

WHY WE SHOULD NOT TRUST EXELON

EXELON, THE COMPANY WITH A VESTED INTEREST, CONTROLS ALL MONITORING, TESTING, AND REPORTING FOR LIMERICK NUCLEAR POWER PLANT OPERATIONS.

THERE HAS NEVER BEEN COMPREHENSIVE CONTINUOUS INDEPENDENT MONITORING, TESTING, OR REPORTING TO PROVIDE FULL AND ACCURATE DISCLOSURE ON ALL LIMERICK NUCLEAR POWER PLANT HARMS AND THREATS (PAST OR PRESENT).

ALL NRC CONCLUSIONS AND ASSURANCES ARE BASED ON EXELON'S BIASED AND UNSUBSTANTIATED REPORTS. NRC NEVER DID MONITORING OR TESTING AT LIMERICK NUCLEAR PLANT, EVEN THOUGH THE NUCLEAR REGULATORY COMMISSION (NRC) IS RESPONSIBLE FOR PROTECTING US FROM LIMERICK'S THREATS TO HEALTH AND SAFETY.

BECAUSE WE CAN'T TRUST BASELINE DATA, IT IS VIRTUALLY IMPOSSIBLE TO ACTUALLY DETERMINE THE FULL EXTENT OF HEALTH AND SAFETY RISKS AND HARMS WE WILL FACE IN THE FUTURE FROM LIVING IN THE REGION AROUND LIMERICK NUCLEAR POWER PLANT. WE CAN'T BE SURE OF THE HARMS THAT WILL BE CAUSED TO OUR HEALTH AND THE ENVIRONMENT FROM LIMERICK'S ROUTINE RADIATION EMISSIONS, EVEN UNTIL LIMERICK'S ORIGINAL LICENSE EXPIRES IN 2029.

**THIS REPORT PROVIDES EXAMPLES OF WHY
EXELON CAN'T BE TRUSTED
TO PROVIDE FULL AND ACCURATE DISCLOSURE
OF PROBLEMS, HARMS, AND RISKS RELATED TO
LIMERICK NUCLEAR PLANT OPERATIONS.**

Why We Can't Trust Exelon Exelon's Monitoring, Testing, Reports, or Claims.

EXELON DECEPTION

Water Intake, Consumption, Reporting, and Payments

1. Conflicting Water Withdrawal Claims:

69 million gallons per day in 1970

30 million gallons per day in the news reported October 8, 2008

56.2 million gallons pay day in previous and current DRBC dockets

2. Conflicting Claims About Water Emitted From Limerick's Cooling Towers:

35 million gallons per day in 1970

38,059,065 to 40,723,200 Gallons Per Day

(1/6/95 to EPA - Licensee Indicated Conservative Consumptive Flow Increase)

42 million gallons per day in current DRBC docket

35 million gallons per day - 1/06 Mercury and 6/17/08 to Pottstown

17.5 million gallons per day average use July 22, 2008 – Republican Herald

7 million gallons per day - October 8, 2008 – Mercury Special On Schuylkill River

3. Apparent Underreporting and Underpayment for Schuylkill River Water.

4. Leak in the Moat – Denial, Negligence, and Delay of a Meaningful Solution

Radioactive Groundwater at Exelon's nuclear plants in Illinois and New Jersey

Exelon's "Radioactive Watergate" Exelon failed to provide full, accurate, and timely disclosure of leaking pipes and radioactive contaminated groundwater.

Braidwood Illinois – Exelon's nuclear plant caused radioactive groundwater for many years before the full extent of the threat was fully disclosed. 22 radioactive spills were inadequately addressed and not fully disclosed from 1996 to 2005. Even when denial was no longer possible, Exelon failed to clean up radioactive groundwater or provide residents with whole house water filtration, Exelon simply bought bottled water for 600 people for 4 years. In March, 2010, at least 14 years after spills started, Exelon paid a minimal court settlement - but there is NO CLEAN UP - Groundwater is still radioactive.

Oyster Creek, New Jersey - Oyster Creek caused southern NJ's main drinking water aquifer to become highly radioactive from the nuclear plant's radioactive leaks. The truth was not told until 7 days after NRC relicensed the plant.

**For Details on Exelon Deceptions Listed Above
Contact ACE For An Appointment To Visit The Office.**

Incredible Deception and Lies

Exelon's Unbelievable, Shameful Claims That Limerick Is Clean, Safe, and Reliable
Were Downloaded From Exelon's Website 12-18-10

Exelon's Claims For Limerick Nuclear Plant License Renewal Are
NOT Accurate, NOT Credible

"Clean Energy Source" - **NOT TRUE**

Exelon falsely claims Limerick is a "Clean Energy Source"

- ✓ Nuclear power is one of the dirtiest, most dangerous energy sources
- ✓ Limerick is a Major Air Polluter under the Clean Air Act
- ✓ 24 hours a day, 365 days a year, Limerick poisons the Schuylkill River with radioactive wastewater that is also loaded with other toxics
- ✓ Limerick has contaminated groundwater with radiation
- ✓ Radiation was detected in vegetation, fish, river sediment, soil, milk, and baby teeth.
- ✓ Exelon falsely claims to produce electricity "without producing greenhouse gas emissions"
 - Limerick Nuclear Plant continuously emits tons of PM-10 (a greenhouse gas) from two cooling towers and other sources
 - Limerick also uses boilers and generators that emit other greenhouse gases

"Safe Energy Source" - **NOT TRUE**

Exelon absurdly claims Limerick is a "Safe Energy Source"

- ✓ Nuclear power is the most dangerous of all energy sources
- ✓ Exelon cannot ensure or guarantee safety

Exelon claims they invest in equipment and people to ensure safe plant operations

- ✓ In fact, Exelon has refused to implement the most stringent fire safety regulations
- ✓ Exelon refuses to guard the nuclear plant against a 9/11 type terrorist attack
- ✓ Exelon's commitment to meet safety **standards** is deceptive and meaningless. NRC has a long history of weakening standards when nuclear plants cannot or will not comply with existing standards.

"Reliable Energy Source" - **NOT TRUE**

Exelon inaccurately claims to be an "Always-On Source" of electricity

- ✓ Nuclear plants are always on except when they are not
- ✓ Exelon is making a claim Limerick cannot live up to. Exelon cannot guarantee Limerick will be on 100% of the time for many reasons. Among them extreme heat and drought, and natural disasters like increasing tornadoes and earthquakes. Limerick is 3rd on the earthquake risk list. It could happen.
- ✓ Limerick has had increasing unplanned shut-downs in recent years.
- ✓ During major floods or storms, thousands of people lose power, some for hours many for days

NUCLEAR POWER IS NOT AN "ALWAYS-ON SOURCE" OF ELECTRIC

Exelon's Website Inaccurately Claims It's Always On

In Fact

NUCLEAR POWER IS ALWAYS ON - "EXCEPT WHEN IT'S NOT".

Shut-downs have been caused by earthquakes, tornadoes, floods, fire, ice, cracking concrete, and even a raccoon. Many reactors have been shut-down in the U.S. and Europe, due to heat and/or drought. Shut-downs can last for days or weeks.

Three Unplanned Shutdowns Occurred In One Week At Limerick Nuclear Plant in 2011, Reported by the Mercury in June, 2011.

Some Lengthy Shut-Downs Occurred Elsewhere In 2011. Below Are Examples
From A Long List Proving Nuclear Power Is NOT Always On.

- 8-23-11 Earthquake in Virginia
North Anna Was Still Shut-Down November, 2011
- June 2011 - Flood in Nebraska
Ft. Calhoun - Flood Penetration - Berm Failed
Radioactive Run-Off - Power Was Still Out 9-11
Cooper Power Station
- April 2011 - Tornadoes Knocked Out 3 Reactors in Alabama
- April 2011 - Vogle in Georgia Taken Out - Unexplained Shutdown
Not Sure When Power Would Return
- April 2011 - Tornadoes Shut Down Two Reactors
Surry in Virginia Shut Down Due To Loss of Power
- April 2011 - Crystal River Nuke in Florida Shut For Cracking Concrete
- FERMI 2 - Closed For Raccoon, a Tornado and 100,000 gallon spill inside Fermi 2
- Fires Closed Reactors in Ohio and South Carolina
- Browns Ferry cuts production by 50% due to HEAT - 7/26/10

- Don't Be Fooled! -

For Detailed Information On All Issues Below – See Corresponding Sections Of ACE's Website

Limerick Nuclear Plant

LICENSE RENEWAL IS NOT GOOD

For Our Environment or Our Community!

Limerick Nuclear Plant Is Already A Major Threat
To Our Region's Air, Water, Soil, Health, And Security

Harms and Threats Would Increase Dramatically
If Limerick Nuclear Plant Is Allowed To Operate Until 2049

**Without A Doubt,
Limerick Nuclear Plant Operations Result In
Unprecedented Threats And Harms.**

**Don't Let Exelon Donations
Buy Your Silence and Support!**

Exelon Owes This Region Far More Than It Donates

License Renewal Would Result In Increased Threats To Your Family

➤ Increased Risk Of Meltdown

Through Design Flaws, Corrosion, Brittle Materials, Mechanical Breakdown, Terrorists, Earthquakes and Other Natural Disasters

➤ **Increased Threats To Drinking Water Supply**

To Continue To Operate Limerick Nuclear Plant Until 2049?

- ✓ The Schuylkill River cannot continue to sustain Limerick Nuclear Plant's excessive use of Schuylkill River water for its cooling towers. Each year Limerick withdraws over 20 Billion gallons of Schuylkill River water and only returns 5. For decades, even after supplementation of a few billion gallons a year, Limerick caused significant depletion of the Schuylkill River. In heat and drought the low flow of the river has already concerned many area residents.
- ✓ Almost 2 million people from Pottstown to Philadelphia depend on the Schuylkill River for drinking water. It is not clear if there is enough water to sustain Limerick's overuse even until 2029 when Limerick's license expires. If Limerick is relicensed until 2049, billions of gallons of depletion will continue each year for another 20 years beyond 2029. If flows get too low or the river runs dry, then what?

➤ **Radioactive Contamination Of Public Drinking Water**

Radioactive Discharges Into The Schuylkill River

- ✓ Limerick Nuclear Plant discharges 5 Billion Gallons of Radioactive Wastewater each year Into the Schuylkill River.
- ✓ A broad range of radionuclides contaminate the river and sediment, some which stay dangerous for decades.. Additive and cumulative radioactive threats over time are of serious concern, especially during times of heat and drought due to concentration of contamination.
- ✓ Water treatment systems from Limerick to Philadelphia do not and cannot remove all radionuclides from drinking water through filtration. Even if possible, it would be cost prohibitive.

Radioactive Leaks Into Groundwater From Miles Of Underground Pipes That Can't Be Easily Detected

- ✓ 102 of 104 of our nation's nuclear reactors have leaked radiation into groundwater, including Limerick.
- ✓ Radioactive contamination in miles of underground pipes under nuclear plants is not easily detected. It can go undetected and unreported for many years, spreading into residential and public drinking water wells.
- ✓ The longer Limerick operates, the greater the risk of corrosion on all the underground pipes and connections.

➤ **More Radioactive Air Emissions**

Limerick routinely releases radiation.

- ✓ Over 100 radionuclides are associated with producing nuclear power.
- ✓ No one knows the additive, cumulative, and synergistic harmful impacts of radiation released from Limerick to date, much less what the impacts would be until 2029 or 2049.

Exelon, the company with a vested interest in the outcome, measures radiation levels in the vegetation, milk, soil, etc. But, Exelon has shown elsewhere it can't be trusted.

- ✓ There has never been independent testing on radiation levels in all routes of exposure.
- ✓ Exelon claims levels are all acceptable, but National Academy of Science research on radiation plus common sense suggest that continuous exposure, even to low doses over time, can be just as harmful as one high level dose, especially to vulnerable populations.
- ✓ Acceptable levels have been deceptively determined on an average healthy male, not on fetuses and children, or those who already have cancer and other serious illnesses.

➤ **More Particulate Matter (PM-10) Air Pollution**

Limerick's Cooling Towers, as well as several other sources at Limerick, release massive amounts of Particulate Matter (PM-10), a dangerous air pollutant regulated under the Clean Air Act.

- ✓ PM-10 gets deep into your lungs and enters your blood stream, contributing to heart attacks and strokes, in addition to respiratory diseases. PM-10 kills many in the U.S. each year.
- ✓ **NO one knows for sure how much PM-10 is being released from Limerick Nuclear Plant every day.** Exelon only estimates Limerick's PM-10 emissions. No one actually monitors the air. Exelon has requested a huge 8-fold increase in PM-10 permitted amounts, claiming they can't meet current permit requirements, suggesting Limerick is releasing much more than originally estimated. All this means significant air pollution threats to your family. For details on PM-10 contact ACE (610) 326-2387

➤ **More High-Level Radioactive Wastes Piling Up In Our Backyard.**

No Safe Solution

- ✓ There is no way to stop the threat to future generations except to stop making this deadly waste that remains dangerous for over a million years.
- ✓ Containers are estimated to safely contain this waste only 50 years. They say it will be moved to another location, which in itself could jeopardize all of us.

Terrorist Targets

- ✓ Limerick's fuel pools are vulnerable to a terrorist attack. They do not have a containment like the generators.
- ✓ There is already so much high-level radioactive waste stored at Limerick that fuel pools are full.
- ✓ A terrorist attack on that alone could result in the consequences of 1,000 Hiroshimas. But it is also now stored above ground in casks that would be hard to miss by missile.

The Best Solution

- ✓ Stop making this deadly radioactive waste.
- ✓ Close Limerick Nuclear Plant as soon as possible, at least by the time its license runs out in 2029.

**Help Protect
Our Health, Safety, And Our Environment**

**Future Generations Depend
On Your Actions Now!**

GET INFORMED

**REVIEW THE ACE WEBSITE FOR A BETTER UNDERSTANDING
OF ALL THE UNPRECEDENTED HARMS AND THREATS**

**HELP GET THE TRUTH TOLD
SPEAK UP NOW
BEFORE IT'S TOO LATE!**

CONTACT ALL ELECTED OFFICIALS

**TALK TO YOUR
NEIGHBORS, FRIENDS, AND FAMILY**

