



THREE MILE ISLAND ALERT

A publication of Three Mile Island Alert

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TMI Alert Celebrating Its 40th Anniversary on March 25th

A whistle-blowing engineer with more than 44 years of nuclear power experience will explain why nuclear is not a green energy source in his remarks to TMI Alert's 40th anniversary dinner.

On the evening of March 25th at Fort Hunter, Arnie Gundersen, currently the chief engineer for Fairewinds Associates (Fairewinds.org), will also provide an update on the situation at Fukushima and provide insights on the state of the industry.

Joining Gundersen on the program will be TMI's security consultant, Scott Portzline, who has compiled an eight-minute video highlight reel of TMI-Alert's leaders in action.

The doors open at 6:30PM at the historic barn in Fort Hunter Park, just north of Harrisburg. The cost to attend is \$15.00 per person and includes dinner. See the enclosed membership renewal form for information on how to register.



Arnie Gundersen

US Court Clears Way for Nuclear Waste Shipments to Come Through PA

In early February the US District Court for the District of Columbia cleared the way for a shipment of highly radioactive nuclear waste to be shipped through PA.

The court ruled against Beyond Nuclear and other environmental groups that tried to halt the shipment from a Canadian government nuclear facility in Ontario to the Savannah River Site in South Carolina.

The most direct route would bring the thousands of gallons of liquid wastes through New York, Pennsylvania, Virginia, and North Carolina on its way to South Carolina.

Fukushima Gets Worse and Worse

Photographs taken in one of the Fukushima containment vessels show that the structure is leaking and radiation levels are at least five times higher than they were in the days following the accident. Dr. Helen Caldicott said in early February that it will almost be impossible to decommission units 1, 2, and 3 as no human could ever be exposed to such extreme radiation. Other scientists say that the best bet would be for Japan to entomb the reactors as was done at Chernobyl, but there's no guarantee such work could be completed before another earthquake, which could be catastrophic for the region.

There are news reports that the high radiation levels killed two robots sent in to assess the damage. The containment vessels, weakened from holding highly radioactive material for the last six years, could be further damaged if an earthquake caused the structures which house them to collapse. This could lead to a massive release of radiation if the building falls on the molten core.

Readings as high as 530 sieverts an hour have been recorded inside the containment, a level described by some experts as "unimaginable," as they are far higher than the previous record of 73 sieverts an hour detected by sensors in 2012.

After 40 Long Years, TMI Alert Still Holds to “Better Active Today than Radioactive Tomorrow” Mantra

TMI Alert Battled Against New Nuke in Berwick

In October 2008, PP&L filed with the NRC to build a new nuclear plant called Bell Bend adjacent to the operating reactors at the Susquehanna Steam Electric Station, just outside of Berwick. TMIA intervened at the NRC and the Susquehanna River Basin Commission arguing, in part, that there wasn't enough water available to cool a third reactor at that site, especially given the periodic droughts experienced in the Susquehanna Valley. Last August 30, following years of opposition from TMIA and other environmental groups, the plant operator withdrew its license application saying it saw “no viable path” to obtaining a license.

Just as TMIA monitors the plants at TMI and Peach Bottom, it keeps a wary eye on the Berwick plants. Between January and October 16 of last year, Susquehanna was assessed 36 License Event Reports (LERs) by the NRC, about twice as many as the soon to be closed Indian Point plant in New York. The national average of LERs for a plant is 4.9 and Pennsylvania's total for that period was 43.

TMIA Lost Peach Bottom Case

In 2009 Exelon requested permission to increase its generating capacity at Peach Bottom by 25%, to a total of 1,344 MegaWatts. For a few years, TMIA waged a battle against the increase, but our issues were never addressed. TMIA argued, in part, that the state Department of Environmental Protection exempted Exelon from preparing a final environmental impact

statement as required by current law, instead allowing them to be grandfathered under a 1973 protocol in its filings to state and federal authorities. TMIA argued that the more recent EPA regulations would make the owners of water-intake structures take steps to reduce the number of fish and shellfish being killed when sucked through or into the plant's water intakes.

TMI's Demise on the Horizon?

For the last two years, Three Mile Island and two other Exelon plants have been unable to sell the power they generate at the annual PJM auction. PJM is an organization that coordinates the movement of wholesale electricity in all or part of 13 states and the District of Columbia. PJM also manages the high-voltage electricity grid to ensure reliability for more than 65 million people living in its service area.

Thanks to the abundance of low-cost natural gas, nuclear plants are having

trouble competing in the marketplace. Last May, Exelon said TMI will continue to operate through May 2018, but the plant “faces continued economic challenges and Exelon is exploring all options to return it to profitability.”

According to TMIA chair Eric Epstein, Three Mile Island is also running out of storage space for spent fuel, another factor that may hasten its demise. He reports that if Unit 1 shuts down, both units would be decontaminated and decommissioned at the same time.

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Three Million Americans Have Clean Energy Jobs

In late February, a coalition of clean energy groups reported that data collected by the U.S. Department of Energy shows there are more than three million American jobs rooted in clean energy.

"These impressive employment numbers highlight the tremendous importance of America's renewable energy sector, which attracted nearly \$100 billion in investment over the last two years," said Greg Wetstone, President of the American Council on Renewable Energy.

Tom Kiernan, CEO of the American Wind Energy Association added, "According to the Bureau of Labor Statistics, 'Wind Turbine Technician' is now the fastest-growing job description in America."

There are now more than 500 factories in 43 states producing parts for wind turbines and the solar industry installed 14,626 megawatts of generating capacity in 2016, nearly double its previous record. The Solar Foundation reported the industry added 51,000 American jobs last year alone.

To learn more about clean energy industry groups:

American Council on Renewable Energy

www.acore.org

American Wind Energy Association

www.windworksforamerica.awea.org

The Business Council for Sustainable Energy

www.bcse.org

Solar Energy Industries Association

www.seia.org

Toshiba Takes \$6.3 Billion Hit

Toshiba, the Japanese electronics conglomerate, is on the verge of bankruptcy after it reported a net loss of \$4.4 billion for the nine months ending December 31. The losses stem from having to write down the value of its U.S. nuclear construction business which it acquired in 2015. Toshiba became the parent company of Westinghouse—a firm that participated in the design and building of the reactors at TMI—and Westinghouse's nuclear plant building subsidiary. The company was hit with a \$1.2 billion accounting scandal in 2015 and now says its investment in the nuclear business may have been a misstep. Toshiba now says it expects to have a negative net worth of \$1.3 billion by the end of March.

First Energy Writes Down the Value of its Power Plants and Puts its Nukes up for Sale

Even though the Ohio-based power company had sales of \$14.6 million in 2016, it has written down the value of its power plants in Ohio and Pennsylvania by \$6.2 billion. The company did this because the coal, oil, and nuclear power plants in both states are losing value because they can't compete against lower-priced natural gas in the region's deregulated electric marketplace.

The industry lobbied hard for deregulation, but it isn't hard to imagine industry leaders longing for the days when regulators set prices and guaranteed profits for utility investors.

Natural gas turbines are nearly twice as efficient as coal plants and far less expensive to operate. As a result of the write-down, FirstEnergy is currently worth less than its long-term debt. It is now valued at \$1.6 billion, but has \$3 billion of long-term debt on its books.

In a teleconference with financial analysts on February 22, the company announced plans to sell or close its three nuclear plants, including the troubled Davis-Besse plant near Toledo and the Beaver Valley plant northwest of Pittsburgh.

Dr. Steve Wing Dies in North Carolina

Dr. Steve Wing, an associate professor of epidemiology at the University of North Carolina's Gillings School of Global Public Health, died on November 9 in Chapel Hill.

Dr. Wing was a great friend of TMI Alert and was an incredibly strong advocate for openness and truth in the reporting of the health effects of the TMI accident. Arnie Gundersen, who will be speaking at TMI Alert's 40th Anniversary Dinner on March 25th posted the following to Dr. Wing's online tribute page:

We will miss our friend and colleague Steve. We will miss his inquiring mind and his friendship. Steve and I first met back in 2009 when each of us was an invited speaker at the Pennsylvania Statehouse in Harrisburg for the 30th commemoration of the nuclear meltdown at the TMI atomic power reactor. I spoke first, discussing how the Nuclear Regulatory Commission (NRC) had deliberately understated the amount of radiation released during the nuclear power disaster. Steve followed with a presentation that showed that cancer rates in the vicinity of Harrisburg increased significantly after the meltdown radioactive releases. Steve's great presentation is on the Fairewinds website. Steve and I had never met before that day in Harrisburg, and neither of us knew of each other's TMI testimony or what



the other was presenting on that 30th commemoration of the first commercial atomic power reactor meltdown. Before seeing Steve's data that day, I could not understand why more people had not gotten cancer as a result of the radioactive releases I analyzed and the NRC attempted to cover-up. Steve could not understand how cancer rates could have risen so much when he reviewed the NRC's grossly underestimated calculations. When we finished presenting on that March day, we both understood the logical consequences of each other's expert reports and evidentiary testimonies and the full magnitude of the TMI meltdown became apparent to both of us. In that 'eureka moment' we became fellow truth-sayers, respected colleagues, and fast friends. Steve was a renowned epidemiologist not just for his work on TMI but also for his pursuit of the truth in many cases where the public health was often jeopardized. He will be sorely missed by many, not just Maggie and I. Goodbye old friend.

Harold Denton Dies

Hailed as a hero by many central Pennsylvanians in the aftermath of the TMI meltdown, nuclear physicist Harold Denton died February 13 following a lengthy illness.

In many ways, with his soothing manner and comforting (though often misleading) reassurances in the days and weeks following the accident, he served to lower the anxieties of many living in the shadow of TMI. For the industry, it is difficult to imagine a better spokesperson for such a stressful situation. He always held to the industry line, understating the danger and downplaying the accident's health effects. Mr. Denton was 80 at the time of his demise.

Marcheskie Replaces DeSantis



Ralph DeSantis started working at TMI, just weeks before the 1979 meltdown. For the last 30 years he managed communications and community outreach at the facility. Now he's retiring and his replacement is former WHTM news anchor David Marcheskie. TMIA offers our best wishes to them both.