



THREE MILE ISLAND ALERT

The Newsletter of TMI Alert - December 2011

Cracks Found in TMIA Unit-2 Dry Storage Casks

A recent NRC inspection revealed significant cracks in the storage casks holding the TMI-Unit 2 nuclear wastes. Fortunately, these casks aren't in the middle of the Susquehanna River, but are stored in a Department of Energy site in Idaho. DOE is reportedly filling the cracks with resin, but rapid deterioration of the concrete casks, supposedly designed to last fifty years, raises questions about the integrity of dry cask storage.

David Lochbaum of the Union of Concerned Scientists objected to the five-year inspection cycle which revealed the level "4" and "5" cracks in the concrete. "I wonder about the effectiveness of a surveillance program that doesn't note cracks until they grow to severity level "4" and "5." I'd feel much better about a surveillance program that found "1" and "2" cracks coupled with a corrective action program that fixed them to prevent "3", "4" and "5" cracks," he wrote in an email to TMIA's Eric Epstein.

TMIA Participates in "Green Scissors" Initiative

For more than 16 years a coalition of environmental and government reform advocates have petitioned the federal government to end wasteful spending that harms the environment. This year, as the Congressional "Super Committee" was looking for ways to trim \$1.5 billion from the federal budget, the Green Scissors campaign identified more than \$380 billion in wasteful government subsidies that could be eliminated. TMIA's Eric Epstein joined Autumn Hanna, co-author of the 2011 Green Scissors report and a senior program manager for Taxpayers for Common Sense, in a press conference announcing this year's proposal. They were joined by representatives from the Heartland Institute, Friends of the Earth, and the Kitchen Table Patriots at a November 10 press conference in Norristown, PA.

The Green Scissors Report addresses environmentally harmful spending in four areas: energy, agriculture, transportation, and land and water. "Each of these areas offers billions of dollars in cuts for the super committee," Hanna claimed. In the energy area, the report identifies more than \$49 billion in subsidies to the nuclear power industry. For more information, visit greenscissors.com.

NRC Adopts Review at Urging of Union of Concerned Scientists

In Boiling Water Reactors (BWR), like those in Fukushima, the spent fuel pools are located in the reactor building, also referred to as "secondary containment." In July, David Lochbaum of the Union of Concerned Scientists petitioned the NRC to conduct a review of its BWR licensees to assess whether the facilities can withstand the decay heat from spent fuel pools in addition to the heat from a failed reactor in the event of an accident. Here in Pennsylvania, the plants at Berwick, Limerick, and Peach Bottom have the same basic design as the Fukushima plants.

On November 10, the NRC issued a Demand for Information (DFI) to all such plants to determine if they are capable of cooling the "combined heat loads" when, in the event of an accident, heat from boiling spent fuel pools, heat emitted from piping losses, and motor operation, combine to raise temperatures within the containment building to excessively high levels. There is currently some uncertainty as to whether existing safety systems are adequate to deal with increased temperature and pressure, the high humidity that would be present, the increased radiation, and the combined effects all of this would have on aging equipment.

As Mr. Lochbaum summarized, "...the spent fuel pools inside Mark I and II containments are not cooled by safety-related systems. The NRC's Near-Term Task Force recommended that BWRs with Mark I and II containments be provided with a reliable means of adding water to a boiling spent fuel pool. But alas, if the spent fuel pool boils, the reliable makeup system may protect irradiated fuel in the pool, but the evaporation and condensation will very likely destroy the equipment being used to cool the irradiated fuel in the reactor. This puts the operators in the awkward spot of choosing to damage the fuel in the spent fuel pool or damage the fuel in the reactor core. It's a good plot for an Alfred Hitchcock movie, but not sound public health policy."

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National Academy of Science Revisiting Cancer Risks for Nuke Plant Neighbors

The 1990 study released by the National Cancer Institute (NCI) found no increased risk of cancer deaths in counties surrounding 62 operating nuclear plants, including TMI and Peach Bottom. But a \$5 million, three-year study now being conducted by the National Academy of Sciences (NAS), will take advantage of advanced modeling methods and more detailed records on cancers, and take into account a longer cancer latency period. In addition, the study will examine incidences of cancers near nuclear plants, not just cancer deaths. Further, scientists won't just look at county-wide statistics as NCI did, but will search for small geographic clusters of cancers like those long ago identified by Dr. Steven Wing, a University of North Carolina Epidemiologist. Wing and his team found lung cancer and leukemia rates five to ten times higher than expected downwind of TMI.

The NAS study is being conducted in two phases. Phase 1, which is a scoping study to "identify scientifically sound approaches for carrying out an epidemiological study of cancer risks," was to conclude in September, but has been extended to May, 2012. Phase 2, the actual epidemiological study, will be conducted thereafter.

Atomic Radiation More Harmful to Women

A new study shows that exposure to radiation causes 50% greater incidence of cancer and a 50% greater rate of death from cancer among women compared to the same radiation dose for men. It has long been known that children are more susceptible to the effects of radiation than adults, and now we know women are more susceptible than men. The data leading to this conclusion was originally reported in the National Academy of Sciences 2006 report, "BIER VII," which is the seventh report in a series on the Biological Effects of Ionizing Radiation. The greater vulnerability of females was not the focal point of that publication and the concern has, until now, escaped notice. The report did conclude there were no "safe" levels of radiation exposure. For more information about the study, visit the website of the Nuclear Information and Resource Service, www.nirs.org.

Prince-Embury Makes Significant Donation to TMI Archive

Sandra Prince-Embury, Ph. D, for seven years a professor of community psychology at Penn State, did significant work on the psychological effects of the TMI accident. Now, her research, videotapes of conferences, copies of studies, published and unpublished reports, proposals made to the TMI Public Health Fund, and other documents have been donated to the TMI archive at Dickinson College. Her contribution will join the more than 90 linear feet of files contributed by TMIA.

Fukushima Releases Grossly Underestimated

According to a report released by the French government's nuclear research institute in June, Japanese authorities underestimated by half the amount of radiation released during the disaster at the Fukushima nuclear plants. A report issued by the Norwegian Institute for Air Research in October says the radiation released was twenty times the amount estimated by Japanese officials. The Norwegians attribute the disparity in estimates to their looking at radiation monitors throughout the world while the Japanese only looked at sensors in Japan.

For an in-depth look at the accident, the Institute of Nuclear Power Operations (INPO) has prepared a detailed timeline of the events at the Fukushima site. It is located on the website of the Nuclear Energy Institute (nei.org) in their document library.

Limerick Wastes Now Stored at Peach Bottom

Thanks to TMI Alert, the TMI plant in the middle of the Susquehanna River isn't allowed to accept wastes from any other nuclear plants. That's not the case with Peach Bottom, however. Last June the NRC granted a request from Exelon to transfer radioactive wastes from Limerick to the Peach Bottom plant, about 60 miles away. Limerick ran out of space at its site. The utility says 95 percent of the material transferred will be classified as the lowest level Class A waste, but the remainder will be the more highly radioactive Class B & C waste.

PPL Seeks to Build New Nuke at Berwick

PPL is seeking a license from the NRC to construct a new nuclear power plant adjacent to its existing Susquehanna plant outside of Berwick. Unlike the existing plants at Berwick which use the same design as those in Fukushima, the proposed plant, dubbed Bell Bend, would use a design dubbed the Evolutionary Power Reactor created by the French company AREVA. TMI Alert will offer testimony to the Susquehanna River Basin Commission raising concerns about the use of river water to cool the proposed plant, focusing on the plant's impact on the river during periods of drought.

Exelon Seeks Merger With Constellation Energy

Last spring the boards of Exelon Corp. and Constellation Energy (you may know them as Baltimore Gas & Electric, BGE) approved an agreement to merge the companies, creating what the companies describe as the nation's "number one competitive energy provider." The merged companies would retain the Exelon name and headquarters in Chicago to run its generation business and retain the Constellation name and Baltimore headquarters to run its retail and wholesale businesses.

The proposed merger has already been approved by several state Public Utility Commissions, but still needs approval from the Federal Energy Regulatory Commission, the Department of Justice, and the NRC. The company expects FERC approval by the end of the year and DOJ and NRC approvals by January.

TV Show Looks at TMI's Health Effects

A documentary available online at Link TV.org looks at the amount of radiation released during the 1979 accident and the health results in its aftermath. *Three Mile Island: The Controversy Continues* was produced for the *Earth Focus* television program with help from TMIA's Eric Epstein, Mary Stamos, and other contributors. The direct link to view the documentary (it's just under 14.5 minutes) is:

<http://www.linktv.org/video/6943/three-mile-island-the-controversy-continues>

Magazine Provides Overview of Nuclear Power in a Post-Fukushima World

A magazine from the United Kingdom, *Environment*, which is available online at environmentmagazine.org, has an article in its November-December issue that looks at nuclear power from the perspectives of social scientists, examining questions of public policy, economics, public opinion, safety, justice, ethics, and the media's coverage of nuclear issues. Written by two research fellows and a professor from Cardiff University in Wales, the article looks at how the media's representation and public opinion are interwoven with political acceptability and economic issues.

Germany to Abandon Nuclear Power

German Chancellor Angela Merkel announced at the end of May that all of the country's 17 nuclear reactors would be shut down by 2022. The decision marked a complete U-turn by the chancellor who, only in September 2010, announced that the life of existing nuclear plants in Germany would be extended by an average of 12 years. Similarly, German-based multinational corporation Siemens announced it will withdraw completely from the nuclear industry, a response to the Fukushima disaster. Siemens was responsible for building all 17 of Germany's existing nuclear power plants, but going forward will only supply components for the non-nuclear side of electric generation, such as the building of steam turbines.

TMI Updates Flood Protection

After TMI Alert raised concerns about the issue of flooding with the NRC, TMI has upgraded its flood protection measures. An engineering study conducted by the utility indicated a worst-case flood would be worse than previously estimated. The original analysis dated to 1970 when the plant was built. The new analysis shows even though a worst-case event is less likely to occur, if it did water flows would be 60% higher than the Hurricane Agnes flood of 1972. The new analysis resulted in plant managers installing new flood doors, seals, hatches, and other equipment to bring the facility into compliance for the new "worst-case" scenario.

TMIA Planning Council Chairman Eric Epstein observed, "It shouldn't take 36 years to revisit flood safety at a nuclear plant located on an island." A spokesman for the NRC said the agency will factor in whether the analysis should have been done sooner as it decides the appropriate penalty for the time the plant was noncompliant.

Democracy Rising Co-Founder Tim Potts Speaking at December 6 Potluck

Tim Potts, once a staff member for former state House Speaker Bill DeWeese and now an activist for responsible government, will make a presentation following a potluck dinner sponsored by the Harrisburg Center for Peace and Justice at the Harrisburg Friends Meeting House (1100 N. 6th) on Saturday, December 3 at 6PM. Potts, who played a major role in the successful effort to repeal legislative pay hikes, is expected to discuss issues like the call for a Constitutional Convention, the Occupy Movement, education reform efforts, natural gas drilling, redistricting, and voter suppression efforts. For more information or to RSVP, contact Kay Pickering at 233-3072.

Award Winning Film Examining N-Waste Storage Slated for 12/15

A documentary that looks at the construction of a nuclear waste storage facility deep below Finland will be shown at 8PM on Thursday, December 15, at 1306 North 3rd Street, Harrisburg (next door to the Midtown Scholar). The film, which has picked up numerous awards at film festival throughout Europe for the last year, was directed by Danish documentarian Michael Madsen. It takes a critical look the challenges facing a human society, which built pyramids about 5,000 years ago, in constructing a storage system for nuclear wastes that must last 100,000 years. Words like "jaw-dropping," "riveting," and "intelligent" pop up regularly in reviews. There's a \$5 donation at the door.

TMIA Website Has Tons of Information

Want to see a graphic display of the actual and projected growth of spent nuclear fuel in the US? How about videos of nuclear experts discussing Fukushima and the future of nuclear power? You'll find all of that and links to industry and NRC reports, analysis of radiation from operating plants, industry trends, and all kinds of nuclear news on TMIA's website at www.TMIA.com.

2012 Peace Calendar for Sale

Look at August 2012 on most calendars and the anniversary of significant events like the bombings of Hiroshima and Nagasaki on the 6th and 10th respectively, the jailing of Thoreau for protesting the US invasion of Mexico in 1846 on the 14th, the start of Woodstock on the 16th in 1969, and the CIA-backed coup that put the Shah in power in Iran in 1953 probably aren't listed. But these and hundreds of significant events are featured on next year's Peace calendar from the Syracuse Cultural Workers.

Most calendars sold in the US are printed abroad to profit from cheap labor; are plastic shrink-wrapped with a cardboard stiffener; and are not printed on paper containing post-consumer waste (PCW). If you don't support these anti-union and anti-environment practices, then please buy and support the SCW calendar.

Treat yourself or a progressive friend to this beautiful calendar and save one-third off the list price of \$14.95 by buying your calendar from TMIA for just \$10. Call Kay Pickering at 232-7012 to order your copy today. For other SCW products, visit their website at www.SyracuseCulturalWorkers.com.

Please Support TMIA With Your Membership

As you can see from the above, Three Mile Island Alert continues its vigilance on the safe energy front. We still closely monitor the nuclear industry in the Susquehanna Valley and beyond. We continuously keep a watchful eye on the utilities and the regulators, maintain a website to keep you informed, and intervene as needed in legal proceedings in the courts and before various regulatory bodies. Your support not only keeps the lights on at our Peffer Street office, but makes it possible for us to maintain our status as one of the world's leading citizen-funded, volunteer-staffed safe energy groups. Please complete and return the form below and give what you can. Thank you.

Happy Holidays from all your friends at TMIA

To renew your TMIA membership, please complete this form and return it to TMIA, 315 Peffer Street, Harrisburg, PA 17102-1834

Name _____

Address _____

Phone _____ Email _____

Membership Level: \$20 Regular Membership \$50 Sustaining Membership

\$25 Non-Profit Organization \$100 Patron

\$10 Low income, student \$250 Former hippie who made it

Keep abreast of TMI Alert activities by visiting our website regularly at www.TMIA.com

