

Tell NRC to close Limerick nuclear plant

One event, one worst-case scenario, can trigger a catastrophe of unthinkable proportions at Limerick Nuclear Power Plant. Whether a natural disaster or terrorist attack, by relicensing Limerick, the Nuclear Regulatory Commission would be playing Russian Roulette with the lives of over 8 million people. Tell NRC to close Limerick Nuclear Plant by 2029.

Limerick Nuclear Plant is a ticking time bomb. Large volumes (over 6,000 assemblies-1,000 tons), of Limerick's highly radioactive wastes (spent fuel rods) — are

**Guest
Columnist**

stored in densely packed fuel pools, elevated five stories above and outside the reinforced containment structure for the reactor. Limerick's design is similar to reactors in melt-downs at Fukushima. Roof-top fuel pools are highly vulnerable to loss of power and cooling water from an earthquake or other natural disasters, in addition to a variety of attacks by terrorists.

With loss of cooling water, Limerick's fuel rods can heat up, self-ignite, and burn in an unstoppable fire, causing tens of thousands of deaths up to 500 miles away, according to a 2000 NRC study. Especially vulnerable to aircraft penetration, Limerick's fuel pools can be turned into weapons of mass destruction. Still, Exelon has not been required to spend the money to guard Limerick against terrorist missiles or air strikes.

Dry cask storage and transport are also very dangerous. It's time to close Limerick and stop producing such deadly waste for which there is no safe solution.

Exelon, Limerick's owner, is shamelessly asking to run Limerick harder through up-rates and longer with relicensing. Both increase Exelon's profits, but will drastically multiply our already extraordinary environmental harms and threats.

As long as Limerick operates, harms to us and our environment will increase. Limerick's harmful environmental impacts are unprecedented. After an 11-year investigation on Limerick's routine radiation releases, plus permits for major air pollution and all kinds of dangerous water contamination, it is clear that Limerick's energy is not just dirty, it's filthy.

Evidence compiled revealed alarming facts involving Limerick Nuclear Plant's:

- Routine radiation releases into the region's air
- Radioactive wastewater discharges into the Schuylkill river, 24 hours a day, 365 days a year
- Radioactive groundwater contamination
- Radionuclides associated with Limerick's operations detected in our soil, sediment, vegetation, fish, water, and milk.

Research confirmed radiation in our children's baby teeth

Major air pollution under health based standards of the Clean Air Act — 32 sources listed

Drastic harmful increases permitted in particulate matter (pm-10) from Limerick's cooling towers — other air pollution increases also permitted

Dangerous depletion of the Schuylkill river, a vital drinking water source for almost two million people from Pottstown to Philadelphia. Depletion will continue as long as Limerick operates

Contaminated unfiltered mine water pumped into the Schuylkill to operate Limerick

Alarming cancer increases, far higher than the national and state averages, since Limerick started operating

Infant and neonatal mortality rates far higher than the state and large nearby cities

For details, www.acereport.org See videos and summarized information on some issues investigated by ACE. To request a meeting or to view permits, research, etc. call ACE at 610-326-2387.

It's unconscionable for NRC to relicense Limerick. Every year Limerick operates, more radiation will get into our environment and us from Limerick's routine radiation releases, more people will suffer, get cancer, and other serious diseases and disabilities associated with Limerick's routine radiation emissions and other dangerous toxics.

The NRC is holding two meetings on Limerick's Environmental Impacts, at Sunnysbrook Ballroom in Pottstown, Thursday, Sept. 22, at 2 and 7 p.m. Get your objections on NRC's public hearing record — after NRC's presentations. Note: Beware of tricks and traps — comments to NRC or Exelon at tables prior to the meetings won't count for the record.

It's about your future. Limerick Nuclear Plant is continuously poisoning your environment and your children with a broad range of radionuclides and other dangerous pollutants. Limerick can't be made failsafe from a potential disaster. Protect your family. Don't pass up this opportunity to make your voice heard at the NRC meetings.

For more detailed information www.acereport.org. Can't attend the meeting, but want Limerick closed? Call or e-mail ACE 610-326-2387 aceactivists@comcast.net. Join a growing list — leave your name, phone, e-mail, and address.

DR. LEWIS CUTHBERT
ACE President

10/20/11

NRC should not be cheerleader for nuclear industry

This is about F. J. Remick's comments in a letter on Oct. 3 regarding ACE's Dr. Lewis Cuthbert's letter on Sept. 19.

Dr. Remick appears to find that Dr. Cuthbert plays "loose with facts" about nuclear energy. However, Dr. Remick gives no supportable facts of his own, only innuendo and assumptions.

The claims in Dr. Cuthbert's letter can be footnoted and sources cited and in fact Dr. Cuthbert offers to meet and show sources, "view permits, research, etc." and offers a phone contact number.

It's pretty scary to think that the Nuclear Regulatory Commission's (NRC) commissioners think as Dr. Remick does. Isn't the NRC there to protect us and be fair? Are NRC commissioners supposed to be cheerleaders for the nuclear industry?

If Dr. Remick has studies to back up his claims, please let him tell us who did them, who

paid for them and where the money came from.

Dr. Remick claims that only a "small fraction" of radioactive material in the plant (Fukushima) was released. So what? A "small fraction" of a huge whole might be a lot.

The Natural Academy of Sciences has said there is no safe level of exposure to radiation. The safe number is zero. So, even if the exposure is from an imaginary fraction, it is unsafe.

TINA DALEY
Phoenixville

NRC fails to take threats seriously

We are fortunate to have the Mercury, a newspaper willing to disclose critical facts (June 5, 2011) about risks from Limerick Nuclear Plant related to earthquakes, floods, and fires. Limerick may be unable to prevent damage from flood or fire if struck with an earthquake.

Limerick is third on the nation's earthquake risk list. Philadelphia, only about 20 miles away, was just struck with a minor earthquake.

NRC confirmed some elements uncovered by inspectors, "could adversely impact the plant's fire and flood mitigation capabilities," including those Limerick was designed to withstand.

Unfortunately, NRC repeatedly fails to take threats seriously enough to require Exelon to take the most immediate protective actions. History shows NRC says and does whatever benefits Exelon and their profits, regardless of extraordinary threats to our region. For example:

- Fires can trigger meltdowns, yet NRC allows Limerick to use a weaker set of regulations which they have called "Safe Enough." Violations go unaddressed for long periods. And one-hour fire barrier material is used which fails to consistently provide protection.

- Eight hours of back-up power fell far short in Japan, yet Limerick may not even have four hours available. Still, NRC's inspection report claims emergency generators and batteries were "adequate" to respond to loss of power. Absurd! Outages could last days.

NRC claimed to be learning lessons from Japan. If true, they would close Limerick, not relicense it until 2049. Limerick reactors are GE Mark 2 designs, similar to Japan's Mark 1, relicensed just weeks before the Fukushima disaster. NRC records confirm Limerick has substandard containment allowing more radiation to be released in a disaster.

The longer and harder Limerick operates the more all risks for disaster increase. ACE has long been concerned about a catastrophic meltdown at Limerick triggered by fire, mechanical failure, human error, other natural disasters like a severe tornado, or a terrorist attack with a plane or missile. Now, there's serious concern about a meltdown from a terrorist's cyber attack, just declared an act of war. Suspected terrorists were even recently arrested near a nuclear plant in England.

We don't need power that routinely radiates our air, water, soil, food, and our children, threatens our drinking water supply,

or that can suddenly turn us into nuclear refugees and change our way of life forever, or even kill us. We face losing our homes and everything else, possibly forever, with no compensation. Your insurance won't pay for a nuclear disaster or associated medical bills.

Relicensing Limerick for another 20 years (60 years total) is like playing Russian Roulette. Limerick should close as soon as possible. Don't be deceived by Exelon's scare tactics. Closing Limerick won't leave us without power. When nuclear plants closed elsewhere, lights stayed on. Exelon should retrain workers now.

Facts show we can produce energy that won't threaten to destroy our future. With the political will to get it done, far less dangerous, less polluting, and cheaper ways to replace Limerick's electric can be reality in several years.

Other states' officials are speaking out and/or taking action against nuclear power to protect their citizens. Vermont's state legislature wants to close Vermont Yankee. Governor Cuomo wants to shut down Indian Point. In California there is a movement to shut down two nuclear plants they call ticking time bombs. In Maryland and Texas new construction plans have been abandoned.

Pennsylvania officials still remain silent or support nuclear power, in spite of ACE's repeated warnings about Limerick and dangerous plumes of radiation which continue to blow toward the U.S. from Japan.

That's unacceptable!

There's no failsafe way to prevent a meltdown at Limerick or to eliminate routine radiation emissions. To protect us from a nuclear nightmare, it's time officials take responsible action to close Limerick Nuclear Plant.

Precaution is imperative. Almost eight million people live within 50 miles of Limerick, with Philadelphia only 20 miles downwind, downstream. It's impossible to safely evacuate, house, and feed that many people after a Limerick disaster. Taxpayers can't afford the \$1 trillion NRC estimates just one nuclear disaster could cost. The nuclear industry pays only \$12 billion.

Tell your elected officials you want them to protect your family's future, not Exelon and their profits. Ask them to oppose Limerick relicensing and uprates.

See why Limerick must be closed — www.acereport.org Add your name, phone, and e-mail to the growing list who want Limerick closed, not relicensed.

DR. LEWIS CUTHBERT
ACE President

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U.S. nuke regulators weaken safety rules

AP investigation: Standards being compromised to keep plants running

First of four parts

By Jeff Donn
AP National Writer

LACEY TOWNSHIP, N.J. — Federal regulators have been working closely with the nuclear power industry to keep the nation's aging reactors operating within safety standards by repeatedly weakening those standards, or simply failing to enforce them, an investigation by The Associated Press has found.

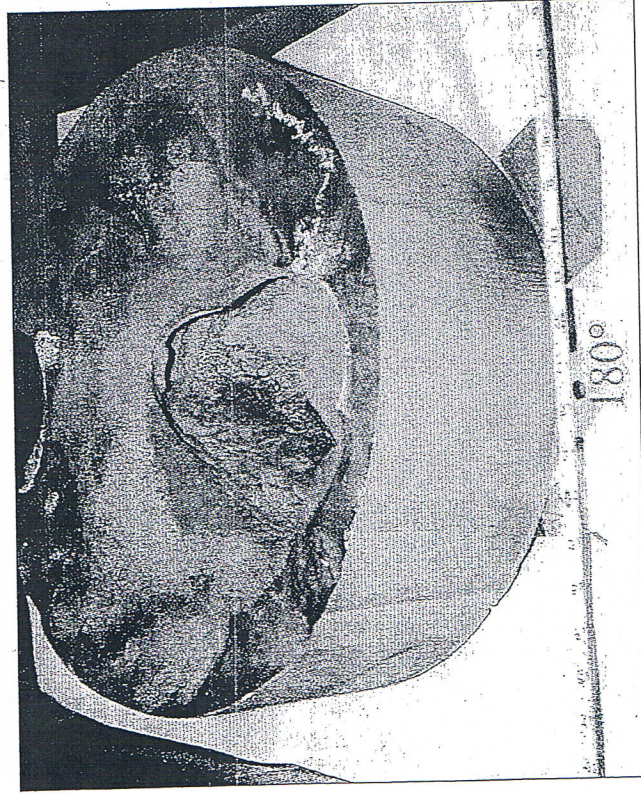
Time after time, officials at the U.S. Nuclear Regulatory Commission have decided that original regulations were too strict, arguing that safety margins could be eased without peril, according to records and interviews.

The result? Rising fears that these accommodations by the NRC are significantly undermining safety — and inching the reactors closer to an ac-

cident that could harm the public and jeopardize the future of nuclear power in the United States. Examples abound. When valves leaked, more leakage was allowed — up to 20 times the original limit. When rampant cracking caused radioactive leaks from steam generator tubing, an easier test of the tubes was devised, so plants could meet standards.

Failed cables. Busted seals. Broken nozzles, clogged screens, cracked concrete, dented containers, corroded metals and rusty underground pipes — all of these and thousands of other problems linked to aging were uncovered in the AP's yearlong investigation. And all of them could escalate dangers in the event of an accident.

Yet despite the many problems linked to aging, not a single official body in government or industry has studied the overall frequency and potential (See AGING NUKES on A3)



AP Photo
This photo made available by the Nuclear Regulatory Commission shows a 5-by-5-inch hole in a section cut from the top of the reactor vessel at the Davis-Besse nuclear plant in Ohio.

6/5/11

Concerns about nuclear safety remain unanswered

I attended the Nuclear Regulatory Commission meeting about Limerick Nuclear Plant safety and issues related to Japan's nuclear disaster. "Limerick plant ranked 3rd on U.S. quake-risk list," (Mercury article 3-17-11), yet NRC couldn't or wouldn't answer my question about the exact location of the fault line closest to Limerick. Someone claimed it went through the Limerick site. Now I'm really curious.

Even after Japan, the Nuclear Regulatory Commission and PA Emergency Management Agency appear unchanged, unrealistic, and irresponsible. There's no plan to expand the evacuation zone or accommodate for the direction of a radioactive plume from Limerick.

Evacuation was discussed. The school evacuation plan is a "Paper Tiger." PEMA's comments suggested they are relying more on a theoretical model and plan for evacuation than reality. I talked to a teacher, principal, and superintendent who believes PEMA evacuation "drills" are limited exercises typically not requiring complete physical evacuation, focusing on communications and check lists.

During a terrorist attack or accident at Limerick Nuclear Plant, you better hope your children aren't in school. My child's school said no one would be issuing KI pills, even if I provided them, because there's no personnel to distribute them. PEMA's representative was dismissive of my concerns, claiming all schools are capable of distributing KI pills.

It was reported some bus drivers said they wouldn't return for a second run after radioactive fallout from Limerick. PEMA claimed there were enough buses to evacuate all chil-

dren from elementary, middle and high schools in one run. Doubtful! Even if true, there wouldn't be enough qualified, licensed, or experienced drivers for one run from all schools in the 10-mile zone.

NRC said it would take nine months to decide if improved safety and security are needed. That's unacceptable. Limerick keeps having mechanical problems. Limerick's Unit 2 shut down again 5-29-11 from electrical malfunction (Mercury). February, the same reactor shut down due to recirculating pumps. During 2007, there were five unplanned shutdowns and loss of cooling water that couldn't be explained 15 days later. An earthquake just hit Philadelphia. 2011 is already the deadliest year for tornadoes. Limerick's spent fuel storage poses unacceptable risks. An Al-Qaida suspect worked at Limerick (2002 to 2007) during refueling. A Limerick guard altered his license to hide arrests. Small planes can cause fire which can trigger a meltdown, yet planes and helicopters still fly in and out of Limerick Airport, just a mile away. Helicopter trips are made back and forth to the Pottstown hospital, about a mile away.

NRC just approved plans to operate Limerick harder, and may soon approve Limerick operations 20 years longer (until 2049). Both are far too risky. Say no to running Limerick harder and longer. Forty years of such risks and threats are more than enough.

We must have immediate improved precaution and prevention at Limerick Nuclear Power Plant. Without your voice that won't happen.

LORRAINE RUPPE
Pottstown

Post-Japan nuke inspection raises questions

Lessons come from things gone wrong.

That was the essence of the NRC's Paul Krohn's comments during an annual community briefing on the post-Japan inspection of Exelon's Limerick Nuclear Generating Station.

Krohn said the biggest advances in nuclear safety have come as a result of what is learned in the wake of the biggest disasters, such as Chernobyl and Three-Mile Island.

Now, the NRC is trying to learn from the events at Japan's Fukushima Daiichi plant that occurred as the result of the March 11 earthquake and tsunami.

What they are learning as it relates to Limerick bears a closer look.

The NRC recently initiated a series of preliminary inspections at all 104 of the nation's nuclear plants, including Limerick.

The results of the inspections at Limerick indicate some systems, structures and components "could not be relied upon to fulfill their flood mitigation function following a design basis earthquake."

Examples cited by the inspectors include the potential that turbine buildings' flood and fire prevention seals might not tolerate a "seismic event."

NRC spokesman Neil Sheehan noted that any findings that raised questions were on issues that went beyond what would be considered normal. In other words, it's not realistic to expect a tidal wave in Montgomery County, Pennsylvania.

But at the same time the NRC is studying the events in Japan, geological data is being re-evaluated showing that earthquakes are more likely in Pennsylvania than was once believed.

The realization that the region has potential for an earthquake along with renewed areas of concern brought to light in inspections is certainly good reason for more analysis with a critical eye.

The greatest lesson to be learned from Japan is that worst-case scenarios can occur, and when they do, a nuclear plant can become the center of spreading disaster.

"That will never happen here" is a dangerous attitude.

Rather, Exelon and the NRC should work to insure that every scenario is addressed with adequate safety measures — especially the worst-case ones.

4/12/11

NRC approves power increase at Limerick plant

By Mercury Staff

LIMERICK — The capacity of the two nuclear reactors at Exelon Nuclear's Limerick Generating Station will soon increase by 1.65 percent as the result of a decision by the federal government.

On Monday, the Nuclear Regulatory Commission announced it had approved

Exelon's request to increase the plant's generating capacity.

Called an "uprate," the change will increase the generating capacity of each nuclear generator from 1,189 megawatts to 1,205 megawatts, according to an NRC release.

Exelon intends to implement Unit 1's increase within 90 days. For Unit 2, the

increase will be implemented 90 days after the completion of its 2011 spring refueling outage.

In making the decision the NRC evaluation focused on the nuclear steam supply systems, instrumentation and control systems, electrical systems, accident evaluations, radiological consequences, fire protection, operations and training, testing

and technical specification changes.

According to the release, the NRC decided the increase could be done safely due to the availability of more accurate measurement of the flow of feedwater.

"NRC staff reviewed the company's analysis showing the plant's design can accommodate the increased power level," the NRC wrote in its release.

LIMERICK NUCLEAR PLANT'S

POWER INCREASES - CALLED "UPRATES"

WILL INCREASE HARMS AND THREATS

GREEDY EXELON IS REQUESTING

EVEN LARGER INCREASES AT LIMERICK

READERS' VIEWS

Sleeping security guards at nuclear plants is unacceptable

A Wackenhut security guard was caught sleeping on the job at Limerick Nuclear Power Plant (Mercury article July 2006). Exelon just fired Wackenhut at Peach Bottom for the same negligence, yet Exelon has no plans to change security at Limerick (Mercury story Jan. 26).

How can Exelon justify that when Wackenhut security guards were sleeping on the job at both nuclear power plants?

It's not a question of whether a disaster occurred as a result of multiple sleeping guard incidents at Limerick, Peach Bottom, and TMI. The real issue is that it could have. It would only take one terrorist attack to turn Limerick Nuclear Power Plant into a weapon of mass destruction, with devastating harmful health consequences to hundreds of thousands of people across our entire region and many hundreds of billions in financial consequences to the public.

At the Nuclear Regulatory Commission (NRC) annual meeting in Limerick on April 16, ACE urged Exelon to replace Wackenhut as the security firm for Limerick Nuclear Power Plant. NRC said they weren't concerned, but asked ACE to identify our concerns in a written statement, which we did. However, NRC failed to provide an adequate written response.

The question is — why wasn't NRC concerned? They should have been, given the facts.

Exelon's security firm has proven to be unreliable for a host of reasons identified in a report titled, *"Homeland Insecurity: How the Wackenhut Corporation is Compromising America's Nuclear Security."* www.EyeonWackenhut.com.

Congressional Quarterly reported March 11, 2006, that because of various security lapses, Wackenhut lost the contract to provide security services at the Department of Homeland Security's Washington, D.C. headquarters.

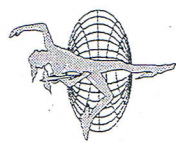
NRC has been negligent in security oversight. In

a clear conflict of interest, NRC permitted Wackenhut to be in charge of testing itself in simulated "force-on-force" terrorists' attacks. With so much at stake, how can we afford to have an unreliable fox watching the Limerick Nuclear Power Plant hen house?

There is a window of opportunity to review Exelon's practice of outsourcing security. Governor Rendell needs to order an independent assessment of security at Pennsylvania nuclear plants and in the meantime deploy our National Guard and State Police to cover any gaps created by Wackenhut's incompetence.

ACE urges every resident to express concern to all elected officials today. Ask them to speak up now to protect your family before there is a disaster that could have been avoided. Wackenhut has been unreliable. Exelon's firing of one sleeping security guard at Limerick fails to eliminate the systemic threat. When Exelon is firing Wackenhut at Peach Bottom for the same thing, this region's residents should demand nothing less at Limerick.

ACE Board of Directors



The Mercury

OPINION

ANOTHER VIEW

NRC has a terrible track record

In response to the Jan. 20 guest column by the NRC, instead of improving security at Limerick Nuclear Power Plant and reducing threats from high-level radioactive waste storage, the Nuclear Regulatory Commission's public relations person, Neil Sheehan, painted a distorted view of reality. Predictable spin, based on NRC's track record! NRC's principal interests appear to be assisting the nuclear industry in keeping regulatory burdens and expenses to a minimum.

NRC has been called on the carpet and exposed many times by the media, for its lack of action on security, specifically nuclear waste, including Time Magazine in 2005 and The National Academy of Sciences Report on "Safety and Security of Commercial Spent Nuclear Fuel," April 6, 2005 (www.nirs.org).

NRC refuses to require nuclear power plants to guard against missile or air strikes by terrorists. Is this a responsible agency?

Mothers for Peace took NRC to court over the terrorist threat in California's Ninth Circuit and won. This decision should be applied at Limerick.

NRC irresponsibly dismissed ACE requests for protection against missile or air strikes by terrorists at Limerick. A terrorist attack at Limerick could be catastrophic with over half a million illnesses, deaths, and cancers, and hundreds of billions of dollars in costs calculated for Congress in 1982. Since then, there's over 120 percent population growth. Safe evacuation is highly unlikely. Prevention is crucial. Deadly high-level radioactive wastes will now be stored above ground in hard to miss casks.

NRC's scientific misconduct continues to surface, according to Public Citizen's comments to Congress, September 2006. Example: NRC's own fall 2005 research shows steel to hold high-level radioactive wastes will corrode. Instead of demanding more stringent designs, NRC criticized the research (www.citizen.org).

October 2006 NRC admitted to ACE that corrosion will take place on steel holding Limerick's high-level radioactive waste, yet claimed they're not concerned. Why not? Limerick's deadly high-level radioactive waste will outlive any container in which it is placed today, and could remain in Limerick for decades, if not forever. Yucca Mountain may never open.

Concerning length of time Limerick's deadly "spent fuel" must be kept in fuel pools before removal and placement in above ground casks to avoid a disaster from overheating and fires, NRC first said five years. June 2006, NRC wrote one year. July 13, 2006, NRC stated five to 10 years.

Two weeks later, NRC wrote one, three, or five years. This speaks volumes.

July 2006, NRC admitted they would wait hours or days to inform residents of a Limerick accident or attack, based on radiation levels released. Indefensible! June 2005, the National Academy of Science Report said there is no safe level of radiation exposure. NRC's failure to immediately inform families will unnecessarily jeopardize them, especially fetuses, children, and those already sick.

How radioactive is spent fuel? Ten years after removal from fuel pools, a radiation dose from "spent fuel" could be four times higher than a dose causing immediate incapacitation and death within one week according to an NRC pamphlet. Polonium 210, a radionuclide recently used to kill a Russian agent, is just one of 211 radioactive poisons found in ten-year-old spent fuel bundles (Canadian study). Polonium 210 and other radioactive poisons in spent fuel are easily airborne and deadly in extremely low doses. Yet, NRC says they're not concerned about cask penetration or leaks.

NRC's Sheehan falsely asserts there are safe solutions for management of lethal high-level radioactive wastes and that moving it does not increase risks. Evidence and common sense suggest otherwise. Just because there's not yet been a catastrophic accident or attack does not mean it's safe:

- Nuclear waste, an unprecedented lethal legacy, has been accumulating for 60 years and we don't know what to do with the first cupful.
- EPA may require Yucca Mountain to be monitored for a million years.
- Scientific research shows Yucca Mountain is an environmental disaster in the making.
- Many incidents and accidents occurred in the short time above ground casks have been used.
- Fuel pools contain huge amounts of deadly waste, vulnerable to terrorist attacks and accidents.
- Recent train and truck accidents confirm that transporting massive amounts of deadly high-level radioactive wastes across our nation to Yucca Mountain is inviting disaster.

Clearly, NRC won't do the right thing unless required by federal officials. Contact federal officials before a disaster occurs at Limerick Nuclear Power Plant. We need security against missile and air strikes by terrorists. NRC must not be allowed to dismiss cask design flaws and corrosion without an independent, comprehensive, site-specific investigation.

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Guest
columnist