From: Ed Staub [mailto:estaub2@comcast.net]

Sent: Friday, October 26, 2018 11:27 PM

To: PUC:

Cc: PUC - OCA Website Mail Account

Subject: Public comment: docket DG 17-198 Liberty Utilities Granite Bridge: cost recovery risks, design

process safety risks

Edward Staub 374 Laurel Street Manchester, NH 03103

October 26, 2018

Debra Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord New Hampshire 03301

RE: DG 17-198 Liberty Utilities Granite Bridge

Thank you for accepting my comments on the Granite Bridge project.

I have no expertise in the analysis and design areas relevant to this project, but I do have some experience with safety engineering of medical devices. I am writing to express the following concerns:

1.) The public documents do not reflect any allocated risk of a carbon tax and/or increased renewable incentives over the 55-year cost recovery period, with respect to demand and hence cost recovery. While opinions of the size of such a risk may vary widely, few would assess it as null. Depending on its size, a carbon tax could have a large impact on demand.

I am reminded of the costs that were stranded in the \$457M spent on the Merrimack Station scrubber, another "bridge too far".

Liberty Utilities projects a nearly flat demand growth rate of 1.9% per year for the first 20 years of the cost recovery period, and no estimate whatever for the remaining 35 years that I can find. (Ref: docket Killeen/Stephens testimony filed 12/22/2017, page 5)

2.) The October 3, 2018 "Adequacy Assessment" entry in the DG 17-068 Keene docket may reflect a systematic lack of safety concern and culture at Liberty Utilities that suggests that they may not have the institutional capacity to build Granite Bridge safely. I am appalled at the use of a transparently incorrect site classification in the design – building near a shopping mall as if it was a refinery.

This kind of pervasive error is likely to lead to other errors even after it is ostensibly corrected, simply because of the human tendency to less thoroughly analyze corrections, no matter how numerous. This in fact happened in the Keene case, but was fortunately caught by the PUC Safety Division.

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I fear that the design-level safety redundancy that should be provided by the Safety Division may not be present in Granite Bridge if the Division, rather than the utility, ends up being the "front line" in ensuring that it is safe. The Safety Division's role should be to find mistakes in a generally competent design. If the design is generally incompetent, the Safety Division's job becomes to specify what should be done at a level where they no longer can provide truly independent review; essentially, they become co-authors instead. It's been a while since I was involved, but it used to be that if a medical device manufacturer put the FDA in that position, the FDA would effectively say "you can't make medical devices anymore until you can demonstrate that you know what you're doing".

Thank you for your consideration.

Sincerely,

**Ed Staub**