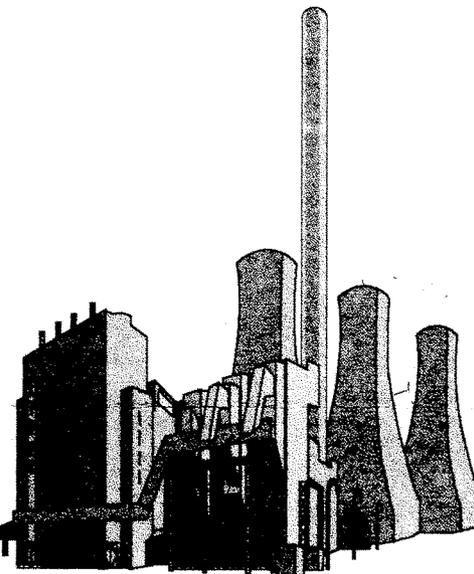
"PSE&G should act now to put the Salem reactors to bed for good," said Rebecca Stanfield, Energy Advocate, NJPIRG Citizen Lobby and coordinator of the R.E.A.L. Energy Coalition which is supported by over 60 New Jersey environmental and consumer groups and businesses. "PSE&G acted prudently in closing Salem last spring. However, public safety and sound economic policy requires permanent retirement of both reactors," she continued. Over their lifetimes the two Salem reactors have operated only 58% of their intended operating time and have drawn three of the top seven fines ever levied by the NRC. In the past three years alone Salem has experienced over 20 shut-downs and has incurred \$2 million in fines. However, the new revelation of deterioration within the plant has prompted increased concern from national nuclear safety experts.

"The combination of the deteriorating material that fabricates the steam generators, inadequate inspections and accelerated cracking between inspections adds up to an accident waiting to happen," said Paul Gunter, Director of the Reactor Watchdog Project at the Nuclear Information and Resource Service. "The cracking and corroding along nearly 350 miles of Salem's steam generator tubes is the most serious challenge that the utility has faced to date," he continued.

Gunter explained that the tubes that carry hot radioactive water throughout the plant are made of material that

eventually deteriorates after being exposed to radioactivity. If these tubes were to rupture, radioactive steam would be released into the environment. Multiple tubes rupturing would result in a dramatic loss of cooling water, which could lead to a core meltdown.

Identical problems in many U.S. nuclear power plants who, like Salem, were built by Westinghouse, have resulted in fourteen separate suits by utilities against Westinghouse. In addition, three of those plants have been retired before the end of their operating licenses because the owners found that



early retirement would be more economical than paying the high costs of repairing or replacing the deteriorating tubes. Repairing the tubes would cost at least \$40 million while replacing the generators would cost an estimated \$500 million. However, neither option is predicted to secure safe and economical operations at Salem.

"Even if PSE&G replaced Salem's generators, the plant is not economical to operate compared with the costs of replacing Salem with other sources of power," said Matthew Freedman, Energy Policy Analyst with Public Citizen's Critical Mass Energy Project (CMEP). CMEP is the energy policy arm of Public Citizen, a national consumer advocacy group founded by Ralph Nader. "If PSE&G invests hundreds of millions of dollars into repairing or replacing the steam generators, utility stockholders will profit at the expense of New Jersey electric customers."

According to a 1995 Public Citizen study, the operations and maintenance costs of Salem, not including fuel, were higher than the price of available replacement power in the region. In addition to the huge costs of steam generator repairs or replacement, Salem is scheduled to run out of storage space for its spent nuclear fuel in 2002 and will be forced to pay for expensive radioactive waste storage in order to continue operating," continued Freedman.

The groups are calling for immediate action by PSE&G and the state Board of Public Utilities to retire the Salem reactors permanently. "Although Salem has been identified as a problem plant by federal regulators and legislators, state and national public interest groups, and even PSE&G itself, we have not yet heard a peep from the New Jersey Board of Public Utilities (BPU)," stated Stanfield. "The BPU can no longer ignore Salem. It should begin immediate proceedings to retire this nuclear lemon," she continued. NJPIRG Citizen Lobby is a non-profit, nonpartisan consumer and environmental watchdog group. The R.E.A.L. Energy Coalition consists of over 60 groups who support a shift away from fossil fuels and nuclear power, toward renewable energy and energy efficiency.

### Co-Owners of Salem Sue Over Plant Shutdown

from PECO Report to Shareholders,  
March 1996

On March 5, 1996, PECO Energy (a 42.59% owner of Salem) and Delmarva Power & Light Company filed suit against PSE&G, the operator of Salem. The suit charges that the defendant failed to adequately respond to numerous citations, warnings, notices of violations and fines by the NRC. Further, the plaintiffs claim that PSE&G failed to take appropriate corrective action. These acts and omissions constituted mismanagement and breach of contract with the station's co-owners and forces PSE&G to shut down Unit No. 1 on May 16, 1995, and Unit No. 2 on June 22, 1995. The suit asks for compensatory and punitive damages.

## Environmentalists Assail Dole Over "Mobile Chernobyl"

from an April 16, 1996, letter to Senator Dole, and the Critical Mass Energy Project WWW Page

Dear Majority Leader Dole:

We are dismayed and outraged to learn that a Senate floor vote on S. 1271 (Craig, R-Idaho) tentatively has been scheduled for April 25 or 26, 1996.

As you know, April 26, 1996 is the tenth anniversary of the Chernobyl nuclear accident—a disaster whose consequences have grown larger with time. It is an anniversary that merits sober reflection on the terrible consequences of the nuclear age, and respect for the tens of thousands of people who have lost their homes, their land, and their lives.

Instead, we apparently will be treated to the spectacle of a Senate vote on the U.S. nuclear power industry's latest "not-in-my-back-yard" scheme—a bill which has been quite aptly dubbed the "Mobile Chernobyl Act."

S. 1271 addresses the ongoing and enormous problem of radioactive waste by moving the problem from the nuclear utilities to taxpayers. The bill would establish an "interim" radioactive waste storage site near Yucca Mountain, Nevada, and begin the unprecedented transport of high-level radioactive waste through 43 states and the District of Columbia; through dozens of cities and across our nation's agricultural heartland. Once the waste left the utility sites, where it is now, title to and liability for that waste would transfer from the utilities to the taxpayers. All this because nuclear utilities don't want to pay for storage of their own waste, and, like everyone else, don't want it in their own backyards.

S. 1271 would be an insult to the American people at any time. Holding this vote on the 10th anniversary of Chernobyl is contemptuous and demonstrates a serious lack of understanding of the lessons of Chernobyl.

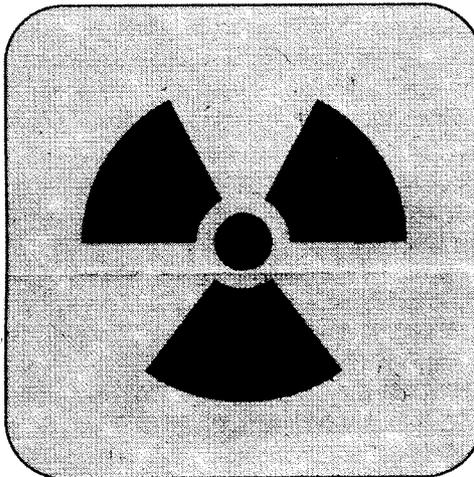
S. 1271 ignores the lessons of Chernobyl. The high-level nuclear waste that would be transported across our nation's railways and highways contains 95% of the radioactivity ever created in the U.S. Before we begin such a risky endeavor, we had better be sure that the first transport of this deadly material is the last. Moving the

waste to an "interim" site, even as evidence is growing that Yucca Mountain is not suitable for permanent disposal, could be a catastrophic mistake.

We must avoid a Mobile Chernobyl in the United States. The best way to do that is to not rush into nuclear industry schemes to avoid liability for their own waste products.

A fitting commemoration of Chernobyl's 10th anniversary would be for you to announce that S. 1271 will never reach the Senate floor.

(The letter was signed by representatives of 75 organizations, including TMIA, and a number of individuals.)



### Update on S. 1271

Despite a planned vote for April 26, the anniversary of the Chernobyl disaster, the Senate did not move to consider S. 1271, the Nuclear Waste Policy Act. According to nuclear industry sources, the bill may be considered during the first week in June.

Several Senate offices also report that they are hearing a great deal from constituents on S. 1271's many problems. Many thanks to anyone who has called, faxed, or emailed their Senators to tell them to support the Bryan-Reid filibuster and vote against S. 1271. Information on S. 1271 can be found at the Critical Mass web site (<http://www.citizen.org/CMEP>) in the radioactive waste policy section.

While the Clinton Administration has long opposed S. 1271 and promised the Nevada delegation a veto of the bill if it should pass, the White House had yet

to issue a written veto threat until April 23. The Statement of Administration Policy states that President Clinton would veto S. 1271 because of its designation of an interim storage site before the studies of Yucca Mountain's ability to serve as a repository are complete.

"The Administration strongly opposes S. 1271 because it would preempt most environmental laws, including the National Environmental Policy Act, the Clean Air Act, and the Safe Drinking Water Act, and it would remove the EPA from its role in setting human health and environmental safety standards for the repository."

A favorite argument of S. 1271 supporters states that Nevada should be forced to accept an "interim" dump for irradiated fuel because nearby Yucca Mountain can already be said to be a suitable site for a permanent repository. This week, however, reality dealt another blow to nuclear industry apologists who peddle this specious argument.

Scientists at the Los Alamos National Laboratory have detected fresh evidence that water flows through the proposed repository at rates much faster than once thought. According to a DOE release, Chlorine-36 has been found in the Exploratory Studies Facility (ESF) at depths up to 600 feet. Because Chlorine-36 is generated by the atmospheric testing of nuclear weapons, the large quantities of the isotope found indicate that water from the surface reached these depths in less than 50 years. Borehole studies had already detected tritium, a short-lived isotope that is also a by-product of weapons testing, at depths of 1,400 feet.

A repository at Yucca Mountain would have to keep water away from irradiated fuel for thousands of years, yet water apparently moves through the mountain within decades, not millennia. While dump advocates will no doubt try to explain how fast water movement through an earthquake-prone mountain actually enhances public safety, the uncertainty of Yucca Mountain is clearer than ever. High-level waste has no business being in Nevada (which has no nuclear reactors) until the studies are complete.

## NRC Issues Violations, But No Fines, Against TMI

from *The York Dispatch*  
March 14, 1996

The U.S. Nuclear Regulatory Commission has issued two violations against the TMI Unit 1 nuclear reactor, saying the reactor's operators did poor engineering analysis and failed to modify equipment as directed. But the agency did not order any fines for the violations.

The violations stem from a discovery TMI's September 1995 refueling that modifications ordered in 1990 were never made. TMI was supposed to have modified drains that carry radioactive water out of the reactor. The pressure in the drains was 1990 exceeded federal standards.

But speaking after yesterday's official violations were issued, NRC spokeswoman Diane Screnci said the NRC opted not to fine TMI's owners because "from (the time) when we discovered they hadn't implemented the fix, they acted comprehensively and promptly."

"Prompt and comprehensive" action to correct problems is the first consideration on a new NRC flow chart used to determine penalties for violations, Screnci said.

TMIA's Eric Epstein, a frequent critic of TMI and the nuclear industry, said the NRC decision left him "befuddled." "If there was a problem identified in 1990 and still unsolved in 1996, I have absolutely no idea how the NRC can interpret that as being resolved in a timely fashion."

"This is a barometer of what happens when there is a lack of aggressive oversight at nuclear power plants," Epstein added, saying he's deeply concerned about the NRC's new policy of allowing nuclear power plants to do more self-inspection. "This is deregulation at its worst."

## Suit Filed Against Nuclear Waste Law

from *Pennsylvania Law Weekly*  
April 15, 1996

Three individuals have filed suit in Commonwealth Court to undo the 1988 law that set up Pennsylvania's ongoing process of finding a low-level nuclear waste site for itself and three other states. The suit contends the legislature violated the state constitution with shortcuts it took to adopt the law.

Last year, Commonwealth Court struck down portions of the state budget because the legislature had taken the same kinds of improper shortcuts, the suit noted.

Gene Stilp and Eric Epstein of Harrisburg, two long-time anti-nuclear activists and members of TMIA, filed the suit. They were joined by Thomas Linzey of Shippensburg.

Pennsylvania is now looking for a community to volunteer to host the site.

Pennsylvania agreed in 1985 to build and operate a site to store waste generated in the state and in Maryland, Delaware and West Virginia.

◆ **MYTH Busters #10:**  
**International Nuclear Power** produced by the Safe Energy Communication Council, is now available. The report examines the nuclear industry's myths about international nuclear power and concludes that:

-Nuclear power's role in the global energy economy has peaked. The technology is no longer considered a viable option for most countries seeking new energy supplies.

-Considerable challenges confront nuclear power, even in the supposed nuclear "success stories" - France and Japan

-A direct or indirect connection between civilian nuclear power and nuclear weapons programs exists in numerous countries.

The 24 page report is available for \$6.00 per copy from Safe Energy Communication Council, 1717 Massachusetts Avenue, NW, Suite 805, Washington, DC 20036, (202) 483-8491, email: seccgen@aol.com.

## News Notes

◆ **The 3rd Annual Pennsylvania Environmental Congress** September 28-29, Dickinson College, Carlisle, Pennsylvania  
Keynote Speakers: Mark Dowie, former editor of *Mother Jones Magazine*. Paul Connett, publisher of *Waste Not*, a grassroots environmental newsletter.

Skills and Issues Workshops include: Toxics, Wetlands, Logging, Legal Tools, Media Training, Environmental Justice, and more. For more information, or for a detailed brochure, call the Pennsylvania Wildlife Federation, 717-232-3480.

◆ **American Solar Energy Society** presents its National Tour of Solar Homes on October 19, 1996. For information, contact American Solar Energy Society, 2400 Central Avenue, Suite G-1, Boulder, Colorado 80301, (303) 443-3130, FAX (303) 443-3212, email: ases@ases.org, Website: www.ases.org/solar.

◆ **Seventh Annual Arts for Peace and Justice Exhibition** -- July 26-August 10, 1996 at Strawberry Square, Downtown Harrisburg, Pennsylvania.

The 1996 exhibition is dedicated to Milton Lowenthal, who encouraged and supported this exhibition since its beginnings in 1990. After many years of work for peace and humanitarian causes, Milton died in October 1995. For more information, contact Fleur Byers, (717) 774-5811. The event is sponsored by Strawberry Square and the Harrisburg-Hiroshima-Nagasaki Committee.



## A Visit to the Chernobyl Dead Zone

from NIRS Nuclear Monitor, April 1996

In late April 1996, Michael Mariotte of NIRS, along with activists from around the world, including TMLA's Gene Stilp, met at the Lessons of Chernobyl Conference in Kiev. The official Dead Zone is an approximate circle with a radius of about 30 kilometers (18 miles). Here is an excerpt from Michael's diary.

On our bus as we travel into the Dead Zone, we check our radiation monitors; background levels rise very slowly. By the time we reach the first checkpoint into the Dead Zone, they are less than twice Kiev background levels.

But while the Berlin Wall came down in 1989, the Chernobyl Wall still exists: a barbed wire fence meant not to keep people in, but to keep them out....

Past the first checkpoint, we drive further, past endless fields of dry grass and forest; life is gone here: no people, no animals, no birds. We pass by a small area covered with rusting school buses and helicopters—only one of 800 radioactive waste dumps in the dead zone—no one knows where they all are, some were bulldozed before their location could be identified.

Once this was among the most productive farmland of all Europe, now it is useless, even deadly.

We stop in the town of Chernobyl, about 12 miles from the reactor complex and the official headquarters of the Dead Zone. We receive a briefing from the person in charge of the contaminated area. He tells us that 11,000 people work in the Dead Zone, half at a time. They work 15 days, then have 15 days off. Most seem to live in Chernobyl, given the rather bustling nature of the place.

He also mentions that we might have heard there is a fire there today (we haven't). He assures us it is under control (as we learn later, it isn't).

We climb back on our buses and proceed to the "Contamination Control Center." We had originally been told that we were not welcome, and that we would not be allowed to get near the reactor, nor do anything but tour a few contaminated villages by bus. Those orders now appear to have been countermanded, although we can't be sure.

At the control center, we strip, and don new clothes, boots, masks, and head

protection. Our clothes are placed in lockers awaiting our return.

The Center was built in 1988 for clean-up workers. Now it is used mostly for the occasional tourists, such as ourselves, given access to the Zone.

We're told the clothes they give us will



TMLA's Gene Stilp at Chernobyl

be disposed of as radioactive waste when we return. But I learn the boots are cleaned and re-used; I suspect the clothes are too....

Radiation counts at the Center range from double to triple background levels at Kiev—still fairly low.

Properly outfitted, we climb on new buses—the ones that brought us here aren't allowed to go any further, the ones that take us now aren't allowed to leave the Zone.

A few minutes driving time later, we see a series of large buildings on the horizon, in the middle of a large flat field. We argue whether this is indeed Chernobyl or yet another abandoned industrial plant. It is Chernobyl.

We still don't know how close they will

take us to the reactor, but we soon find out: within 500 yards of the sarcophagus the bus suddenly stops and our guide says you may get out and take pictures, but please stay on the concrete, don't walk on the dirt.

The sarcophagus looms above us, huge, but somehow less impressive than the photos. In real life, Chernobyl is a series of banal industrial buildings, whose importance in changing the world is belied by its commonplace appearance.

Most of our radiation monitors go off-scale when we dismount from the bus. I have one monitor which allows me to adjust to higher levels. The count is nearly 2,000 counts per minute; according to my monitor this is about 2 millirems/hour. To those of us wrapped up in protective gear, listening to our radiation monitors click incessantly, this seems terrifyingly high—in just two days one would receive the U.S. annual maximum permissible dose.

Then we realize the truth of the matter: a friend from Kiev points out that this is the exact level citizens of that 3-million population capital city received every day for about two weeks

after the accident—and no one ever told them, until well afterwards, that there was a problem.

Kiev is 80 miles south of Chernobyl and was spared the worst of the reactor's spewing of radiation and heavy metals. To the North and West, radiation levels were far higher for the May Day parades of 1986. But who knew?

If anyone doubts that Chernobyl brought down the Soviet system, talk to the parents of young children in 1986. Their rage, upon learning the true dimensions of Chernobyl, was unstoppable. The world's leaders should take note that no system could survive the wrath of mothers who have been lied to when their children were so endangered. In this event, the White House itself would fall.