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Three Mile Island Resources

Title: Three Mile Island Alert Newsletters, 1999

Date: 1999

Location: TMI-Hurst ; TMI-TMIA2

Contact:

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Carlisle, PA 17013

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Three Mile Island Alert

The Newsletter of Three Mile Island Alert

March 1999

Twenty Years of Problems at TMI

By Eric Epstein, TMLA

Ed. Note: This article originally appeared as a Letter to the Editor in the April 3, 1998, issue of Update, DEP's weekly newsletter.

Three Mile Island Unit 2 was built at a cost to rate payers of \$700 million and had been on-line for just 90 days, or 1/120 of its expected operating life, when the March 1979 accident occurred. One billion dollars was spent to defuel the facility. Three months of nuclear power production of TMI-2 has cost close to \$2 billion dollars in construction and cleanup bills or the equivalent of more than \$10.6 million for every day TMI-2 produced electricity. The above-mentioned costs do not include nuclear decontamination and decommissioning or restoring the site to "Greenfield".

At the time of the accident, TMI's owners had no monies put aside for decommissioning. General Public Utilities' (GPU) customers contributed three times as much for the defueling effort than the corporation that caused the disaster, (i.e. \$246 to \$82 million (*GPU Nuclear News Release, 1/10/85*)). In January 1993, the Public Utility Commission (PUC) refused GPU's request to hand its customers the TMI-2 decommissioning bill estimated to be at least \$200 million. However, several months later, the PUC reversed itself and gave GPU permission to pass the cost of decontamination and decommissioning TMI-2 onto the rate payer. This decision to fi-

nancially assess GPU rate payers for the accident was upheld by the Pennsylvania Supreme Court. In 1995, GPU hired a consultant to conduct a site-specific decommissioning study for TMI-2. The "retirement costs" for TMI-2 were estimated to be \$399 million for radiological decommissioning and \$34 million for non-radiological removal.

Moreover, the cleanup of TMI-2 has been fraught with problems:

In July 1980, Met Ed (GPU) vented 43,000 curies of radioactive Krypton-85 and other radioactive gasses directly into the atmosphere. TMI-2 was designed to release approximately 770 curies of Krypton-85 a year. Four months later in November 1980, the United States Court of Appeals for the District of Columbia ruled that the krypton venting was illegal.

On Aug. 12, 1982, cleanup worker William Pennsylv was fired for insisting he be allowed to wear a respirator while undressing men who entered highly radioactive areas. Pennsylv filed a complaint with the U.S. Department of Labor, and on April 11, 1984, settled out of court two days before an administrative law judge was scheduled to hear his

case.

On March 22, 1983, TMI-2 senior-safety start up engineer Richard Parks publicly charged GPU and Bechtel Corporation with deliberately circumventing safety procedures and harassing him and other workers for reporting safety violations. Parks filed a complaint with the U.S. Department of Labor. On Aug. 12, 1985, GPU and Bechtel were fined \$64,000 for the incident by the Nuclear Regulatory Commission (NRC).

From July 24-27, 1984, during the reactor head lift, which was delayed to brake failure on the polar crane, GPU vented radioactive gasses into the environment. The venting occurred despite pledges by GPU and the NRC that no radioactive releases would take place during the head lift operation. GPU was fined \$40,000 for the violation by the NRC.

In May 1987, a non-licensed plant employee was suspended after he was found sleeping in the radioactive waste control room. Two months later, 10 employees working with TMI-1 and TMI-2 tested positive for drugs; eight individuals were suspended for 30 days without

(Continued on page 2, column 2)

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 to 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.

TMIA members interested in specific aspects of nuclear power are encouraged to join one of TMIA's committees. These committees include:

- Radiation Monitoring
- Low-level Radioactive Waste
- Health Effects of TMI
- Nuclear Plant Security

TMIA Planning Council

Eric Epstein, Chair
Bill Cologie, Vice-Chair
Betsy Robinson, Treasurer
Kay Pickering, Secretary
Mary Osborn
Scott Portzline
Jerry Schultz

Publisher - Kay Pickering
Editor - David Raeker-Jordan

Three Mile Island Alert
315 Peffer Street
Harrisburg, PA 17102
Phone: (717) 233-7897
FAX: (717) 233-3261

Internet Addresses

WWW: <http://www.tmia.com>
Email: tmia@pipeline.com

(Continued from page 1)

pay and one resigned.

Thirty-three people were arrested in all. Since March 1986, 16 employees tested positive for drugs.

On Dec. 1, 1987, GPU announced the firing of a shift supervisor for sleeping on the job. Although the employee had a record of sleeping on the job dating back to the early 1980s, GPU did not issue a warning until October 1986.

Edwin Stier, former director of the New Jersey Division of Criminal Justice, reported that 21 witnesses saw the shift supervisor asleep on the job.

In December 1990, GPU began evaporating 2.3 million gallons of accident-generated radioactive water (AGW) into the atmosphere. In April-May 1991, the evaporator was shut down for most of this period so GPU could "rewrite the

main operating procedure." A Notice of Violation was issued by the NRC. In January 1993, GPU "discovered" they failed to take periodic samples of approximately 221,000 gallons of AGW in the bo-rated water storage tank. Evaporation was completed in August 1993, six months behind schedule.

In August 1993, Dr. Michio Kaku, professor of Nuclear Physics, City University of New York, evaluated studies conducted or commissioned by GPU and the NRC on the amount of fuel left in TMI-2.

"It appears that every few months, since 1990, a new estimate is made of core debris, often with little relationship to the previous estimate," Dr. Kaku concluded. "estimates range from 608.8 kg to 1,322 kg... This is rather unsettling... The still unanswered questions are therefore: precisely how much uranium is left in the core, and how much uranium can collect in the bottom of the reactor to initiate re-criticality."

Help TMIA Get the Message Airborne

TMIA wants to fly a banner from an airplane over TMI and the Harrisburg area on the anniversary weekend. The banner will read "People Died - - Shut TMI - - www.tmia.com"

This will be a highly visible display and sends the message that we are still a strong group opposed to nuclear power. Many people will visit our web site and see the health studies and safety concerns because of the banner.

Bottom line — The banner and plane will cost \$450.

Now, here is where TMIA members come in — the banner will not fly unless we can raise the \$450.

If you want to help, fill out the form on the inside back page and send us whatever amount you choose. And thank you; it couldn't have happened without you!!

Activities for the 20th Anniversary Commemoration of the Accident at Three Mile Island

Monday, March 22, 1999

Meltdown at Three Mile Island on The American Experience. Recounts the equipment failures, human errors and public fears surrounding America's worst nuclear accident. 8:00 pm on WITF-33 or call your local PBS station.

Wednesday, March 24, 1999

Presentation on TMI Accident



Nick Poppy will discuss his documentary; Eric Epstein will speak about citizen action efforts after the TMI accident.



7:30 pm



Location: Dickinson College, Carlisle (precise location to be announced)



Contact Douglas Stuart, 245-1875

Calendar Legend



Event



Time



Place



Directions



For More Information



Ticket Information



N.B.



A Bright Idea

Thursday, March 25, 1999



A Public History Symposium and Dedication of a State Historical Marker

Keynote Addresses by Harold Denton, NRC and former Lieutenant Gov. William Scranton (invited).

Panel Discussion, featuring:

Dr. William Travers, NRC

Dr. Robert Long, GPU Nuclear

Eric Epstein, TMI Alert



7 pm till 9 pm



Location: Pennsylvania State University Middletown Campus, Cub Auditorium



Directions from Harrisburg:

Take I-283 and Route 283 toward Harrisburg International Airport; exit at State Road 230/West Harrisburg Pike (the last exit before the Airport); turn left; go almost 1 mile. Penn State will be on your left.



Contact Kenneth Wolensky, Pennsylvania Historical & Museum Commission, 772-0921.



Panel Discussion on the Lessons of TMI

Keynote address by Governor Thornburgh; comments from Dickinson Physics Professor Priscilla Laws, Dale Davenport of the Harrisburg Patriot and Tom Gerusky.




7:30 pm



Location: Dickinson College, Schlechter Auditorium

Friday, March 26, 1999

Press Conference on Health, Safety and Security at TMI

 10:00 am

Speakers will include:

Steve Wing

Steve Wing is a professor at the University of North Carolina Department of Epidemiology, School of Public Health. His re-analysis of cancer incidence in relation to the TMI accident was published in Environmental Health Perspectives in 1997. He found that there was a marked increase in cancer rates following the TMI accident.

Paul Leventhal

Paul Leventhal founded the Nuclear Control Institute in 1981 and serves as its President after having held senior staff positions in the United States Senate on nuclear power and proliferation issues. He served as director of the Senate Special Investigation of the Three Mile Island Nuclear Accident, 1979-1980, and prepared the "lessons learned" legislation enacted in 1980 to require preventive measures and emergency planning for future accidents.

Aileen Mioko Smith (formerly Aileen Smith Katagiri)

Aileen is director of the Citizens' Coalition Against the Plutonium Fast Breeder Program, a Japanese coalition to stop Japan's use of plutonium as an energy source. She is also director of Green Action, the international office for Stop Nuclear Waste Campaign. She is on the board of directors of Greenpeace since 1998.

Dr. Michio Kaku

Dr. Michio Kaku is an internationally recognized authority in theoretical physics and also the environment. He has lectured around the world and his Ph.D. level textbooks are required reading at many of the top physics laboratories. He hosts a weekly hour-long radio program on science on several stations around the country, and his commentaries on science can be heard on 60 radio stations nationwide.

The press conference will be moderated by TMIA's Eric Epstein. TMIA's Scott Portzline will address security and deregulation concerns.



Location: Pennsylvania State Capitol Rotunda (inside staircase)



(TMIA members are encouraged to wear a TMIA T-shirt or bring a TMIA poster.)



Contact TMIA, 233-7897.



China Syndrome movie

Heartpounding drama about attempted cover-up of accident at California nuclear plant is as much a probe of television news as it is a story of nuclear power — and it scores a bull's-eye on both fronts. There is no music score; the story tension propels the film by itself, along with solid performances by Jane Fonda as a TV reporter, Michael Douglas as a radical cameraman, and especially Jack Lemmon as a dedicated plant executive. Rated PG — 123 minutes.



Tickets are available at the door for \$3.00 per person or are available from TMIA, using the order form on the inside back page.



7:00 pm & 9:15 pm



Location: Elks Theater, West Emaus & North Union Streets, Middletown



Directions from Harrisburg:

Take I-283 and Route 283 toward Harrisburg International Airport; exit at State Road 230/West Harrisburg Pike (the last exit before the Airport); turn left; you will pass in about 1 mile; after you pass Penn State Middletown campus, continue on the highway (now known as West Main Street); continue for about ½ mile, then turn right at North Union Street. The theater is at West Emaus & North Union



Contact TMIA, 233-7897.

Saturday, March 27, 1999



TMI 20 Anniversary Conference



10 am - 5 pm



Location: Pennsylvania State Capitol Building



Contact Gene Stilp, No Nukes, 260-0700.



TMIA is not involved with this event.



TMIA Dinner & Program

Menu: Pasta, Salad, Bread, Drinks, Dessert



Tickets are available from TMIA, using the order form on the inside back page.



5:30 pm Dinner
7 pm Program

The program will include remarks by:

Steve Wing

Steve Wing is a professor at the University of North Carolina Department of Epidemiology, School of Public Health. His re-analysis of cancer incidence in relation to the TMI accident was published in *Environmental Health Perspectives* in 1997. He found that there was a marked increase in cancer rates following the TMI accident. He has also studied nuclear industry workers at Oak Ridge, Hanford, Los Alamos and Savannah River. He is currently involved in a study of Hanford workers and a project focusing on environmental injustice in Eastern North Carolina.

Aileen Mioko Smith (formerly Aileen Smith Katagiri)

Aileen, a resident of Kyoto, Japan and graduate of Columbia University, School of Public Health in Environmental Science. She is co-author of *MINAMATA*, a book about industrial mercury pollution in Japan. Minamata was nominated for the National Book Award in 1976. Aileen is director of the Citizens' Coalition Against the Plutonium Fast Breeder Program, a Japanese coalition to stop Japan's use of plutonium as an

energy source. She is also director of Green Action, the international office for Stop Nuclear Waste Campaign. She is on the board of directors of Greenpeace since 1998.

Dr. Michio Kaku

Dr. Michio Kaku is an internationally recognized authority in theoretical physics and also the environment. He holds the Henry Semat Professorship in Theoretical Physics at the City College and the Graduate Center of the City University of New York. He has lectured around the world and his Ph.D. level textbooks are required reading at many of the top physics laboratories. He has written 9 books; his last two books, *Hyperspace* and *Visions*, became international best-sellers, and have been widely translated into different languages. He hosts a weekly hour-long radio program on science on several stations around the country, and his commentaries on science can be heard on 60 radio stations nationwide.



Location: Liberty Fire Hall, 10 Adelia St, Middletown



Directions from Harrisburg:

Take I-283 and Route 283 toward Harrisburg International Airport; exit at State Road 230/West Harrisburg Pike (the last exit before the Airport); turn left; in about a mile, you will pass Penn State Middletown campus; continue on the highway (now known as West Main Street) for almost a mile, then turn right at North Race Street; go about 2 blocks, and turn left on East Emaus. Take the fourth left (Adelia) and the fire hall is on the right.



Contact TMIA, 233-7897.



China Syndrome movie

For movie description, ticket information, and directions to the theater, see page 4.



7:00 pm & 9:15 pm

Location: Elks Theater, West Emaus & North Union Streets, Middletown

Contact TMIA, 233-7897.



Contact TMIA, 233-7897

Sunday March 28, 1999



TMI Vigil



3:53 am (Approx. Accident Time)



Location: North Gate of TMI on Route 441



Contact Gene Stulp, No Nukes, 260-0700, for more information.



TMIA is not involved with this event.



China Syndrome movie

For movie description, ticket information, and directions to the theater, see page 4.



2:00 pm & 7:15 pm



Location: Elks Theater, West Emaus & North Union Streets, Middletown



Contact TMIA, 233-7897.

Three Mile Island: The Legacy

A Penn State public educational series

All public sessions will be held at the Penn State Harrisburg Downtown Center at 7:00 p.m.

March 3 — Local Organizational Responses

Panelists: Beverly Davis, Frank Davis, Kay Pickering

March 24 — Cultural Responses

TMI as representative of a "new species of trouble."

April 7 — Political Economy Responses

Panelists: Dr. William Freudenburg (rural sociologist), Larry Hochendohner (developed survey re. Restart of TMI Unit 1), Bruce Smith (state representative)

April 28 — The Big Picture: The Legacy of TMI

TMIA T-Shirts

#1



THREE MILE ISLAND
20TH ANNIVERSARY 1979 - 1999

TMI Mutants Description: This top-quality multi-colored shirt (more than 30 colors) is an award winning design by graphic artist Todd Seltzer of Mechanicsburg. It has been published in a graphics magazine and is a real eye-catcher!

#2

"Fear Has No Half-Life"

Description: This top quality multi-colored shirt is based on a design by Knezic/Pavone Advertising Inc. of Harrisburg. It's a reminder that we haven't forgotten the fear and uncertainty from 20 years ago.



The full color T-Shirts can be seen
on our web site.
<http://www.tmia.com>

TMIA Order Form

Item	Price		Quantity		Total
TMIA Dinner ^*					
Dinner Tickets (Adult)	\$8	x		=	
Dinner Tickets (Children)	\$5	x		=	
China Syndrome ^					
Tickets for all showings Friday, Saturday, and Sunday	\$3	x		=	
TMIA T-Shirts					
#1 T-shirt (medium)	\$13	x			
#1 T-shirt (large)	\$13	x			
#1 T-shirt (X-large)	\$14	x			
#1 T-shirt (XX-large)	\$15	x			
#2 T-shirt (medium)	\$13	x		=	
#2 T-shirt (large)	\$13	x		=	
#2 T-shirt (X-large)	\$14	x		=	
#2 T-shirt (XX-large)	\$15	x		=	
Donation for TMIA Airplane Banner (see page 2)					
Individual Membership Renewal	\$20				
Extra contribution for 20th Anniversary Activities					
			Total		

^ — Inclusion of a self-addressed stamped envelope will not only save TMIA money, but will also speed delivery of your tickets.

* — Tickets for the dinner can be picked up at the door if a dinner reservation is made. Call TMIA at 717-233-7897 to make a reservation.

Please mail this form and your check made payable to TMIA to:

TMIA
315 Pepper Street
Harrisburg, PA 17102

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Monday, March 22

WITF broadcast of *Meltdown at Three Mile Island*

Wednesday, March 24

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Panel Discussion on the Lessons of TMI

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China Syndrome movie (Saturday and Sunday also)

Saturday, March 27

TMI 20 Anniversary Conference

TMIA Dinner & Program

Sunday, March 28

TMI Vigil

TMIA Alert

TMIA
315 Peffer Street
Harrisburg PA 17102

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Three Mile Island Alert

The Newsletter of Three Mile Island Alert

DICKINSON COLLEGE

August 1999

November 1999 Is Not Good Enough for Y2K Fixes

from a July 8, 1999, NIRS Press Release

The Nuclear Information and Resource Service gave the Nuclear Regulatory Commission's Y2K program failing grades today, based on the agency's admission that 35 nuclear reactors still haven't resolved their problems with the well-known computer bug.

NIRS noted that several of these reactors aren't even scheduled to complete their fixes until November 1999--or even later--which leaves virtually no time for testing and further adjustment to their repairs.

"The NRC's program is unacceptable," said NIRS' executive director Michael Mariotte. "It's what we feared all along--this agency is waiting until the last minute and then just hoping that everything will work out ok. But with nuclear reactors, there is no margin for error. Simply hoping for the best is a sure indication that the worst can happen."

According to the NRC, which released preliminary information about the status of nuclear reactors and the Y2K issue yesterday, 35 reactors are not yet "Y2K ready," although all were supposed to be ready by July 1, 1999. Moreover, as noted yesterday by Rep. Edward Markey (D-Mass.), the concept of Y2K ready does not mean "Y2K compliant." In fact, for the nuclear industry, "Y2K ready" can mean simply turning back the clock to 1972 and hoping everything works properly.

"Obviously, the nuclear utilities still have an enormous amount of work to do to repair their computer systems for the next century," said Mary Olson, NIRS' Y2K specialist. "The NRC is trying to put the best spin possible on this problem, but the fact is some utilities just aren't going to be ready in time. Experts agree that no nuclear power will be needed in the U.S. on January 1, 2000--there will be plenty

(Continued on page 3)

NRC Assurances of Y2K Readiness Not Supported by Facts

by: Scott Portzline, TMIA

Despite assurances by the Nuclear Regulatory Commission (NRC) that nuclear plants are tested and ready for the new millennium, internal and external Y2K problems can trigger a nuclear accident.

There is a safety test which is not deemed necessary by the industry but which should be performed at each plant. Three Mile Island Alert (TMIA) is recommending that plants conduct a 96-hour test of their Emergency Diesel Generators (EDGs). Plants would not have to shut down for this test. Currently, the NRC requires a yearly 24-hour test which history shows is too short to reveal hidden safety problems.

During a "station blackout" (loss of offsite power) these generators supply the electricity needed to

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Editor - David Raeker-Jordan

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FAX: (717) 233-3261

On the Internet at:
<http://www.tmia.com>
&
<mailto:tmia@pipeline.com>

NRC Official Tells TMI-Area Residents Industry Inspection Hours Have Not Been Cut

from a March 29, 1999, Inside NRC article

NRC Executive Director for Operations Williams Travers told Central Pennsylvania residents concerned about NRC retrenchment that the agency had not cut inspection hours. "We have not cut inspection hours," Travers said at a forum commemorating the 20th anniversary of the 1979 accident at GPU Nuclear's Three Mile Island Unit 2. "We are using new tools," Travers told participants in the forum held March 25 near Harrisburg, PA. The forum was broadcast live on the Internet.

Travers was challenged by fellow panelist Eric Epstein, a long-time anti-nuclear activist and member of TMIA.

"I heard (Chairman Shirley) Jackson say (to the Senate oversight committee that) you were going to cut inspection hours and that has been implemented," Epstein told Travers.

Travers did not retract or amend his statement, despite the challenge, but instead spoke of Jackson's and his own commitment to safety and cited improvements in industry statistics on scrams and safety system actuations.

A copy of Jackson's July 30, 1998, speech before the Senate Environmental & Public Works' Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety shows that she did make such a statement. "While the NRC believes that the basic focus and emphases of its inspection and enforcement programs are sound, we agree that improvements are needed in both areas. The average

number of inspection hours has, in fact, decreased ...," Jackson told the Senate. Similarly, at the agency's recent Regulatory Information Conference, Office of Nuclear Reactor Regulation Director Sam Collins said that the agency's new reactor oversight process was expected to lead to a 10% to 15% reduction in inspection hours. ‡

Anderson Low Volume Air Sampler Radiation Detector For Sale

This unit samples between 30 - 80 liters per minute. The unit uses a 2" diameter fiberglass filter and 2" diameter cartridge, a Gast direct vacuum pump, an inline 5 micron filter meter, a Tylan R032 mass flow meter/controller, and an elapsed time meter. All components, except the filter holder, are contained in a louvered metal shelter.

The Low Volume Sampler is operated and maintained by the Department of Physics and Astronomy at Dickinson College for the EFMR Monitoring Group. The Sampler was recently used as a control station to monitor radiation trends near Three Mile Island. The station is located in Carlisle PA, 35 miles from TMI.

The Anderson Low Volume Sampler was purchased new for \$8,400 dollars.

Please contact Eric Epstein, Coordinator of the EFMR Monitoring Group for information and bids.

Email: eepestin@igc.apc.org
Phone: (717) 541-1101

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of electrical generation available. For that reason, we join with our colleagues across the globe in calling for a nuclear moratorium on January 1 — a shutdown of all nuclear facilities across the world. Who knows, we may find we can live without them permanently?"

In December 1998, NIRS submitted three petitions for rulemaking to the NRC. One would require any utility not fully Y2K-compliant by December 1, 1999 to be closed until it can prove it is Y2K-compliant. Thus far, the NRC has not indicated that any reactor will be Y2K-compliant by December 1, 1999.

NIRS is also actively working to provide assistance to Eastern-bloc utilities that suffer from Y2K problems with their reactors and electrical grids.

"More U.S. assistance is necessary for many Eastern countries to ensure that January 1, 2000, is not a time of meltdown, but of celebration," said Olson. "The U.S. Congress needs to recognize that several Eastern countries need help in basic Y2K work and in enabling the implementation of meaningful contingency plans. Such assistance is of little cost to the U.S., but will be of great benefit if meltdowns and electrical grid disruptions can be avoided."

The following U.S. reactors are not "Y2K ready" -- no reactor claims to be "Y2K compliant":

Beaver Valley, Units 1 and 2; Shippingport, PA, 9/30/99.

Browns Ferry, Units 2 and 3; Athens, AL, 10/31/99.

Brunswick, Unit 1; Southport, NC, 11/30/99.

Clinton; Clinton, IL, 9/22/99.

Comanche Peak, Unit 2; Glen Rose, TX, 10/30/99.

Comanche Peak, Unit 1; Glen Rose, TX, 11/30/99.

D.C. Cook, Units 1 and 2; Bridgman, MI 12/15/99.

Davis-Besse; Port Clinton, OH, 8/1/99.

Diablo Canyon, Units 1 and 2; San Luis Obispo, CA, 10/31/99.

Farley, Unit 2; Columbia, AL, 12/16/99.

Hope Creek; Hancocks Bridge, NJ, 10/29/99.

Limerick, Unit 2; Limerick, PA, 9/30/99.

Monticello; Monticello, MN, 9/1/99.

North Anna, Unit 2; Mineral, VA, 10/29/99.

Oyster Creek; Toms River, NJ, 9/30/99.

Peach Bottom, Unit 2; Delta, PA, 9/30/99.

Peach Bottom, Unit 3; Delta, PA, 10/31/99.

Perry; Perry, OH, 8/1/99.

Salem, Unit 1; Wilmington, DE, 11/6/99.

Salem, Unit 2; Hancocks, NJ, 10/29/99.

Sequoyah, Units 1 and 2; Soddy-Daisy, TN, 10/31/99.

South Texas, Units 1 and 2; Bay City, TX, 10/31/99.

St. Lucie, Units 1 and 2; Fort Pierce, FL, 7/15/99.

Three Mile Island, Unit 1; Middletown, PA, 10/21/99.

Turkey Point, Units 3 and 4; Florida City, FL, 7/15/99.

Vermont Yankee; Vernon, VT, 10/31/99.

Watts Bar; Spring City, TN, 10/31/99. ‡

Nuclear Free Northeast Action Camp

August 20-28, 1999
Dummerston, Vermont

Join us for a week of rallies, actions, trainings, workshops, music, and fun.

Contact:
Citizen's Awareness Network
413-339-5781, can@shaysnet.com
or

VT CAN
802-345-8431, hilljoy@sover.net
or

Nuclear Information & Resource Service
202-328-0002, nirsnet@nirs.org
Camp Info: www.nirs.org

Nuclear Free Great Lakes Campaign Summer Action Camp

August 13-19, 1999
at Camp Soni Springs, near Three Oaks, Michigan

A week long gathering focused on skills building, networking, and nonviolent public demonstration to protect the Great lakes and work toward a sustainable energy future.

For more info, call 1-800-363-4522 (toll free)

(Continued from page 1)

bring the plant to a safe shutdown.

If they fail, the chance of an accident approaches certainty. Former NRC Chairman Dr. Shirley Jackson said, "NRC reviews in recent years have left no doubt that a station blackout at a nuclear power station is a major contributor to reactor core damage frequency." Nearly every month, the EDGs fail at a nuclear plant; fortunately not during a station blackout.

When a tornado struck the Davis Besse plant (same design as TMI) in Ohio in June 1998, for 41 nervous hours an array of equipment problems complicated efforts to keep the reactor under control. One of the two EDGs overheated and the other failed briefly due to a faulty relay switch. It was a close call which caused the plant's emergency director to say, "For a few minutes your

heart goes up into your throat."

This station blackout also caused the temperature of the spent fuel pool to increase to the point where water would be lost. Nuclear plants currently don't have an emergency power supply for these pools. A petition has been filed by the Nuclear Information and Resource Services (NIRS) to add this safety feature.

Fires have temporarily knocked out the EDGs at the Limerick and Crystal River nuclear plants in recent years. Six years ago, TMI's EDGs were inoperable for one month before the problem was discovered. Last year, TMI's EDGs were labeled a "fire hazard" by an NRC administrator who said they were as "ugly as I have ever seen" because of leaking oil. TMI has since "cleaned up" that situation.

At a June 15, 1999, Y2K meeting between the NRC and the Nuclear Energy Institute (NEI), I recounted what the administrator said about TMI. The vice-president of NEI answered, "So what? As long as they are up to regulations." This is the same kind of arrogance that led to the TMI accident.

The NRC does not draw a clear line for Y2K safety. The General Accounting Office (GAO) stated that despite six major reviews over two decades of NRC regulatory oversight, the NRC still does not adequately define safety. For example: the very same valve which caused the loss-of-coolant accident at TMI 20 years ago is still not rated as a safety component.

The NRC's assurances that all safety systems are Y2K ready does not rest well with TMIA. When Peach Bottom lost its safety parameter display for seven hours during a Y2K test [see story, p. 7], the NRC claimed that safety wasn't compromised. This system was added to every plant as a result of the TMI accident. Sometimes the NRC's judgment defies common sense. The GAO is now recommending that state public utility commissions publicize descriptions of the probable and worst case Y2K scenarios.

The NRC will permit plants to violate their licenses to keep them online come January 1, 2000. This situation is reminiscent of the Challenger explosion where rocket engineers were literally told to "remove your engineering hats and put on your management hats" to get the "green light" for the mission.

Resident inspectors at each plant will grant safety exemptions to plants in an effort to protect grid stability rather than public health and safety from radioactivity (which is the NRC's statutory mandate).

With millions of lives at stake, the NRC would do well to strengthen the emergency diesel generators by thorough testing and requiring an additional backup power source as petitioned by NIRS. The NRC is more than two months late for its own deadline for responding to the NIRS petitions.

For more information see our website: www.tmia.com/Y2K.htm

Y2K Email Discussion List

From an email announcement by Mike Ewall, Nukenet List Administrator

We have recently started an email discussion list on Y2K problems and nuclear safety. You can join it by filling out a subscription form at <http://www.enviroweb.org/nukenet> or you can send a message to listproc@envirolink.org with this phrase in the body of the message:

subscribe y2k-nukes Your Name

[Please put your real name where it says "Your Name"] ‡

TMI + 20: Americans Oppose Nuclear Power, Support Renewables

from recent articles in The Nuclear Monitor (Nuclear Information and Resource Service) and The Net Works (Pennsylvania Environmental Network)

Twenty years after the Three Mile Island accident, the long-term effects of the near-disaster are clear: Americans are against construction of new nuclear reactors and would prefer to obtain their electricity from renewable resources.

That was not the case before TMI — back then, most Americans supported an ambitious nuclear construction program. But within a year of the accident, public opinion began to shift. By mid-1980, a slim majority of the public opposed new reactors, a level that quickly rose to 60% and has not changed much since.

A new poll, conducted in early March for the Sustainable Energy Coalition, found that 59.8% of Americans oppose new reactors, despite a multi-million dollar effort by the nuclear industry to portray nuclear power as environmentally sound and an appropriate response to global warming.

The opposition to new nuclear construction cut across party lines and age groups, with young Democrats showing the highest level of opposition. Sixty-nine percent of all those polled think an accident like TMI is likely to occur again; only 28.4% think such an accident is unlikely. A solid 61.5% of Americans would prefer that renewables provide their electricity.

Only one nuclear power question remains divisive in the U.S.: whether to phase out existing reactors. On this

question, Americans are evenly divided — 43.3 % in favor of phasing out nuclear power and 43.8% opposed to phasing out nuclear power. The bad news for the nuclear industry is that young people between the ages of 18 and 34 favor closing existing reactors by a margin of 50.2% to 39.5%.

During the twentieth anniversary commemoration of the partial core meltdown at Three Mile Island Unit 2 in Middletown, PA, five of us crossed the line and got arrested, carrying two banners onto TMI's property. At 5:00 am on March 28th, the Executive Director of the Washington, D.C.-based Nuclear Information and Resource Service (Michael Mariotte) as well as two PEN activists (Traci Confer and Mike Ewall) joined long-time Harrisburg activist Gene Stilp and Marci Culley in a act of civil disobedience. We were charged with criminal trespass and the company didn't drop the charges (even though they reported to the Nuclear Regulatory Commission that the demonstration was "peaceful"). When it got to court, the arresting officers agreed to lower the charges from misdemeanors to summaries (a summary offense is like getting a speeding ticket) and we were all fined \$190 each.

The action concluded a two-hour-long peaceful rally of well over 100 activists who joined together in the dreary cold and rainy morning. Several speakers took the opportunity to inform people that TMI could very well

happen again, and not too far in the future (read January 1, 2000).

So far, none of the nuclear utilities is Y2K compliant. The Nuclear Regulatory Commission isn't even requiring compliance. They're requiring "readiness" (meaning things will work after the rollover, but just not work correctly). They've adopted this for only the safety-related systems, which have been defined NOT TO include the control systems, security systems and radiation monitoring systems. The Pennsylvania Public Utility Commission had given until March 31st, 1999, for all PA utilities to be compliant. The nuclear utilities made it clear months ago that they don't plan to meet that date. The prospect of multiple TMIs or Chernobyls within the next year is all too real.

Also during the anniversary commemoration, at a TMIA-sponsored dinner, Dr. Steve Wing of the University of North Carolina explained his criticisms of TMI accident consequences studies. Wing said that earlier studies, which purport to show no effects from the accident, were based on the assumption that little radiation was released at the time of the accident. But since no one actually knows how much radiation was released (monitoring at the time was poor, and some monitors went off-scale), Wing approached the issue from a new perspective. His work shows a clear linkage between excess cancers in the area and radiation exposure, as deter-

(Continued on Back Page, column 1)

Red Cross: What You Should Know About Y2K

from a Red Cross publication

What is "Y2K" and why are people concerned?

The Year 2000 technology problem, or bug, as it is sometimes called, was created in the early days of computers, when memory in computers was scarce and expensive. Programmers took shortcuts whenever possible to save space. Instead of using a four-digit code for year dates, a two-digit entry was used. This practice persisted, long after the need for saving space was eliminated. The two-digit code also was used in em-

bedded chips, which exist in many devices that control processes, functions, machines (like cars), building ventilation systems, elevators, and fire and security alarm systems, which are part of our everyday lives.

When the year 2000 comes, programs that have been coded with two-digit year codes will not distinguish between the years 2000 and 1900. If the program includes time-sensitive calculations or comparisons, results are unpredictable. No one knows what problems may occur, how widespread

they may be, or how long they will last. The good news is that federal, state, and local governments; banks and other financial institutions; retail businesses, and every other group affected by this problem have been working to resolve it, and a great deal of progress has been made.

The potential effect of the Y2K technology problem on any of these areas is unknown, and the situation continues to change as federal, state, and local governments; industries; businesses; and organizations, as well as the general public, take actions to reduce the problem. Most experts, however, believe that there may be localized disruptions. For example, in some areas, electrical power may be unavailable for some time. Manufacturing and production industries may be disrupted. Roads may be closed or gridlocked if traffic signals are disrupted. Electronic credit card transactions may not be processed. Telephone systems may not work.

Because no one can be certain about the effects of the Y2K problem, the American Red Cross has developed the following checklist for you. These are some easy steps you can take to prepare for possible disruptions. All of these recommendations make good sense, regardless of the potential problem.

Y2K Checklist

— Check with manufacturers of any essential computer-controlled electronic equipment in your home to see

(Continued at "RED CROSS," page 9)

Pennsylvania Nukes Least Prepared for Y2K

by Mike Ewall, Pennet Administrator

The Nuclear Regulatory Commission (NRC) recently released their report on which of the 103 operating nuclear reactors are going to be Y2K "ready" (ready means less than compliant - the NRC only requires "readiness" of only the narrowly-defined "safety-related" systems at reactors).

Thirty-five were still not ready as of the NRC's reporting deadline of June 30th, 1999. Pennsylvania led the nation in unprepared reactors. Even though Illinois has more reactors than Pennsylvania, Illinois had only 1 "not ready" reactor. Pennsylvania has six. New Jersey, Florida and Texas are the runners-up with 4 unprepared reactors each. The unprepared Pennsylvania reactors are Beaver Valley 1 & 2, Limerick 2, Peach Bottom 2 & 3, and Three Mile Island 1.

Beaver Valley's Y2K schedule had a major slip. Last year, they were projecting they'd be "ready" by the first quarter of 1999. They now expect to be "ready" by 9/30/1999. This 6 month slip is something that other utilities haven't even given themselves the luxury of doing. Since last year, Limerick, Peach Bottom and Three Mile Island have been projecting dates in the fall of 1999. A missed deadline for any of them could be too late.

Moreover, Pennsylvania's nuclear utilities are insisting on keeping their Y2K filings with the PA Public Utility Commission (PUC) secret. On July 6th, I filed responses to the petitions for Protective Order of the Pennsylvania's 4 nuclear utilities. These responses are available at: <http://www.penweb.org/issues/Y2K/>

Big Glitch at Peach Bottom Shows Perils of Y2K

from a March 7, 1999, Washington Post article

In a sterile room filled with rows of hulking 1960s-era mainframes, complete with panels of blinking red and green lights, a half-dozen technicians at the massive nuclear power plant set out early last month to test whether one of the facility's critical computer units would understand the year 2000.

It was supposed to be a prosaic affair. The unit in question had been pored over by programmers, it had been analyzed for a week in a simulator, and it was being hooked up to a backup version of the facility's central operations monitoring system. But when the computer's clock was turned ahead to Jan. 1, 2000, something went drastically awry at the Peach Bottom Atomic Power Station.

In what experts say was one of the more serious computer glitches in recent memory at a nuclear plant, the facility's primary and backup operations monitoring systems – which provide control-room technicians with vital data about temperature, pressure and water levels in the reactor's core – crashed. Every computer screen in the plant's control room blacked out and froze, forcing technicians to rely on antiquated gauges.

Plant managers say the incident posed no risk to the public, but they nevertheless began planning to shut down the facility. They eventually scotched those efforts after the computer specialists determined the source of the problem – a technician had improperly set the test clock – and restored the systems seven hours

later.

Although the cause was human error, technology specialists say the glitch here illustrates an unanticipated peril of the Year 2000 problem: As computer systems that have been repaired are now being tested in live conditions, inadvertent mistakes and undiscovered bugs can bring the machines – and the organizations that rely on them – to a grinding halt.

"When you perform tests, you inevitably create some errors," said John C. Ballock, a Year 2000 manager for Computer Sciences Corp. With intensive Year 2000 testing taking place around the world, such glitches are "something that we're definitely going to see more of," he said.

In Missouri, for instance, about 50,000 residential customers of the Metropolitan St. Louis Sewer District received incorrect bills last month after a programmer failed to remove Year 2000 test data from a billing system.

In Texas, 2,013 customers of Bank One Texas received erroneous notices in December saying they had bounced checks after an employee accidentally mailed out overdraft notices that had been printed for a date-related test.

And in Illinois, the village of Oswego got a monthly electric bill late last year for \$7 million – about \$6,989,000 more than the town normally is charged each month – because of software "bugs" in a new

computer system purchased by Commonwealth Edison Co. to address the Year 2000 issue.

Despite the glitches that have been cropping up, technology analysts say testing is a critical part of the repair effort. It makes sense, they say, to discover bugs and to deal with any instances of human error now instead of later this fall or on Jan. 1. "The fact that people are having problems now is a good thing because it at least shows they're testing," said James Woodward, a senior vice president at Cap Gemini America, an information technology firm that provides date-related repair services.

Some industry consultants have expressed worries that conducting broad tests late in the year will give companies little time to fix the problems they uncover, but they say they are encouraged by the pace of individual efforts in places like Peach Bottom. "It's good that these problems are happening now," said David Lochbaum, a nuclear safety engineer with the Union of Concerned Scientists. "You don't want this to occur on Dec. 31."

The NRC, which said the Peach Bottom incident was the first Y2K problem at a nuclear plant, appeared sympathetic to Peach Bottom's travails. "With computer software, it's hard to anticipate all the difficulties you can run into," said Jared S. Wermiel, chief of the NRC's reactor systems branch. "And too often, it's what you haven't thought of that comes back to bite you." ‡

PEACE

Elusive . . . **yet Essential**

Harrisburg-Hiroshima-Nagasaki Committee Announces 21st Annual Peacemaking Observances

July 30 - August 14: *Arts For Peace & Justice*
10th Annual Exhibition at Strawberry Square, Harrisburg

Special gallery presentation between the Atrium and 4th & Walnut St. Entrance, located across from Crafty Generations.

Gallery Hours: Strawberry Square is open from 6:00 am to 2:00 am.

Opening Reception: Friday, July 30, 1999 4:00 to 7:00 pm

Closing Reception: Saturday, August 14, 1999 1:00 to 4:00 pm

☆ Refreshments ☆ Entertainment by Musicians and Writers at both Receptions.

To exhibit in the Gallery, contact Fleur Byers: 717/774-5811.

August 8, 1998: *Candles On The Water*

Peace Garden, Riverfront Park, Harrisburg

Join with Peacemakers from many faith communities as we speak, pray and sing of peace from various traditions and float our lighted candle boats of peace on the Susquehanna at Sundown.

Gather at Temple Ohev Sholom, 2345 N. Front Street at 7:00 pm
and walk to the Peace Garden at 7:30 pm.

The Lantern Boats are decorated with peace themes by children of St. Theresa's School CCD Day Camp, New Cumberland. Everyone is welcome to the beauty and harmony that is Candles!

For information on both events, contact Deborah Davenport at 717/763-9552.



("RED CROSS," continued from page 6)

if that equipment may be affected. This includes fire and security alarm systems, programmable thermostats, appliances, consumer electronics, garage door openers, electronic locks, and any other electronic equipment in which an "embedded chip" may control its operation.

— Stock disaster supplies to last several days to a week for yourself and those who live with you. This includes having nonperishable foods, stored water, and an ample supply of prescription and nonprescription medications that you regularly use.

— Have some extra cash or traveler's checks on hand in case electronic transactions involving ATM cards, credit cards, and the like cannot be processed. Keep cash or traveler's

checks in a safe place, and withdraw money from your bank in small amounts well in advance of 12/31/99.

— Keep your automobile gas tank above half full.

— In case the power fails, plan to use alternative cooking devices in accordance with manufacturer's instructions.

— Have extra blankets, coats, hats, and gloves to keep warm. Do not use gas-fueled appliances, like an oven, as an alternative heating source. The same goes for wood-burning or liquid-fueled heating devices that are not designed to be used in a residential structure. If you do purchase an alternative heating device, make sure it is approved for use indoors and is UL-listed.

— Have plenty of flashlights and extra batteries on hand. Don't use candles for emergency lighting.

— Be prepared to relocate to a shelter for warmth and protection during a prolonged power outage. Listen to a battery-operated radio or television for information about where shelters will be available.

— If you plan to use a portable generator, connect what you want to power directly to the generator; do not connect the generator to your home's electrical system. Also, be sure to keep a generator in a well-ventilated area — either outside or in a garage, keeping the door open. Don't put a generator in your basement or anywhere inside your home. ‡

Please renew your TMIA membership

Name _____ Phone _____

Address _____ Zip _____

Membership: ☐ \$20 Regular Member ☐ \$50 Sustaining Member

☐ \$25 Non-Profit Org ☐ \$100 Patron

☐ \$5 Low Income/Student ☐ \$200 Club Member ☐ \$10 Newsletter only

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 Pepper 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.

Three Mile Island To Be Sold

from an April 13, 1999, Associated Press article and other sources

Only one more hurdle remains to be cleared in the sale of the Unit 1 reactor at Three Mile Island, a deal that would create the first foreign ownership of a nuclear power plant in the United States. GPU Nuclear Corp. wants to sell the 870-megawatt generating station near Middletown to the British-American partnership AmerGen for \$100 million. (AmerGen was

formed by PECO Energy Co. of Philadelphia and British Energy, the largest electricity generator in the United Kingdom.)

The sale has already received the blessings of the Nuclear Regulatory Commission, the Federal Energy Regulatory Commission, and state utility commissions in Pennsylvania, New York, and New Jersey. GPU is based in New Jersey and operates in the other two states.

"As far as lock, stock and barrel, this is the first plant to change hands outright," NRC spokesman Neil Sheehan said of the deal that the NRC approved. Portions of ownership at nuclear plants have changed hands in the past, Sheehan said.

The final hurdle is approval from the Internal Revenue Service. The IRS will review the tax status of about \$320 million GPU has set aside for decommissioning of the plant when its operational life runs out. AmerGen wants funds to be transferred essentially tax-free, said PECO spokesman Bill Jones.

The sale does not include Three Mile Island's dormant Unit 2 reactor, which is expected to be decommissioned at the same time as Unit 1. Unit 1's license is set to expire in 2014, although AmerGen can ask the NRC for an extension.

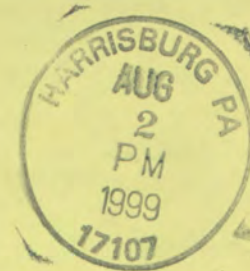
(Continued from page 5)

mined by the radiation pathway at the time of the accident.

Wing noted that while he and his co-researchers have been attacked personally by the nuclear industry, no one has ever been able to challenge their findings.

TMIA Alert

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