STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

February 21, 2024

Kristen Grillo
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
Kristen.Grillo@bloomenergy.com

RE: **PETITION NO. 1497 -** Bloom Energy Corporation Declaratory Ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the construction, maintenance and operation of a customer-side 2-megawatt fuel cell facility and associated equipment to be located at Bridgeport Hospital, 267 Grant Street, Bridgeport, Connecticut. **Compliance with Condition No. 5.**

Dear Kristen Grillo:

The Connecticut Siting Council (Council) is in receipt of the notification for pipe cleaning procedure dated February 16, 2024 regarding compliance with Condition No. 5 of the Council's Declaratory Ruling of May 13, 2022, which was amended on August 18, 2023 in Petition 1497A, for the above-referenced facility.

The Council acknowledges that the condition has been satisfied. This acknowledgment applies only to the condition satisfied by the February 16, 2024 correspondence.

Please be advised that deviations from the standards established by the Council in the Declaratory Ruling are enforceable under the provisions of Connecticut General Statutes §16-50u.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/RDM/dll

What Powers You

February 16th, 2024

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

RE: PETITION NO. 1497 - Bloom Energy Corporation petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a customer-side 2-megawatt fuel cell facility and associated equipment to be located at Bridgeport Hospital, 267 Grant Street, Bridgeport, Connecticut.

Dear Ms. Bachman:

Per condition #5 outlined in the Siting Council's declaratory ruling letter received on May 12th, 2022, we are respectfully submitting the attached report to notify the Council of the means and methods that will be used to perform fuel pipe cleaning procedures, to be completed in accordance with Public Act 11-101.

In compliance with condition #5., copies of this correspondence and accompanying report are being sent via electronic email to the state agencies on the attached list.

If you have any questions, concerns or require additional information, please contact me at (917) 803-4511.

Respectfully,

Kristen Grillo
Bloom Energy Corporation
Senior Permitting Specialist | East Coast Field Office
Customer Installations Group | North America
(917) 803-4511
Kristen.Grillo@bloomenergy.com

A/Z Corporation
46 Norwich Westerly Road
North Stonington, Connecticut 06359
P: (800) 400-2420
F: (860) 445-3599

Project: C-8-1762 YNH004 Bridgeport Hospital Fuel Cell
267 Grant Street
Bridgeport, Connecticut 06610
P: 203-384-3000

Submittal #220000-008.0 - Gas Line Purge MOP
220000 - Plumbing

Revision	0	**Submittal Manager**	Bill Burgon (A/Z Corporation)
Status	Open	**Date Created**	Dec 20, 2023
Issue Date	Dec 20, 2023	**Spec Section**	220000 - Plumbing
Responsible Contractor	A/Z Mechanical	**Received From**	Daniel Cruz (A/Z Mechanical)
Received Date		**Submit By**	
Final Due Date	Feb 12, 2024	**Lead Time**	
		Cost Code	
Location		**Type**	Document
Sub Section			
Approvers	Carson Turner (Bloom Energy)		
Ball in Court	Carson Turner (Bloom Energy)		
Distribution	Robert Kloss (A/Z Corporation)		
Description			

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					
Carson Turner		Feb 12, 2024		Pending	

COMPANY NAME
☑ REVIEWED
☐ FURNISH AS CORRECTED
☐ REVISE AND RESUBMIT
☐ REJECTED
☐ FOR INFORMATION ONLY

This review is for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. This review and the markings and/or comments by the Engineer does not relieve the Contractor from compliance with the requirements and intentions of the drawings and specifications of the project. Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences, and procedures of construction; coordination of their work with that of all other trades; and for performing all work in a safe and satisfactory manner.

BY Brian Curtis DATE 02/09/2024

Our review is for the general conformance with the design concept and contract documents. Any marking or comments must not be construed as relieving the subcontractor/supplier from compliance with the project plans and specifications nor departures there from. The subcontractor / supplier remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes for the techniques of assembly, and for performing this work in a safe manner and in accordance with all applicable codes.

Date: 02/07/2024

Reviewed By: William Burgon

DOC-1010418
Rev A

YNHH-003

METHOD OF PROCEDURE

WHERE	Building Name	YNHH-004 Bridgeport Hospital/ SKE&C Betek BLOOM ENERGY - FUEL CELLS
	Work Site Address	267 Grant Street Bridgeport, CT 06610

WHEN	Work Start Date	20-Feb	Shift Start Time	7:00:00 AM
	Work Complete Date	20-Feb	Shift Complete Time	3:30:00 PM

WHAT	Site ID	S11003	Description of Work	FUEL CELL
	Project Title	YNHH-004	MOP Type	Sequence of Operation for Nitrogen Purge

WHO	**Name**	**Company**	**Title**	**Function/Department**	**Date**	**Approved or Approval Not Req**
	Rob Kloss	A-Z Corp	Project Manager	CM		
	Bill Burgon	A-Z Corp	Project Engineer	CM		
	Daniel Cruz	A-Z Corp	Project Manager	Mechanical		
	Nicholas Baldi	A-Z Corp	Project Foreman	Mechanical		
	Sung Lee	SKE&C	Project Controls Manag	Remote Oversight		
	Brad Park	SKE&C Betek	Project Controls Manag	Remote Oversight		
	Jack Min	SKE&C Betek	Engineering Manager	Remote Oversight		
	Andrew Lathrop	SKE&C Betek	Superintendent	Remote Oversight		
	Richard Gregoire	Idea Engineering	Engineer	3rd Party Inspection Agency		
	Bridgeport Fire Departme	City of Bridgeport	Dispatch	Remote Oversight - In Case of Emergency		

DOC-1010418 Rev A	YNHH-004 Bridgeport Hospital / SKE&C Betek BLOOM ENERGY - FUEL CELLS			
C-8-1365	YNHH-004 (267 Grant St Bridgeport, CT 06610)			
SECT.				
1	**Planning Tasks**			
2	**Shutdown Tasks**			

Critical Step? (*)	Step No	Procedure / Task	Responsible Parties	Planned Start Date	Time	Initial Here
		PLANNING TASKS				
	1	Review the Bloom Energy N2 Commissioning requirements and the CSC Letter Dated 6/24/22 and make provisions to complete all required work needed to safely purge and energize the new gas piping installation.	A/Z Corp/Bloom Energy/SKE&C	2/6/2024	N/A	
	2	Verify fuel plumbing has been pressure tested for leaks by the final inspections complete prior to executing this MOP	A/Z Corp	2/6/2024	N/A	
	3	Per CSC Letter Item#5a Compressed Nitrogen will be the identified cleaning media for the fuel cell new piping installation.	A/Z Corp	2/6/2024	N/A	
	4	Verify Tools are available: Gas Meter Detector RKI-GX2012, Adjustable Pipe Wrenches, Caution Tape, Fire Extinguisher (2A or better), Nitrogen Bottle with Pressure Regulator and Certified Gauges	A/Z Corp	2/20/2024	7am	
	5	Required PPE: Safety Glasses, Gloves Lvl4 cut resistant, Hard Hat, High Visibility Clothing, Steel Toe or Composite Work Boots with safety toe protection	A/Z Corp	2/20/2024	N/A	
	6	Per CSC Letter Item#5b Identify Known Hazards of Compressed Nitrogen are as follows: Contains Gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation	A/Z Corp	2/6/2024	N/A	
	7	Per CSC Letter Item#5c Description of how known hazards will be mitigated: A/Z will perform operation in outdoor area away from mechanical intakes or building openings. Compressed Nitrogen tanks will be stored out of direct sunlight, upright and secured to prevent tank from being susceptible to extreme temperatures above 52 deg C/ 125deg F.	A/Z Corp	2/6/2024	N/A	
	8	Per CSC Letter Item#5d A/Z jobsite foreman and any other affected employees conducting work shall conduct a site specific safety meeting with the Compressed Nitrogen material SDS sheet regards to safe working methods. All work to conform to the requirements set forth in the NFPA 54 1213.0 Pressure Testing, Inspection, and Purging.	A/Z Corp	2/20/2024	7am	
	9	Per CSC Letter Item#5f A/Z Corporation will be performing the Nitrogen Media Purge as the project Plumbing Contractor approved by the Town of Trumbull.	A/Z Corp/SKE&C	2/20/2024	N/A	
	10	Per CSC Letter Item#5g - Notify 3rd Party Inspection Agency to schedule witness inspection for Fuel Pipe Cleaning. Agency will be Idea Engineering, Inc. - 612 Wheelers Farms Rd. - 1st Flr. Milford, CT 06461	A/Z Corp/Bloom Energy/SKE&C	2/6/2024	N/A	
	11	Per CSC Letter Item#5h - Review MOP with SKE&C and Bloom Energy. If approved, SKE&C to submit notice to CSC of purging clean new gas piping.	A/Z Corp/Bloom Energy/SKE&C	2/6/2024	N/A	

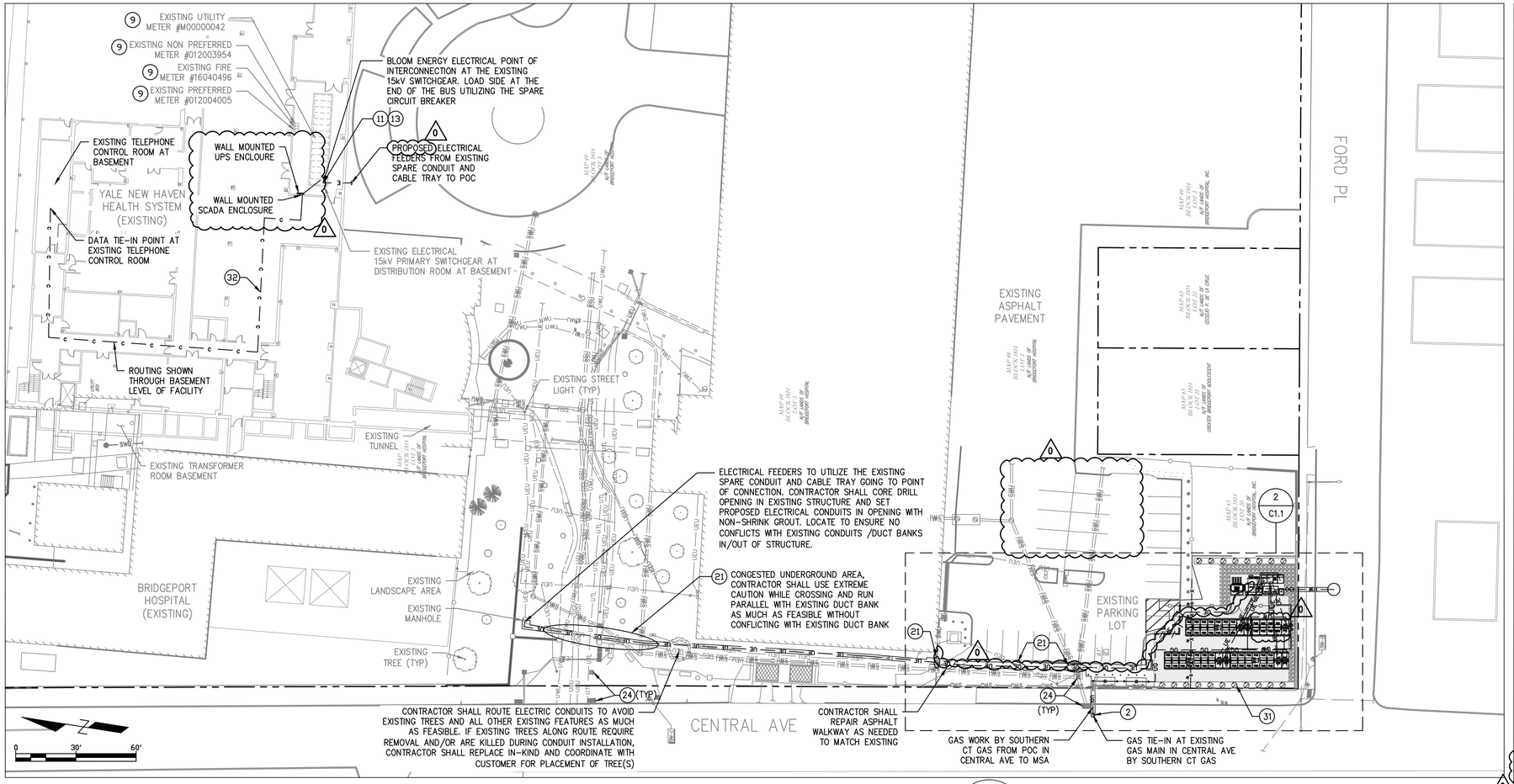
	12	Field Coordination: Setup Barricades with caution tape and or cones within a 10ft radius around the point of discharge. Ensure no open flame within 50ft of equipment. Make sure Fire Extinguisher is within reach less than 50ft from discharge area. Confirm all Valves are in the closed position at all fuel stubups and meter.	A/Z Corp	2/6/2024	7am	
	13	Notify Fire Department Dispatch	A/Z Corp	2/6/2024	7am	
		SHUTDOWN TASKS				
	1	Per CSC Letter Item# 5e - Gather A-Z Team Together for Stand-Down to Discuss MOP and Go Over Any Questions/Concerns. Persons not involved in the purging operations shall be evacuated from all areas within 10ft of point of discharge	All Teams	2/20/2024	7am	
	2	Purge Open End of piping with Compressed Nitrogen using a pressure regulator with certified gauge rated for 60psi and controlled shutoff valve. Starting Point will be post Bloom Regulator. See drawing. The Bloom Furnished Pressure Regulator valves will be closed and blanked off with a 2" pancake blind gasket to prevent backpressure through Regulator assembly.	A/Z Corp/Bloom Energy	2/20/2024	8:00am	
	3	The point of discharge shall be located at least 10ft away from sources of igntion, building openings, and 25ft from mechanical intake openings. (See Drawing) Compressed Nitrogen will be purged at 60psi for 60 seconds approximately 6 times at each of the 7 outlet locations noted on the plan. (See Drawing). Please note MSA to RSA connection will require separate purge witness pending MSA installation if not complete before purge date.	A/Z Corp/Bloom Energy/3rd Party Inspector	2/20/2024	8:00am	
	4	Close System Open End shutoff valve for purging and make connect to Bloom Fuel Cell Equipment. Install Bloom Furnished Pressure Regulator.	A/Z Corp/Bloom Energy	2/20/2024	10:00am	
	5					
	6					
	7					
	8					
	9					

DOC-1010418
Rev A

PROJECT CONTACTS LIST

Name	Company	Title	Function/Department	Email	Phone
Robert Kloss	A-Z Corp	Project Manager	CM	rkloss@a-zcorp.com	860-949-9734
Bill Burgon	A-Z Corp	Project Engineer	CM	bburgon@a-zcorp.com	860-917-5297
Daniel Cruz	A-Z Corp	Project Manager	Mechanical	dcruz@a-zcorp.com	860-235-3945
Nicholas Baldi	A-Z Corp	Project Foreman	Mechanical	nb4433@a-zcorp.com	860-867-0893
Sung Lee	SKE&C Betek	Project Controls Manager	Remote Oversight	sunglee@sk.com	213-712-6094
Brad Park	SKE&C Betek	Project Controls Manager	Remote Oversight	brad_park@sk.com	408-784-9265
Jack Min	SKE&C Betek	Engineering Manager	Remote Oversight	jackmin@sk.com	201-716-9502
Andrew Lathrop	SKE&C Betek	Superintendent	Remote Oversight	andrew_lathrop@sk.com	917-239-2275
Richard Gregoire	Idea Engineering, Inc.	Engineer	3rd Party Inspection Agency	richard.gregoire@ideas4eng.com	203-500-1743
Bridgeport Fire Deparment	City of Bridgeport	Admin/Dispatch	Oversight		203-337-2070

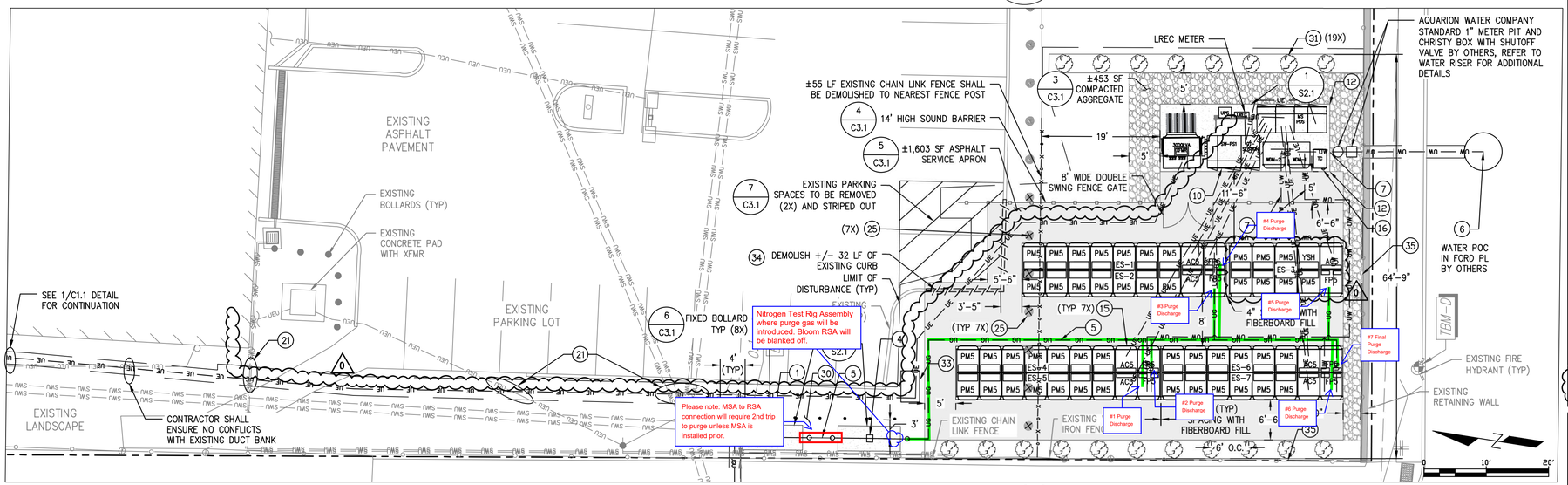
Contingency Plan	
Concern	In case of a emergency
Response	**Contact the Fire Department**
Concern	
Response	
Concern	
Response	
Concern	
Response	
Concern	
Response	
Concern	
Response	
Concern	
Response	



UTILITY SITE PLAN

SCALE: 1" = 10'

1 C1.1



UTILITY SITE PLAN ENLARGEMENT

SCALE: 1" = 10'

2 C1.1

SITE REFERENCE NOTES:
1. BOUNDARY, TOPOGRAPHIC, AND UTILITY SURVEY PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED NOVEMBER 30, 2022
2. MASTER PLAN – EXISTING FLOOR PLAN PREPARED BY BRIDGEPORT HOSPITAL, INC., DATED MARCH 14, 2017.
3. BING MAPS.

GENERAL NOTES

1. CLEAN AND PRIME ALL PROPOSED WALL MOUNTED PIPING AND CONDUIT. PIPING AND CONDUIT SHALL BE PAINTED WITH EXTERIOR GRADE PAINT TO MATCH EXISTING.
2. CONDUITS AND PIPES MOUNTED TO BUILDING WALL SHALL BE SUPPORTED AS PER LOCAL CODE, RUN AT HEIGHT ABOVE DOORWAYS, AND STAND OFF WALL TO AVOID EXISTING CONDUITS AND PIPES.
3. SEE BLOOM ENERGY PRODUCT INSTALLATION DRAWINGS FOR UTILITY CONNECTIONS TO ANCILLARY EQUIPMENT AND ENERGY SERVER.
4. ALL EXISTING FEATURES SHALL REMAIN AND BE PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION, UNLESS OTHERWISE NOTED ON PLANS.
5. ALL ABOVE FROST LINE SECTIONS OF WATER PIPES SHALL HAVE POWERED HEAT TRACE AND INSULATION. CONTRACTOR SHALL ENSURE UNDERGROUND WATER PIPE DEPTHS ARE BELOW FROST LINE.

REFERENCE SHEET NOTES

1. UTILITY PROVIDED AND INSTALLED GAS METER ASSEMBLY WITH SHUT-OFF VALVE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE PAD AND PAD REINFORCEMENT SHOP DRAWING DETAILS IF REQUIRED BY UTILITY COMPANY. PAD SIZE AND REBAR LAYOUT PER UTILITY SPECIFICATIONS. COORDINATE ALL CONNECTIONS WITH GAS UTILITY.
2. UNDERGROUND GAS SERVICE TAP BY UTILITY COMPANY. UTILITY COMPANY SHALL BE RESPONSIBLE FOR ENTIRE INSTALLATION FROM POINT OF CONNECTION TO NEW GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS UTILITY FOR SCHEDULE OF THIS WORK PRIOR TO CONSTRUCTION.
4. PRIVATE GAS REGULATOR SET ASSEMBLY FOR ENERGY SERVER WITH SHUT-OFF VALVE. REFER TO GAS RISER DETAIL FOR ADDITIONAL REQUIREMENTS.
5. GAS PIPE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO GAS RISER DETAIL FOR ADDITIONAL REQUIREMENTS.
6. ONE INCH TAP ON AWC MAIN WITHIN FORD PLACE WITH A LOCAL SHUT-OFF AND METER PIT BY OTHERS. REFER TO WATER RISER DETAIL FOR ADDITIONAL REQUIREMENTS.
7. PROPOSED WATER PIPE FROM METER PIT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO WATER RISER DETAIL FOR ADDITIONAL REQUIREMENTS.
9. EXISTING UTILITY ELECTRIC METER. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
10. BLOOM FURNISHED, CONTRACTOR INSTALLED, UTILITY APPROVED GENERATOR DISCONNECT SWITCH, ACCESSIBLE 24/7. MOUNT PER MANUFACTURER AND UTILITY SPECIFICATIONS.
11. CONTRACTOR SHALL TERMINATE ELECTRIC FEEDER AS SHOWN. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
12. CONTRACTOR SHALL PROVIDE TWO GROUNDING RODS TO BE PLACED 6' APART MINIMUM. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
13. ELECTRICAL FEEDER SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
15. PROPOSED BLOOM ENERGY SERVER MOUNTED ON A PRECAST CONCRETE PAD. PRECAST CONCRETE PAD DESIGNED BY PRECAST MANUFACTURER. REFER TO PRODUCT INSTALLATION DRAWINGS FOR ADDITIONAL BLOOM ENERGY SERVER AND PRECAST PAD DETAILS INCLUDING STUB UP DETAILS AND PAD CUT-OUT LOCATIONS. REFER TO SINGLE LINE DIAGRAM FOR UFER REQUIREMENTS.
16. FACTORY WIRED ENERGY SERVER EMERGENCY POWER-OFF SWITCH (EPO).
21. PROTECT EXISTING UNDERGROUND UTILITY LINES FROM DAMAGE AND HAND DIG TRENCHES AS NEEDED WHEN CROSSING WITH NEW UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED LINES.
24. PROVIDE STORM DRAIN PROTECTION OUTFLOW PORTS AT STORM DRAIN INLET. REFER TO STORM DRAIN PROTECTION DETAIL FOR ADDITIONAL REQUIREMENTS.
25. CONTRACTOR SHALL REMOVE EXISTING TREE. STUMP REMOVAL SHALL OCCUR TO A DEPTH AS NECESSARY TO ENSURE NO CONFLICTS WITH REQUIRED PAD SURFACE PREPARATION.
0 30. CONTRACTOR SHALL PROVIDE LANDSCAPE/TURF RESTORATION. REFER TO LANDSCAPE/TURF RESTORATION DETAIL FOR ADDITIONAL REQUIREMENTS. IRRIGATION SHALL BE PROTECTED AND REMAIN OPERATIONAL DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR EXTENDING AND/OR REROUTING IRRIGATION LINES AS NECESSARY AND THE REPAIR/REPLACEMENT IF ANY DAMAGE OCCURS.
31. CONTRACTOR SHALL FURNISH AND INSTALL PROPOSED TREE, REFER TO PLANTING DETAIL FOR ADDITIONAL INFORMATION. WESTERN ROW OF TREES ALONG CENTRAL AVENUE SHALL BE SKY PENCIL HOLLY INSTALLED AT 6' O.C. SPACING, 5 GALLON CONTAINER (TYP 11X). EASTERN ROW OF TREES ADJACENT TO RESIDENTIAL PROPERTY SHALL BE EMERALD GREEN ARBORVITAE INSTALLED AT 6' O.C. SPACING, 4'-5' HEIGHT (TYP 8X).
32. CONTRACTOR SHALL MOUNT ELECTRICAL AND/OR DATA CONDUIT ROUTING THROUGH BUILDING IN CEILING. CONTRACTOR SHALL COORDINATE EXACT ROUTING AND MEANS AND METHODS OF INSTALLATION WITH CUSTOMER REPRESENTATIVE IN THE FIELD PRIOR TO CONSTRUCTION.
33. CONTRACTOR SHALL FURNISH AND INSTALL ELECTRICAL PULL BOXES EVERY 360 DEGREES OR LESS OF HORIZONTAL AND VERTICAL BENDS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT NUMBER, SIZE, AND LOCATION OF THE PULL BOXES AND SHALL INSTALL IN ACCORDANCE WITH NEC 314.28. MINIMUM SIZE OF THE PULL BOX SHALL BE [36" X 60"]. PULL BOX SIZES SHOWN ARE MINIMUM SIZE BASED ON PROPOSED ROUTING PER SITE PLAN. IF THE PULL ANGLE IS CHANGED DUE TO FIELD CONDITION OR RE-ROUTED FOR VALUE ENGINEERING, THE CONTRACTOR SHALL RE-SIZE THE PULL BOX BASED ON PREVAILING FILED CONDITION AND GET APPROVAL FROM THE DESIGN ENGINEER. REFER TO TYPICAL PULL BOX WALL MOUNTING DETAIL ON SHEET S3.1.
34. CONTRACTOR SHALL REMOVE ±32 LF EXISTING 6" HIGH ASPHALT CURB TO EXTEND ASPHALT SERVICE APRON AND CONTRACTOR SHALL INSTALL TRANSITION CURB ON EITHER AND AS NEEDED.
35. CONTRACTOR SHALL USE EXTREME CAUTION WITH ALL SOIL DISTURBANCE ACTIVITIES ADJACENT TO EXISTING WROUGHT IRON FENCE AND EXISTING RETAINING WALL AND ENSURE STABILITY OF EXISTING RETAINING WALL THROUGHOUT THE DURATION OF CONSTRUCTION. IF WALL IS DAMAGED, CONTRACTOR SHALL NOTIFY EOR AND REPAIR TO MATCH EXISTING.
0 36. LOCKED GATES TO HAVE KNOX BOX SYSTEM FOR FIRE DEPARTMENT ACCESS. CONTRACTOR SHALL CONFIRM AND COORDINATE LOCATIONS IN THE FIELD WITH THE FIRE MARSHAL.

EXISTING UTILITY NOTE:
THE LOCATION OF EXISTING UTILITIES IS SHOWN FOR THE CONTRACTOR'S REFERENCE. EXACT LOCATION, DEPTH AND SIZE OF ALL EXISTING UTILITIES IS NOT KNOWN. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES NOT SHOWN ON THESE DRAWINGS. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES AND PROTECT THE EXISTING UNDERGROUND UTILITY LINES FROM DAMAGE WHEN CROSSING WITH NEW UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED LINES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE AND MAY REQUIRE ADJUSTMENTS TO AVOID CONFLICTS.

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ENGINEER OF RECORD
CARSON TURNER, P.E.
LICENSE #: 22700

STATE OF CONNECTICUT · CARSON P TURNER · 22700 · LICENSED PROFESSIONAL ENGINEER

Carson Turner
Digitally signed by Carson Turner
DN: CN=Carson Turner
Date: 2024.01.08 11:55:02-08'00'

CUSTOMER SITE

YALE NEW HAVEN HEALTH SYSTEM
267 GRANT STREET
BRIDGEPORT, CT 06610

Yale NewHaven Health

RELEASE HISTORY		
REV	ISSUE PURPOSE	DATE
–	INITIAL RELEASE	08/17/2023
0	REVISION FOR IFC SET	01/08/2024

DESIGNED BY SASHA SCARLAT	REVIEWED BY KATE TAYLOR
DRAWN BY LAKSHMI SRINIVAS	APPROVED BY CARSON P. TURNER

SHEET TITLE
UTILITY SITE PLAN

DRAWING NUMBER
C1.1

BLOOM ENERGY DOCUMENT NUMBER
DOC-1014143

THIS DRAWING IS 24" X 36" AT FULL SIZE

SITE ID: YNH004.0 | SHEET 04 OF 17

January 8, 2024 10:42:48 AM

Gas System Commissioning – N2

DOC-1010208

Revision A

Estimated Evolution Time: 2 hrs
Number of Personnel: 2 Total

- **1 Inlet Attendant &**
- **1 Discharge Attendant**

Purpose

- This procedure intends to provide a clear process for CIG field workers ensuring natural gas delivery to site within Bloom Energy Specifications. More specifically, the objective of this procedure is to:
  - Ensure Compliance with:
    - NFPA 54 National Fuel Gas Code
    - OSHA and CalOSHA construction safety standards
    - Title 49 of the Code of Federal Regulations (DOT) safety standards
    - Regional Air Quality Management Board Regulations
    - Bloom Energy's Critical to Quality Standards, especially regarding
      - Gas piping system blow-down and purging standards
    - Only valid in the state of CT

Scope

- This procedure applies to all US BE construction sites in Connecticut.

Audience

- 1 CDA Input attendant (general or sub-contractor)
- 1 Discharge Attendant (Bloom Qualified Gas Personnel)

Applicable Documents

- NFPA 54
- DOC-1007152 SVC
- DOC-1009468 – Gas System Commissioning - CDA

Preliminary Requirements

Required Safety Trainings

- Bloom personnel on site must be documented as Bloom Energy (BE) Qualified Gas System Personnel, which includes:
  - Pipeline Safety
  - Compressed Gas Safety
  - LOTO
  - Valve Safety

Required Personal Protection Equipment (PPE)

- Safety glasses
- Gloves
- Hard hat
- High visibility clothing
- Work boots with safety toe protection

Special Precautions and Potential Hazards

- Verify fuel plumbing has been pressure tested for leaks by the utility and general contractor before executing this SOP (House Line Release).
- Oxygen monitoring is required for this operation.

Required Tools, Materials, and Equipment

- YFP Purge Hose (124422)
- House line installed
- Multi-Gas Monitor: minimum detection of Oxygen and Methane LEL
- Adjustable Wrench Set and/or two (2) Pipe Wrenches
- Gas Sampling Kit (BE# 131263)
- Caution tape and delineators
- Fire Extinguisher (2A or better).
  - This should already be on site.
- Filled Nitrogen Tank
  - QTY 1 approximately 75 Cu. Ft tank per 250 linear feet of 2” gas line (Praxair part NI-Q or equivalent)
  - QTY 1 approximately 140 Cu. Ft tank per 500 linear feet of 2” gas line (Praxair part NI-S or equivalent)

Section A: Nitrogen Purge of Construction Plumbing

1. Site Setup
    - 1.1. Ensure all customer protocols are met and scheduled accordingly
        - 1.1.1. Multiple RSA on the same site requires a dedicated MOP, using this procedure as a guide.
    - 1.2. Put On PPE.
    - 1.3. Turn on personal gas monitor(s) and attach to the person(s) at the discharge location.
    - 1.4. Set up cones and caution tape to establish a discharge area around the fuel stub up farthest from the MSA with a 10 foot radius around the point of discharge. Remove all non-essential personnel.
        - 1.4.1. Ensure that the will be no open flame within 50 ft
    - 1.5. Ensure a 2A or better fire extinguisher is located within 50 feet of the discharge area.
    - 1.6. Verify Each Fuel stub up valve is in the closed position (at YFP, and Upstream facilities valve, where applicable and shut each fuel stub up valve. See Figure 1.

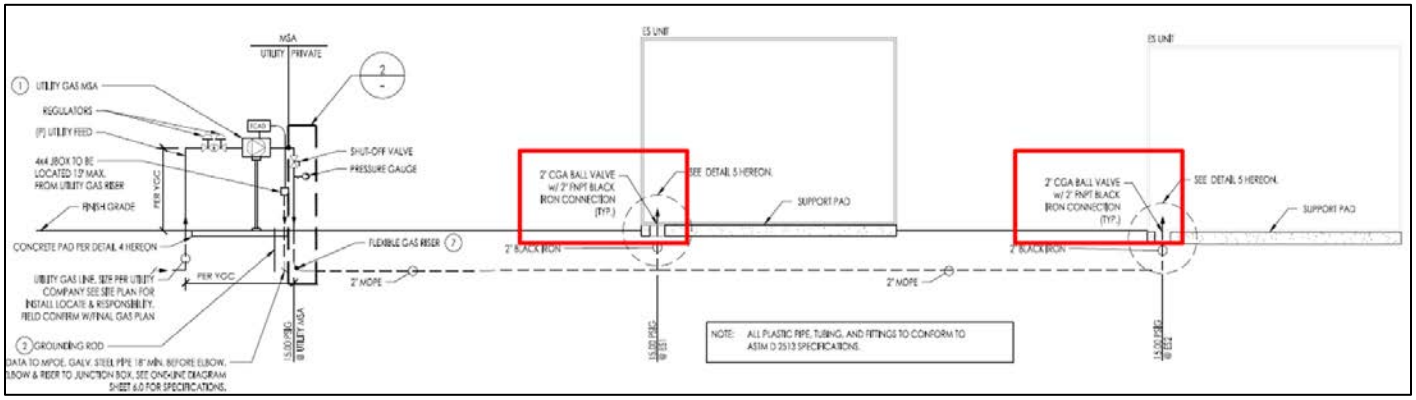


Figure 1

1.7. Identify Isolation valves on meter assembly.

1.8. Ensure all shut off valves are open between MSA and ESS and the stub-up valves are closed.

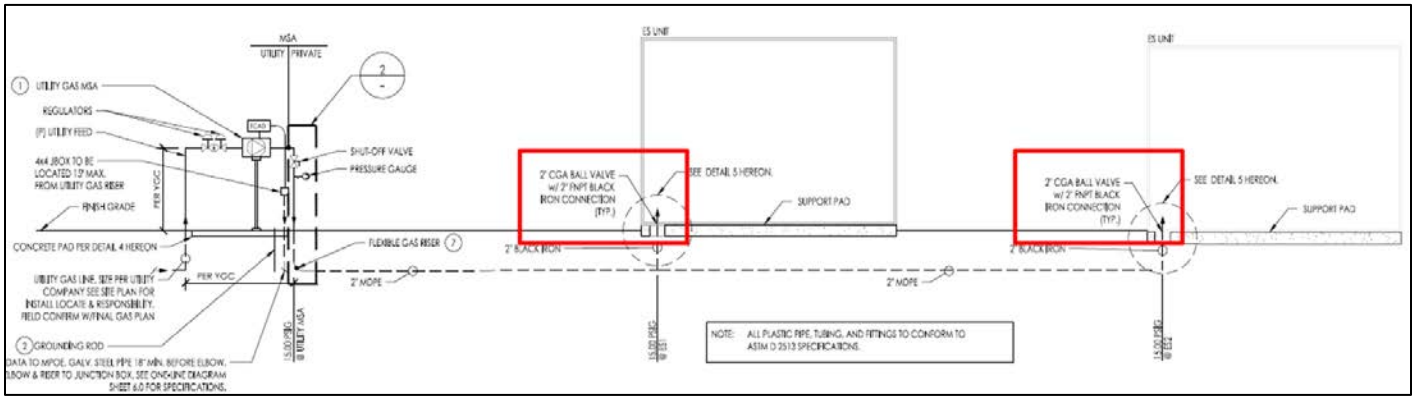


Figure 2

a. If a YBB, reach out to the Construction Program Manager. Future instructions will go here. See Figure 3.

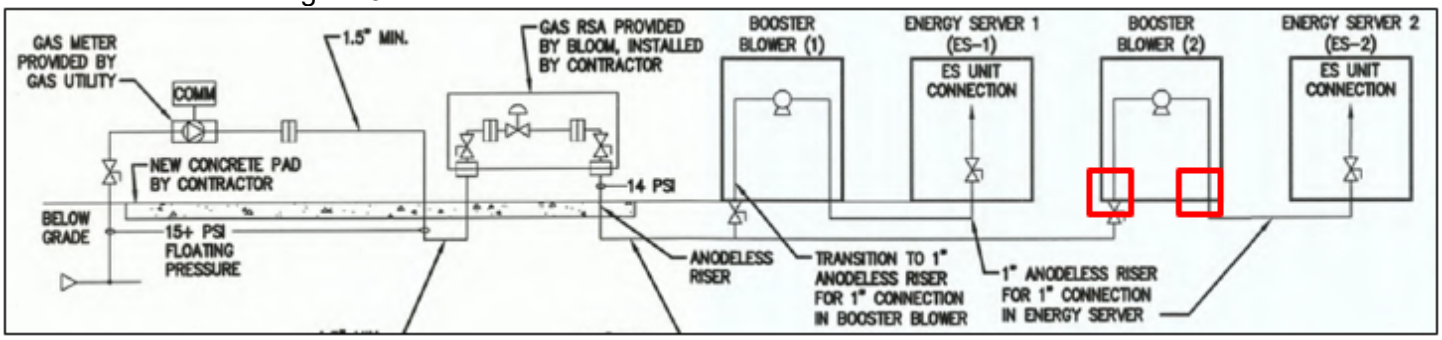


Figure 3

2. Follow the gas line from the MSA (or MSA gap) to the isolation valve on the stub up.

    2.1. Identify Isolation valve on meter assembly.

    2.2. Determine if gas pressure is available to the plumbing being purged, apply a LOTO to isolate gas if required.

    2.3. Perform a valve lineup to achieve the following:

        2.3.1. Meter Isolation valve is shut

        2.3.2. System gas stub up valve is shut

        2.3.3. All other valves between the meter isolation and system gas stub up are open

            2.3.3.1. If Parallel regulators, ensure only one set open, close isolations to the other set of regulators

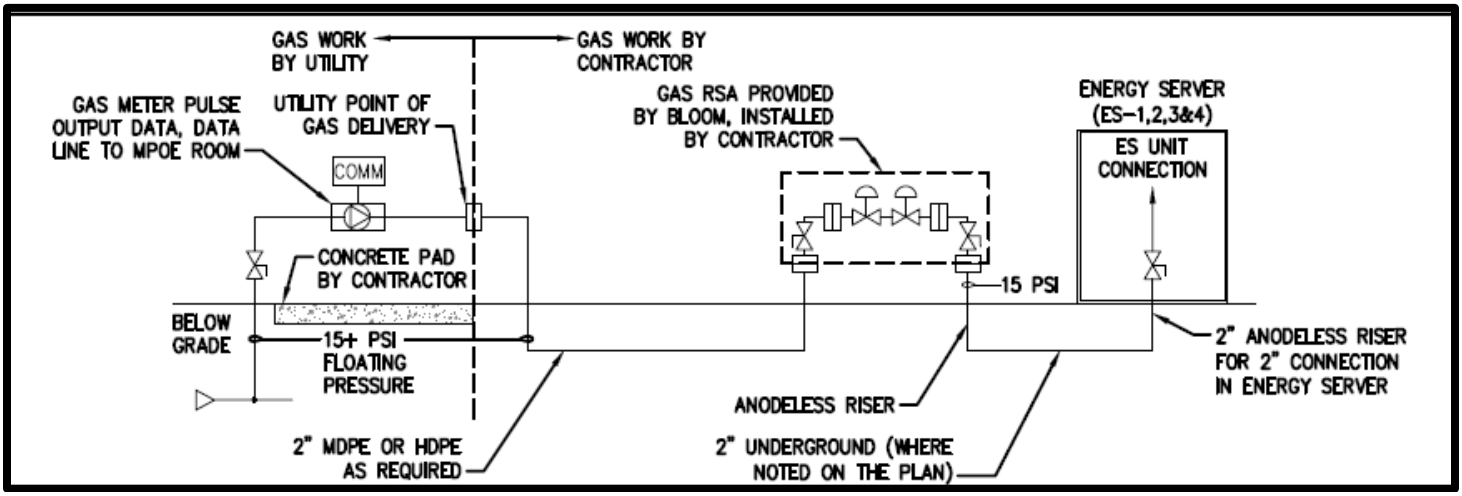


Figure 4

3. General/Subcontractor connects the supply of Nitrogen to the furthest point upstream without interfering with the Gas Utility scope of work.

4. Position Discharge Attendant with air monitor at the point of discharge.

5. Connect YFP Purge Hose.
    5.1. Disconnect YFP from the fuel stub up, if connected
    5.2. Attach YFP purge hose to fuel stub up
    5.3. Attach YFP purge hose to overhead QDC
6. Inlet attendant supplies intended operational system pressure (min of 60 PSI) to plumbing and corrects any leaks.
7. Once pressure holds, the Discharge Attendant slowly opens all valves between the Nitrogen supply and the discharge assembly
8. Discharge attendant then opens the discharge assembly full open
    8.1. Continuously monitor the discharge area for the following and create an incident report if any are found:
        8.1.1. Debris
        8.1.2. Liquid water
        8.1.3. Gas other than compressed air
        8.1.4. Discharge attendant shall continuously monitor the discharge area and be prepared to secure the flow.
9. Let Nitrogen flow through the purge assembly for 60 seconds, then secure for 60 seconds.
    9.1. Perform at least 6 on/off cycles (6 cycles per 200 ft. of underground pipe)
10. Close the stub up isolation valve
11. If part of the assembly, remove the purge hose Y strainer
    11.1. If debris found, take pictures, clean and log an incident.
12. Reinstall “y” strainer.
13. If the Gas stick is provided by Bloom, perform Section B, if it is provided by the utility (fixed pressure) Move to Section C

Section B: Setting the Bloom Gas Regulators

1. Possible Bloom Gas Stick Setups:

    1.1. Dual Regulator (two regulators on a single run of pipe)

        1.1.1. Perform Section B as written

    1.2. Dual Parallel (four regulators on two runs of pipe)

        1.2.1. Perform Section B once for each set

        1.2.2. Ensure that the set not being used is isolated

    1.3. Single Regulator (one regulator on a single run of pipe)

        1.3.1. Follow instructions for the upstream regulator only

2. Di Discharge Attendant throttles open the discharge valve as little as possible while still discharging air.

3. Contract Plumber will throttle the compressed gas regulator to achieve delivery pressure (min of 60PSI) on pressure gauge upstream of the regulator set.

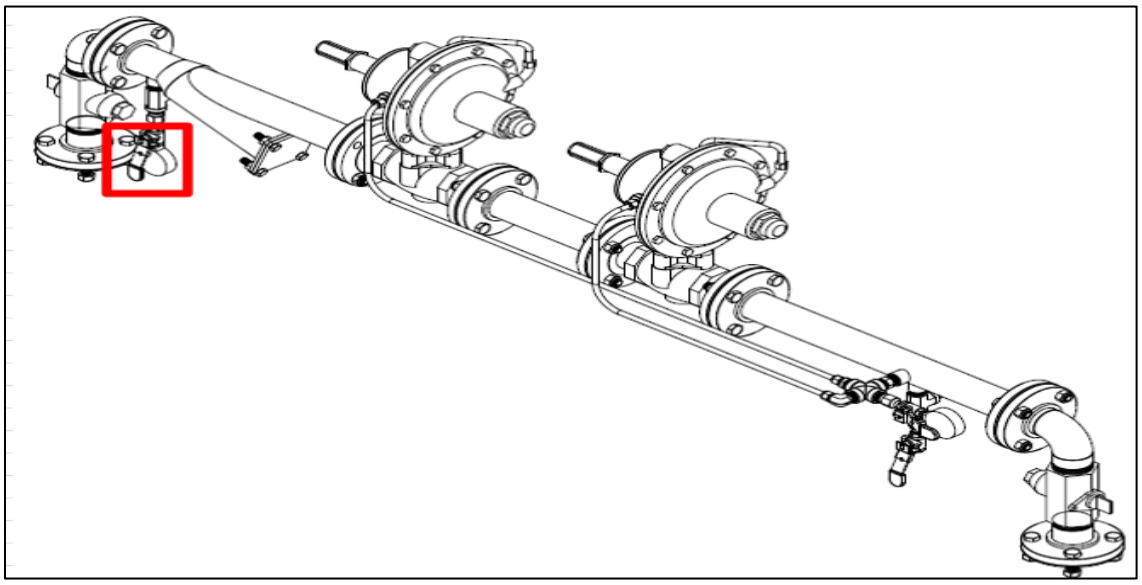


Figure 10

4. Discharge Attendant closes the valve on the vent assembly.

5. Remove the gray plastic covers from the Main Body Pilot adjustment screw from both regulators. Leave the cover on the small independent series 67 pilot assembly alone. See Figure 11.

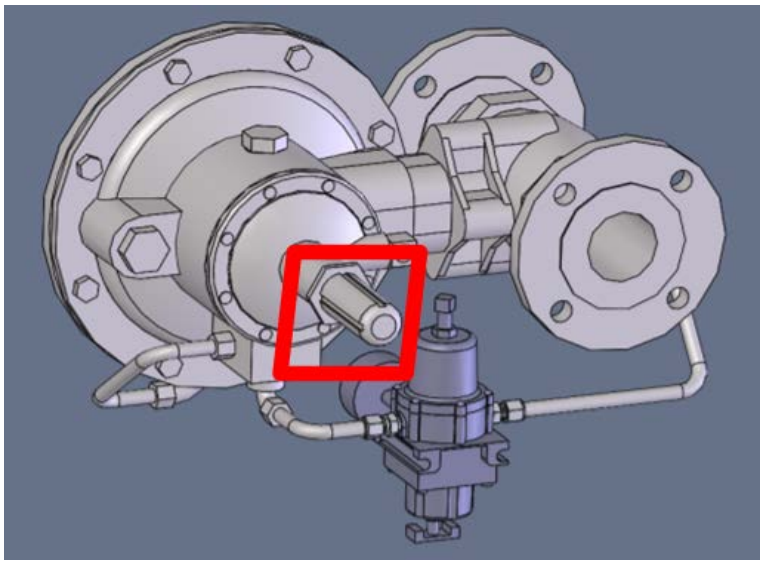


Figure 11

6. Turn the **Main Body Pilot** on the **upstream** regulator fully counter clockwise to stop any flow of gas.

7. Turn the **Main Body Pilot** on the **downstream** regulator clockwise so the regulator is fully open.

    7.1. If single regulator, ignore all **downstream** regulator instructions

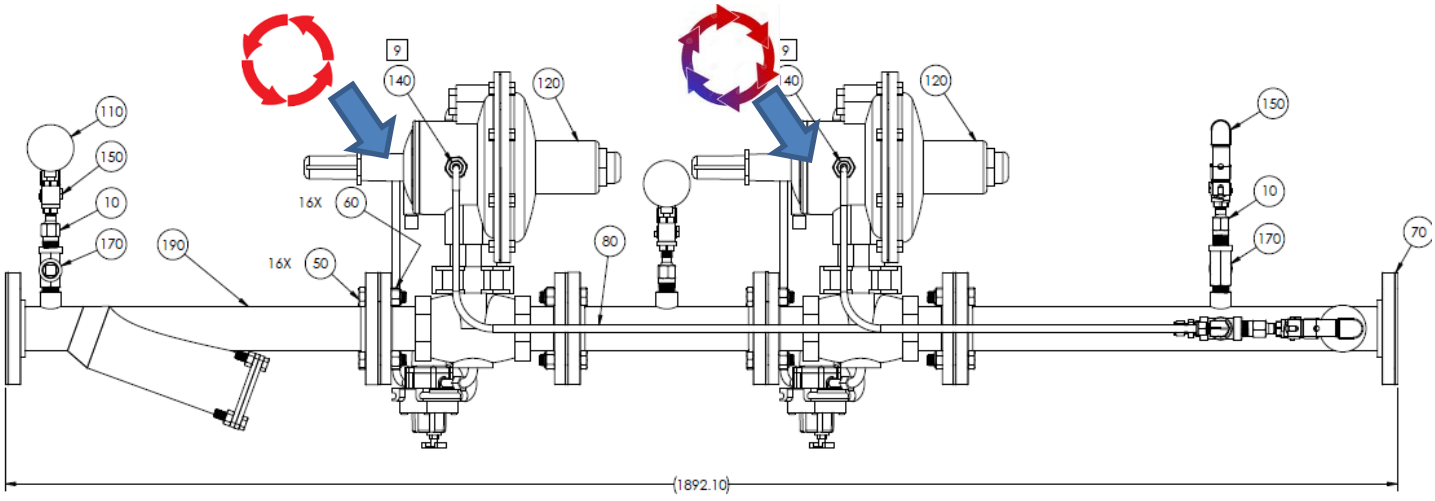


Figure 12

8. Crack open the discharge valve just enough so that the flow of air can be heard or felt.

Figure 13

9. Adjust the **Upstream** regulator first.

10. On the **Main Body Pilot** assembly, turn the adjusting screw clockwise to increase outlet pressure to achieve **18** psi as read on a gauge as far downstream as possible.

    10.1. Be sure to adjust slowly to allow system pressure to stabilize after adjustment.

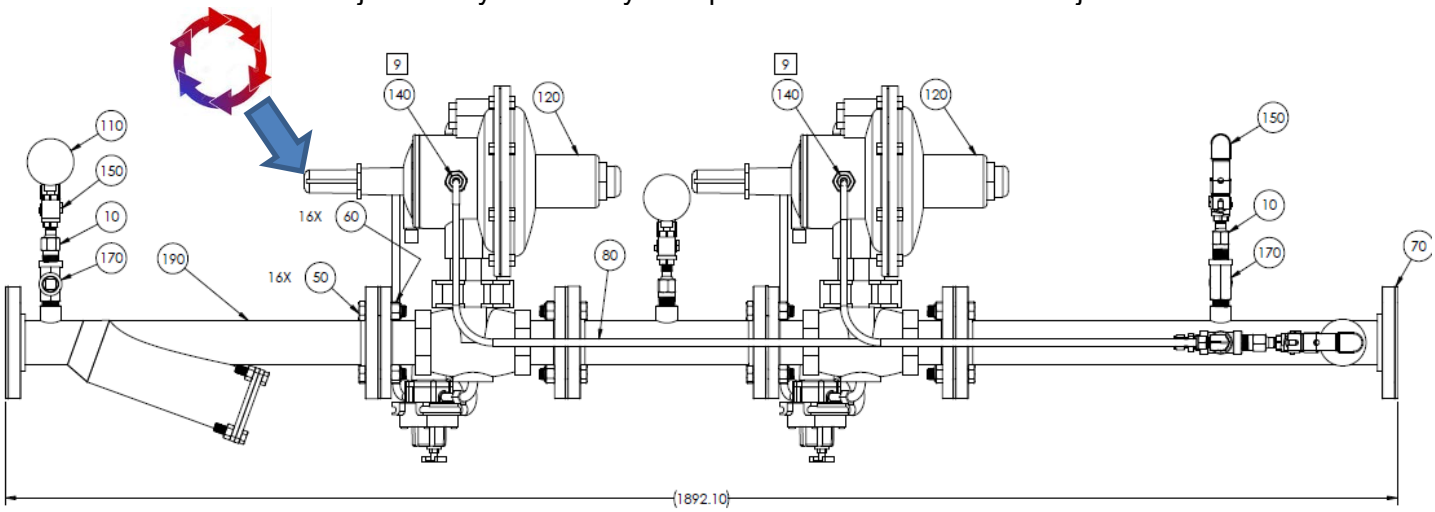


Figure 14

11. Adjust the **downstream** regulator second

    11.1. On the **Main Body Pilot** assembly, turn the adjusting screw clockwise to increase outlet pressure or counterclockwise to decrease outlet pressure to achieve **15** psi as read as far downstream as possible.

    11.2. Be sure to wait for system pressure to change.

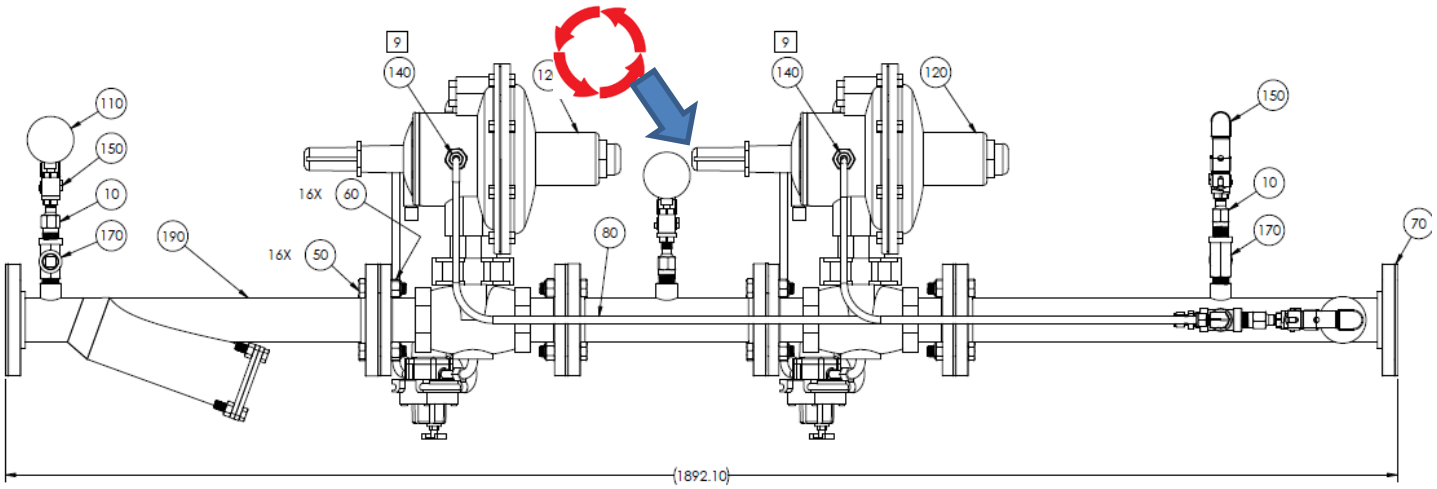


Figure 15

12. If the pressure on the upstream RSA riser gauge drops below expected delivery pressure at any time during the procedure, STOP, and re-pressurize the line and consider throttling down on the discharge valve.

13. Close the vent assembly valve.

14. If the gas stick is a dual parallel set and this is the first set dialed in, do the following (skip to next step if not):
    - 14.1. Isolate the dialed in set with the valves provided on the turndown
    - 14.2. Open the isolation valves for the pair that has not yet been set
    - 14.3. Repeat Section B for the second set of regulators

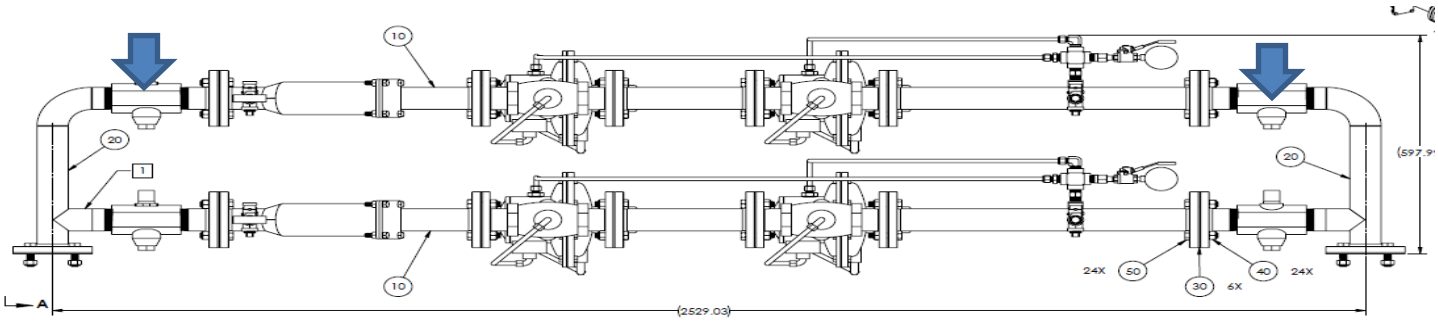


Figure 16

Section C: Process closeout

1. Restore system Conditions
    - 1.1. Turn off the air compressor
    - 1.2. Isolate the test equipment from the system
    - 1.3. Remove all test equipment
        - 1.3.1. Air Compressor
        - 1.3.2. Purge Hose
    - 1.4. Close all fuel stub up valves and reconnect YFP to fuel stub up
    - 1.5. Leave meter isolation valves open
        - 1.5.1. If dual parallel, leave only one set open, isolate the second set

Version History

Revision	Date	Process Owner	Change Description	Training Required
A		Andy Blakeslee	Initial Release	☐ Yes ☒ No
A	4/27/17	Shane Peters	Reformatted into Standard Template, suggested edits	☐ Yes ☐ No
A	6/8/17	Shane Peters	Thomas Sipe updates, with Shane's reformatting.	☐ Yes ☐ No
A	2/20/18	Thomas Sipe	Split CDA, N2 and Moisture Sample	☒ Yes ☐ No
				☐ Yes ☐ No

Electronic Signature approvals are on file in Agile.

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC & CERTIFIED MAIL
RETURN RECEIPT REQUESTED

May 13, 2022

Kristen Grillo
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
Kristen.Grillo@bloomenergy.com

RE: **PETITION NO. 1497 -** Bloom Energy Corporation petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a customer-side 2-megawatt fuel cell facility and associated equipment to be located at Bridgeport Hospital, 267 Grant Street, Bridgeport, Connecticut.

Dear Ms. Grillo:

At a public meeting held on May 12, 2022, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal meets air and water quality standards of the Department of Energy and Environmental Protection and would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

1. Approval of any Project changes be delegated to Council staff;

2. Provide a copy of the Fuel Cell Emergency Response Plan to local emergency responders prior to facility operation, and provide emergency response training;

3. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

4. The use of natural gas as a fuel system cleaning medium during fuel cell construction, installation or modification shall be prohibited;

5. Submit the following information to the Council 15 days prior to any fuel pipe cleaning operations related to fuel cell construction, installation, or modification:
    a. Identification of the cleaning media to be used;
    b. Identification of any known hazards through use of the selected cleaning media;
    c. Description of how known hazards will be mitigated, including identification of any applicable state or federal regulations concerning hazard mitigation measures for such media;
    d. Identification and description of accepted industry practices or relevant regulations concerning the proper use of such media;
    e. Provide detailed specifications (narratives/drawings) indicating the location and procedures to be used during the pipe cleaning process, including any necessary worker safety exclusion zones;

f. Identification of the contractor or personnel performing the work, including a description of past project experience and the level of training and qualifications necessary for performance of the work;
g. Contact information for a special inspector hired by the project developer who is a Connecticut Registered Engineer with specific knowledge and experience regarding electric generating facilities or a National Board of Boiler and Pressure Vessel Inspector and written approval of such special inspector by the local fire marshal and building inspector; and
h. Certification of notice regarding pipe cleaning operations to all state agencies listed in General Statutes § 16-50j(h) and to the Department of Consumer Protection, Department of Labor, Department of Public Safety, Department of Public Works, and the Department of Emergency Management and Homeland Security;

6. Compliance with the following codes and standards during fuel cell construction, installation or modification, as applicable:
   a. NFPA 54
   b. NFPA 853; and
   c. ASME B31;

7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;

8. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the City of Bridgeport;

9. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

10. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;

11. The facility owner/operator shall file an annual report on a forecast of loads and resources pursuant to Conn. Gen. Stat. §16-50r;

12. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and

13. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition, dated March 11, 2022, and additional information dated April 13, 2022, and in compliance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/RDM/laf

Enclosure: Staff Report dated May 12, 2022

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport (mayor@bridgeportct.gov)
Henry Polite, Fire Marshal, City of Bridgeport (Bridgeport.fire@bridgeportct.gov)
Service List, dated March 15, 2022

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL & CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 18, 2023

Kristen Grillo
Senior Permitting Specialist
Bloom Energy Corporation
4535 North First Street
San Jose, CA 95134
kristen.grillo@bloomenergy.com

RE: **PETITION NO. 1497A -** Bloom Energy Corporation amended petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a customer-side 2-megawatt fuel cell facility and associated equipment to be located at Bridgeport Hospital, 267 Grant Street, Bridgeport, Connecticut.

Dear Kristen Grillo:

At a public meeting held on August 17, 2023, the Connecticut Siting Council (Council) considered and approved the request to amend the above-referenced Declaratory Ruling, dated April 26, 2023, with the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Install landscape plantings as shown on Site Plan G1.1, submitted on July 12, 2023 in response to Council Interrogatory No. 9;
3. Provide a copy of the Fuel Cell Emergency Response Plan to local emergency responders prior to facility operation, and provide emergency response training that includes an itemized list of necessary fire suppression equipment;
4. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities; and
5. Submit a post-construction noise analysis including but not limited to, measurements performed near 25 Ford Place.

This approval applies only to the request to amend the Declaratory Ruling, dated April 26, 2023. This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the Council's May 13, 2022 Declaratory Ruling and the request to amend the Declaratory Ruling, dated April 26, 2023, and additional information dated June 5, 2023, July 12, 2023, and July 18, 2023.

Enclosed for your information is a copy of the staff report on this request to amend the Declaratory Ruling.

NITROGEN, COMPRESSED
Safety Data Sheet

1. IDENTIFICATION

Product identifier
Product Name NITROGEN, COMPRESSED

Other means of identification
Safety data sheet number LIND-P086
UN/ID no. UN1066
Trade name Lasline N2 4.8; Lasline N2 5.0; Gourmet N; Grade 6.0, VOC Free, Emission Grade, Zero 0.2

Recommended use of the chemical and restrictions on use
Recommended Use Industrial and professional use. Food and Beverage. Calibration/test gas.
Uses advised against Consumer use

Details of the supplier of the safety data sheet
Messer Canada Inc.
5860 Chedworth Way
Mississauga, Ontario L5R 0A2
Phone: 905-501-2500
Email: service@messer-ca.com
Website: www.messer-ca.com

Customer Service: 888-256-7359

Emergency telephone number
Company Phone Number +1 905-501-0802
FOR TRANSPORTATION EMERGENCIES ONLY: CANUTEC +1 613-996-6666 OR +1-888-226-8832

2. HAZARDS IDENTIFICATION

Gases under pressure	Compressed gas
Simple asphyxiants	Yes / Category 1

Label elements

Signal word **Warning**

Hazard Statements
Contains gas under pressure; may explode if heated
May displace oxygen and cause rapid suffocation

Precautionary Statements - Prevention
Do not handle until all safety precautions have been read and understood
Use and store only outdoors or in a well ventilated place
Use a backflow preventive device in piping
Use only with equipment rated for cylinder pressure
Close valve after each use and when empty

Precautionary Statements - Response
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical attention/advice.

Precautionary Statements - Storage
Protect from sunlight when ambient temperature exceeds 52°C/125°F

Hazards not otherwise classified (HNOC)
Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure Gas

Chemical Name	Common names/synonyms	CAS No.	Volume %	Chemical Formula
NITROGEN	Not available	7727-37-9	>99	N_2

4. FIRST AID MEASURES

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Skin contact None under normal use. Get medical attention if symptoms occur.

Eye contact None under normal use. Get medical attention if symptoms occur.

Ingestion Not an expected route of exposure.

Self-protection of the first aider RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Most important symptoms and effects, both acute and delayed

Symptoms Simple asphyxiant. May cause suffocation by displacing the oxygen in the air. Exposure to oxygen-deficient atmosphere (<19.5%) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness and death. Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media None.

Specific extinguishing methods
Continue to cool fire exposed cylinders until flames are extinguished. Damaged cylinders should be handled only by specialists.

Specific hazards arising from the chemical
Non-flammable gas. Cylinders may rupture under extreme heat.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Monitor oxygen level. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Environmental precautions

Environmental precautions Prevent spreading of vapors through sewers, ventilation systems and confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. If leak is in container or container valve, contact the appropriate emergency telephone number in Section 1 or call your closest Messer location.

Methods for cleaning up Return cylinder to Messer or an authorized distributor.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distance, use a cart designed to transport cylinders. Never attempt to lift a cylinder by its valve protection cap. Never insert an object (e.g. wrench, screwdriver, pry bar,etc.) into valve cap openings. Doing so may damage valve, causing leak to occur. Use an adjustable strap wrench to remove over-tight or rusted caps. Use only with adequate ventilation. Use a backflow preventive device in piping. Close valve after each use and when empty. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Ensure the complete gas system has been checked for leaks before use.

Never put cylinders into trunks of cars or unventilated areas of passenger vehicles. Never attempt to refill a compressed gas cylinder without the owner's written consent. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit.

Only experienced and properly instructed persons should handle gases under pressure. Always store and handle compressed gas cylinders in accordance with Compressed Gas Association publication CGA-P1, Safe Handling of Compressed Gases in Containers. Use only with equipment rated for cylinder pressure.

For additional recommendations consult CGA P-76 Hazards of Oxygen-Deficient Atmospheres.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Keep at temperatures below 52°C / 125°F. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Full and empty cylinders should be segregrated. Use a "first in-first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Stored containers should be periodically checked for general condition and leakage.

Incompatible materials None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
NITROGEN 7727-37-9	: See Appendix F: Minimal Oxygen Content	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Controls Provide general ventilation, local exhaust ventilation, process enclosure or other engineering controls to maintain airborne levels below recommended exposure limits and to maintain oxygen levels above 19.5%. Oxygen detectors should be used when asphyxiating gases may be released. Systems under pressure should be regularly checked for leakages.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Work gloves and safety shoes are recommended when handling cylinders.

Respiratory protection Use positive pressure airline respirator with escape cylinder or self contained breathing apparatus for oxygen-deficient atmospheres (<19.5%).

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Gas
Appearance	Colorless
Odor	Odorless
Odor threshold	Not applicable
pH	Not applicable
Melting/freezing point	Not applicable
Boiling point / boiling range	-196 °C / -321 °F
Evaporation rate	Not applicable
Flammability (solid, gas)	Non-flammable gas
Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable
Flash point	Not applicable
Autoignition temperature	Not available

Decomposition temperature	Not available
Water solubility	Slightly soluble
Partition coefficient	Not available
Kinematic viscosity	Not applicable

Component Level Information:

Chemical Name	Molecular weight	Boiling point/range	Vapor Pressure	Vapor density (air =1)	Gas Density kg/m³@20°C	Critical Temperature
NITROGEN	28.01	-196 °C	Above critical temperature	0.97	1.153	-146.9 °C

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions

Chemical stability
Stable under normal conditions.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None under recommended storage and handling conditions (see Section 7).

Incompatible materials
None known.

Hazardous Decomposition Products
None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Product is a simple asphyxiant.

Skin contact Not available

Eye contact Not available

Ingestion Not an expected route of exposure.

Information on toxicological effects

Symptoms Simple asphyxiant. May cause suffocation by displacing the oxygen in the air. Exposure to oxygen-deficient atmosphere (<=19.5%) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness and death. Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Not classified.
Serious eye damage/eye irritation	Not classified.
Irritation	Not classified.
Sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens listed by OSHA, IARC or NTP.
Reproductive toxicity	Not classified.
Developmental Toxicity	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Chronic toxicity	None known.
Aspiration hazard	Not applicable.

Numerical measures of toxicity

Product Information	
Oral LD50	Not available
Dermal LD50	Not available
Inhalation LC50	Not available

12. ECOLOGICAL INFORMATION

Ecotoxicity
No known effect.

Persistence and degradability
Not applicable.

Bioaccumulation
No known effect.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Messer for proper disposal.

14. TRANSPORT INFORMATION

TDG

UN/ID no.	UN1066
Proper shipping name	Nitrogen, compressed
Hazard Class	2.2
Description	UN1066, Nitrogen, compressed, 2.2

IATA

UN/ID no.	UN1066
Proper shipping name	Nitrogen, compressed
Hazard Class	2.2
ERG Code	2L
Special Provisions	A69

IMDG

UN/ID no.	UN1066
Proper shipping name	Nitrogen, compressed
Hazard Class	2.2
EmS-No.	F-C, S-V

15. REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

16. OTHER INFORMATION

NFPA **Health hazards** 0 **Flammability** 0 **Instability** 0 **Physical and Chemical Properties** Simple asphyxiant

Note: Ratings were assigned in accordance with Compressed Gas Association (CGA) guidelines as published in CGA Pamphlet P-19-2019, CGA Recommended Hazard Ratings for Compressed Gases, 4th Edition.

Issue Date	07-Apr-2017
Revision Date	27-Sep-2021
Revision Note:	SDS sections updated; 3

LIND-P086

General Disclaimer

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between Messer LLC, Messer Merchant Production LLC, Messer North America, Inc., Messer Gas Puerto Rico, Inc. or Messer Canada Inc. (or any of their affiliates and subsidiaries) and the purchaser.

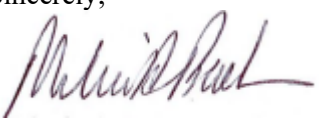
DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

End of Safety Data Sheet

Thank you for your attention and cooperation.

Sincerely,



Melanie Bachman
Executive Director

Enclosure: Staff Report dated August 17, 2023

MAB/RDM/dll

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport (mayor@bridgeportct.gov)

Kristen Grillo

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Subject: CT Siting Council Petition No. 1497 - Notification of Fuel Cell Pipe Cleaning Procedures - Bridgeport Hospital, 267 Grant Street, Bridgeport

RE: **PETITION NO. 1497** - Bloom Energy Corporation petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a customer-side 2-megawatt fuel cell facility and associated equipment to be located at Bridgeport Hospital, 267 Grant Street, Bridgeport, Connecticut.

Dear Ladies and Gentlemen:

At a public meeting held on May 12th, 2022, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes §16-50k would not require a Certificate of Environmental Compatibility and Public Need with certain conditions. As requested in the conditions of the declaratory ruling, Bloom Energy is required to provide notice to all state agencies listed in General Statutes § 16-50j(h) and to the Department of Consumer Protection, Department of Labor, Department of Public Safety, Department of Public Works, and the Department of Emergency Management and Homeland Security regarding any fuel pipe cleaning operations related to our fuel cell installation. Employees of Bloom Energy will oversee and perform the procedures detailed in their "Gas System Commissioning" procedure. Bloom Energy has safely commissioned over hundreds of fuel cell installation projects in California, New York, New Jersey, Delaware and Connecticut.

Additional information regarding the pipe cleaning procedures will be posted under PE1497 on the Council website. If you should have any questions or concerns, please do not hesitate to contact me. Thank you for your time.

Respectfully,

Kristen Grillo
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