EVACUATION PLANS

For A

LIMERICK NUCLEAR PLANT

ACCIDENT And/Or MELTDOWN

Are

SERIOUSLY FLAWED

And

FUNDAMENTALLY INADEQUATE

LESSONS LEARNED FROM JAPAN:

NRC Recommended A 50 Mile EPZ For U.S. Citizens In Japan

The 10 Mile Zone In The U.S. Is Clearly NOT Sufficiently Protective.

WHEN NRC REFUSTS TO EXPAND U.S. EVACUATION ZONES:
WE SEE THEY ARE ARBITRARY, POLITICAL, And UNPROTECTIVE

When NRC Declared 50 Miles A Safe Evacuation For Japan,
50 Miles Should Also Be The Evacuation Zone For Limerick.

OVER 8 MILLION PEOPLE

Live Within 50 Miles Of Limerick Nuclear Plant

Average population within 50 miles of a U.S. nuclear plant is 5 million.

Philadelphia
Is Just 21 Miles Downwind, Downstream

FIND OUT HOW CLOSE YOU ARE TO LIMERICK NUCLEAR POWER PLANT

www.psr.org/evacuation2011

For Greater Awareness, Preparedness and Protection

URGE ELECTED OFFICIALS TO DEMAND

50 Miles - NOT 10

FOR LIMERICK'S EVACUATION ZONE

SAFE EVACUATION IS AN ILLUSION

- Traffic Gridlock Even In Rush Hour Shows Why
- There's Not Enough Shelter or Supplies For So Many People

TO VERIFY POPULATION FOR LIMERICK NUCLEAR PLANT
www.psr.org/evacuation2011

Consequences From An Accident Or Terrorist Attack At Limerick Nuclear Plant

1980 Limerick Accident Consequences Below Calculated and Reported To Congress In 1982.

74,000 Early Fatalities
610,000 Early Injuries
34,000 Cancer Deaths

Numbers Above Would Be Drastically Higher Today

Census Shows - From 1980 to 2010 (2000 and 2010 Census Data)
183% INCREASE in Population

Instead of updating CRAC statistics with new population numbers, NRC has lowered estimated risks. SHAMEFUL!

PRECAUTION IS IMPERATIVE!

The placement of Limerick Nuclear Plant too close to so many people was an unacceptable dangerous risk. Warnings by experts and many residents before Limerick was constructed were ignored by NRC and other decision makers.

- **There was no full and adequate value of life and public health when Limerick was constructed.**

Now the population increased dramatically, roads are far more congested, and there are far greater risks for a meltdown.

- **The region's residents need the consideration they didn't get before construction.**

Health and lives for millions are at stake.

- **The least NRC can do is to tell the truth about the consequences of a Limerick disaster, expand the evacuation zone to 50 miles, and take every precaution to avoid a meltdown, including closing Limerick as soon as possible.**

Why The Truth About A Limerick Meltdown Needs To Be Fully Disclosed:

1. **Fully and Accurately Disclosing The Consequences Of A Limerick Meltdown Would Inspire People To Take Action To Get More Prepared Before It Happens.**
2. **The Truth Needs To Be Told About Radiation Exposure, So That People Take All Measures To Minimize Their Radiation Exposure Risks Before and After A Limerick Disaster.**
3. **An Evacuation Zone Expanded To 50 Miles Would Provide Greater Awareness, Preparedness, and Protection. It Would Minimize Risk Of Unnecessary Exposures and Cancers From People Evacuating Into A Zone Still Far Too Radioactive.**
4. **In Reality, There Is No Way To Evacuate Safely. Therefore, To Protect Millions, The Best Way To Minimize Risk Of A Meltdown From This Aging Ticking Time Bomb Is To Close Limerick Nuclear Plant As Soon As Possible.**

Fukushima made it clear that a 50-mile evacuation zone is essential for Limerick Nuclear Plant. Over 8 million people live within 50 miles.

Yet evacuating almost 8 million people seems impossible given the enormous population growth and gridlock on planned evacuation routes, even in rush hour.

NO ONE HAS ACCEPTABLE ANSWERS TO LOGICAL QUESTIONS BELOW!

- ✓ **How could so many people be safely evacuated during a radioactive plume? Philadelphia is just 21 miles downwind, downstream from Limerick Nuclear Plant.**
- ✓ **How many people would get stuck in traffic gridlock for many hours, all while continuously being exposed to Limerick's radioactive plume?**
- ✓ **Where would 8 million people go? A 50-mile evacuation zone for Limerick would not only cover Philadelphia, but also many other large cities.**
- ✓ **How could there be enough water, food, shelter, and other basic needs for 8 million people?**

IS THAT WHY NRC IS REFUSING TO EXPAND LIMERICK'S EVACUATION ZONE?

The obvious answer is that there is no way to safely evacuate 8 million people.

- ✓ **In fact, after 9/11, the Red Cross publically admitted at a meeting in Limerick that there would not be adequate shelter or food for all people in the 10-mile zone around Limerick Nuclear Plant with far less people than 8 million at that time.**

The U.S. directed Americans within 50 miles of the Fukushima reactors to evacuate. That's a far more realistic distance than a 10-mile evacuation zone. When it is clear that radioactive particles can travel far distances, and that the nuclear industry is less than forthcoming or timely with the truth, why wouldn't people at least 50 miles away be evacuated to avoid unnecessary harms?

U.S. government officials have known for many years that a 10-mile nuclear plant evacuation zone is unrealistic and not sufficiently protective.

- **Government studies have projected death and damage miles beyond that. "There could be deaths out to 150 km," states a report titled "WASH-740-update" done at the U.S. Department of Energy's Brookhaven National Laboratory.**
- **An earlier report, "WASH-740," also done at that government laboratory, states "the possible size of the area of such a disaster might be equal to that of the State of Pennsylvania."**

President Obama urged any U.S. citizens within 50 miles of the Fukushima Daiichi plant be evacuated. With our government now on record having demanded a 50-mile evacuation for U.S. citizens,that is the minimal precaution the 8-million people around Limerick should expect.

Yet, to date, for U.S. nuclear plants, NRC insists on an inadequate unprotective 10-mile evacuation zone, a pro-nuclear thinking position. The Nuclear Regulatory Commission should stop making decisions that benefit the nuclear industry at the risk of public safety.

NRC disregards public health and safety, even after watching the Japan disaster unfold and learning there is far more risk of a U.S. meltdown. It could be a tragic mistake to keep the evacuation zone artificially low, as is being tragically demonstrated by the nuclear power disaster in Japan.

Limerick's reactors have long been troubled with numerous minor accidents and shutdowns, just 3 in one week this past June, 2011. Limerick is located near two earthquakes faults, one nine miles away, the other 17 miles away.

The situation involving a disastrous accident at Limerick would be particularly intense if the winds were blowing toward Philadelphia and the Schuylkill River, which is the predominant wind direction.

There would be complete gridlock in this heavily populated region when people attempt to evacuate. Many would be frozen in place as radiation particles are disseminated. If electricity stops flowing from a Limerick accident, people would also be trapped in elevators and other electrically controlled locations.

The largest highway and most logical route to evacuate would be in the predominant wind direction. Extended traffic jams already regularly occur during rush hours. Traffic gridlock could come to a virtual standstill if a disaster happens during rush hour. People would continuously be in harm's way, constantly exposed to a toxic brew of deadly radiation from the disaster.

Importantly, since the Three Mile Island nuclear plant accident in 1979, NRC set as a condition for a nuclear plant to operate that there be a workable evacuation plan implemented by state or local government. There is no proof the plan for Limerick is workable. Common sense suggests it is not.

IN THE EVENT OF AN UNTHINKABLE LIMERICK NUCLEAR DISASTER

SAFE EVACUATION OF 8 MILLION PEOPLE IS CLEARLY UNREALISTIC

YET NRC HAS NO INTENTION OF EVEN ADDRESSING SKYROCKETING "POPULATION GROWTH" IN THE 10 MILE EVACUATION ZONE FOR LIMERICK NUCLEAR PLANT EVACUATION IN THE UPDATED ENVIRONMENTAL IMPACT STATEMENT.

NRC NEGLIGENCE IS CLEAR! INSTEAD OF EXPANDING EVACUATION ZONES FOR REGIONS LIKE OURS AROUND NUCLEAR PLANTS,

N.R.C. Lowers Estimate of How Many Would Die in Meltdown

By ***MATTHEW L. WALD*** 07/29/11

The commission's old projection of eventual cancer deaths was one for every 2,128 people exposed within 50 miles; the new study projects one cancer death for every 6,250 people exposed, which still comes to hundreds of cancer deaths within the 50-mile circle, in addition to the hundreds of thousands who would be expected to die of cancer from other causes.

The Pottstown Mercury Editorial Below Was Very Informative

The Pottstown Mercury (**pottsmerc.com**), Serving Pottstown, PA

License Review Should Consider Evacuation Plan

Mercury Editorial - Opinion Sunday, July 3, 2011

The Nuclear Regulatory Commission announced last week that the renewal process to extend for 20 years the operating license for Exelon Nuclear's Limerick Generating Station is under way.

The announcement is a reminder that the Limerick plant has been online for a few decades, and a lot has changed in that time, most noticeably population growth.

According to data assembled by the Associated Press as part of a recent series on aging nuclear power plants, the population in a 10-mile radius around the Limerick plant has increased by 45 percent since 1990 — from 178,047 to 257,625.

That's an increase of nearly 80,000 people.

And in a 50-mile radius — the region evacuated during the Fukushima disaster in Japan — the population around Limerick has increased by more than 855,000 since 1990.

Limerick spokesman Joe Szafran points out that the roadway network has expanded during that time as well. "Remember, when Limerick was built, Route 422 was not even finished," Szafran said.

Well, in the years since that road opened, the population growth has made it obsolete as a fast route to anywhere.

A four-part investigative series by the Associated Press published over the past two weeks calls into question the relicensing process for aging nuclear plants in the U.S. and illustrates population growth as one of the factors that have changed the dynamic around plants.

The AP analysis found serious weaknesses in plans for evacuations around plants, including failure to test different scenarios. Plans, including Limerick's, still are for a 10-mile radius even though the disasters at Fukushima and Chernobyl resulted in 50-mile effects.

Those in the nuclear industry point to the worst-case scenarios as situations that "will never happen here." But for the thousands of people whose lives are at stake, the worst case is exactly what preparedness is aimed at.

The evacuation plan for Limerick is just one of many factors that will be considered in the relicensing process. We hope that as this process is conducted, "worst cases" are considered.

The greatest lesson from disasters is that areas where preparedness is lacking are areas where disasters are multiplied. No one wants to consider the possibilities of having to implement an evacuation plan, but that's not a reason to ignore it.

However, Two Months Later, NRC Announced It Would Not Change The 10-Mile Radius

08/30/11

NRC: Update evacuation plans near nuclear plants

By Matthew Daly - Associated Press

The new rules DO NOT CHANGE recommended evacuation zones, which have remained frozen at a 10-mile radius from each plant since they were set in 1978, regardless of aging reactors operating at higher power, risking larger radioactive releases, and skyrocketing populations around some plants - as high as 4 1/2 times higher.

WASHINGTON—Nuclear power plants must provide updated estimates of how long it would take to evacuate nearby communities in an emergency under a new rule approved Tuesday by the Nuclear Regulatory Commission.

The Associated Press reported in June that as America's 104 nuclear reactors have aged, the once-rural areas around them have become far more crowded and difficult to evacuate. By law, evacuations must be prepared for areas within about 10 miles of every nuclear plant, but many plans haven't kept up with changing populations, according to the AP investigation.

Populations around some nuclear plants have swelled as much as 4 1/2 times since 1980, but some estimates of evacuation times have not been updated in decades. Meanwhile, aging reactors have been operating at higher power, risking larger radioactive releases.

An NRC task force recommended a series of changes last month to increase protection at U.S. nuclear sites, including better response to prolonged power blackouts or damage to multiple reactors. The commission set an Oct. 3 deadline for staff to recommend action on 11 of 12 task force recommendations. Staffers were given 18 months to consider a broader recommendation to revamp the agency's overall approach to regulation and safety.

NRC'S NEGLIGENCE IS UNACCEPTABLE AND INFURIATING!

Limerick Nuclear Plant's 10-Mile Evacuation Plan didn't change since 1978.

- **But the population around Limerick Nuclear Plant INCREASED by 183%, making it far more difficult to evacuate.**
- **Limerick had many signs of aging, with 3 unplanned shutdowns within a week June, 2011, 5 unplanned shutdowns in a year (2007-2008), and several others after that.**
- **Earthquakes and other natural disasters are growing stronger and more frequent.**
- **Terrorists threats are increasing, now including cyber attacks.**
- **Limerick is operating at higher power, risking larger radioactive releases.**
- **After Fukushima, we see a 10-mile evacuation zone is woefully inadequate.**

NRC NEEDS TO UPDATE THE EVACUATION PLAN FOR LIMERICK, TO INCLUDE 50 MILES.
IF EVACUATING ALMOST 8 MILLION PEOPLE IN THE 50 MILES SURROUNDING LIMERICK IS NOT ABLE TO BE PLANNED ADQUATELY, THEN LIMERICK SHOULD CLOSE NOW.

Area Resident's Letter to Editor Below Highlights Important Issues About Why The Evacuation Plan For A Limerick Meltdown Is Fatally Flawed

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 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 children 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 5 unplanned shutdowns and loss of cooling water that couldn't be explained 15 days later. An earth-quake 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 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. 40 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, PA

LIMERICK NUCLEAR PLANT SHOULD BE CLOSED AS SOON AS POSSIBLE TO MINIMIZE THE NECESSITY OF EVER HAVING TO EVACUATE 8 MILLION PEOPLE

LIMERICK CAN'T BE MADE FAILSAFE

Evidence Reveals Growing Concern

- **Limerick is 3rd on the Earthquake Risk List. There were two recent earthquakes in Philadelphia. Even the 8-23-11 Earthquake in Virginia caused what is called an "unusual event" at Limerick.**
- **Limerick Nuclear Plant Already Had 2 Near Misses - 1995 and 2001 – (Documented by Greenpeace From NRC Files).**
- **A Limerick Accident or Terrorist Attack Would Release More Radiation Because Limerick Containment Is Substandard.**

.

- **Limerick's Miles of Cables and Underground Pipes Are Corroding and Deteriorating.**
- **Many Unplanned Shutdowns Were Reported In Recent Years. One Caused Loss of Cooling Water.**
- **Limerick Is NOT In Compliance With Safest Fire Safety Regulations, Even Though Fires Can Lead To Meltdown.**
- **Limerick's Fuel Pools Are Overloaded With All Of Limerick's Deadly Radioactive Wastes Since 1985. Our Region Is Now A High-Level Radioactive Waste Dump, Providing An Inviting Target For Terrorists.**
- **Limerick Is NOT Protected Against 9/11 Type Terrorist Attacks With Planes or Missiles. Terrorists Want To Attack Nuclear Plants - We Are One of the Most Heavily Populated Regions.**
- **An Al-Qaida Suspect Worked at Limerick During Refueling Each Year from 2003 to 2007.**
- **Cyber Attacks on Limerick's Computer Systems Could Lead To A Meltdown.**

Compiled By The Alliance For A Clean Environment - Updated August, 2011

LIMERICK MUST BE CLOSED,

NOT RELICENSED

SPEAK OUT TO PROTECT YOUR FAMILY'S HEALTH AND FINANCIAL FUTURE

CONTACT ELECTED OFFICIALS TODAY!