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Via Hand Delivery

November 6, 2009

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Petition of FuelCell Energy, Inc. for a Declaratory Ruling that a Certificate of Environmental Compatibility and Public Need Is Not Required for the Installation and Operation of Fuel Cell Test Facilities in Torrington, Connecticut**

Dear Mr. Phelps:

Enclosed please find the original and twenty-five (25) copies of a Petition for Declaratory Ruling submitted on behalf of FuelCell Energy, Inc. for the installation and operation of fuel cell testing facilities in Torrington, Connecticut, together with a filing fee of $500.00.

Please feel free to contact me if you have any questions or require additional information. Thank you.

Sincerely,

Joey Lee Miranda

Enclosures

Copy to: Ryan J. Bingham, City of Torrington
Kirk Arneson, FuelCell Energy, Inc.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
PETITION OF FUELCELL ENERGY, INC. FOR A DECLARATORY RULING THAT A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS NOT REQUIRED FOR THE INSTALLATION AND OPERATION OF FUEL CELL TEST FACILITIES IN TORRINGTON, CONNECTICUT	:	PETITION NO. _____
	:	NOVEMBER 6, 2009

PETITION FOR DECLARATORY RULING:
INSTALLATION HAVING NO SUBSTANTIAL ENVIRONMENTAL EFFECT

I. INTRODUCTION

Pursuant to Connecticut General Statutes section 16-50k(a), FuelCell Energy, Inc. (FCE) hereby petitions the Connecticut Siting Council (Council) for a declaratory ruling (Petition) that a Certificate of Environmental Compatibility and Public Need (Certificate) is not required for the ongoing installation and operation of fuel cell test facilities at its Torrington, Connecticut location (Project). FCE submits that no Certificate is required because the proposed installations would not have a substantial adverse environmental effect.

II. THE PETITIONER

FCE is a corporation organized under the laws of the State of Connecticut with its global headquarters located at 3 Great Pasture Road, Danbury, Connecticut 06813. FCE's manufacturing facility is located at 539 Technology Park Drive in Torrington, Connecticut (Site).

FCE is the world leader in the development and production of stationary fuel cells for commercial, industrial, municipal and utility customers. FCE's ultra-clean and high efficiency

Direct FuelCell® (DFC) fuel cells are generating power at over 60 installations worldwide. The company's fuel cell power plants have generated more than 150 million kWh of power using a variety of fuels including natural gas and other hydrocarbon fuels, renewable wastewater gas, and biogas.

Correspondence and/or communications regarding this Petition should be addressed to:

Kirk Arneson
FuelCell Energy, Inc.
3 Great Pasture Road
Danbury, CT 06813-1305
(203) 830-7405 (office)
(203) 825-6100 (fax)
karneson@fce.com

A copy of all such correspondence or communications should also be sent to the Petitioner's attorney:

Joey Lee Miranda, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200 (office)
(860) 275-8299 (fax)
jmiranda@rc.com

III. FACTUAL BACKGROUND

A. Products

DFC products deliver ultra-clean distributed power efficiently and economically. DFCs run on biofuels and gases from wastewater treatment, food processing and land fills in addition to natural gas, coal gas, and propane. From industrial and commercial applications to the power grid, DFC power plants generate more electricity per unit of fuel than any other distributed energy source. DFCs provide distinct advantages over other forms of distributed power

generation, including: (a) fuel conversion efficiency unsurpassed in the industry; (b) the ability to operate on readily available biofuels and hydrocarbon fuels; and (c) virtually no pollution or greenhouse gas emissions. DFCs operate with minimal nitrogen oxide (NOx), sulfur oxide (SOx) emissions and significantly reduced carbon dioxide (CO_2) emissions.

DFC power plants offer the following benefits and features:

- **Efficient:** generate more electricity using less fuel with unparalleled electrical power generation efficiency of 47 percent.
- **Ultra-clean:** emit low CO_2 and virtually zero pollutants into the atmosphere.
- **Quiet:** operate virtually unnoticed, making them suitable for almost any location.
- **Economical:** produce up to six times more electrical power than other forms of distributed generation with the same fuel input and can operate at up to 80 percent efficiency when used in Combined Heat and Power (CHP) applications.
- **Versatile:** operate on a variety of fuels for use in a wide range of applications.

Developed exclusively for use in stationary applications, there are three main fuel cell products designed to meet a variety of applications: (a) DFC300 (300 kW); (b) DFC1500 (1.4MW); and (c) DFC3000® (2.8MW). The fuel cells for each of these products are manufactured at FCE's Torrington facility.

B. Project Description

As part of its product development process, FCE tests each new product for design and documentation validation. The products are tested using FCE's testing facility at the Site for a two to three month period during which time the products generate electricity that is used on-Site. The installations associated with the fuel cell testing facility include the fuel cell modules, electrical balance of plant, main process skid, desulfurization skid and water treatment skid. *See* DFC3000 Schematic attached at Tab A. The Project is surrounded by a six foot (6') chain link

fence. *See* Site Photos attached at Tab B.

The FCE manufacturing facility is located in an area zoned IP (Industrial Park). The nearest residential property is located 515 feet to the South of the test facility. In 2002, the City of Torrington Planning & Zoning Commission granted site plan approval for a "Fuel Cell Power Plant Test Facility" at the Site. The Project has been constructed in accordance with this approval. *See* Site Plans attached at Tab C. As a consequence, no additional ground disturbance will be required.

II. THE INSTALLATION WOULD NOT HAVE A SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

As set forth more fully below, the installation and operation of the Project will not have a substantial adverse environmental effect.

A. Natural Environment and Ecological Balance

Approximately 1,500 liters of nitrogen will be temporarily stored on Site for use by the Project. Nitrogen is non-toxic; however, it is a Department of Transportation (DOT) Division 2.2 (non-flammable gas) hazardous material. There are no U.S. Environmental Protection Agency (EPA) reporting requirements for nitrogen. The Torrington Fire Department and the Local Emergency Planning Committee are aware of the storage and have expressed no concerns.

B. Public Health and Safety

Relatively small transformers and electrical buses and inverters as well as fans providing ventilation to some of the equipment will produce modest sound. An air blower, located in the center of the fuel cell plant with sound attenuation, provides the only significant noise

contribution. Under normal conditions, these few noise sources would produce consistent sound throughout the day and night.

The Site is categorized as a Class C Noise Zone, where the noise level is limited to 70 dBA at Class C (industrial) receptors, 66 dBA at Class B (commercial) receptors, and 61 dBA at Class A (residential) receptors during the daytime and 51 dBA at Class A receptors during the nighttime. *See* Regulations of Connecticut State Agencies ("R.C.S.A.") § 22a-69-1 *et seq.* At a ten foot (10') perimeter around the fuel cell plant, the noise level is expected to be approximately 72 dBA. The noise level at the nearest industrial property line to the north is projected to be below 54 dBA and the noise level at the nearest residential property line to the south is conservatively projected to be below 48 dBA. Accordingly, the Project can be operated at the Site within the applicable noise performance criteria.

C. Scenic Values

The proposed Project will have little impact on the visual character of the community. Generally, the potential visual impact is inherently small due to the low profile of the equipment in the context of the existing industrial buildings and mature foliage in the area. *See* Aerial Photograph attached at Tab D.

D. Air Quality

Since the DFC3000 is the largest product manufactured at the Site, it produces the most air emissions. Air emissions from the DFC3000, assuming continuous year-round operation, are expected to be:

Pollutant	Total Potential Emissions (tpy)
Oxides of Nitrogen (NO_x)	0.12
Oxides of Sulfur (SO_x)	0.001
Particulate Matter (PM)	0.0002
Carbon Monoxide (CO)	1.23
Volatile Organic Compounds (VOC)	0.25

In addition to the emissions from the fuel cell itself, there will also be minor emissions associated with a 10 MMBtu/hr gas-fired startup burner that will be included with the fuel cell power plant. The burner is used at start-up to heat the fuel cell plant to its required operating temperature with expected, annual emissions of less than one (1) tpy. If the burner were to operate continually, the criteria pollutant potential emissions (assuming 8,760 hours of operation) associated with the gas-fired burner would still be less than 15 tons per year (tpy) using conservative EPA AP-42 emission factors.

Total emissions from the proposed Project will be below levels that would render the Project a "major stationary source" as defined at RCSA section 22a-174-1(57). The Project's maximum emissions will operate well below the serious non-attainment area thresholds for VOC and NO_x. Thus, the Project will be a minor source and is not subject to Federal Non-Attainment New Source Review (NSR). Also, there is no requirement for emission offsets for this Project as it will be below the non-attainment NSR major source thresholds.

Per the EPA, the entire State of Connecticut is designated as attainment for SO_2 and CO. In December 2004, the EPA designated Fairfield and New Haven Counties as non-attainment areas for fine particles (PM 2.5). However, the Project is located in Litchfield County, which is designated as an attainment area for PM 2.5.

A Permit to Construct and Operate Stationary Sources is not required for the Project because the potential emissions of any individual air pollutant are less than 15 tpy; the source is not a new major stationary source; and, the source is not a new major source of hazardous air pollutants. The Project is also not subject to the Department of Environmental Protection's (DEP) "permit by rules" because the potential emissions from the fuel cell are less than 15 tpy. Thus, there are no registrations or applications required to be submitted to the DEP; nor are there anticipated to be any approvals from the DEP Air Bureau required prior to the operation of the Project.

E. Water Quality

The Site is not located within either 100- or 500-year floodplains or the coastal zone. There are also no surface water bodies or wetlands on the Site. The Site is not in an aquifer protection area. Thus, no impacts to surface water bodies will occur from the operation of the Project.

A certified Storm Water Pollution Prevention Plan has been developed for operation of the testing facilities. Stormwater discharge approval for construction was obtained under DEP's General Permit for Stormwater and Dewatering from Construction Activities. Stormwater discharge approval for operation has been obtained under DEP's General Permit for Stormwater Associated with Industrial Activities.

Since the DFC3000 is the largest product manufactured at the Site, it would require the most water for operation. The DFC3000 requires approximately 12,960 gallons per day (gpd) of raw water, which is available via the municipal water system, and wastewater will be discharged to the municipal treatment facility via the existing sewer system. Adequate water supply and

infrastructure are available to supply the Project. Therefore, no substantial adverse environmental effect will occur from the Project's water use and wastewater disposal.

F. Summary

Overall, the proposed installation would not cause any significant change or alteration in the physical or environmental characteristics of the Site or the surrounding area.

IV. CONCLUSION

For all the foregoing reasons, FCE requests that the Council issue a determination, in the form of a declaratory ruling, that the ongoing installation and operation of fuel testing facilities at the Site would not have a substantial adverse environmental effect and, therefore, that a Certificate is not required.

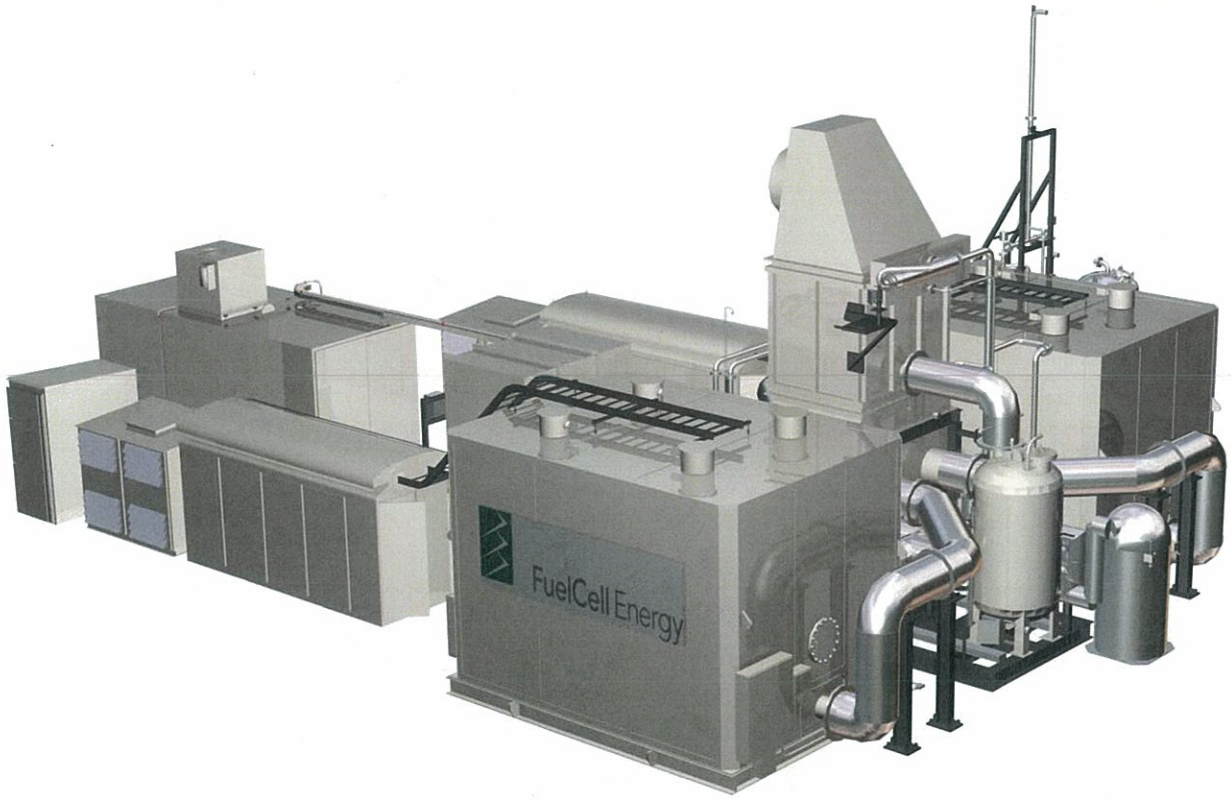
Respectfully submitted,
FUELCELL ENERGY, INC.

By _____

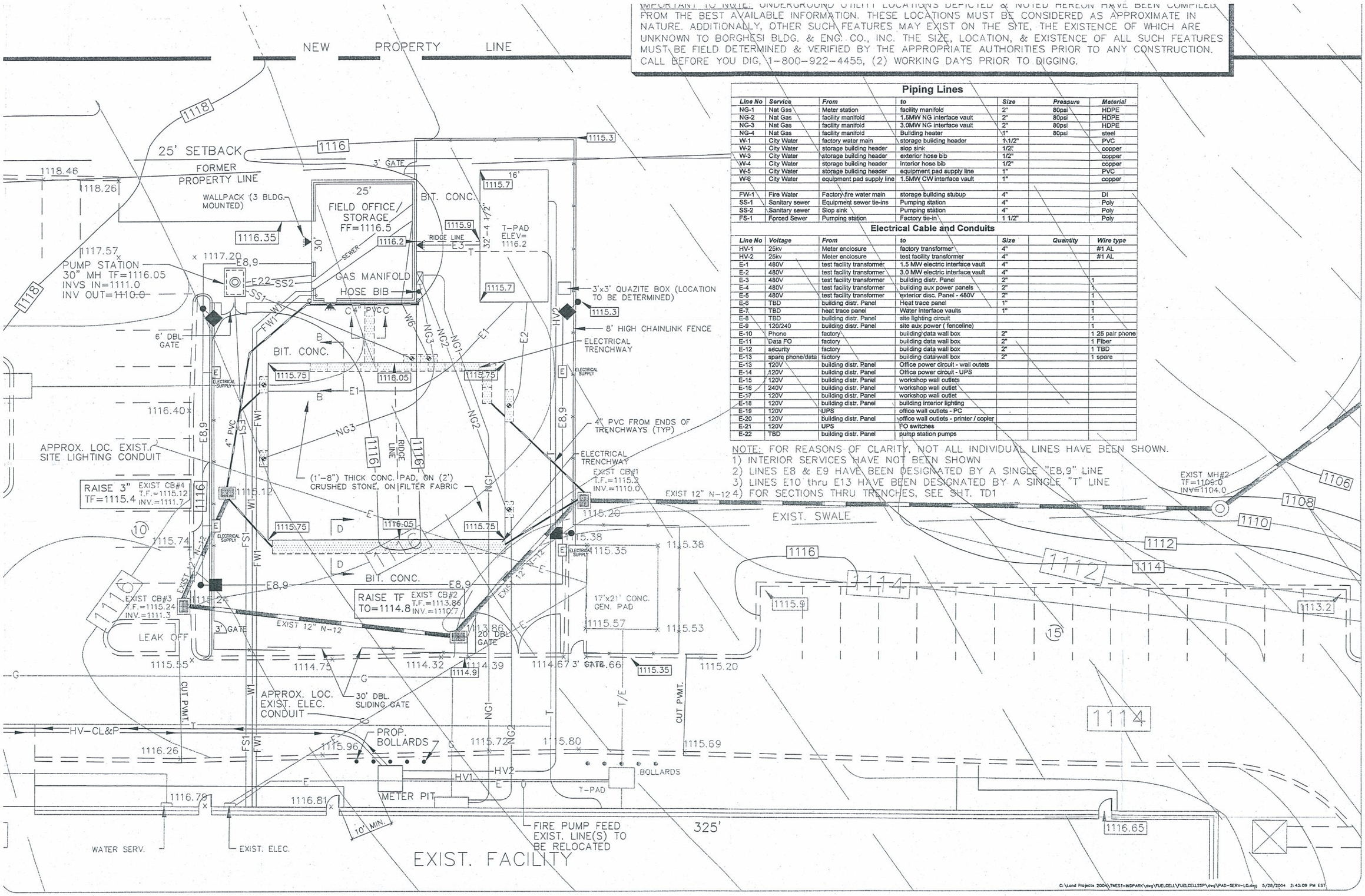
Joey Lee Miranda, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103
Phone: (860) 275-8200
Fax: (860) 275-8299
E-mail: jmiranda@rc.com

Its Attorneys

DFC-3000 Power Plant



IMPORTANT TO NOTE: UNDERGROUND UTILITY LOCATIONS DEPICTED & NOTED HEREON HAVE BEEN COMPILED FROM THE BEST AVAILABLE INFORMATION. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO BORGHESI BLDG. & ENG. CO., INC. THE SIZE, LOCATION, & EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED & VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL BEFORE YOU DIG, 1-800-922-4455, (2) WORKING DAYS PRIOR TO DIGGING.



Piping Lines

Line No	Service	From	to	Size	Pressure	Material
NG-1	Nat Gas	Meter station	facility manifold	2"	80psi	HDPE
NG-2	Nat Gas	facility manifold	1.5MW NG interface vault	2"	80psi	HDPE
NG-3	Nat Gas	facility manifold	3.0MW NG interface vault	2"	80psi	HDPE
NG-4	Nat Gas	facility manifold	Building heater	1"	80psi	steel
W-1	City Water	factory water main	storage building header	1 1/2"		PVC
W-2	City Water	storage building header	slop sink	1/2"		copper
W-3	City Water	storage building header	exterior hose bib	1/2"		copper
W-4	City Water	storage building header	interior hose bib	1/2"		copper
W-5	City Water	storage building header	equipment pad supply line	1"		PVC
W-6	City Water	equipment pad supply line	1.5MW CW interface vault	1"		copper
FW-1	Fire Water	Factory fire water main	storage building stubup	4"		DI
SS-1	Sanitary sewer	Equipment sewer tie-ins	Pumping station	4"		Poly
SS-2	Sanitary sewer	Slop sink	Pumping station	4"		Poly
FS-1	Forced Sewer	Pumping station	Factory tie-in	1 1/2"		Poly

Electrical Cable and Conduits

Line No	Voltage	From	to	Size	Quantity	Wire type
HV-1	25kv	Meter enclosure	factory transformer	4"		#1 AL
HV-2	25kv	Meter enclosure	test facility transformer	4"		#1 AL
E-1	480V	test facility transformer	1.5 MW electric interface vault	4"		
E-2	480V	test facility transformer	3.0 MW electric interface vault	4"		
E-3	480V	test facility transformer	building distr. Panel	2"		1
E-4	480V	test facility transformer	building aux power panels	2"		1
E-5	480V	test facility transformer	exterior disc. Panel - 480V	2"		1
E-6	TBD	building distr. Panel	Heat trace panel	1"		1
E-7	TBD	heat trace panel	Water interface vaults	1"		1
E-8	TBD	building distr. Panel	site lighting circuit			1
E-9	120/240	building distr. Panel	site aux power (fenceline)			1
E-10	Phone	factory	building data wall box	2"		1 25 pair phone
E-11	Data FO	factory	building data wall box	2"		1 Fiber
E-12	security	factory	building data wall box	2"		1 TBD
E-13	spare phone/data	factory	building data wall box	2"		1 spare
E-13	120V	building distr. Panel	Office power circuit - wall outets			
E-14	120V	building distr. Panel	Office power circuit - UPS			
E-15	120V	building distr. Panel	workshop wall outlets			
E-16	240V	building distr. Panel	workshop wall outlet			
E-17	120V	building distr. Panel	workshop wall outlet			
E-18	120V	building distr. Panel	building interior lighting			
E-19	120V	UPS	office wall outlets - PC			
E-20	120V	building distr. Panel	office wall outlets - printer / copier			
E-21	120V	UPS	FO switches			
E-22	TBD	building distr. Panel	pump station pumps			

NOTE: FOR REASONS OF CLARITY, NOT ALL INDIVIDUAL LINES HAVE BEEN SHOWN.
1) INTERIOR SERVICES HAVE NOT BEEN SHOWN
2) LINES E8 & E9 HAVE BEEN DESIGNATED BY A SINGLE "E8,9" LINE
3) LINES E10 thru E13 HAVE BEEN DESIGNATED BY A SINGLE "T" LINE
4) FOR SECTIONS THRU TRENCHES, SEE SHT. TD1

Borghesi Building & Engineering Co., Inc.

SEAL

REVISIONS
01-30-02 REV. T-PAD & UTIL. LOCs.
02-01-02 REV. FENCE, BIT. CONC. LIMITS, GRADES, & PAD
03-04-02 REV. SIZE OF PAD (BETWEEN EXIST. PARKING & FENCE), REV. PUMP STA. INV IN, REV. PER FUEL CELL DWG #1253, DATED 03-12-02
03-12-02 REV. SIZE OF PAD (BETWEEN EXIST. PARKING & FENCE), REV. PUMP STA. INV IN, REV. PER FUEL CELL DWG #1253, DATED 03-12-02
04-04-02 REV. 24FT TO 25FT
05-03-02 REV. PER 24FT 04-25-02 (SHOW PVMT CUTS, ADD SPOT GRADES, ARCHIVE PLOT)
11-25-02 REV. WATER SERVICE (W1 & FW1) ● FIELD OFFICE; RE-ARCHIVE PLOT
05-11-04 REV. WATER SERVICE (W1 & FW1) ● FIELD OFFICE; RE-ARCHIVE PLOT
05-28-04 REV. SAN. SEWER SERVICE (SS1) ● FIELD OFFICE; RE-ARCHIVE PLOT

PROJECT
FuelCell Energy
TECHNOLOGY PARK
539 TECHNOLOGY PARK DRIVE, TORRINGTON, CT

DRAWN BY G.R.W. | APPROVED BY J.H.P.
DATE 02-12-02 | SCALE 1"=10'

2155 EAST MAIN STREET - TORRINGTON, CT. 06790
860-482-7813

SHEET NO.
SP2

C:\Land Projects 2004\TWEST-INDPARK\dwg\FUELCELL\FUELCELL2SP\dwg\PAD-SERV-LO.dwg 5/28/2004 2:43:09 PM EST

REVISION HISTORY				
REV	DESCRIPTION	BY	APPROVED	DATE
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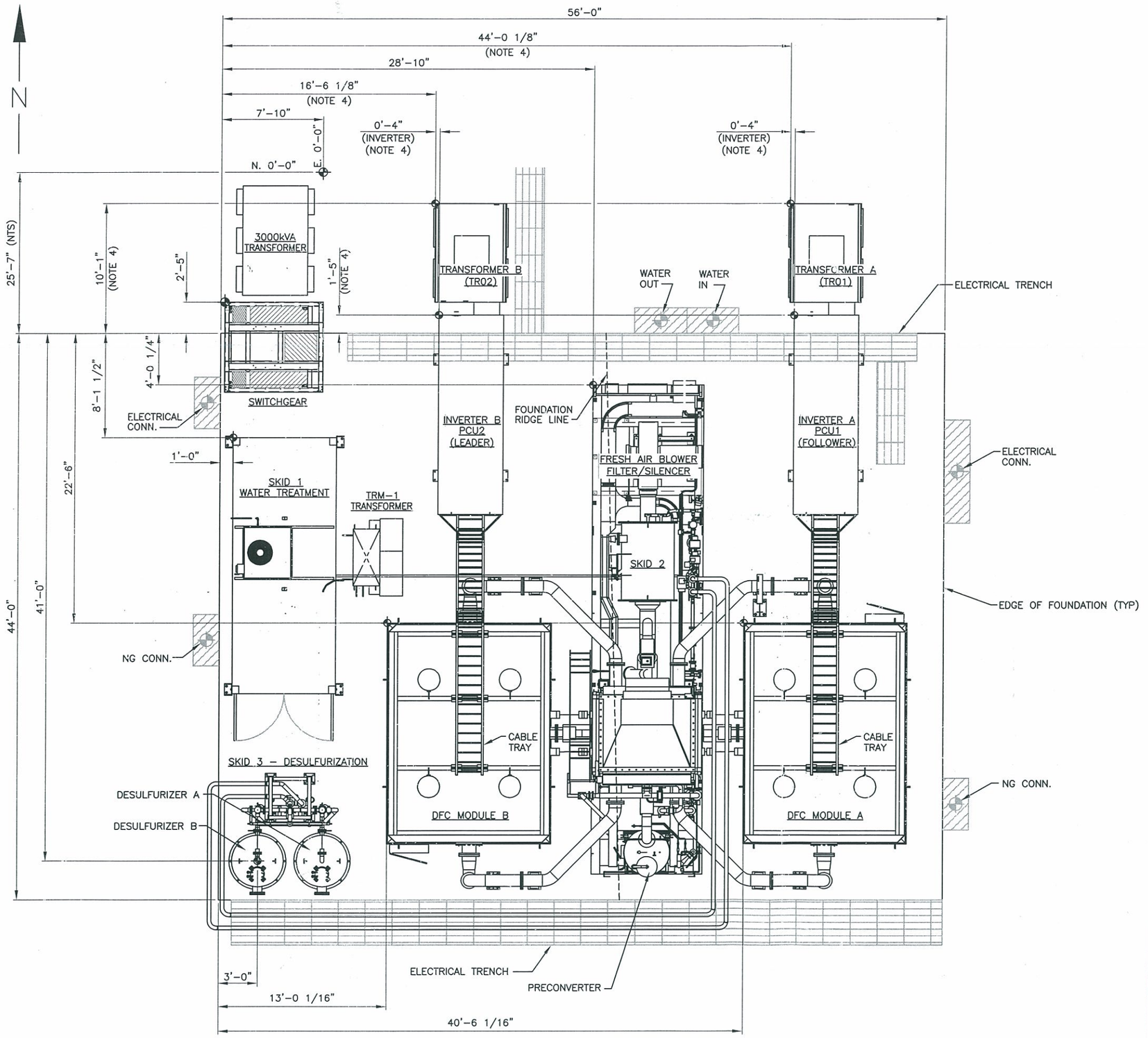


NOTES:

1. FOR ALL REFERENCE DRAWINGS SEE DFC3000BL3 PROJECT DRAWING LIST 486S-01-01.
2. MAIN PROCESS SKID 2, MODULES A & B, INVERTERS A & B AND TRANSFORMERS A & B ARE ARRANGED AS STANDARD DFC3000BL3 SITE CONFIGURATION.
3. PLANT DATUM POINTS SHOWN ARE AS FOUND ON FCE DRAWING 486S-11-01. SEE SHEETS 1 & 2 FOR SKID PLACEMENT.
4. INVERTERS A & B AND TRANSFORMERS A & B DATUM POINTS ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED UPON EQUIPMENT PLACEMENT.

REFERENCE SHEETS - THIS DRAWING

SHEET 1 - SITE PLAN
SHEET 2 - SITE PLAN ENLARGED
SHEET 3 - ELECTRICAL PLAN

CAGE CODE 63131

SIGNATURES	
DRAWN:	M. BAUMANN 9/09/09
ENGINEER:	K. ARNESON 9/09/09
APPROVED:	R. KENT 9/09/09
RELEASED:	A. HADJIST9/09/09

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE ±1/16"

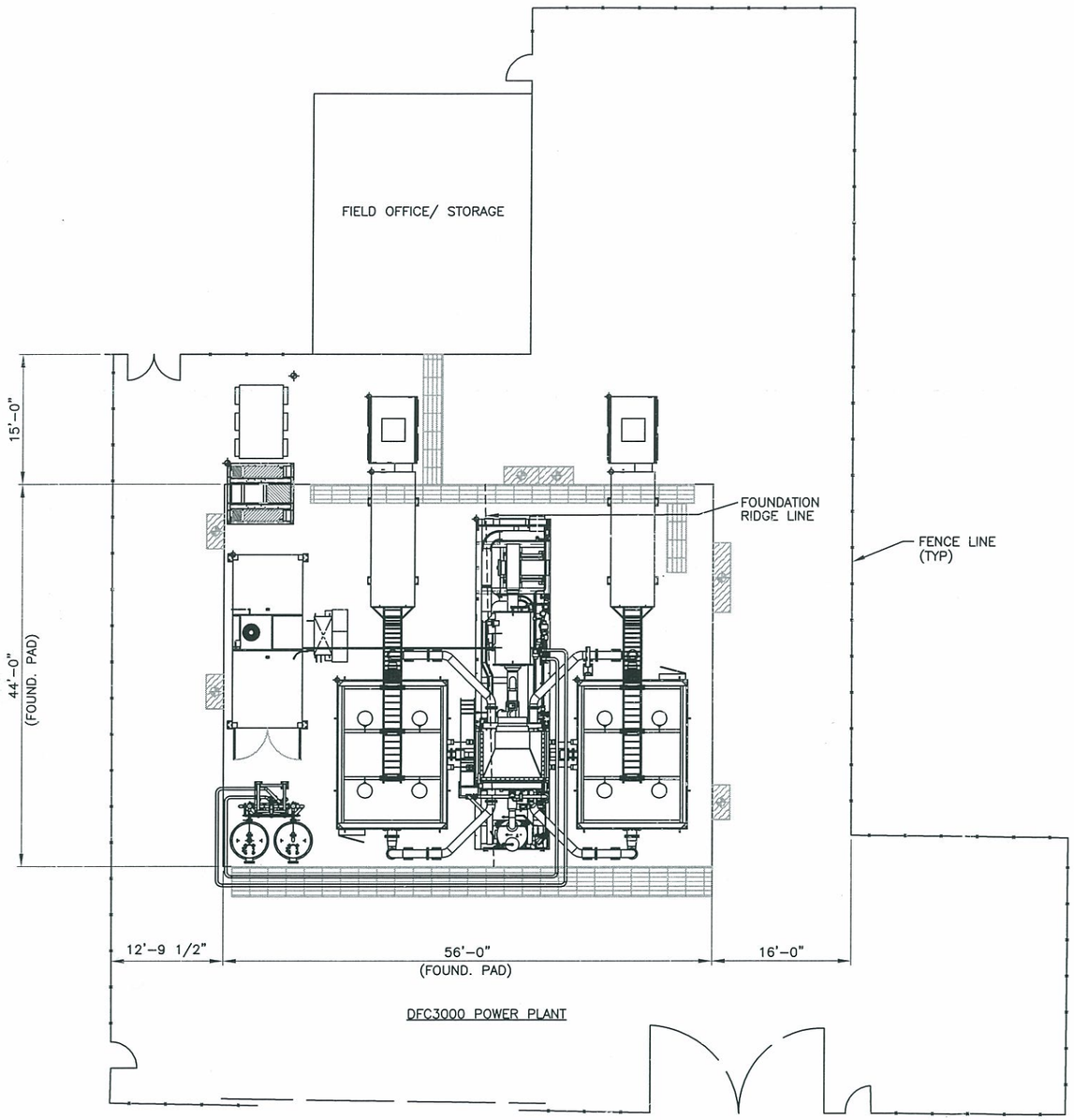
⚠ REVISION INDICATOR
⚑ FLAG NOTE

FuelCell Energy 3 Great Pasture Rd., Danbury, CT 06813

TITLE
DFC3000BL3 POWER PLANT
SITE PLAN
TORRINGTON FACILITY

SIZE	Location	DWG NO	REV
D	---	486011-11-01	A

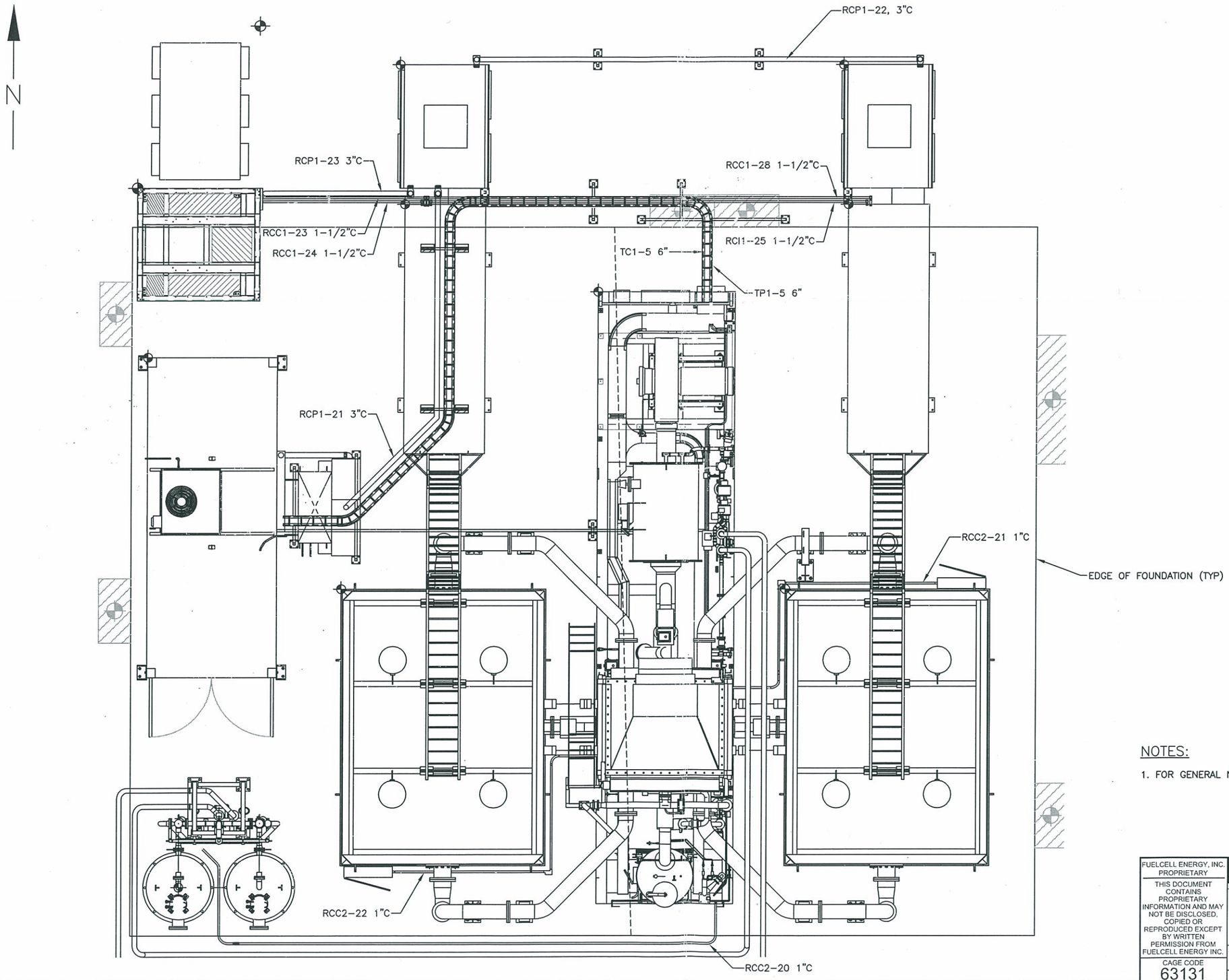
SCALE NTS SHEET 1 OF 3



NOTES:

1. FOR GENERAL NOTES AND DETAILED SITE PLAN SEE SHEET 1.

FUELCELL ENERGY, INC. PROPRIETARY	FuelCell Energy 3 Great Pasture Rd., Danbury, CT 06813
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND MAY NOT BE DISCLOSED, COPIED OR REPRODUCED EXCEPT BY WRITTEN PERMISSION FROM FUELCELL ENERGY INC.	TITLE: DFC3000BL3 POWER PLANT SITE PLAN ENLARGED TORRINGTON FACILITY
CAGE CODE 63131	SIZE D · Location --- · DWG NO 486011-11-01 · REV A
	SCALE 1/8"=1'-0" · SHEET 2 OF 3



NOTES:

1. FOR GENERAL NOTES AND DETAILED SITE PLAN SEE SHEET 1.

CAGE CODE 63131

FuelCell Energy 3 Great Pasture Rd., Danbury, CT 06813

TITLE

DFC3000BL3 POWER PLANT
ELECTRICAL PLAN
TORRINGTON FACILITY

SIZE	Location	DWG NO	REV
D	---	486011-11-01	A

SCALE NTS SHEET 3 OF 3

W:\001456\486011-11-01.dwg, 9/17/2009 1:30:08 PM, fuller


Testing Facility
Manufacturing Facility
NORTH
© 2009 Google
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