PRM-50-104
(77FR25375)

PUBLIC HEALTH AND SUSTAINABLE ENERGY (PHASE)
21 PERLMAN DRIVE
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7/16/12

Re: Comments on PRM-50-104, Docket ID NRC-2012-0046

I am respectfully requesting the NRC adopt the proposed rule expanding emergency planning zones to provide reasonable assurance of adequate protection, to the respective 25, 50, and 100 mile zones and add a new requirement that emergency exercises include scenarios of regionally appropriate initiating or concurrent natural disasters.

"Sheltering in Place" is not a viable alternative to evacuation planning and does not met reasonable safety standards. The February 21, 2003 report affirms that both FEMA and the NRC recognized that sheltering in place is not as effective in reducing the risk to the public as evacuation. On page 6 of Attachment B of the report, the report states:

> NUREG -0654, Appendix 1 issued in 1983 and enhanced in 1996, in the NRC Supplement 3 to NUREG-0654.FEMA-REP1 "Criteria for Protective Action Recommendations for Severe Accidents. States that "Since the publication of the original guidance extensive studies of severe reactor accidents have been performed. These studies clearly indicate that for all but a very limited set of conditions, **prompt evacuation of the area near the plant is much more effective in reducing the risk of early health effects than sheltering the population in the event of severe accidents.** In addition, studies have shown that except for very limited conditions. Evacuation in a plume is still more effective in reducing health risks that prolonged sheltering near the plant. The NRC and FEMA recommend that the population near the plant should be evacuated." (*emphasis added*)

The NRC's endorsement of Nuclear Energy Institutes (NEI) white paper, stating required evacuation area 2 mile - 5 mile radius under a plume is clear pandering to the nuclear, industry, and not based in science. It is

only serves to reduce the financial responsibility of nuclear operators and allows continued operation of nuclear plants that are surrounded by dense populations, which is direct opposition to adequate protection of public health and safety.

RADIOLOGICAL MONITORING IS INADEQUATE

Local Emergency Service First Responders in the region surrounding Indian Point rely on Entergy to report any unplanned releases. This is an unacceptable example of the fox watching the hen house.

The local emergency workers are the first line of defense and must be provided fast independent, accurate information so they can protect the public. Although the federal agencies also need prompt notification, they are hundreds of miles for the site of radiological incidents are can do little in the short. Their initial role is to monitor events and bring in outside assistance.

Therefore, I am respectfully requesting that the NRC require funding for Independent radiological detection equipment and training for the local emergency services first responders, police and fire departments within a minimum 10 mile radius, to be provided by the plant operators in any evacuation plans.

Local communities no longer has confidence in federal agency timely response. There have been three week delays in notification of a radioactive leak from the spent fuel pools at Indian Point.

THE EVACUATION TRAVEL TIME ESTIMATES (ETTE) RELY UPON OUTDATED DATA THAT SIGNIFICANTLY UNDERESTIMATES THE POPULATION GROWTH

In areas, such the New York metropolitan region where the population has significantly increased approximately by at least 30% -40%, since Indian Point nuclear facility was first sited. Grandfathering in evacuation capability based on outdated information does not satisfy NRC regulations for issuing a new superseding 20 year operating license. Therefore, a full evaluation of the ability to evacuate the Indian Point region, including impacts on environmental justice communities and pre-school aged children, must be required as part of the relicensing hearings. Currently the NRC exempts evacuation issues from relicensing

hearings claiming they are within scope. This is a false and dangerous policy.

Part 100, Subpart B, Section 100.21 of the NRC's "Reactor Site Criteria" enacted in 1997. The regulation says nuclear plants "should be located away from very densely populated centers," without specifically defining "very densely" — though population centers are defined elsewhere in the regulation as having "no more than 25,000 residents." The currently population within 10 miles of Indian Point is close to 500,000.

Public health and safety cannot be grandfathered in.

In 1979 Robert Ryan of the NRC stated "Indian Point is one of the most inappropriate sites in existence for a nuclear plant. ...I think that it is insane to have a 3 unit reactor on the Hudson River in Westchester County, 40 miles from Times Square, 20 miles from the Bronx..."

The geography of the region limits possible escape routes. The New York State Thruway (Route 287) is the only major artery out of the region, at it's widest a 6 lane road, and then narrows to 4. That means nearly 20 million people will try to evacuate through the narrow Ramapo Pass, in Rockland County. Due to the geography of the mountain range this has been the only way from upstate to downstate since the days of the Iroquois. If residents are directed South they will run directly into New York City and gridlock will close the roads, and no one will go anywhere. Single accidents in the area regularly stop traffic in the entire region for 6 -12 hours.

The emergency planning for nuclear emergencies has remained largely static since 1980. These plans are outdated and do not adequately protect the health and safety of United States citizens.

According to the National Academy of Sciences BEIR VII report, there is no safe dose of radiation, and women and children are affected more by radiation than men. Evacuation regulations must be protective of the most vulnerable in the population.

Specifically, the current 10-mile emergency evacuation zone does not adequately protect from the effects of ionizing radiation, despite what computer modeling and simulations may demonstrate. The real world experiences of Fukushima and Chernobyl are direct evidence that radiation releases from nuclear accidents can be greater than computer modeling or simulations suggest. Indeed, the accident at Fukushima resulted in sustained and large releases of radiation for a period of several weeks.

More than 150,000 people evacuated near Fukushima, from as far as 25 miles away--50,000 of those, according to the Associated Press (5/16/12) evacuated from outside the mandatory evacuation zones. Meanwhile, the U.S. Nuclear Regulatory Commission and U.S. State Department recommended that Americans within 50 miles of Fukushima evacuate. Even so, as much as 80% of the airborne radiation released at Fukushima blew directly over the Pacific Ocean, rather than populated areas. The NRC cannot rely on favorable wind patterns to protect the American public.

The ingestion pathway EPZ is also grossly inadequate, and should be expanded to 100 miles. Food contamination at both Fukushima and Chernobyl has been far reaching and persistent. In Chernobyl, radionuclides tainted crops and animal products hundreds of miles away. High levels of radioactive cesium were found in the Arctic Ice after Chernobyl. Similarly, in Fukushima contamination of rice, milk, and other food has been exhibited 100 miles and more from the site.

Current NRC regulations do not require that emergency exercises take into consideration an initiating or concurrent natural disaster that might create cascading events complicating accidents and subsequent evacuation efforts. At Fukushima, a natural disaster (coupled with faulty reactor design) initiated the disaster. Both Fukushima and the U.S. experience with Hurricane Katrina demonstrate the difficulties associated with evacuating when a natural disaster strikes that causes roadways to wash out.

Indian Point, an aging and leaking plant, located on two intersecting fault lines, has been recognized by the NRC to be one of the plants most susceptible to damage by an earthquake, yet the table top drills for evacuation planning, do not include a natural disaster scenario. Additionally due to fire safety exemptions Indian Point is vulnerable to a 24 minute fire making it impossible for the plant to affect safe shut down. Yet evacuation drills do not consider cascading events, as occurred at Fukashima.

Weather patterns are growing more extreme and dangerous. In 2011, hurricanes, earthquakes, and flooding caused damage to U.S. nuclear reactors. As such, emergency preparedness drills and exercises should include regionally appropriate natural disasters such as droughts, flooding, blizzards, earthquakes, wildfires, and hurricanes.

FAILURE OF POTASSIUM IODINE DISTRIBUTION

In light of the Congressional mandate requiring distribution of KI to all residents within 20 miles of a nuclear facility by 2003, it is appalling today that distribution has been sketchy at best and in non-compliance to a Congressional mandate. The FDA and the American Thyroid Cancer Association both recommend and endorse the distribution and use of KI in the event of radiological event, within the first two hours. By not making a concerted effort to properly and fully distribute KI to potentially affected residents the NRC is acting with serious negligence.

The current system requiring residences to go to their local town halls does not provide meaningful distribution, as many residences work the same hours Town offices are open, or do not have access to transportation to get to the their town halls. Emergency Service Departments must get operator approval to mail KI to residents, which has not been forthcoming,

This is not a political issue, but one of public health and safety. The value of KI is well settled science.

The limited distribution of Potassium Iodine to residents of the region does not give "adequate or reasonable assurance" that the population will be protected. Upon receiving a pill each resident must sign that they "have received one (1) 130 milligram tablet of KI for each member of the household. Yet, the instructions clearly states "DOSAGE: Take for 10 days unless directed otherwise by State or local public health authorities".

This is blatantly inconsistent and clearly does not properly protect the public. It also creates enormous distrust by the public. In the event sheltering is required most people do not even have one pill, let alone 10 which they will need to take in the event of exposure.

It is imperative that all the residents of the region be give the proper dosage. The NRC must order all reactor operators to immediately mailed at least 10 pills per household member, unprotected.

CONCLUSION

It is for all these reasons that I am respectfully requesting the NRC adopt the proposed rule expanding emergency planning zones to the respective 25, 50, and 100 mile zones and add a new requirement that emergency

exercises include scenarios of regionally appropriate initiating or concurrent natural disasters.

Sincerely yours,

Susan H. Shapiro

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Public Health and Sustainable Energy (PHASE)
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Radiation and Public Health Project–Board Member

Rulemaking Comments

From: palisadesart@aol.com
Sent: Monday, July 16, 2012 8:45 PM
To: Rulemaking Comments
Subject: RE_ COMMENTS ON PRM 50-104 ID NRC 2012-0046
Attachments: PHASENRC evaucation comment 7-16-12.pdf

Please find attached comments on PRM 50-104. Thank you.

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