FuelCell Energy
Ultra-Clean, Efficient, Reliable Power

July 30, 2015

Melanie Bachman, Esq.
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, Connecticut 06051

RE: **PETITION NO. 922 –** UIL Distributed Resources, LLC declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a Fuel Cell generating facility located at 1835 Hebron Avenue, Glastonbury, Connecticut.

Dear Ms. Bachman:

In accordance with the decision in the above-referenced Petition and Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission, FuelCell Energy, Inc., as general contractor and agent for UIL Distributed Resources, LLC, owner of the above-captioned project (the "Project"), is writing to advise the Council of certain pipe purging operations at the Project.

The attached pipe purging procedure specifies the method and media to be used to purge the natural gas piping. No known hazards are associated with the process. The pipe purging will be performed on August 14, 2015 by Tucker Mechanical under the supervision of Mark Benedict, P.E. The Town of Glastonbury Fire Marshal's office has previously been notified that this pipe purging procedure is going to take place and, to date, no comments or concerns have been received.

I hereby certify that a copy of this filing has been sent by first class mail, postage prepaid on this date to all state agencies listed in General Statutes Section 16-50j(g) and to the Department of Consumer Protection, Department of Labor, Department of Emergency Services and Public Protection, Department of Construction Services, and the Department of Emergency Management and Homeland Security.

If you have any questions with respect to the foregoing, please contact the undersigned. Thank you for your consideration.

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Respectfully submitted,

FUELCELL ENERGY, INC.
On behalf of
UIL Distributed Resources, LLC

By: _____
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Job Hazard Assessment (JHA)

Contractor Company and Foreman Names	Tucker Mechanical Ray Gordineer Cara Docker	Date	7-30-15
EMERGENCY #'s	**911**		
Work Area	Natural Gas Supply to Equipment: Nitrogen purge and natural gas purge-into-service	Job Name	Fuel Cell Glastonbury

Project Phase

TASK #	TASK / STEP	HAZARDS	CONTROL MEASURES
1	Procedure Validation	Use of incorrect or unapproved procedure	Each on-site supervisor involved in the preparation and planning of the procedure is to verify that the correct, validated procedure is being used.
2	Project initiation	Release of purging media / flammable gas: asphyxiation, explosion	Fuel line to be purged into service shall have been previously pressure tested and inspected. Site foreman is to verify that pipe has been previously pressure tested and inspected by personal witness or by reviewing test report.
3	Secure Work Area	Unauthorized/ Trained Personnel in work area	Prior to the start of the procedure, site foreman is to walk the entire site to verify that there are no non-essential workers present on the site. Provide barricades and signage to keep out non-essential personnel from the site. Only personnel essential to the purge operations will be permitted on site.
4	LOTO	Release of Hazardous Energy / Premature start of gas flow	Follow LOTO procedure - individual locks for each worker on the system on the lock box. The gas at the meter station is currently locked out by the gas company. For the first phase of this procedure, Tucker Mechanical employees will also lock-out the supply. Double isolation is required, so at least two valves at the meter station will be shut and locked (HV-1242 and HV-1291).
5	Establish Ground Rules, Procedure and Safety Measures	Serious injury or Death	All purging will be completed in accordance with NFPA 54 and NFPA 56. Immediately prior to the start of purging operations, the Site Foreman shall conduct a documented meeting to train all workers on the procedure, sign off on the JHA and Material Safety Data Sheets, do a head count, review the emergency evacuation procedure, employee work assignments and hand out intrinsically safe radios and 4-gas meters. This meeting will include all personnel on site

			during the purge. A master list of personnel on site will be kept with Tucker and Fuel Cell Supervision. All personnel will be reminded that communication will be maintained via intrinsically safe radios. The site foreman will verify that all cell phones are turned off. There will be no smoking permitted or other sources of ignition/ hot work. The site foreman will collect all cigarette lighters from site workers and leave them in the site trailer. The evacuation procedure will be reviewed. The emergency phone numbers will be reviewed as listed above.
6	Nitrogen Purge operation	Asphyxiation	Tucker will attach a purge hose at the Metering Station at CHV-1296, the nitrogen purge port downstream of the isolation valves. The nitrogen source will be a full cylinder of nitrogen and will be equipped with a valve to control the nitrogen flow, a regulator to control the pressure and shutoff to disconnect the nitrogen safely after the purge. The nitrogen will be pushed through the line to the point of interconnection before the Maxon valves, which are closed. The purge outlet will be valve HV-237, a 3/8" sample ball valve. The nitrogen cylinder regulator will be adjusted for a maximum purge pressure of 20 psig. Temporary Trac-Pipe (rated for use with natural gas) will be connected to the piping serving the equipment at HV-237 and run to an open, elevated, unobstructed area away from the street (at the top of the gabion wall, or to the east of the work area, depending on the prevailing wind.) The discharge end of the hose shall be secured pointing up and provisions made for sampling the discharge without directly breathing the released gas. NOTE: natural gas is lighter than air and will rise up in a plume, but nitrogen is approximately the same density as air. Note also that the discharge rate from the hose will be limited by both the maximum allowed line pressure and the 3/8" valve (HV-237) orifice. Purging will continue until oxygen levels reach or approach 0% (less than a maximum of 2% oxygen), confirming a complete purge of the line. 4-gas meters will be used to monitor air quality in the breathing zones around the injection point and at the venting location. This will be used to monitor atmospheric readings nearby. A Bascom Turner 611/612 meter will be used at the vent pipe to verify no oxygen in the end of the line. Once this is confirmed HV-1299 will be closed and the nitrogen hose will be removed and the system will be restored on that end. HV-1299 will be locked closed. NOTE: Action levels are <19.5% oxygen, in which case the operator shall call for a "stand down." In the case of a stand down, workers

			shall immediately close the valves at each end of the line being purged (HV-1299 and HV-237) and leave the area.
7	Introducing Gas (Purge into service)	Fire/ Explosion hazard/ Asphyxiation	Tucker will remove our locks from the valves at the meter station. The gas company will be present to remove their locks as well. After notifying workers of live gas flow, we will slowly crack the main valve to introduce gas into the line, venting the nitrogen blanket and gas through the system to the point of use. The natural gas regulator, PCV-1290, will be adjusted to provide 20 psig pressure to the line. The bulk of what will be released to the atmosphere is nitrogen, as once we detect gas at the point of use, the valves will be closed. Employees will be stationed at three points: at the fuel metering station and each end of the discharge hose line and will maintain constant communication via intrinsically safe radios. Each employee will be equipped with a 4 gas meter to verify safe air quality levels. Employees shall advise each other of any detected LEL and shall call for a 'stand-down' condition if a reading of > 10% LEL is detected in any occupied area (but not at the elevated discharge location.) An additional meter used to detect percentage and purity of gas will be used to confirm the nitrogen blanket has been vented and the gas purity is acceptable (>80% gas by volume) at the discharge location. Once the purity level is reached, the vent valve (HV-237) will be closed and the temporary trac-pipe will be removed. We will then place a lock at the Maxon valves, serving equipment, to prevent an accidental release until the equipment is ready to be fired. We will alert all trades on site that the natural gas is now live on site. HV-1291 shall againb be closed and locked with a Tucker lock.
8	Procedure completion	None	Procedure is now completed. Barricades and signage can be removed and work on site can be resumed.
9	Record retention	None. NFPA 56 requirement.	Records of the purge procedure shall be maintained by Tucker Mechanical and FuelCell Energy for 2 years.

Employee Acknowledgement SIGNATURES (JHA/training)

Company Name	Printed Name	Signature	Date