

United States Senate

WASHINGTON, DC 20510

April 18, 2014

The Honorable Alison Macfarlane
Chairman
Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Macfarlane:

We write to urge the Nuclear Regulatory Commission (NRC) to direct the immediate implementation of mitigation measures needed to protect the Pilgrim Nuclear Power Station and the Seabrook Station against a seismic vulnerability that the licensees of these reactors were previously unaware existed. We were alarmed to discover that of the dozens of reactors that re-assessed their vulnerability to earthquakes in the wake of the Fukushima meltdowns, the newly evaluated seismic risk at both Pilgrim and Seabrook is larger than the risk the reactors were originally licensed to withstand.

One of the recommendations of the NRC's Near Term Task Force report¹ following Fukushima was that licensees re-evaluate seismic hazards at each reactor using current research and models in order to develop a better understanding of possible earthquake hazards at the site and determine whether additional safety measures are needed.

On March 31, 2014, licensees of all reactors in the continental and eastern U.S. submitted these seismic hazard re-evaluations to the NRC. The March 31, 2014 licensee submittals to the NRC indicate that:

- For both Pilgrim's² and Seabrook's³ reactors and spent fuel pools, the new seismic hazard is greater than the so-called "safe shutdown earthquake", which is defined to be "the maximum earthquake potential for which certain structures, systems, and components, important to safety, are designed to sustain and remain functional." Notably, the new seismic hazard was found to exceed the safe shutdown earthquake at the ground shaking frequencies that are most likely to threaten the equipment needed to safely shut down the reactor.
- On March 10, 2014, Entergy submitted a request to the NRC asking for permission to alter some of the numbers used to model the geologic properties of the bedrock on which Pilgrim sits. While this request was not expected to remove the requirement for Pilgrim to perform additional analysis and/or implement mitigating measures, Entergy's submittal stated that using these numbers would cause the results to be less alarming, stating that "it is of great importance that an accurate description of PNPS's seismic hazard be communicated to NRC and

¹ <http://pbadupws.nrc.gov/docs/ML1118/ML111861807.pdf>

² <http://pbadupws.nrc.gov/docs/ML1409/ML14092A023.pdf>

³ <http://pbadupws.nrc.gov/docs/ML1409/ML14092A413.pdf>

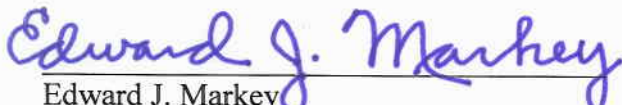
other external stakeholders. This will ensure appropriate prioritization of PNPS with regard to SPRA scheduling and prevent unjustified alarm by stakeholders when GMRS results are made public.”


According to NRC⁴, any licensee that identifies a higher re-evaluated seismic hazard than it previously believed it had must conduct more in-depth analysis in order to determine whether permanent mitigation measures are needed, but licensees are provided until 2017 to complete it. However, NRC has also indicated that some reactors could be directed to more quickly implement mitigating measures for the reactor equipment that would be needed to safely shut down the reactors in the event of an earthquake. NRC has already required the implementation of such measures for some reactors that found a higher than expected flooding hazard⁵.

We urge you in the strongest possible terms to direct the licensees of the Pilgrim Nuclear Power Station and the Seabrook Station to immediately take all necessary measures to assure the safety of the reactors and those that live and work near them.

Thank you for your attention to this important matter. Please provide your response no later than close of business on Friday May 9, 2014.

Sincerely,


Edward J. Markey
United States Senator


Elizabeth Warren
United States Senator

⁴ <http://pbadupws.nrc.gov/docs/ML1205/ML12053A340.pdf>

⁵ http://www.newschannel9.com/news/features/files/watts_bar_violations.pdf