## Health: Science for Sale: TMI and the University of Pittsburgh

by Eric Joseph Epstein

The University of Pittsburgh's most recent "health study," released on Halloween, is essentially a recitation of discredited protocol and disputed data. Re-released on October 31, 2002, the Study actually acknowledged an increase in lymphatic and blood cancers among men. However, as in previous University of Pittsburgh Studies conducted by the same group of researchers (Evelynn Talbott et al; 2000),¹ this survey relied on government and nuclear industry sponsored "health studies" which were completed in the early 1980s. These studies were based on inaccurate dose projections, did not factor data only available in 1985 regarding the severity and conditions of the partial-core meltdown at Three Mile Island Unit-2,² and did not factor the prevailing weather conditions and wind patters in March-April, 1979.

Nor did any of these studies evaluate the health impact to members of our community who participated in the defueling of Three Mile Island. In fact, General Public Utilities chose not to maintain a health or cancer registry, despite the fact, that from 1979-1989, 5,000 clean-up workers received "measurable doses" of radiation exposure.<sup>3</sup> (3)

Moreover, the University of Pittsburgh's Study relied heavily on the much maligned Pennsylvania Department of Health's seventeen year-old survey released in September, 1985. That Study's protocol was ridiculed and criticized by epidemiologists at Harvard (Dr. George Hutchison), and Penn State (Dr. Robert A Hultquist) for "diluting" increases in cancer by "expanding" the population base to include people living outside of ten-mile study-zone.<sup>4</sup>

A great deal of radiation was indeed released by the partial core melt at TMI. The President's Commission estimated about 15 million curies of radiation were released into the atmosphere. A review of dose assessments, conducted by Dr. Jan Beyea, (National Audubon Society; 1984)<sup>5</sup> estimated that from 276 to 63,000 person-rem were delivered to the general population within 50 miles of TMI. More recently, David Lochbaum of the Union of Concern Scientists, estimated between 40 million curies and 100 million curies escaped during the accident.

For 11 days, in June-July, 1980, Met Ed illegally vented 43,000 curies of radioactive Krypton-85 (beta and gamma; 10 year half life) and other radioactive gasses into the environment without having scrubbers in place.<sup>6</sup>

And by 1993, TMI-2 evaporated 2.3 million gallons of accident generated radioactive generated water, including tritium (a radioactive form of hydrogen with a half life of 12.5 years), into the atmosphere despite legal objections from community-based organizations.<sup>7</sup>

The plant's owners, co-defendants, and insurers have paid more than \$80 million in health, economic and evacuation claims, including a \$1.1 million settlement for a baby born with Down's Syndrome.8 In June 2000, the United States Supreme Court remanded 1,990 unsettled health suits from the TMI-accident back to Federal Court. (GPU v. Abrams; Dolan v. GPU).9

In August 1996, a study by the University of North Carolina-Chapel Hill, authored by Dr. Steven Wing, reviewed the Susser-Hatch study (Columbia University; 1991). Dr. Wing reported that "...there were reports of erythmea, hair loss, vomiting, and pet death near TMI at the time of the accident...Accident doses were positively associated with cancer incidence. Associations were largest for leukemia, intermediate for lung cancer, and smallest for all cancers combined...Inhaled radionuclide contamination could differentially impact lung cancers, which show a clear dose-related increase." <sup>10</sup>

Today, TMI-2 remains a high level radioactive waste in the middle of the Susquehanna River. There was no decommissioning fund established for TMI at the time of the accident. The site of the nation's worst commercial nuclear accident has not been decontaminated or decommissioned. There has not been a human entry in the basement of the reactor building since March, 1979.<sup>11</sup>

See reverse for footnotes



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## **End Notes**

- 1. Environment Health Perspectives, June, 2000.
- 2. On November 6, 1984, research conducted by the Department of Energy on reactor damage during the accident, indicates temperatures may have reached in excess of 4,800 degrees. In October 1985, removal of damaged fuel from TMI-2 began.
- 3. On April 11, 1984, William Pennsyl settled out-of-court two days before an administrative law judge was scheduled to hear his case relating to GPU's refusal to allow Pennsyl to wear a respirator during cleanup activities.
- By 1986, TMI-2 defueling work force peaks at 2,000, but by 1989, after ten years of defueling activities, 5,000 TMI workers have received "measurable doses" of radiation exposure.
- 4. Pennsylvania's TMI study clouded by survey method doubts, Frank Lynch, "Sunday Patriot-News", Front Page, Harrisburg, PA, October 6, 1985.
- 5. Study available from the TMI Public Health Fund, 16223 Locust Street, Philadelphia, PA 19103, 215-875-3926.
- 6. In November, 1980, the United States Court of Appeals for the District of Columbia ruled that the krypton venting (June-July, 1980) was illegal.
- 7. In 1980, the Susquehanna Valley Alliance, based in Lancaster, successfully prevented GPU/Met Ed from dumping 700,000 gallons of radioactive water into the Susquehanna River. Ten years later, in December 1990, despite legal objections by TMI Alert and the Susquehanna Valley Alliance, GPU began evaporating 2.3 million gallons of accident-generated radioactive water (AGW).
- By August, 1993, evaporation of 2.3 million gallons of AGW was completed more than six months behind schedule. The evaporator was disassembled and removed from the site. And on October 28, 1993, according to the Pennsylvania Department of Environmental Resources, the total activity during evaporation was 658 curies of tritium or 1 to 1.3 MR dose to the public.
- 8. By 1985, TMI had paid at least \$14 million for out-of-court settlements of personal injury lawsuits. The largest settlement was for a child born with Down's Syndrome. Most of the cases were "sealed," and only those cases involving "minors" are published as prescribed by the rules and regulations of Pennsylvania's Orphan's Court.
- 9. On June 12, 2000, the United States Supreme Court, without comment, rejected an appeal by GPU to throw out 1,990 health suits. On May 2, 2001, the Third Circuit Court ruled that "new theories" to support medical claims against Three Mile Island will not be allowed.
- 10. New Study Shows Higher Cancer Rate near Three Mile Island Nuclear Power Reactor Meltdown. Researchers at University of North Carolina at Chapel Hill have published, in the journal Environmental Health Perspectives (February 24, 1997), a re-evaluation of the health effects near Three Mile Island. They have found chromosomal damage and higher cancer rates than previously reported, suggesting radiation levels were higher than official estimates. Copies of the study may be requested at: 919-541-3345.
- 11. December, 1993, GPU placed TMI-2 in Post-Defueling Monitored Storage. On October 17, 2001, due to a "credible threat" against Three Mile Island, the Harrisburg and Lancaster airports were closed for four hours, air travel was restricted in a 20-mile radius, and fighter jets were scrambled around TMI.