

Yale University

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VIA ELECTRONIC FILING

November 15, 2010

Ms. Linda Roberts
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: **Docket No. NT-2010**

Dear Ms. Roberts:

Enclosed is the University's response to Fuel Cell Interrogatories 1 through 12 in the above-captioned Docket. Should you have any questions or concerns regarding this matter, please feel free to contact me at (203) 432-9097.

Sincerely,



Samuel W. Olmstead, P.E.
Associate Director – Utilities Engineering
Yale University

Cc: Maureen Massa, Esq.
Anthony Kosior, P.E.
Andrew Lord, Esq.

1.*Is the fuel cell unit stationary or mobile?*

ANSWER: The fuel cell is a stationary, Fuel Cell Energy DFC-300, installed at the Peabody Museum of Natural History, 170 Whitney Avenue, New Haven, Connecticut.

2. *If the fuel cell unit has already been constructed and installed, what NFPA standards were applied to the construction and installation?*

ANSWER: The construction specifications for the construction and installation of the fuel cell, prepared by an independent design engineer, incorporate by reference all relevant NFPA standards.

3. *If the fuel cell has yet to be constructed and installed, what NFPA standards will apply to the construction and installation.*

ANSWER: As the fuel cell has been constructed and installed, this interrogatory is not applicable.

4. *How would recommendation #6, "Recommendation as to adoption of codes" in the Thomas Commission recommendations affect the facility?*

ANSWER: It is Yale University's policy to comply with applicable codes and standards in the design and construction of campus infrastructure. To the extent that the codes and standards referenced in the Thomas Commission Recommendation #6 already apply to the facility, there would be no further effect as a result of this Recommendation. If the non-mandatory Appendices IV and V to ASME B31.1 were made mandatory for the facility, there would be a significant increase in the record keeping required for compliance, particularly with respect to Appendix V; however, there would be very little change in operations and maintenance practices at the facility.

5. ***How do the following codes affect construction, installation or modification of the unit:***
- a. ***NFPA 37 (2010 edition);***
 - b. ***NFPA 54 (2009 edition);***
 - c. ***NFPA 54 Temporary Interim Amendment 09-3 (August 25, 2010);***
 - d. ***NFPA 850 (2010 edition)***
 - e. ***NFPA 853 (2010 edition)***
 - f. ***ASME B31; and***
 - g. ***ASME B31.1 Appendices IV and V***

ANSWER: It is Yale University's policy to comply with applicable codes and standards in the design and construction of campus infrastructure. At the time construction, installation, or modification of the fuel cell is undertaken, it is the University's intent to comply with the codes and standards in place at such time.

Currently, the University requires that the construction of campus infrastructure comply with the codes referenced in items a through f as applicable. If the non-mandatory Appendices IV and V to ASME B31.1 were mandatory for the facility, there would be a significant increase in the record keeping required for compliance, particularly with respect to Appendix V. The University believes that its operations, maintenance and record keeping practices are consistent with good practice and appropriate to the scale and use of the facility.

6. *What is the length of the natural gas piping required for installation and operation?*

ANSWER: The facility has approximately 60 feet of natural gas piping.

7. *What is the operating pressure (psig) of the natural gas piping?*

ANSWER: The fuel cell utilizes natural gas provided by the Southern Connecticut Gas Company (SCG). Gas is delivered through SCG-owned piping at a maximum allowable operating pressure (MAOP) of 199 psig, to a meter set and pressure regulator owned by SCG. The operating pressure of the natural gas piping owned by Yale University is 15 psig or less.

8. *What is the useful lifespan of the natural gas piping?*

ANSWER: For planning purposes, the University estimates the useful lifespan of the natural gas piping to be approximately 30 years.

9. *Would the natural gas piping/pipeline need to be replaced during the life of the facility?*

ANSWER: It is anticipated that the natural gas piping will not need to be replaced during the life of the facility.

10. *Do you foresee any circumstances that would require replacement of a section of natural gas piping?*

ANSWER: In the event that the fuel cell was to be replaced, it is expected that some sections of the natural gas piping would need to be reworked or replaced.

11. *If so, would a new section of natural gas piping be installed and require cleaning?*

ANSWER: Any newly installed or reworked existing natural gas piping would be cleaned prior to being placed into service.

12. *What type of material is that natural gas piping composed of?*

ANSWER: The natural gas piping is composed of Schedule 40 carbon steel with a factory-applied PVC coating.