

SHUT DOWN FITZPATRICK

A Nuclear Threat in Our Midst

The Alliance for a Green Economy is petitioning the Nuclear Regulatory Commission (NRC) to immediately shut down the FitzPatrick Nuclear Plant because it poses a grave threat to the public.

FitzPatrick is located in Scriba, New York, on the shore of Lake Ontario, 36 miles from Syracuse. More than 900,000 people live within 50 miles of the reactor. The NRC and Entergy Corporation (the plant's owner) know it is vulnerable to explosions and radioactive releases, and they are gambling that nothing will go wrong at this aging reactor.

An NRC petition review board has recommended that concerns over FitzPatrick's are serious and the petition should move forward. Yet, they have delayed a final ruling, allowing FitzPatrick to operate in the meantime.

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It doesn't take a tsunami...

Nuclear plants need a constant power source, even when they're not operating, to keep cooling water circulating around the radioactive fuel in the reactor core. Power is also needed to cool the pools that hold the used fuel. If a reactor loses power, a generator is supposed to maintain temperatures temporarily. If the backup fails or runs out, the plant loses its ability to cool the fuel and a meltdown can occur.

Meltdowns, besides producing massive amounts of dangerous radiation, can also create hydrogen gas, which is explosive. A hydrogen explosion can damage the building that is supposed to contain radiation in the case of an accident, releasing poisons that pose severe health risks to people, animals and the surrounding environment.

It doesn't take a tsunami like the one that disabled the Fukushima reactors to cause a power outage at a nuclear plant. Ice, floods, equipment malfunction, earthquakes, human error, degradation from age, or sabotage could all lead to a meltdown.

What's Wrong with FitzPatrick?

1. FitzPatrick is a GE Mark I Boiling Water Reactor. The federal government has known since the 1970's that this reactor type is vulnerable to containment failure. The containment system is supposed to protect the public from radiation by trapping it within a structure of thick reinforced concrete.

2. In 1989, the NRC recommended that all Mark I reactors install a "hardened vent" to address containment flaws. If there is a nuclear accident, the vent system is designed to release radiation at a high elevation (around 300 feet) in order to prevent hydrogen explosions. This modification is not a true containment fix, since it would still allow radiation to escape the plant. Similar vents did not work at the Mark I reactors at Fukushima Daiichi in Japan, which experienced hydrogen explosions and massive radiation leaks after a March 2011 earthquake and tsunami knocked out power to the plants.

3. FitzPatrick is the only Mark I reactor in the United States that does not have a hardened vent. The NRC allowed the operator to forgo the installation, saving the owner \$680,000. The NRC instead approved the use of existing ductwork as a vent. The approved ductwork was not designed for this use.

4. The FitzPatrick accident plan is to send radioactive steam and explosive gases into a building next to the reactor, **where the pressure will build up until the doors to the building blow off**, releasing radiation into the environment at the ground level. This could make it more difficult for workers to access parts of the plants during an accident, and could increase exposure to radiation.

5. There is no publicly available analysis of the dangers this plan poses to workers at the plant or to the public.

6. The NRC acknowledges that a hydrogen explosion in FitzPatrick's vent is a possibility.

7. This year, the NRC ruled that all Mark I reactors must install a "reliable" hardened vent by 2016, leaving us exposed to the current venting plan at FitzPatrick for at least another four years. The new vent regulation does not address the known Mark I containment problems, and will leave our community exposed to the dangers of a nuclear accident indefinitely.