



April 6, 2020

Kristine L. Svinicki, Chairman  
U.S. Nuclear Regulatory Commission  
Office of the Chairman  
Mail Stop O-16 B33  
Washington, D.C. 20555-0001

Re: Three Mile Island Unit 2 License Transfer

Dear Chairman Svinicki:

I am writing to you to express my serious concern regarding the proposed license transfer of the Three Mile Island Unit 2 (TMI Unit 2) nuclear power plant from GPU Nuclear Corporation to the EnergySolutions' subsidiary TMI-2 Solutions, LLC (TMI-2 Solutions).

As you are aware, in 1979, the TMI Unit 2 power reactor had the worst nuclear accident in U.S. history. The TMI Unit 2 nuclear accident resulted in damage to the majority of the reactor core, released millions of curies of radioactive noble gases into the environs, and grossly contaminated the interiors of the containment and auxiliary buildings. Because of this, we understand there are very high radiation areas within TMI Unit 2 that present a grave risk to personnel that enter. Despite the limited entries into the containment building to remove damaged nuclear fuel in the 1980s, there are vast areas in the plant with unknown radiological conditions related to the TMI Unit 2 accident. I firmly believe TMI Unit 2 is the most radiologically contaminated facility in our nation outside of the Department of Energy's weapons complex.

When it was announced that TMI Unit 1 was going to be permanently shut down, the Commonwealth's residents and the Pennsylvania Department of Environmental Protection (DEP) believed this to mean that TMI Unit 1 would enter into a SAFSTOR status for several decades and be decommissioned first. This would allow for the further decay of radioactivity within TMI Unit 2 and reduce worker exposure and possible environmental releases of radiation during clean up.

However, this understanding is no longer the case. With the announcement of GPU Nuclear Corporation planning to shed its responsibility for TMI Unit 2 to TMI-2 Solutions, we now understand that TMI-2 Solutions plans to immediately begin the decommissioning of TMI Unit 2 with the accrued \$800 million in the financial assurance fund that GPU Nuclear Corporation and the NRC currently control. This leaves us with many questions and concerns, which I outline in more detail below, about what a license transfer of TMI Unit 2 will mean for Pennsylvania, the local environment, and the communities surrounding Three Mile Island.

Secretary

## Concerns with Three Mile Island Unit 2 License Transfer

### *Environmental & Safety Impacts*

Due to the TMI Unit 2 power reactor partial meltdown, it is our understanding there are still very high radiation areas within TMI Unit 2 that would present a grave risk to any personnel that enter. Related to this understanding, I have the following questions about environmental impacts and safety associated with the decommissioning of TMI Unit 2:

- What increased environmental surveillance and pollution controls will the NRC require during clean-up of TMI Unit 2 to ensure any radiological releases are detected?
- The TMI Unit 2 facility is in the middle of the Susquehanna River, a major water supply for the region that drains into the Chesapeake Bay. What environmental and pollution controls will be put in place to ensure no contamination of this critical water source?
- What flood controls will be utilized during decommissioning to mitigate a worst-case flood scenario on the Susquehanna (e.g. a weather event similar to Hurricane Agnes in 1972 that produced 19-inches of rain in Pennsylvania)?
- Will the NRC require a local decommissioning advisory committee to be established to assure the clean-up of TMI Unit 2 is transparent to the public and local and state governments?

### *Cost of Clean-Up & Financial Responsibility*

As noted above, GPU Nuclear Corporation and the NRC currently have \$800 million in its financial assurance fund for decommissioning TMI Unit 2. However, estimates have shown it will cost \$1.2 billion to decommission TMI Unit 2. For these reasons, I have the following questions, related to the cost and financial responsibility of cleaning up TMI Unit 2:

- Given there is a significant disparity between the estimated cost to decommission TMI Unit 2 from the amount of funds currently available, what funding source will be used to cover the deficit?
- Since the radiological conditions inside TMI Unit 2 are unknown, the actual cost to decommission it could be much higher than the current estimate of \$1.2 billion. What legal and financial assurances will be put in place to address this potential?
- Who will the NRC require to retain financial responsibility to clean-up TMI Unit 2 after the license has been transferred?

### *Radioactive Waste Handling*

Due to the severe contamination from the partial meltdown and the unknown radioactivity levels of materials that will need to be disposed, I request to know the following information related to how the radioactive waste from TMI Unit 2 will be handled:

- Has the U.S. Department of Energy agreed to dispose of the TMI Unit 2 reactor vessel, which has a portion of the damaged nuclear fuel from the 1979 accident still fused inside?

- How will TMI-2 Solutions dispose of any contaminated lead shielding, which is now mixed waste, that may be present in TMI Unit 2?
- Are there volume and activity estimates of the Class B & C low-level radioactive waste that cannot be shipped to the EnergySolutions disposal site in Utah?
- Has the low-level radioactive waste disposal site in Texas agreed to accept the Class B & C waste?
- Is there any greater than Class C low-level radioactive waste in TMI Unit 2? If so, will that remain onsite?
- If asked by the licensee, will the NRC consider and approve very low-level radioactive waste to be disposed of in non-hazardous landfills in Pennsylvania?

Given my stated concerns, I hope you and your fellow Commissioners will thoughtfully consider the unique aspects of the severely damaged TMI Unit 2 nuclear reactor and not approve a license transfer until all parties are satisfied that the decommissioning can be done safely. Equally important, we require firm legal assurances that financial resources are available to complete decommissioning once started, including bonding between the Commonwealth and licensee. I also expect no radioactive waste from TMI Unit 2 will be left on Three Mile Island.

Additionally, I ask your executive staff and the current and proposed licensee brief my fellow local and state officials responsible for protection of the public and environment. Obviously, the current health crisis will dictate whether this meeting is in person or virtual. Furthermore, in that the licensee has recently amended the Post-Shutdown Decommissioning Activities Report (PSDAR) and has proposed a significant schedule change, the Pennsylvania DEP expects the NRC to hold a local PSDAR meeting after the COVID-19 situation has resolved so that the proposed clean-up work at TMI Unit 2 and timeline can be presented to the public, with ample opportunity for questions and discussion.

Should you or your staff have any questions regarding my stated concerns or wish to discuss them further, please feel free to contact David J. Allard, Director for Bureau of Radiation Protection, by e-mail at [djallard@pa.gov](mailto:djallard@pa.gov) or by telephone at 717.787.2480.

Sincerely,



Patrick McDonnell  
Secretary

cc: David J. Allard, Director, Bureau of Radiation Protection, DEP  
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