



FuelCell Energy
Ultra-Clean, Efficient, Reliable Power

July 29, 2016

VIA EMAIL & U. S. MAIL

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

Re: **PETITION NO. 1214** - Groton Fuel Cell 1, LLC petition for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is Required for the construction, maintenance, and operation of a 5.6 megawatt fuel cell combined heat and power electric generating facility located at the Pfizer Groton campus, 445 Eastern Point Road, Groton, CT

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 sole member of Groton Fuel Cell 1, LLC, owner of the above-captioned project (the "Project"), is writing to advise the Council of certain pipe cleaning operations at the Project.

The attached pipe cleaning procedures specify the methods and medias to be used to clean the natural gas piping for Units 1 and 2 at the Pfizer Groton campus. No known hazards are associated with the process. The pipe cleaning will be performed on August 10, 2016 by A/Z Corp. under the supervision of Craig Parker, P.E. The attached procedures and identification of Mr. Parker as the inspector have previously been submitted to and reviewed by Pfizer's Safety Department and, to date, no comments or concerns have been received. Please note that Pfizer maintains its own fire/medical emergency department on campus.

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

FuelCell Energy, Inc. *phone* 203.825.6000
3 Great Pasture Road *fax* 203.825.6100
Danbury, CT 06813-1305 *www.fuelcellenergy.com*



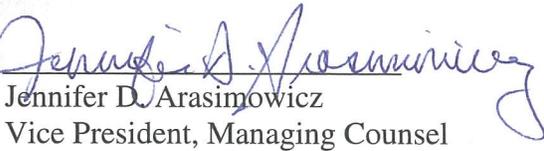
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Construction Services, and the Department of Emergency Management and Homeland Security.

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

Respectfully submitted,

FUELCELL ENERGY, INC.
On behalf of
GROTON FUEL CELL 1, LLC

By: 
Jennifer D. Arasimowicz
Vice President, Managing Counsel

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Danbury, CT 06810
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Design | Construct | Maintain

46 Norwich Westerly Road 800.400.2420 Phone
P.O. Box 370 860.445.3599 Fax
North Stonington, CT 06359 a-zcorp.com

Job Title: Pfizer FCE – Cleaning of Gas Piping to Skid # 2 EAST

Date of Analysis:

Reviewed By: Dave Swinburne (A/Z Safety Coordinator)

Approved By: Fuel Cell Energy

Job Location: Pfizer Groton, CT 06349

Job Description:

The following is a basic sequence of events procedure for the safe cleaning of the new natural gas piping from hand valve HV-001 at the Eversource gas train through HV-002. The strainer and the spool to Skid # 2 will be removed for this Procedure.

Important Notes:

- Prior to the cleaning procedure taking place all of the gas piping will have been pressure tested and signed off on.
- Compressed Air will be utilized to perform the cleaning blow for this piping.

Personal Protective Equipment:

- A/Z Issued Class E Hard Hat
- Eye Protection (Safety Glasses)
- Safety Toed Boots
- Hand Protection
- Face Shield
- Hearing Protection
- Personal gas monitors

Attendant Responsibilities:

- 1) During the blowing procedure an attendant shall be posted at the perimeter of the danger taped area.
- 2) The attendant's responsibilities shall be to ensure;
 - That no unauthorized vehicle or pedestrian traffic enters the restricted area.
 - To communicate with the person performing the blowing of the system.

Roles and Responsibilities: A/Z Safety Department

- 1) **Training:**
 - a) Crew Members whose duties fall within the scope of this standard shall be provided with training that is consistent with the scope of their job activities.
 - b) Training shall include hazards of any compressed gas used for cleaning, safe handling practices of compressed gas as applicable, emergency response procedures and equipment, and company policy.
 - c) Personnel training shall be conducted by a competent person (A/Z Safety Coordinator) knowledgeable in the subject matter and shall be documented.
- 2) **Emergency Response:** In the event of an emergency while working on the Project site, the emergency phone number is 777 from a Pfizer phone or 860-441-0777 from any other phone. All site personnel will be evacuated to a pre-determined location (FCE Trailer). Emergency response planning will follow in accordance with 29 CFR 1910.38(a). The Groton, CT Fire Department will be utilized to respond to emergency situations.
- 3) **Pre-Emergency Planning:** Another task in emergency planning efforts will be to designate appropriate emergency escape routes and safe places of refuge for the site activity areas. These designations may change on a daily basis due to factors such as wind direction, the type and extent of emergency situation warranting the need for evacuation, among others. The Safety Coordinator or Supervisor will identify any changes in escape routes and refuge points and will discuss with crew members.

The following situations would classify as emergency situations:

Medical Emergency: Overexposure to hazardous materials, direct exposure with a chemical, trauma injuries (broken bones, severe lacerations/bleeding, burns), eye/skin contact with hazardous materials, loss of consciousness, cold stress (hypothermia), heat stress (heat stroke), heart attack, respiratory failure, and allergic reaction.

- 4) **Procedures to Account for Site Personnel:** Accounting for personnel will be accomplished through the requirement that all personnel on site sign in and out each day with the A/Z site management team. During an emergency, personnel will immediately evacuate the work area and proceed to the muster points.
- 5) **Notifications:** All Contractors working on site including Fuel Cell Energy and Pfizer will be notified prior to the commencements of this procedure.
- 6) **Rescue and Medical Duties:** A physician-approved first aid kit, an eyewash station, and Class ABC fire extinguishers will be readily available on site. Only adequately trained site personnel will be authorized to participate in emergency rescue operations.
- 7) **Activation of Emergency Response Procedures:** Emergency services will be notified immediately in the event of an emergency by DIALING 777 from a Pfizer phone or 860-441-0777 from any other phone. The Safety Coordinator will notify A/Z's PM, Fuel Cell Energy and Pfizer after emergency services has been called. A list of these contacts is provided:



Local Agencies:

Pfizer Emergency: 777 OR OUTSIDE 860-441-0777

Ambulance: 911

Fire: Groton, CT- 911 (860) 445-2456

Police: Groton, CT - 911 (860) 445-2541

A/Z Personnel:

Mechanical Project Manager: Chris Lanphear (860) 287-1871

Site Foreman: Mauricio Munoz (860) 319-6287

Safety Coordinator: Dave Swinburne (860) 333-0580

Corporate, Health and Safety Manager: Edwin Jones (860) 625-8839

Fuel Cell Energy:

Construction Project Manager: Ricky Clark (203) 733-4731

- 8) **Fire Control:** Smoking/Tobacco products ARE NOT allowed anywhere within the Pfizer Fuel Cell Construction Project.
- 9) **Work Stand-Down Procedure:** The foreman shall brief personal the instructions below regarding valve closures to be acted upon in the event of a call for "Stand-Down" during the nitrogen blow.
 - In the case of a stand-down call during the compressed air blowing closing HV-001 will stop the flow of compressed air.
- 10) **Emergency Recognition and Prevention:** Because unrecognized hazards may result in emergency incidents, it will be the responsibility of the A/Z PM, A/Z foreman and A/Z safety coordinator through daily site inspections and employee feedback (weekly safety meetings, and job safety analyses) to recognize and identify all hazards that are found at the site. These may include:
 - Chemical Hazards
 - Materials at the site
 - Materials brought to the site
 - Physical Hazards Fire/explosion
 - Slip/trip/fall
 - Electrocutation
 - IDLH atmospheres
 - Excessive noise
 - Cold
 - Heat
 - Ecological
 - Mechanical Hazards Heavy equipment
 - Stored energy system
 - Pinch points
 - Electrical equipment
 - Vehicle traffic
 - Environmental Hazards Electrical Storms
 - High winds
 - Heavy Rain/Snow
 - Temperature Extremes (Heat/Cold Stress)



Supervisor

1) Planning:

*Hazards

- Lack of Communication
- Non-compliance
- Energized Equipment
- Pressurized Fluid
- Nitrogen Cylinders / Unit
- Flammable and / or Toxic Atmosphere
- Unauthorized Work

*Controls

- Inform the crew members of Lockout / Tagout
- Plan the work involving personnel responsible for preparation (such as isolation, depressurization, draining, venting, flushing) of the equipment / system to be purged.
- Ensure the equipment / system to be purged is positively isolated from all sources of energy (hydraulic, pneumatic, electrical etc.)
- Use proper locks and tags for isolation
- Ensure the equipment / system is depressurized and content is drained safely.
- Arrange compressed air tank considering the volume to be purged.
- Ensure the deployment of compressed air does not create a hazard for the site.

Crew Members

2) Compressed Air Blowing

*Hazards

- Lockout / Tagout
- Plan the work involving personnel responsible for preparation (such as isolation, depressurization, draining, venting, flushing) of the equipment / system to be blown.
- Ensure the equipment / system to be blown is positively isolated from all sources of energy (hydraulic, pneumatic, electrical etc.)
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*Controls

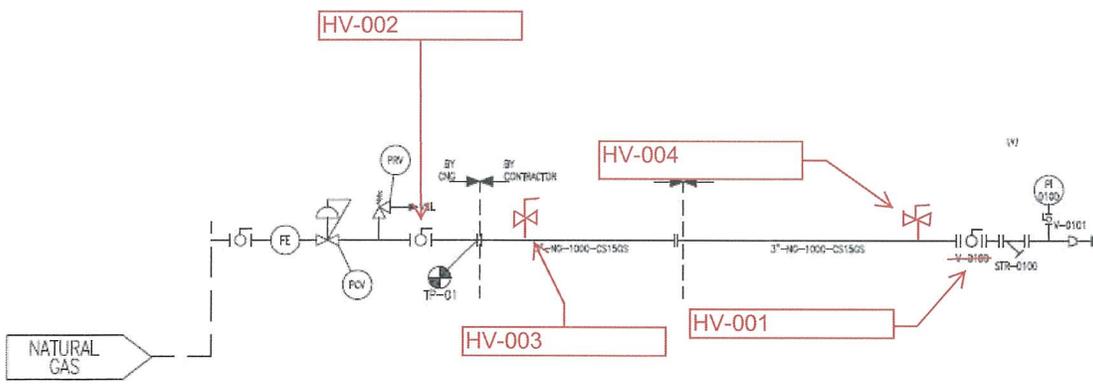
- Ensure the tools (such as compressed air tank, hose, coupling, and pressure gauges etc.) to be used are free from defect.
- Ensure the compressed air supply hoses and couplings are rated for the required service and pressure.
- Barricade the area and post warning notice.
- Ensure the disposal of purged compressed air volume is to a safe location.



Gas Line compressed air blowing Procedure: Information Notes: The following is a basic sequence of events procedure for the safe compressed air blowing / cleaning of the new natural gas piping from hand valve HV-002 at the gas meter assembly to HV-001.

- 1.) Prior to the cleaning procedure taking place all gas piping will have been tested and signed off on.
- 2.) HV-002 will be closed and LOTO performed
- 3.) Confirm that HV-002 is closed.
- 4.) A 100 gallon receiver will be utilized for additional volume of compressed air to perform the blow.
- 5.) A 1" HP hose will be connected from the tank to HV-003.
- 6.) Valve HV-003 will be opened.
- 7.) A flanged adapter 3" x 1" with a short piece of 1" CS pipe will be installed on the discharge side of HV-001 to increase velocity.
- 8.) White tack mat will be placed on the slab below the discharge point of HV-001 as a target for the blow.
- 9.) Danger tape will be installed around a 30ft perimeter radius from the discharge location.
- 10.) All non-essential personnel are prohibited from entering the cordoned-off areas during this procedure.
- 11.) All workers involved in this work will attend a pre procedure briefing where this procedure will be reviewed.
- 12.) The receiver and piping will be charged to 60psi thru HV-003, pressure verified by gauge on compressed air receiver.
- 13.) Hand Valve HV-001 shall now be fully opened to allow the blow until pressure drops to 45psi.
- 14.) The target shall be inspected and replaced with a clean target.
- 15.) Steps 12 thru 14 shall be repeated until the target shows no signs of debris.
- 16.) At this time the 3" x 1" spool can be removed from HV-001 and the strainer and additional spool can now be installed to skid # 2.
- 17.) Strainer and additional piping spool will be hand cleaned and inspected prior to installation into the system.
- 18.) LOTO on valve HV-002 will remain in place until gas purge procedure is performed.
- 19.) At this time the piping is cleaned and secured for the purging operations.
- 20.) The final spool piece will be installed after the regulators, hand cleaned and in-service tested.





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