

# Rep. Markey: New Study Suggests Infant Mortality Associated With Radiation From Reactors

## U.S. Representative Questions NRC on Health Risks of Living Near Reactors

Washington, DC — Rep. Edward Markey, D-Massachusetts, a senior member of the House Energy and Commerce Committee, the panel which oversees nuclear power regulation, released a letter Feb. 18, 2005 he sent to the Nuclear Regulatory Commission (NRC) regarding health risks for communities close to nuclear reactors. A new study by Dr. Ernest Sternglass of the University of Pittsburgh suggests that infant mortality increased significantly in 2002, after operating capacity at 104 nuclear power stations reached its highest level.

“The nuclear industry and the NRC have automatically dismissed all studies that link increased cancer risk to exposure to low levels of radiation,” Rep. Markey said. “The reality is that the data suggest that we should be taking this potential linkage much more seriously.”

Rep. Markey’s letter to the NRC was motivated by the ordeals of the Sauer family, former residents of Minooka, Illinois, which is located close to the three Dresden power reactors. The family recently relocated because of concerns about the health impacts associated with living near the Dresden site, which were heightened because of their daughter’s brain cancer.

In June 2003, the NRC was presented with data obtained from the Illinois Department of Public Health (IDPH) that indicate that in Grundy County between 1995-99, the infant mortality rate doubled and there has been a nearly 400% increase in pediatric cancer. In the same period, there has

been a 38% increase in cancer among those aged 28-44 years old (while the same statistic for all of Illinois decreased by 8%). Moreover, other statistics show that the incidence of leukemia was 50% higher in men and 100% higher in women in Grundy County than it was in the rest of Illinois. In its responses to the Sauers, NRC personnel ignored these statistics and instead cited a 1990 National Cancer Institute study entitled “Cancer in Populations Living Near Nuclear Facilities,” which has numerous flaws in design, since, as the authors themselves stated, the limitations in the study were accepted so that, “it could be completed in a time frame that was relatively short for a survey of such magnitude.”

In addition to the Sauer case, Rep. Markey’s office has been made aware of additional studies and data:

\* On Feb. 18, Dr. Ernest Sternglass released data at the American Association for the Advancement of Science meeting in Washington, DC indicating a spike in infant mortality that occurred in 2002, coming after operating capacity at 104 U.S. reactors reached its highest levels, and increased at the highest rate, between 1997 and 2001. His work also refers to a scientific paper indicating that low level radiation exposure during pregnancy is directly related to low birth weight which — in addition to infant mortality — has been implicated in numerous chronic diseases, including autism, asthma, cognitive dysfunction, rheumatoid arthritis, anemia, obesity, heart disease and cancer.

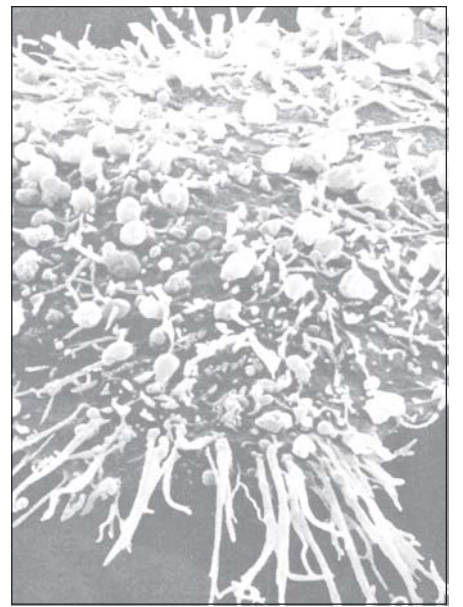
\* A 2003 article by Joseph Mangano *et al* in *Archives of Environmental Health* found elevated levels of childhood cancers in populations living within 30 miles of nuclear

reactors between 1988-1997. For example, in Plymouth County, Mass. (near the Pilgrim Power reactor), there was found to be a 14.6 percent increase in the numbers of childhood cancers as compared to the rest of the country. And in Essex County, Mass.

and Rockingham County, New Hampshire (near the Seabrook Power reactor), there was found to be a 24.8% increase in the number of childhood cancer mortalities.

Rep. Markey’s letter concluded, “The NRC needs to study — not summarily dismiss — the connection between serious health risks and radiation released from nuclear reactors. I am urging the agency to investigate these risks and I will continue to closely monitor the NRC’s progress.”

For a copy of Rep. Markey’s letter to the NRC please see [www.house.gov/markey](http://www.house.gov/markey)



A magnified breast-cancer cell. (Source: Time, May 28, 2001)

## Tsunami Hit Reactor Site 61 Dead, 300 Missing

By John LaForge

“All governments lie. Nothing they say should be believed.”  
— I.F. Stone

CHENNAI, India — The Kalpakkam power reactor and uranium reprocessing complex on India’s southeast coast was slammed by the Dec. 26 tsunami. “Protection walls on the seashore simply disappeared without a trace,” the Indo-Asian News Service (IANS) reported.

India’s National Security Advisor, J.N. Dixit, acknowledged from New Delhi that 61 people, including 31 reactor site workers, died from the crushing water. According to the government, one reactor was already shut off, and the other was shut down immediately when its cooling water intake ducts were overwhelmed. The second power reactor was restarted seven days after the disaster.

In a Jan. 2 story for the news service *Truthout.org*, J. Sri Raman wrote, “At least 60 lives were reported lost in the employees’ township and some 250 in the rest of the area. The toll, unofficially much higher, has kept mounting since then.”

Many of the victims were simply carried away by giant waves from inside the nearly 500 houses destroyed in the sprawling town. According to the South Asian Community Center for Education and Research more than 1,000 houses were damaged at Kalpakkam.

United Press International (UPI) also reported the allegation by the reactor’s Casual Contract Laborers’ Federation that 300 workers were missing from the Prototype Fast Breeder Reactor site, a part of the Kalpakkam facility whose foundation pit was flooded by the tsunami.

Not many workers are willing to return to the nuclear reactor site, fearing it may not be safe, UPI’s Harbaksh Singh Nanda wrote Jan. 25. Workers’ unions at Kalpakkam plan to file a law suit charging there is “a serious lack of qualified technical personnel at critical positions of the ... reactors” and that the shortage compromises the safety of the reactors and the public, IANS reported.

### Spin control in high gear

Soon after the inundation, government authorities hastily got their story together, and a Dec. 28 wire report from the capitol included the standard nuclear power lullaby, “Allaying fears, the government today said that the nuclear power plant in Kalpakkam in [the state of] Tamil Nadu was ‘safe’ in the wake of the tsunami disaster and there was no threat of radiation.”

The gravity of the accident was evident from the fact that the government’s highest officials held an emergency meeting December 28, presided over by Prime Minister Manmohan Singh himself.

National Security Advisor Dixit immediately emerged from the meeting and told reporters, “There has been inaccurate speculation on the effect of tsunami tidal waves on Kalpakkam. The basic facilities of the reactor are safe and unaffected in any manner. Both units are safe and there is no danger of any radiation.” Dixit added that the Prime Minister has asked for daily briefings on the situation.

Raman’s *Truthout* report notes that, significantly, not a word was said about the reprocessing site and its central waste management facility in particular, or the test reactor, “the most crucially radioactivity-linked components of the complex. India’s nuclear establishment is not known for innocent or accidental omissions in statements of this kind.”

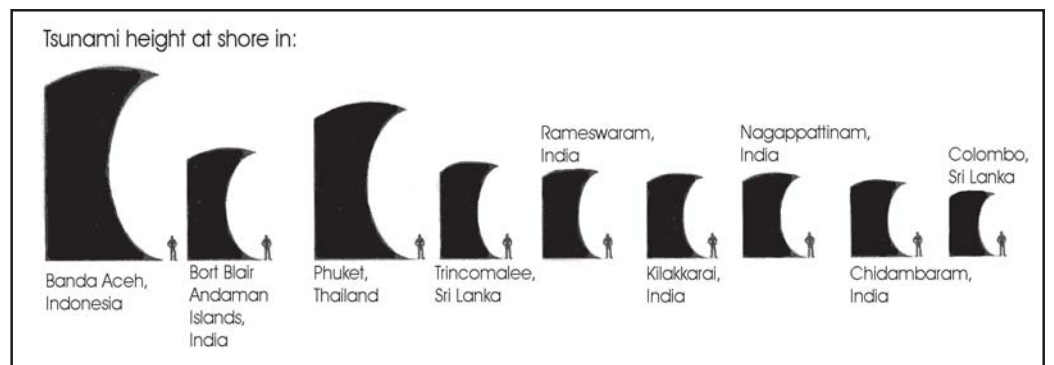
The potential for a radiation disaster at Kalpakkam is enormous because the facility includes two pressurized heavy water reactors and a test reactor, a waste reprocessing facility, an under-construction prototype fast breeder reactor or PFBR, and a military tritium extraction program.

Tritium is radioactive hydrogen, or “H,” used in thermonuclear weapons. Paul Gunter of the Nuclear Information and Resource Service (NIRS) in Washington reports that Kalpakkam “put the ‘H’ in India’s H-bomb.”

Uranium reprocessing and tritium production — always done in secret for the military — are notoriously dirty engineering problems. They involve gigantic, mechanically remote handling of waste fuel that is too radioactive to manipulate manually. The reprocessing and the tritium extraction all have to be done underneath millions of gallons of cooling water, which in turn becomes highly contaminated waste.

Both heavy water reactors are relatively small: 170 and 220 megawatts, compared to Wisconsin’s pair of 520 MeW reactors at Point Beach on Lake Michigan.

Whether the official declaration of “allaying fears” worked to dampen the panic in the state of Tamil Nadu is very hard to confirm. As *Truthout*’s Raman noted skeptically, “The [government’s] incomplete and almost instantaneous post-tsunami report preemptorily ruled out any damage to



The graphic above illustrates the height of the tsunami in various locations as it struck land. (Source: *New York Times*)

the complex. Even more emphatically, it denied any radioactive leak. However, the official report acknowledged the havoc in the entire Kalpakkam area.”

The UPI’s Jan. 25 report said, “Although India claims that its nuclear reactors ... withstood the tsunami lashes, workers and local residents around the Kalpakkam nuclear facility are feeling insecure and unsafe after the facility was deluged.”

Dozens of questions are left unanswered by the minister’s announcement. Paul Gunter said he wanted to know, “Were the reactors inundated? Was there a loss of power to the site that would shutdown heat removal from the extremely hot waste fuel? Was there radioactive waste stored above ground that was smashed and dispersed?”

Kalpakkam’s projects involve tons of solid radioactive waste fuel and millions of gallons of liquid wastes. Because of secretive nuclear weapons programs on site, government assurances that there is “no danger” are especially unreliable.

As J. Sri Raman noted in his report, “No one can easily dent the disaster-proof secrecy that surrounds any nuclear program. We have to wait for a full report on the damage. And, we may only wait in vain.”

## NRC Tightens Security Rules for Frequently Stolen Portable Radioactive Gauges

The Nuclear Regulatory Commission is getting tough, slamming a nuclear barn door after the radiation has escaped.

The agency is tightening its regulation of portable gauges that contain radioactive cesium and Americium. The gauges are typically used to test the density and moisture content at construction sites.

Because a record number of the gauges have been lost or stolen from construction sites, the NRC has established the tighter controls.

The new regulation will require two separate lock systems, or “independent physical controls” for the gauges when they are not in use or under constant surveillance by the license holder.

The NRC says there are about 22,000 to 25,000 of these gauges in use in the United States. The gauges are encased in stainless steel and called “sealed sources.”

However, the companies that sell them also sell “leak test kits” as required by law.

The NRC’s Regulatory Analysis (RA) for the rule change says that a typical gauge contains 8 to 10 millicuries of cesium-137 that produces gamma radiation, and 40 to 50 millicuries of americium-241 a “neutron source.” The gamma radiation is for measuring density, and the neutron radiation measures moisture content.

The NRC said in its January 15 press release that about 50 such gauges are reported stolen each year, with the

recovery rate less than 50 percent. The RA acknowledges that 450 gauges were stolen since 1990.

The NRC said that the missing gauges pose “a potential radiation hazard,” and “environmental concern if abandoned, inadvertently recycled or used inappropriately.” Indeed, neutrons are among the most biologically destructive of the fission products that come out of nuclear reactors.

Even with over 25 of these gauges going missing every year, the NRC sees no pattern to the slippage that might suggest ‘dirty bomb’ skullduggery. The NRC is increasing this security requirement based on health and safety considerations rather than common defense and security concerns.

Many of the gauges are produced by Troxler Inc., in North Carolina, which calls itself the leader in construction test equipment. Troxler’s web site explains how users of its gauges can conduct their own leak tests. Such tests are required every 6 months.

A two-control system might be a locked storage facility inside a separate secured area in a warehouse, or inside a locked van and secured to the vehicle with a steel cable. NRC-approved safe storage in a pickup truck — from which most of the stolen gauges were taken — include a locked, non-removable box and further securing the box with a steel cable or chain. That oughta do it!