



A UIL HOLDINGS COMPANY

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The United Illuminating Company  
180 Marsh Hill Road, Orange, CT 06477-3629  
203-499-2000

**VIA E-MAIL AND HAND DELIVERY**

November 10, 2015

Robert Stein  
Chairman  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: Petition of The United Illuminating Company for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is Required for the Construction, Operation, and Maintenance of a 2.8 MW AC Fuel Cell Facility at Amity Regional High School in the Town of Woodbridge, Connecticut

Dear Chairman Stein:

I enclose an original and fifteen (15) copies and an electronic copy of the above-referenced petition on behalf of The United Illuminating Company ("UI" or the "Company") along with the required filing fee. In the Petition, UI requests the Connecticut Siting Council approve the location for a 2.8 MW fuel cell facility in the Town of Woodbridge.

Please do not hesitate to contact me should you have any questions concerning this filing.

Very truly yours,

A handwritten signature in black ink that reads 'J. Morrissey' in a cursive script.

James R. Morrissey  
Attorney  
UIL Holdings Corporation  
On Behalf of The United Illuminating Company

Enclosures

**PETITION OF THE UNITED ILLUMINATING COMPANY  
FOR A DECLARATORY RULING THAT NO CERTIFICATE OF  
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS  
REQUIRED FOR THE CONSTRUCTION, OPERATION, AND  
MAINTENANCE OF A 2.8 MW AC FUEL CELL FACILITY AT  
AMITY REGIONAL HIGH SCHOOL IN THE TOWN OF  
WOODBIDGE, CONNECTICUT**

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## **Exhibit List**

- I. Letter of Support from Amity Regional School District No. 5
- II. Letter of Support from Town of Woodbridge
- III. Site Plan
- IV. Photo Simulations
- V. NDDDB Letter and Best Management Practices
- VI. SHPO Application Final Determination
- VII. Outreach Log
- VIII. Safety, Health and Accident Prevention Requirements; Hazardous Material Inventory  
Summary
- IX. Affidavit of Service and Signed Notice Letters
- X. Soil and Groundwater Characterization Event

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

PETITION OF THE UNITED ILLUMINATING	)	Petition No. ____
COMPANY FOR A DECLARATORY RULING	)	
THAT NO CERTIFICATE OF ENVIRONMENTAL	)	
COMPATIBILITY AND PUBLIC NEED IS	)	
REQUIRED FOR THE CONSTRUCTION, OPERATION,	)	
AND MAINTENANCE OF A 2.8 MW AC FUEL CELL	)	
FACILITY LOCATED AT AMITY REGIONAL HIGH	)	
SCHOOL IN WOODBRIDGE, CONNECTICUT	)	November 9, 2015

**1. INTRODUCTION**

Pursuant to Conn. Gen. Stat. §§ 4-176(a) and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 *et seq.*, The United Illuminating Company (“UI” or “Company”) requests that the Connecticut Siting Council (“Council”) approve by declaratory ruling the construction, operation, and maintenance of a carbonate fuel cell capable of producing up to 2.8 MW AC, and associated equipment (“Project”) to be constructed in the parking lot behind Amity Regional High School in Woodbridge, Connecticut on approximately 0.12 acres (the “Site”). As discussed fully in this Petition, the construction, operation, and maintenance of the proposed Project satisfies the criteria of Conn. Gen. Stat. § 16-50k(a) and will not have a substantial adverse environmental effect in the State of Connecticut. Beyond the Petition meeting the statutory requirements for approval by the Council, the Project presents significant benefits in regard to furthering state policies on renewable energy and electric system reliability. Additionally, the Project possesses significant support from both the Town of Woodbridge and the Amity Board of Education.

**2. PETITIONER**

UI is an electric distribution company specially chartered by the General Assembly of the State of Connecticut and having its principal place of business at 180 Marsh Hill Road, Orange, Connecticut. Please address all correspondence and/or communications regarding this Petition to:

Thomas Judge  
The United Illuminating Company  
180 Marsh Hill Road  
Orange, CT 06477  
203.926.4772  
[Thomas.judge@uinet.com](mailto:Thomas.judge@uinet.com)

Please also provide a copy of all such correspondence and/or communications to UI's counsel:

James R. Morrissey, Esq.  
UIL Holdings Corporation  
157 Church Street  
New Haven, CT 06510  
203.499.2864  
[James.morrissey@uinet.com](mailto:James.morrissey@uinet.com)

### **3. PROPOSED PROJECT**

#### **3.1 PROJECT HISTORY**

Section 127 of Public Act 11-80, An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future (the "Act"),<sup>1</sup> permits electric distribution companies to build, own, or operate generation facilities using Class I renewable energy sources. The Act permits an electric distribution company to manage a portfolio of up to 10 MW. The capacity at each site must be greater than 1 MW and may not exceed 5 MW.

#### **3.2 SITE SELECTION**

The EDC based the site selection process for the Project on a detailed evaluation of the following key criteria:

- Site suitability (size, grade, and surrounding topography);
- Proximity to critical infrastructure (suitable electrical grid access);
- Zoned for industrial use; and
- The opportunity to use waste heat (Based on Siting Council recommendation from UI Petition 1104).

Fuel cells require a relatively small footprint and as such, many properties can accommodate the project. UI focused on locating a site where waste heat from the generation of electricity could be used for public benefit. While canvassing for properties that may have interest in using heat from the fuel cell, UI discovered a unique opportunity in the Town of Woodbridge, to build one project that would meet the needs of Public Act 11-80, provide waste heat to Amity Regional High School, and support a separate State Initiative, the micro-grid Grant and Loan

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<sup>1</sup> Section 127 of the Act was subsequently codified as Conn. Gen. Stat. § 16-244v.

Program. The minimal space required by a fuel cell provides for greater flexibility in site selection. UI selected this Site for two major reasons: (1) Amity Regional High School can easily capture the waste heat produced by the fuel, and (2) the placement of the fuel cell supports the Connecticut micro-grid. The Program was established as a result of Section 7 of Public Act 12-1482 which required the Connecticut Department of Energy and Environmental Protection (“DEEP”) to establish a micro-grid grant and loan pilot program to support local distributed energy generation for critical facilities.

Woodbridge applied for and DEEP subsequently awarded Woodbridge a grant to build a micro-grid. Under the grant, DEEP required that the source of generation supporting the micro-grid come from a renewable energy source. Funding for the renewable source and the underground infrastructure required to support the micro-grid could not be realized by the Town with the funds available under the grant. UI saw the opportunity to support DEEP’s micro-grid initiative with the power generated from the Woodbridge Fuel Cell Project. The micro-grid will consist of infrastructure to connect seven critical town facilities to the fuel cell. Town facilities supported by the Project include: Public Works, Town Hall, Police Station, Senior Center, Library, New Fire Station, Old Fire station, and the High School.

Due to the proximity of the proposed Site to existing structures and equipment, UI developed a preliminary layout to ensure the space could facilitate the fuel cell and would best minimize any environmental impact while efficiently delivering the intended benefits of the project to all stakeholders. Upon completion of the preliminary site layout design, UI presented the micro-grid proposal to the Town of Woodbridge (“Woodbridge”) and the Amity Board of

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<sup>2</sup> Section 7 of Public Act 12-148 was subsequently codified as Conn. Gen. Stat. § 16-243y.

Education (“Amity”) for approval. Both Amity and Woodbridge are in full support of the Project (see Exhibits I and II).

### 3.3 PROPERTY DESCRIPTION

The Site is located at Amity Regional High School, in an area adjacent to the school that currently houses abandoned HVAC equipment and other miscellaneous equipment for the grounds. As part of this Project, UI will relocate or remove that existing equipment at the direction of Amity.



Amity Regional High School is located in an area classified as Residential A; however, the school sits on a twenty-five acre parcel and holds a general commercial appearance. As depicted in Exhibit III, UI will construct the fuel cell approximately 500 feet from the nearest abutter, the property boundary is lined by dense vegetation, and the physical appearance of the Site will not change significantly. Subsequently, UI is confident the property selection effectively minimizes potential visual impacts associated with such an installation.

The Site is accessible from an existing access road that wraps around the school property, as shown in Exhibit III. Current Site conditions include a mostly bituminous concrete pavement and compacted gravel area with little to no vegetation.

The location of the Project and the current conditions of the Site allow Amity to effectively and efficiently utilize the waste heat produced by the fuel cell's operation while producing little to no impact on the surrounding environment.

### 3.4 PROJECT DESCRIPTION

The Project will consist of one Fuel Cell Energy DFC3000 power plant and the installation of a perimeter security fence that will completely enclose the fuel cell facilities. The Company will install the Project in the area as denoted in Exhibit III. The Company intends to surround the fuel cell facilities with an eight-foot tall block wall, as requested by Amity to minimize visual and noise impacts. See Exhibit IV for renderings of what the fuel cell facilities will look like.



### 3.5 INTERCONNECTION

UI will interconnect the Project into its grid. The point of common coupling for the fuel cell facility will utilize UI's standard switchgear and related equipment in the fuel cell area. The Company will utilize a circuit from the June Street Substation to connect the fuel cell into the Company's distribution infrastructure. The proposed path consists of existing open wire and underground cable system from June Street substation to the interconnection point at the Site. The Project will also connect to the Woodbridge micro-grid infrastructure.

#### **4. PROJECT BENEFITS**

Projects that are “necessary for the reliability of the electric power supply of the state or for a competitive [electric market]” present a clear public benefit. Conn. Gen. Stat. § 16-50p(c)(1). This Project provides exactly the benefit contemplated in the statute and more, as it will provide steady power at all times.

The Project provides an opportunity for Amity Regional High School to install a heat exchanger that will capture and use waste heat the fuel cell produces in the school’s buildings and facilities. Utilizing the heat produced by the fuel cell will result in an overall reduction resources required to heat the buildings and will provide energy savings to the school and taxpayers.

In addition, the fuel cell will support Woodbridge’s micro-grid in the event of an electric system outage. As noted above, DEEP awarded Woodbridge a grant to construct a micro-grid that will support critical town infrastructure, including the police department, fire department, public works, community center, the high school, as well as a few other facilities. It is worth noting that Amity Regional High School additionally acts as an emergency shelter for Woodbridge during catastrophic events.

Finally, the Project represents a benefit for the residents of Woodbridge and the state as a whole as the Project will produce income in the form of taxes for the Town and help to reduce greenhouse gas emissions and pollutants. Over the life of the Project, the fuel cell installation will contribute to a reduction in NO<sub>x</sub>, SO<sub>x</sub>, PM, CO and VOC emissions as compared to combustion-based generation. Fuel cell facilities are considered Class I renewable energy sources under General Statutes § 16-1(a)(26), and this Project will help the State move closer to meeting its renewable portfolio standards and achieving its renewable energy goals.

Additionally, providing increased renewable capacity helps further distance Connecticut from foreign energy supply and helps support energy independence, a local and national goal.

## **5. POTENTIAL ENVIRONMENTAL EFFECTS**

Due to the nature of the Project and location of the Site, the construction and operation of the fuel cell will have no adverse effect on the surrounding environment. The various factors considered for this Project are discussed below.

### **5.1 SOIL & GROUNDWATER ASSESSMENT**

In June of 2015 GHD Pty Ltd (formerly known as Conestoga Rovers & Associates), along with UI personnel performed a soil and groundwater assessment at the proposed project location. Based on the analytical results, the soil and ground water at the Site is not classified as hazardous waste. Therefore, all excess spoils generated from the construction activities will be managed in accordance with the State of Connecticut guidance on non-hazardous/non-RCRA solid waste. In addition, any groundwater generated during construction activities will be removed and managed appropriately based on the State of Connecticut's General Permit, Groundwater Remediation Wastewater to a Sanitary Sewer.<sup>3</sup> Water required for operation is available from the Regional Water Authority via a nearby water line. The Project will discharge approximately 6,500 gallons per day of wastewater, generally at ambient temperature and containing little contaminants into the Greater New Haven Water Pollution Control Authority's system. The fuel cell will release the remaining water in the form of steam. The Company will contain any chemicals or other hazardous materials necessary for facility operation to prevent release to the environment. Although minimal, a complete list of potentially hazardous materials along with containment protocols is included in Exhibit VIII.

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<sup>3</sup> Connecticut's General Permit for the Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer is also referred to as Permit DEP-WD-GP-007.

## 5.2 AIR QUALITY

Overall, the Project will have minor air emissions during operation and only minor air emissions of regulated air pollutants and greenhouse gases during construction. The Company will control any temporary emissions at the Site by enacting appropriate mitigation measures (e.g., water for dust control; avoid mass early morning vehicle startups, etc.). Accordingly, any potential air effects produced by the Project's construction activities will be minimal. During operation, the Project will produce extremely low levels of regulated air pollutants or greenhouse gases (e.g., PM, VOCs, GHG or Ozone). Thus, no air permit is required. Please see the below chart for a comparison of the Project facilities with other area generating assets.

<b>lb/MWh Comparison of Petitioner's Woodbridge Cell Facility with New Haven Harbor Generating Facility</b>			
<b>Pollutant</b>	<b>Woodbridge Fuel Cell Facilities</b>	<b>New Haven Harbor Emission Unit #1<sup>4</sup></b>	<b>New Haven Harbor Grouped Emission Unit #1<sup>5</sup></b>
NO <sub>x</sub>	0.02	1.97	0.1494
Sox	0.001	5.668	0.0144
PM <sub>10</sub>	0.01	0.326	0.2400
CO	0.10	0.342	0.0200
VOC	0.02	0.047	0.0158

<sup>4</sup> Calculated from PSEG Power Connecticut, LLC, New Haven Harbor Station Grouped Emission Unit #1's Title V Operating Permit using the lb/hr emission limits and a total output of (3) 50 MW Combustion Turbines.

<sup>5</sup> Calculated from PSEG Power Connecticut, LLC, New Haven Harbor Station Emission Unit #1's Title V Operating Permit using the lb/hr emission limits and an output of a 466 MW tangential multi-fuel boiler.

### **5.3 INLAND WETLAND AND WATERCOURSES**

Based on the proposed project's footprint and path being within existing roadways no adverse impacts will occur to either inland wetland areas or watercourses. In the areas where either inland wetlands or watercourses border the project footprint, UI will install the necessary erosion and sediment controls such as silt fence or compost filter socks down gradient from the construction activity in order to protect these resource areas.

### **5.4 NOISE ASSESSMENT**

The noise produced by the fuel cell unit produces a sound level of 72 dBA at a distance of 10 feet, which is similar to the noise produced by a household vacuum cleaner. The Company intends to surround the fuel cell facilities with an eight-foot tall block wall, as requested by Amity to minimize visual and noise impacts. The fuel cell will operate near other equipment that currently produces noise. The production of noise from the fuel cell is comparable to the noise produced by the existing equipment. UI shared anticipated noise levels with Amity Regional High School officials. It is not anticipated that the levels of noise will exceed any state or local noise standard or limit.

Although higher levels of noise are anticipated during the construction of the Project, the Company's goal is to conduct much of the construction during the summer months while school is not in session and during normal working hours.

## **5.5 HISTORIC VALUES**

In May of 2015 UI completed and submitted a Project Review Form to the State Historic Preservation Office (“SHPO”). On June 29, 2015 UI received a final determination from SHPO indicating that the Project will not adversely affect the Woodbridge Green Historic District or surrounding historic properties. *See Exhibit VI* for the information submitted to SHPO.

## **5.6 WILDLIFE AND HABITAT**

In April of 2015 UI submitted a Natural Diversity Database (“NDDB”) Project Review form to the DEEP. On April 14, 2015 UI received a determination back from the CT DEEP NDDB Group stating that one species in the area is of special concern, an eastern ribbon snake was identified as being present. As a result, UI worked with the CT DEEP to develop a best management practices (“BMPs”) document for use during construction activities related to this species which is explained in *Exhibit V*. UI is confident that by executing the BMPs, the Project will not impact the eastern ribbon snake.

## **6. COMMUNITY OUTREACH AND NOTICE TO ABUTTERS**

The Company conducted extensive discussions and negotiations in regard to the Project with various public officials from the Town of Woodbridge and the Amity Board of Education. *See Exhibit VII*. Both Woodbridge and Amity support the Project and are excited about its various potential opportunities. *See Exhibits I and II*.

Over the course of the negotiations, UI, Woodbridge, and Amity discussed nearly every potential impact a fuel cell could have on the Regional High School and its students. Among others, UI adapted its design to address concerns regarding working hours and construction schedules, the size and noise characteristics of the fuel cell, and how best to ensure constant coordination and communication between UI, its contractor, and the school. In light of those

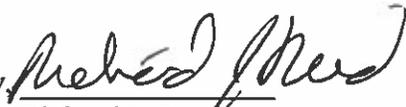
negotiations, the Amity Regional School Board unanimously approved the ground lease on September 21, 2015.

Additionally, pursuant to Conn. Agencies Regs. § 16-50j-40(a), the Company provided notice of this Petition to all persons and appropriate municipal officials and governmental agencies to which notice is required, attached as Exhibit IX is a copy of the affidavit of service and service list.

## 7. CONCLUSION

Accordingly, for the reasons stated herein, the Company respectfully requests the Council find that the construction, operation, and maintenance of the Project will not have a substantial adverse environmental effect and therefore does not require a Certificate of Environmental Compatibility and Public Need.

Respectfully submitted,

By,   
Richard J. Reed  
VP, Engineering and Project Excellence  
The United Illuminating Company

# Exhibit I

## **AMITY REGIONAL SCHOOL DISTRICT NO. 5**

**Bethany Orange Woodbridge**  
**25 Newton Road, Woodbridge, Connecticut 06525**



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*Charles S. Dumais, Ed.D.*  
*Superintendent of Schools*

*charles.dumais@reg5.k12.ct.us*  
*203.392.2106*

May 22, 2015

Anthony Marone  
Senior Vice President  
Customer and Business Services  
UI Holdings Corporation  
157 Church Street  
New Haven, CT 06506-0901

Dear Mr. Marone,

I am writing in support of The United Illuminating Company's (UI) Fuel Cell Project that they are proposing to site at Amity Regional High School in Woodbridge, CT. UI's project will greatly benefit the Amity Regional School District as the high school is included in the Town of Woodbridge's MicroGrid project, and the fuel cell will serve the electrical needs of the school in the event of UI electrical system outages. The high school will also benefit by capturing the waste heat from the fuel cell for use in satisfying the heating needs of the high school.

UI has worked closely with the Amity Board of Education over the past several months to locate the fuel cell in an area of the property that will minimize potential impacts to the operation of the school and maximize the opportunity to recapture waste heat. Details such as noise and visual impact were considered in siting the plant.

Our Board of Education has unanimously endorsed the MicroGrid project pending a finalized agreement regarding the lease of the fuel cell site. UI and Amity have been working arduously to finalize this agreement and anticipate that it will be completed soon. We are excited to see this project move forward.

Sincerely,

A handwritten signature in blue ink that reads 'C. Dumais'.

Charles S. Dumais, Ed.D.  
Superintendent



## Exhibit II

TOWN OF WOODBRIDGE  
11 MEETINGHOUSE LANE  
WOODBRIDGE, CONNECTICUT 06525

Telephone: (203) 389-3401  
FAX: (203) 389-3480  
E-mail: [escalettar@woodbridgect.org](mailto:escalettar@woodbridgect.org)

ELLEN SCALETTAR  
FIRST SELECTMAN

May 26, 2015

Anthony Marone  
Senior Vice President  
Customer and Business Services  
UI Holdings Corporation  
157 Church Street  
New Haven, CT 06506-0901

Dear Mr. Marone,

I am writing in support of The United Illuminating Company's (UI) Fuel Cell Project that is being proposed for siting at Amity Regional High School in Woodbridge.

This project will greatly benefit the Town of Woodbridge and the Amity Regional School District of which Woodbridge is a part.

The Town of Woodbridge recently received a \$3 million grant from the state Department of Energy and Environmental Protection for a microgrid project. The fuel cell will be the microgrid's energy source and will serve the electrical needs of several Town buildings in the event of a power outage. Under normal operations power generated by the fuel cell will be fed into the grid.

The regional high school will also benefit by capturing the waste heat from the fuel cell for use in satisfying the heating needs of the high school, thereby saving money for the school district's three towns (Bethany, Orange and Woodbridge).

UI has worked closely with the Town of Woodbridge and the Amity Board of Education to site the fuel cell in an area of the property that will minimize potential impacts to the school. Details such as noise and visual impact were considered in siting the plant.

# Exhibit II

The Town of Woodbridge strongly supports this project that will provide clean energy and preserve critical Town functions during power outages. Please let us know if any additional information would be helpful.

Sincerely,

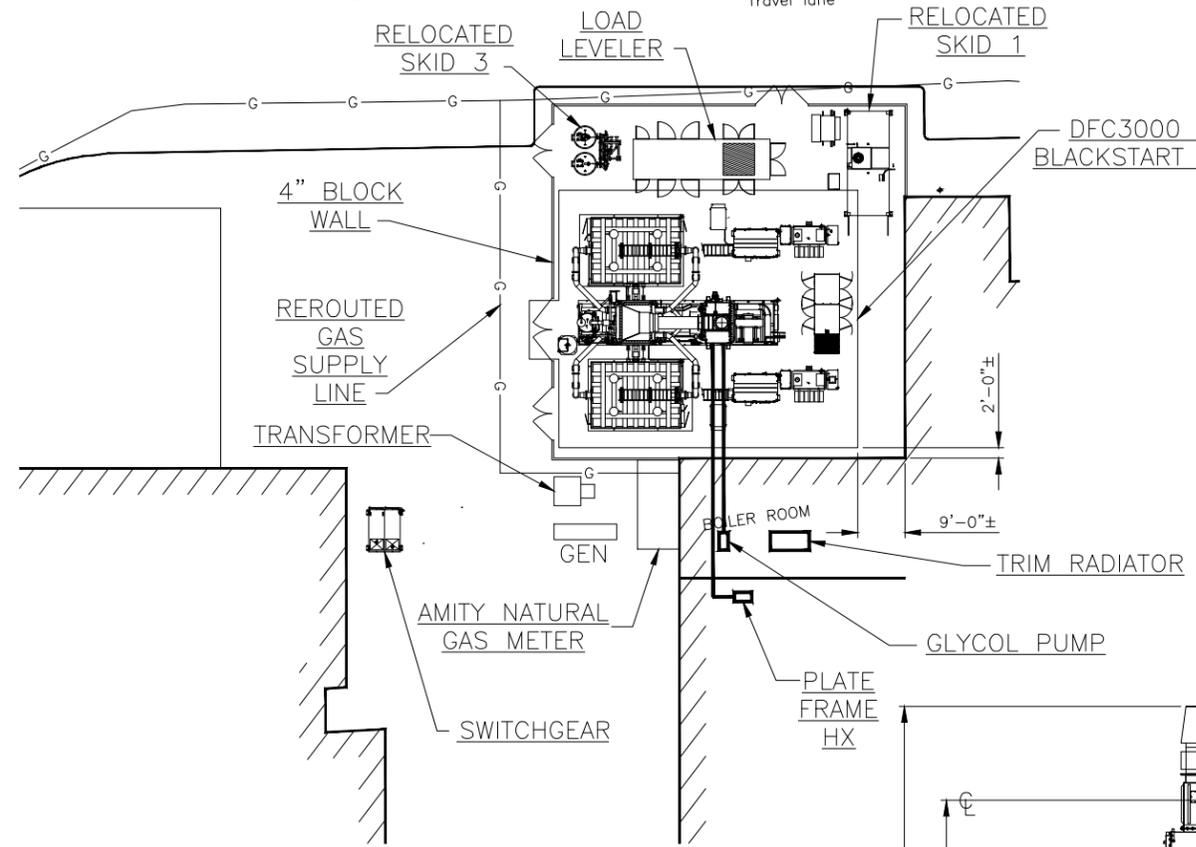
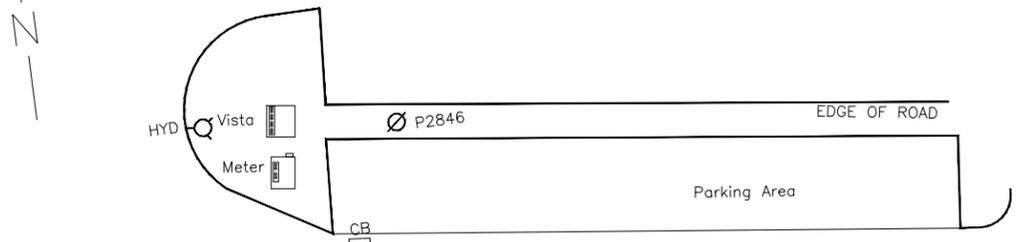


**Ellen Scalettar**  
**First Selectman**  
**Town of Woodbridge**



Exhibit III

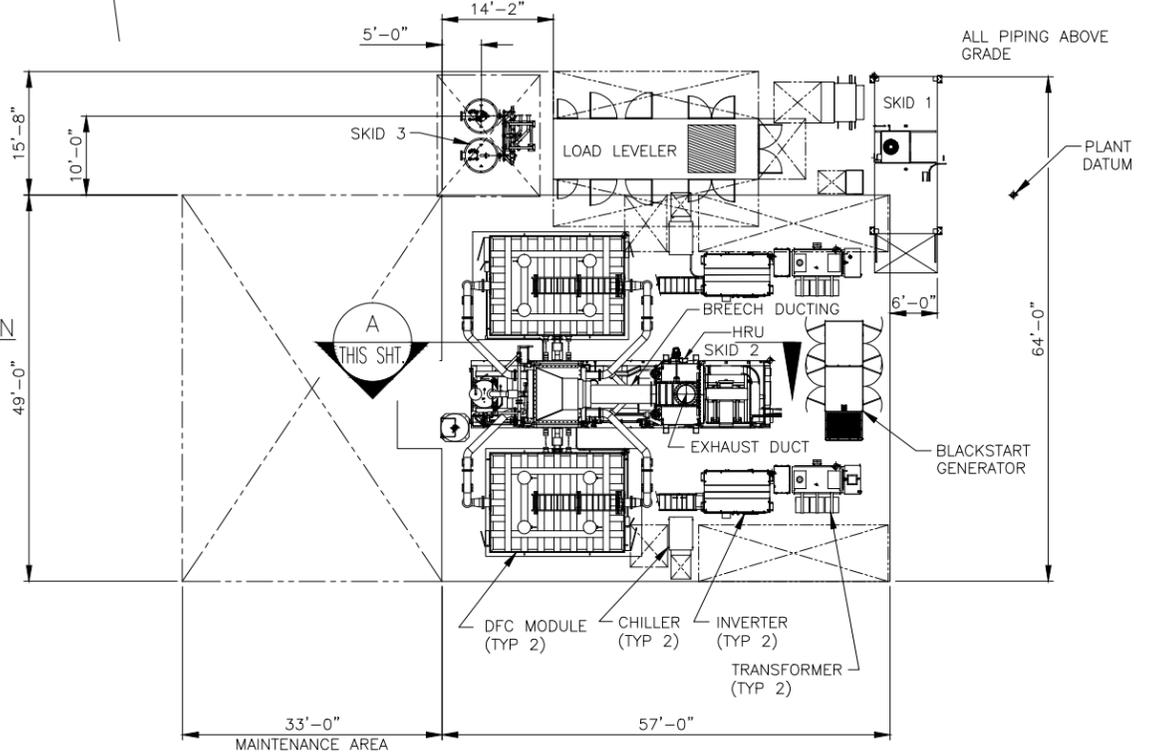
REVISION HISTORY				
REV	DESCRIPTION	BY	APPROVED	DATE
1	INTERNAL REVIEW	MHB	I.COREA	09/12/14
2	ADDED BLACKSTART, ADDED DFC3000 OPTION	KGG	I.COREA	12/09/14
3	UPDATED TO DFC3000 BLACKSTART ONLY	MHB	I.COREA	02/24/15
4	REVISED PER CUSTOMER COMMENTS	MHB	I.COREA	04/01/15
5	REVISED PER CUSTOMER COMMENTS	KGG	I.COREA	04/09/15
6	REVISION PER CUSTOMER COMMENTS	KGG	I.COREA	05/28/15
7	ADDED SHEET 2	KGG	I.COREA	07/02/15
8	REVISED TO INCLUDE HRU & SITE AREA	KGG	I.COREA	09/03/15



DFC3000  
w/ BLACKSTART OPTION  
SITE PLAN

10' 0 20' 40'

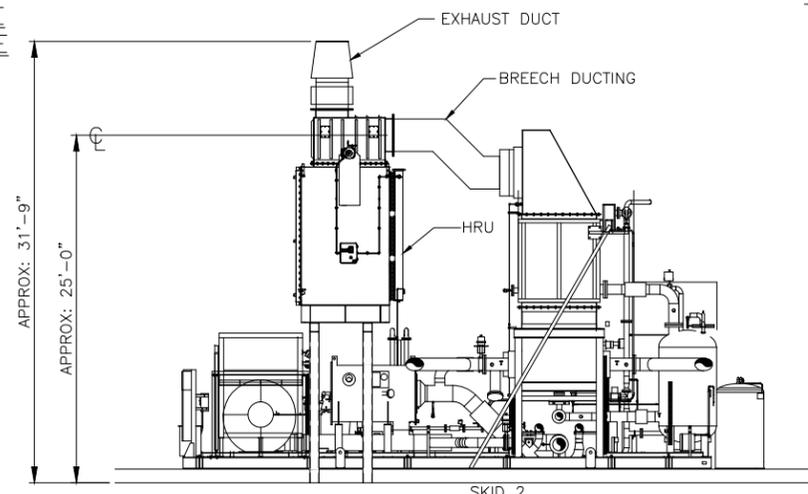
GRAPHIC SCALE



DFC3000  
w/ BLACKSTART OPTION  
PLAN VIEW

5' 0 10' 20'

GRAPHIC SCALE



ELEVATION A

5' 0 5' 15'

GRAPHIC SCALE

NOTE:  
1. RELOCATED EQUIPMENT LOCATIONS ARE PRELIMINARY. ACTUAL LOCATIONS TO BE DETERMINED.

**PRELIMINARY**

FUELCELL ENERGY, INC. PROPRIETARY THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND MAY NOT BE DISCLOSED, COPIED OR REPRODUCED EXCEPT BY WRITTEN PERMISSION FROM FUELCELL ENERGY INC. CAGE CODE <b>63131</b>	SIGNATURES			TITLE <b>DFC3000 POWER PLANT          AMITY HIGH SCHOOL          BLACKSTART - SITE PLAN</b>
	DRAWN: <b>M. BAUMANN 09/12/14</b> ENGINEER: <b>I.COREA 09/12/14</b> APPROVED:  UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE ±1/16" REVISION INDICATOR FLAG NOTE	RELEASED:  SCALE AS SHOWN		

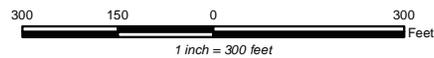
# Exhibit IV



## PHOTO LOG

### Legend

● Photo Location



# Exhibit IV



## DOCUMENTATION

PHOTO

1

LOCATION  
**HOST PROPERTY**

ORIENTATION  
**SOUTHWEST**

# Exhibit IV



## **SIMULATION**

PHOTO

1

LOCATION  
**HOST PROPERTY**

ORIENTATION  
**SOUTHWEST**

# Exhibit IV



## DOCUMENTATION

PHOTO

2

LOCATION  
**HOST PROPERTY**

ORIENTATION  
**SOUTHWEST**

# Exhibit IV



## **SIMULATION**

PHOTO

2

LOCATION  
**HOST PROPERTY**

ORIENTATION  
**SOUTHWEST**

# Exhibit IV



## DOCUMENTATION

PHOTO

3

LOCATION  
HOST PROPERTY

ORIENTATION

SOUTH

# Exhibit IV



## SIMULATION

PHOTO

3

LOCATION  
HOST PROPERTY

ORIENTATION

SOUTH

# Exhibit IV



## DOCUMENTATION

PHOTO

4

LOCATION  
HOST PROPERTY

ORIENTATION  
SOUTHEAST

# Exhibit IV



## **SIMULATION**

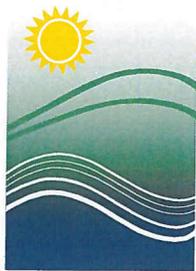
PHOTO

4

LOCATION  
**HOST PROPERTY**

ORIENTATION  
**SOUTHEAST**

# Exhibit V



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

April 14, 2015

Mr. Shawn Crosbie  
The United Illuminating Company  
180 Marsh Hill Road  
Orange, CT 06477  
[Shawn.crosbie@uinet.com](mailto:Shawn.crosbie@uinet.com)

Project: Woodbridge Micro-grid and Generation Project Located at 25 Newtown Road in Woodbridge, Connecticut  
NDDDB Determination No.: 201501919

Dear Shawn,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for the proposed Woodbridge Micro-Grid and Generation Project located at 25 Newtown Road in Woodbridge, Connecticut. According to our information there are extant populations of State Special Concern *Thamnophis sauritus* (eastern ribbon snake) in the area of this project. Eastern ribbon snakes are usually found in wet meadows associated with riparian areas. Conserving and protecting these snakes usually involve using best management practices to conserve wetlands, leaving buffers around wet meadows or wetlands and working when they are less active during the fall and winter months.

This determination is good for one year. Please re-submit an NDDDB Request for Review if the scope of work changes or if work has not begun on this project by April 14, 2016.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or [dawn.mckay@ct.gov](mailto:dawn.mckay@ct.gov). Thank you for consulting the Natural Diversity Data Base.

Sincerely,

A handwritten signature in cursive script that reads "Dawn M. McKay". The signature is written in black ink and is positioned above the typed name.

Dawn M. McKay  
Environmental Analyst 3

# Exhibit V

## Eastern Ribbon Snake

### Best Management Practices

#### Woodbridge Micro-Grid and Fuel Cell Project

CT NDDDB File Number 2015019019

#### **Breeding/Reproduction Area Protection:**

1. Minimize construction activity during breeding season of late summer to early fall.
2. Removal sediment and erosion controls immediately once the job is completed.
3. Minimize disturbance and activity around wetlands or riparian areas
4. Remove wood piles, construction debris and miscellaneous piles of debris in a timely fashion

#### **Removal of food sources:**

1. Keep small mice and rodents from work area by maintaining good housekeeping (i.e., keep food out of sight)

#### **Eastern Ribbon Snake**



# Exhibit VI



Department of Economic and  
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## State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | 860.256.2800 | Cultureandtourism.org

### PROJECT REVIEW COVER FORM

**1. This information relates to a previously submitted project.**

You do not need to complete the rest of the form if you have been previously issued a SHPO Project Number. Please attach information to this form and submit.

SHPO Project Number \_\_\_\_\_  
(Not all previously submitted projects will have project numbers)

Project Address Intersection of Stratford Avenue and Honeyspot Road in Stratford, Connecticut  
(Street Address and City or Town)

**2. This is a new Project.**

If you have checked this box, it is necessary to complete ALL entries on this form.

Project Name Woodbridge Fuel Cell Project

Project Location Woodbridge Center  
Include street number, street name, and or Route Number. If no street address exists give closest intersection.

City or Town Woodbridge Connecticut  
In addition to the village or hamlet name (if appropriate), the municipality must be included here.

County New Haven  
If the undertaking includes multiple addresses, please attach a list to this form.

Date of Construction (for existing structures) \_\_\_\_\_

**PROJECT DESCRIPTION SUMMARY (include full description in attachment):**

United Illuminating plans to install a buried cable within local streets in Woodbridge center. The cable will terminate at Amity High School.

**TYPE OF REVIEW REQUESTED**

**a. Does this undertaking involve funding or permit approval from a State or Federal Agency?**

Yes  No

Agency Name/Contact	Type of Permit/Approval	State	Federal
<u>CT SHPO</u>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>

**b. Have you consulted the SHPO and UCONN Dodd Center files to determine the presence or absence of previously identified cultural resources within or adjacent to the project area?**

Yes  No

If yes:  
Was the project site wholly or partially located within an identified archeologically sensitive area?  Yes  No

Does the project site involve or is it substantially contiguous to a property listed or recommended for listing in the CT State or National Registers of Historic Places?  Yes  No

Does the project involve the rehabilitation, renovation, relocation, demolition or addition to any building or structure that is 50 years old or older?  Yes  No

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### PROJECT REVIEW COVER FORM

The Historic Preservation Review Process in Connecticut Cultural Resource Review under the National Historic Preservation Act – Section 106 <http://www.achp.gov/106summary.html> involves providing technical guidance and professional advice on the potential impact of publicly funded, assisted, licensed or permitted projects on the state's historic, architectural and archaeological resources. This responsibility of the State Historic Preservation Office (SHPO) is discharged in two steps: (1) identification of significant historic, architectural and archaeological resources; and (2) advisory assistance to promote compatibility between new development and preservation of the state's cultural heritage.

Project review is conducted in two stages. First, the SHPO assesses affected properties to determine whether or not they are listed or eligible for listing in the Connecticut State or National Registers of Historic Places. If so, it is deemed "historic" and worthy of protection and the second stage of review is undertaken. The project is reviewed to evaluate its impact on the properties significant materials and character. Where adverse effects are identified, alternatives are explored to avoid, or reduce project impacts; where this is unsuccessful, mitigation measures are developed and formal agreement documents are prepared stipulating these measures. For more information and guidance, please see our website at: <http://www.cultureandtourism.org/cct/cwp/view.asp?a=3933&q=293820>

#### ALL PROJECTS SUBMITTED FOR REVIEW MUST INCLUDE THE FOLLOWING MATERIALS\*:

**PROJECT DESCRIPTION** Please attach a full description of the work that will be undertaken as a result of this project. Portions of environmental statements or project applications may be included. The project boundary of the project should be clearly defined\*\*

**PROJECT MAP** This should include the precise location of the project – preferably a clear color image showing the nearest streets or roadways as well as all portions of the project. Tax maps, Sanborn maps and USGS quadrangle maps are all acceptable, but Bing and Google Earth are also accepted if the information provided is clear and well labeled. The project boundary should be clearly defined on the map and affected legal parcels should be identified.

**PHOTOGRAPHS** Clear, current images of the property should be submitted. Black and white photocopies will not be accepted. Include images of the areas where the proposed work will take place. May require: exterior elevations, detailed photos of elements to be repaired/replaced (windows, doors, porches, etc.) All photos should be clearly labeled.

For Existing Structures	Yes	N/A	Comments
Property Card	<input type="checkbox"/>	<input type="checkbox"/>	
For New Construction	Yes	N/A	Comments
Project plans or limits of construction (if available)	<input type="checkbox"/>	<input type="checkbox"/>	
If project is located in a Historic District include renderings or elevation drawings of the proposed structure	<input type="checkbox"/>	<input type="checkbox"/>	
Soils Maps <a href="http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm">http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</a>	<input type="checkbox"/>	<input type="checkbox"/>	
Historic Maps <a href="http://magic.lib.uconn.edu/">http://magic.lib.uconn.edu/</a>	<input type="checkbox"/>	<input type="checkbox"/>	
For non-building-related projects (dams, culverts, bridge repair, etc)	Yes	N/S	Comments
Property Card	<input type="checkbox"/>	<input type="checkbox"/>	
Soils Map (see above)	<input type="checkbox"/>	<input type="checkbox"/>	
Historic Maps (see above)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>STAFF REVIEW AREA</b>	Above	Date	Below
<b>Indicate date of Review and Initials of Reviewer</b>			

#### PROJECT CONTACT

Name Mr. Shawn Crosbie Title Environmental Analyst  
 Firm/Agency United Illuminating Holdings Corporation  
 Address 180 Marsh Hill Road  
 City Orange State CT Zip 06477  
 Phone 203.926.4595 Cell 203.915.2573 Fax \_\_\_\_\_  
 Email shawn.crosbie@uinet.com

\*Note that the SHPO's ability to complete a timely project review depends largely on the quality of the materials submitted.

\*\* Please be sure to include the project name and location on *each page* of your submission

# Exhibit VI



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### PROJECT REVIEW COVER FORM

#### SHPO USE ONLY

Based on our review of the information provided to the State Historic Preservation Office, it is our opinion that:

- No historic properties will be affected by this project. No further review is requested.
- This project will cause no adverse effects to the following historic properties. No further review is requested:  
Woodbridge Green Historic District
- This project will cause no adverse effects to the following historic properties, conditional upon the stipulations included in the attached letter:
- Additional information is required to complete our review of this project. Please see the attached letter with our requests and recommendations.
- This project will adversely affect historic properties as it is currently designed or proposed. Please see the attached letter for further details and guidance.

  
~~Daniel T. Forrest~~ Mary B. Dunne  
Deputy State Historic Preservation Officer

6.29.15

Date

# Exhibit VII

Date	Attendees	Topic of Discussion
6/2/2014	Woodbridge: First Selectman - Ellen Scalettar, Town Attorney - Anthony Genovese, Betsy Yagla, Chris Wester, Jame Stirling Amity: School Superintendent - Chip Dumais, Director of Facilities - Jim Saisa	Discuss Microgrid and possible generation options and benefits to the Town and Amity
6/23/2014		Amity School District Presentation: Discuss RCP and Microgrid Partnership with Woodbridge and the High School
7/24/2014	Woodbridge: Ellen Scalletar, Jerry Weiner, Alfred E. Smith, Betsy Yagla, Anthony Genovese	Woodbridge Microgrid Design Discussion
8/28/2014	Woodbridge: Ellen Scalettar, Anthony Genovese, Gerald Weiner, Graham Coates, Paul Michaud, Alfred Smith, Betsy Yagla	Woodbridge Microgrid Agreement Discussion
11/7/2014	Woodbridge: Anthony Genovese, P&Z and Building Official - Terry Gilbertson	Microgrid Meeting: Discuss final design options, potential DG locations, and gather mechanical information (i.e. fan and pump motor schedules) for critical facilities. Jim Saisa has already provided this for the High School.
12/17/2014	Town of Woodbridge	Woodbridge Microgrid status update
1/16/2015	Town of Woodbridge and Amity	Woodbridge Microgrid status update
2/4/2015	Amity: Jim Saisa	Equipment location at Amity High School
2/12/2015	Woodbridge: Terry Gilbertson Amity: Jim Saisa, Chip Dumais	Equipment location at Amity High School and permitting requirements
2/18/2015	Amity Board Meeting	Amity High School Facilities Meeting: Discuss RCP and Microgrid
2/24/2015	Amity: Jim Saisa	Equipment Layout - Field Measurements
3/23/2015	Amity: Jim Saisa Woodbridge: Terry Gilbertson	Microgrid / Fuel Cell: Discuss Fuel Cell Footprint and Wastewater Discharge System Design
4/6/2015	Amity: Chip Dumais	Discuss Amity lease agreement
4/27/2015	Amity: Chip Dumais	Discuss Amity lease agreement
5/1/2015	Amity: Chip Dumais	Discuss Amity lease agreement
5/21/2015	Amity: Chip Dumais, Jim Saisa	Discuss draft site plan for fuel cell and wastewater system
6/1/2015	Amity: Jim Saisa, Chip Dumais	Heat Exchanger Discussion with FuelCell Energy
6/8/2015	Woodbridge: Tony Genovese	Town of Woodbridge / UI Meeting: Discuss Microgrid project ramp-up and Town projects within the area of interest
6/23/2015	Amity: Jim Saisa	Meeting with FCE
9/4/2015	Amity: Jim Saisa, Chip Dumais	Review final site plan of fuel cell and discuss heat recovery

# Exhibit VIII

## Schedule 5.5 Safety, Health and Accident Prevention Requirements

1. Compliance. Contractor shall: (a) take necessary safety and health precautions with respect to performance of the Work, including compliance with the health and safety plan requirements of Law (including the Safety Protocols and the Permits); (b) comply with safety measures initiated by Contractor, and Owner's operations and safety procedures; and (c) submit information to the Owner's Representative demonstrating full compliance with Law (including the Safety Protocols and the Permits) and the Contract Documents. Contractor shall continuously inspect all Work, materials, and equipment and/or conduct health surveys of all areas of the Site to discover and determine any unsafe condition and shall be solely and exclusively responsible for the discovery, determination, and correction of any such condition. That requirement will apply during all hours throughout the period of construction and until Contractor achieves Substantial Completion. Without limiting any other rights or remedies available to Owner under the Contract Documents, at law and/or in equity, if Contractor fails to comply with the health and safety plan and/or the safety provisions required by Law (including the Safety Protocols and the Permits) and/or set forth in the Contract Documents, Contractor shall reimburse Owner for any costs and expenses (including attorneys' fees) incurred by Owner to bring the Work into compliance with such plan, Law and/or the requirements and/or to stop Work (without any relief to Contractor). In addition, Owner may withhold payments that are otherwise due for payment to Contractor until Contractor corrects or abates such safety violations or inadequacies.
2. Owner's Safety and Health Program. Owner reserves the right to implement and coordinate a safety and health program applicable to all contractors at the Site and will resolve conflicts regarding safety and health measures and practices. Contractor shall comply with such plan and/or resolution to the extent that such compliance does not materially increase Contractor's cost. In the event that compliance will materially increase Contractor's cost, Contractor's compliance is subject to Contractor being paid its reasonable incremental costs for such compliance, which Contractor shall invoice Owner on a time and materials basis.
3. Contractor's Safety Program. Without limiting Contractor's obligations under Owner's health and safety program pursuant to Section 2 of this Schedule 5.5, Contractor shall prepare (through the work of an industrial hygienist), implement and maintain its own written safety, health and accident prevention program specifically applicable to the Work at the Site ("*Contractor's Safety Program*"). Contractor's Safety Program shall meet the Safety Protocols (including OSHA requirements), shall be completed in accordance with 29 CFR Section 1910.120(b) and the Permits, and shall include detailed hazard analyses for each major Work item (including Excavation), inspections, and provisions to ensure compliance with Law (including the Safety Protocols and the Permits). Contractor shall be responsible for the health and safety of its own employees and those of Subcontractors and shall be required to maintain and implement Contractor's Safety Program at the Site. All process material, equipment and personal protective equipment required for working with material that is determined to be Level C-Modified hazardous substance (29 CFR Section 1910.120) will be listed in Contractor's Safety Program, and will be provided by Contractor, at Contractor's sole cost and expense. Contractor shall provide a copy of Contractor's Safety Plan to Owner for its review and comment at least thirty (30) days before commencing any Work on the Site.
4. Unsafe Conditions. Contractor shall modify any portion of Contractor's Safety Program that does not conform to the Contract Documents and/or Law (including the Safety Protocols and the Permits). Also, Contractor shall immediately correct any unsafe conditions identified by Owner. In

## Exhibit VIII

the event that Contractor fails to immediately correct any such unsafe condition, Owner may: (a) have the unsafe condition corrected at Contractor's sole cost and expense; (b) direct that the Work be stopped in the area of the unsafe condition until the unsafe condition is corrected; and/or (c) withhold payment to Contractor until the unsafe condition is corrected.

5. Safety and Health Representative. For Work being performed at the Site, Contractor shall appoint a qualified and experienced on-Site Safety and Health Representative. The Safety and Health Representative can change from time to time so long as the designated Person possesses the appropriate qualifications and experience. The Safety and Health Representative (a) shall be present at all times during any Excavation activities (including the handling and disposal of Hazardous Materials) at the Site and/or the performance of any other Work at the Site that could reasonably be expected to involve safety considerations (including electrical Work), and (b) shall attend all Project safety and health meetings required under the Contract Documents. The Safety and Health Representative shall be (i) fully trained in safety requirements, the Safety Protocols, the Permits, and the Site Restrictions and the other obligations of Contractor under the Contract Documents; (ii) authorized to have unsafe conditions corrected; and (iii) vested with power to direct that the Work be stopped in the area of the unsafe condition if deemed necessary. No Work shall be performed in any enclosed space until tests have been made to show the presence of a sufficiency of air and the absence of combustible gas.

6. Reports. Contractor shall immediately (but in no event later than twenty-four (24) hours) report each work-related injury to the Owner's Representative. For any work-related injury, Contractor shall make its records concerning the event available to Owner, and provide to the Owner's Representative a detailed written report of the facts concerning such event within forty-eight (48) hours of the event. Contractor shall maintain accurate accident and injury reports and furnish to the Owner's Representative a monthly summary of injuries and man-hours lost due to injuries. Contractor accident rates will be calculated monthly in accordance with the Bureau of Labor Statistics incident rate, DART rate and lost workday case rate methods.

7. Shut Down. Without limiting any other rights or remedies available to Owner under the Contract Documents, at law and/or in equity, in the event that all or any portion of the Work at the Site is stopped or shut down by Contractor, any Governmental Authority, or Owner, caused in whole or in part by any act, error and/or omission of Contractor or any Subcontractor, including those activities related to safety or health, then Contractor shall pay all costs incurred and damages suffered by Owner due to such delay or disruption and Contractor shall not be entitled to receive any adjustment to the Fixed Contract Price, the Work Schedule or other relief.

8. Meetings. Contractor shall hold regular, scheduled meetings (including tailboards) to instruct its personnel and the personnel of all Subcontractors in safety and health practices and the requirements of the Contract Documents (including the Site Restrictions). At a minimum, such discussions shall include actual and potential hazards of such Work and other precautions to prevent injury or damage. Employees shall not be exposed to Hazardous Materials without first receiving training on the associated physical and health hazards and the measures needed to protect the employee from such hazards. Contractor shall, at no additional cost to Owner, conduct and document (a) tailboard meetings with all workers who will be involved in the Work, at the start of a Project, after any change in the Work scope, and before any new Work assignments begin; and (b) all other safety-related meetings, programs and other activities. Such documentation must be maintained at the Site and available for Owner's review at any time.

# Exhibit VIII

## 9. Miscellaneous.

(a) All Persons employed by Contractor, its Subcontractors, agents, or those under its or their control who carry out Work in the vicinity of energized conductors and equipment shall be instructed by Contractor in approved methods of artificial resuscitation before beginning Work. All Work involving electricity shall be performed in accordance with OSHA standards 29 CFR 1910 Subpart S "Electrical Safety"; 1910.269 "Electric Power Generation, Transmission & Distribution"; and NFPA 70E-2004 "Electrical Safety In The Workplace" as applicable.

(b) Contractor's equipment shall satisfy all Safety Protocols. Equipment safety devices shall not to be removed, bypassed or otherwise modified without review and approval by the Executive Sponsor after providing adequate prior written notice to the Owner's Representative. Contractor shall also furnish safety and health equipment and enforce the use of such equipment by its employees and the employees of all Subcontractors. Without limiting the generality of the foregoing, Contractor shall be responsible to provide all items required in the performance of the Contract Documents that are required by all Safety Protocols. Such items may include:

- Personal protection equipment (*PPE*)
- Enclosed Space and/or Confined Space Entry Equipment
- Traffic control devices
- Public safety protection

During all times that any Work is being performed anywhere on the Site, all personnel at the Site must be wearing eye protection. ANSI/SEA 107 Compliant Traffic Safety Vests shall be worn on Site and properly equipped first aid kits shall be available at all times. All Work in "confined spaces" shall be managed in accordance with OSHA standard 29 CFR 1910.146 and Contractor's confined spaces program. The operation of cranes and hoists shall be performed in accordance with OSHA standard 29 CFR 1910.179; and the use of slings shall be in accordance with OSHA standard 29 CFR 1910.184. In accordance with OSHA standard 29 CFR 1910.132-138 and Subpart I, Work shall be performed using all necessary PPE. Contractor shall conduct and document hazard assessments and training in the use of required PPE prior to performance of Work. PPE shall be removed before leaving the work area and disposed of according to Contractor's waste management procedures to ensure that contaminants are not spread to personnel, through the facility(s), and/or to the Environment.

(c) Contractor shall assess tasks for hazards before assigning the employee(s) to perform them alone. If hazards do exist, either periodic monitoring, assignment of additional personnel, or re-scheduling of the Work must be done. Further, it is important that task limitations be clear in order that new hazards are not introduced during any work performed alone. Contractor shall maintain an emergency contact list for all workers working on the Site. Workers reporting to work under the influence of alcohol or drugs or in possession of alcohol or drugs will not be permitted on the Site. Use or possession of firearms, alcoholic beverages or drugs at the Site at any time, including designated employee parking areas, is prohibited and cause for permanent exclusion from the Site. No smoking shall be permitted anywhere on the Site. All individuals who are not direct employees of Contractor must sign in/out on each day that they are on Site.

(d) Contractor shall furnish, erect, maintain and remove all approved barricades, traffic cones, suitable and sufficient lights, approved reflectors, danger signals, warning and closure signs, fencing, directional detour signs, red flags, hard-hats and devices that may be required for adequate

# Exhibit VIII

protection of job site, employees and control of traffic or as may be required by the Owner's Representative or applicable Governmental Authorities. All barricades, danger signals, fencing, warning signs and obstructions shall be appropriately marked. All lights shall be kept operational from sunset until sunrise.

(e) Contractor shall employ extreme caution in handling hazardous, toxic or deleterious materials resulting from the Work to prevent their introduction into the Environment which could result in harm to people, wildlife or the natural growth of the area. Contractor shall take appropriate precautions relative to the Site conditions, and within sixty (60) days after the Effective Date, Contractor shall prepare a Spill Response Plan for Owner's review and acceptance before Contractor commences any Work on the Site. Fuel, oil, hydraulic fluids and dust control substances shall not be stored on Site. Contractor shall not perform oil changes or maintenance on vehicles or equipment at the Site, show up sites and/or laydown areas. Contractor shall maintain on the Site at all times a site spill prevention and containment kit that includes the following items or Owner-approved equivalents:

25	Grade 200 oil pads
3	Containment oil mini booms (3" x 4' each)
1	Pair nitrile gloves
1	Disposal bag with cable tie
2	2 x FR rated disposable suits
2	2 x pair of disposable booties

(f) The management and use of compressed gas is to be performed in accordance with OSHA standard 29 CFR 1910.0101 "Compressed Gasses, General Requirements."

(g) All Work performed at heights of six feet or greater must be provided with at least one form of fall protection that will either prevent a fall from occurring, or properly arrest a person once the fall event has occurred. Platforms or other surfaces designed primarily for walking shall be provided with an approved guardrail system when they are either; >4' above the adjacent floor or ground level, or above dangerous equipment (including conveyor belts, chemical baths, and exposed rebar) regardless of height. In all cases, Work at height must be performed in accordance with OSHA standards 29 CFR 1910.23, 132, and 503.

(h) Hand and portable power tools shall be used in accordance with OSHA standard 29 CFR 1910 Subpart P. Forklifts and other industrial lift trucks shall be operated only by personnel trained in accordance with OSHA standard 29 CFR 1910.178. Powered personal lift trucks shall be operated only by personnel trained in accordance with OSHA standard 29 CFR 1910.67 and 29 CFR 1926.453.

(i) As part of an overall fire prevention program, Contractor shall utilize a formal "Hot Work Permit" program. Hot Work is any operation that introduces a potential ignition source, which in the presence of combustible or flammable materials can result in a fire. Hot Work includes operations such as brazing, cutting, grinding, soldering, torching and, welding. The use of a Hot Work Permit is required for all hot Work operations outside of designated hot Work areas. Hot Work can be performed without a permit only in areas specifically designated and posted as a "Hot Work" area

## Exhibit VIII

(j) The use of ladders is to be done in compliance with the following OSHA standards:

29 CFR 1910.25 - PORTABLE WOOD LADDERS

29 CFR 1910.26 - PORTABLE METAL LADDERS

29 CFR 1910.27 - FIXED LADDERS

29 CFR 1910.29 - MANUALLY PROPELLED MOBILE LADDER STANDS &  
SCAFFOLDS

(j) All use of scaffolding shall be in accordance with the following OSHA standards:

29 CFR 1910.28 – "Safety Requirements for Scaffolding"

29 CFR 1910.29 – "Manually Propelled Mobile Ladder Stands & Scaffolds"

(k) All servicing and maintenance of equipment shall be performed in accordance with the requirements of OSHA standard 29 CFR 1910.147 or 269 as applicable. Those standards require locking out all potential energy sources prior to the performance of work. Contractor will provide lockout devices if necessary.

**Exhibit VIII**  
**FuelCell Energy, Inc.**  
**DFC3000 (2.8 MW) Hazardous Material Inventory Summary**  
*(Standard Plant)*

ID	Chemical Name	Common Name	CAS #	Material Type	Physical State	Largest Container	Hazard Type	Average Daily Amount Stored On-site	Maximum Daily Amount Stored On-site	Annual Waste Amount	Annual Days on Site	Storage Container	Storage Pressure	Storage Temp.	Components	%WT	CAS#	Notes
1a		NORIT RGM 3	7440-44-0 (or 64365-11-3)	Mixture	Solid	495 lb.	AH, CH	990 lb.	990 lb.	0	365	PV	> ambient	ambient	Act. Carbon	> 90	7440-44-0	1, 2, 3, 4, 14
1b		FCE 9696-001	N/A	Mixture	Solid	1485 lb.	AH, CH	2970 lb.	2970 lb.	0	365	PV	> ambient	ambient	Silicon Oxide, amorphous	< 60	7631-86-9	1, 2, 3, 4, 14
															Silicon Oxide, crystalline	< 1	7931-86-9	
															Aluminum Oxide	< 35	1344-28-1	
															Copper (II) hydroxide	< 8	20427-59-2	
															Copper (II) oxide	< 8	1317-38-0	
															Sodium Silicate	< 20	6834-92-0	
															Sodium Aluminate	< 20	11138-49-1	
2		Spent Desulfurizer Media	N/A	Mixture	Waste	Approx. 300 lb.	AH, CH	33 lb.	1980 lb.	3960 lb.	< 6	SD	ambient	ambient	Act. Carbon	> 25	7440-44-0	2, 4, 14
															Cu II salts	< 2		
															Cr VI salts	< 1		
															Silicon Oxide, amorphous	< 45	7631-86-9	
															Silicon Oxide, crystalline	< 0.5	7931-86-9	
															Aluminum Oxide	< 25	1344-28-1	
															Copper (II) hydroxide	< 6	20427-59-2	
															Copper (II) oxide	< 6	1317-38-0	
															Sodium Silicate	< 15	6834-92-0	
															Sodium Aluminate	< 15	11138-49-1	
															adsorbed sulfur compounds	< 2		
															adsorbed benzene	< 1	71-43-2	
3a		ReforMax 100 RS Catalyst	N/A	Mixture	Solid	1520 lb.	AH, CH, Fire	1520 lb.	1520 lb.	0	365	PV	> ambient	> ambient	Nickel	20-35	7440-02-0	5
															Nickel oxide	20-35	1313-99-1	
															Aluminum oxide	15-25	1344-28-1	
															Silica, amorphous	2-10	7631-86-9	
															Calcium Oxide	2-10	1305-79-8	
															Magnesium Oxide	2-10	1309-48-4	
															Rare Earth Oxides	2-10	68188-83-0	
3b		Catalyst F1-11RED	N/A	Mixture	Solid	1230 lb.	AH, CH, Fire	1230 lb.	1230 lb.	0	365	PV	> ambient	> ambient	Nickel Oxide	< 55.0	1313-99-1	5
															Silicon Dioxide	< 25.0	7631-86-9	
															Magnesium Oxide	< 20.0	1309-48-4	
															Nickel	< 10.0	7440-02-0	
															Dichromium Trioxide	< 2.0		
4		Spent Nickel Catalyst	N/A	Mixture	Solid	Approx. 500 lb.	Fire, CH, Fire	< 10 lb.	1520 lb.	304 lb.	< 1	SD	ambient	ambient	See items 3a or 3b			5, 6
5		Natural Gas	8006-14-2	Mixture	Gas	80 c.f.	Fire, PR	Approx. 200 c.f.	Approx. 200 c.f.	0	365	Other (PV & pipeline)	> ambient	> ambient	Methane	varies, typ. >90	74-82-8	7
6	Nitrogen	Nitrogen	7727-37-9	Pure	Cryogenic Liquid	250 gal.	AH, PR	~ 200 gal.	250 gal.	0	365	PV	> ambient	< ambient	Nitrogen	100	7727-37-9	8
7a		Vitec 3000	N/A	Mixture	Liquid	12 gal.	AH	50 lb.	100 lb.	0	365	AGT	ambient	ambient	Deflocculant & Sequestrant	27.4	Proprietary	9
															Phosphonic Acid Derivative	15.6	Proprietary	
															pH Adjustment	21.8	Proprietary	
															Water	Bal.		
7b		Antichlor 427	N/A	Mixture	Liquid	40 gal.	AH, CH	180 lb.	360 lb.	0	365	AGT	ambient	ambient	Sulfite Salts	25-35	Proprietary	9
															Water	Bal.		
8		NORIT RGM 3	7440-44-0 (or 64365-11-3)	Mixture	Solid	55 lb.	AH, CH	14 lb.	465 lb.	0	10	Bag	ambient	ambient	Act. Carbon	> 90	7440-44-0	3, 4, 14
															Cu II salts	< 8		
															Cr VI salts	< 4		
9		FCE 9696-001	N/A	Mixture	Solid	55 lb.	AH, CH	40 lb.	1485 lb.	0	10	FD	ambient	ambient	Silicon Oxide, amorphous	< 60	7631-86-9	3, 4, 14
															Silicon Oxide, crystalline	< 1	7931-86-9	
															Aluminum Oxide	< 35	1344-28-1	
															Copper (II) hydroxide	< 8	20427-59-2	
															Copper (II) oxide	< 8	1317-38-0	
															Sodium Silicate	< 20	6834-92-0	
															Sodium Aluminate	< 20	11138-49-1	
10		Non-Spillable Lead Acid Batteries (in UPS)	N/A	Mixture	Article	54 lb.	AH, CH	124 lb.	124 lb.	41 lb.	365	Self Contained	ambient	ambient	Lead	30 - 60	7439-92-1	10
															Lead Dioxide	10 - 30	1309-60-0	
															Sulfuric Acid (EHS)	20 - 40	7664-93-9	
11		G-74D Catalyst	N/A	Mixture	Solid	420 lb.	AH, CH	420 lb.	420 lb.	0	365	PV	> ambient	> ambient	Aluminum Oxide	> 99	1344-28-1	11
															Palladium Oxide	< 1	1314-08-5	
12	Propylene Glycol	Propylene Glycol Coolant	57-55-6	Mixture	Liquid	55 gal.	AH	110 gal.	110 gal.	0	365	PV	> ambient	> ambient	Propylene Glycol (w/ rust inhib's)	~50	57-55-6	15
															Deionized Water	~50		
13	Dielectric Fluid	Envirotemp FR3 fluid	N/A	Mixture	Liquid	750 gal.	Fire	1663 gal.	1663 gal.	0	365	PV	> ambient	> ambient	Vegetable Oil	> 98.5		16
															Antioxidant Additive	< 1		
															Cold Flow Additive	< 1		
															Colorant	< 1		

Hazard Type Designations	Storage Container Designations
AH - Acute Health Hazard	AGT - Above Ground Tank
CH - Chronic Health Hazard	CB - Carboy (plastic)
Fire - Flammable, Self-Heating or Oxidizer	CYL - Comp. Gas Cylinder
PR - Pressure Release Hazard	FD - Fiber Drum
	PV - Process Vessel (metallic)
	SD - Steel Drum

**Notes:**

- Items 1a AND 1b used together in (2) ~80 cu. ft. (~65 cf useable) natural gas desulfurizer vessels. Largest cont. is amt. in each vessel. Media types/quantities subj. to change.
- Once spent and removed, items 1a and 1b are considered waste (item 2). Item 2 is not normally stored on site, but removed from site upon removal from process.
- Replacement medias for items 1a and 1b are items 8 & 9. These items are not normally stored on site, but arrive shortly before the removal of item 2 from the process vessels.
- Digester gas desulfurizer medias not included in above inventory.
- Item 3a OR item 3b (Item 3) is contained in an ~60 cubic feet process vessel. Item 3 is envisioned to be replaced in its entirety every 60 months. Spent item 3 is Item 4.
- Item 4 has similar chemical composition to virgin item 3 (a OR b) but with depleted chemical activity. Item 4 is recycled off-site.
- Item 5 is pipeline supplied and is not accumulated on site other than in flow-through process vessels.
- Item 6 is dispensed into process as a gas, directly from storage container. Storage container is filled directly from bulk delivery vehicle.
- Items 7a & 7b transferred from commercial packaging containers into atmospheric tanks.
- Two uninterruptible power supplies (UPS) ea. containing 54 lb. non-spillable lead-acid batteries are located in skid 1. One UPS containing a 14 lb non-spillable lead-acid battery is located in EBOP switchgear cabinet. Minimum life expectancy is 3 yrs.
- Granular deoxidation catalyst, used in Anaerobic Digester Gas (ADG) or other oxygen containing fuel applications only, is considered permanent and is contained in same process vessel as item 3.
- Additional waste materials from operation of plant may include used packaging; used precious metal monolith catalysts; used misc. filters, water treatment system components or medias; lubricant dispensers; wipers; articles (including fuel cell modules); etc.
- Except as those items notes as "(EHS)", none of listed items contain any 40 CFR Part 355 Extremely Hazardous Substances (EHS).
- Anaerobic Digester Gas Fuel Cleanup Skid Materials not included in Inventory
- 55 gal. contained permanently in each of two electrical power conditioning units, each with an accompanying chiller unit.
- Permanently contained in two approx. 750 gal. and one 163 gal. transformers.

# Exhibit IX

## STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

Petition of The United Illuminating Company for a : PETITION NO. \_  
Declaratory Ruling that No Certificate of :  
Environmental Compatibility and Public Need is :  
Required for the Construction, Operation and :  
Maintenance of a 2.8 MW AC Fuel Cell Facility at :  
Amity Regional High School in the Town of :  
Woodbridge, Connecticut : November 09, 2015

### AFFIDAVIT OF THOMAS JUDGE

STATE OF CONNECTICUT )  
 ) ss: Orange November 09, 2015  
COUNTY OF NEW HAVEN )

THOMAS JUDGE, being duly sworn, states:

1. I am a Senior Project Manager for The United Illuminating Company, 180 Marsh Hill Road, Orange, Connecticut (“UIL” or the “Company”). I am over the age of eighteen years and understand the obligations of making statements under oath.
2. I am familiar with the *Petition of The United Illuminating Company for a Declaratory Ruling that No Certificate of Environmental Compatibility and Public Need is Required for the Construction, Operation and Maintenance of a 2.8 MW AC Fuel Cell Facility at Amity Regional High School in the Town of Woodbridge, Connecticut (the “Petition”)*.
3. I hereby certify, in accordance with Regulations of Connecticut State Agencies Section 16-50j-40, that a copy of the Petition was served either by hand delivery or sent via overnight mail service on November 10, 2015 on the following:

# Exhibit IX

MUNICIPAL OFFICIAL/AGENCY	NAME/ADDRESS
Woodbridge Chief Elected Official	The Honorable Ellen Scalettar First Selectman, Town of Woodbridge Town Hall 11 Meetinghouse Lane Woodbridge, CT 06525
Woodbridge Building Official, Zoning Enforcement Officer	Terry Gilbertson 11 Meetinghouse Lane Woodbridge, CT 06525
Woodbridge Town Counsel	Gerald Weiner, Esq. 11 Meetinghouse Lane Woodbridge, CT 06525
Woodbridge State Senator	The Honorable Gayle Slossberg Connecticut General Assembly 14 Honeysuckle Ln Milford, CT 06461-1671
Woodbridge State Senator	The Honorable Joseph Crisco Jr. Connecticut General Assembly 1205 Racebrook Rd Woodbridge, CT 06525-1822
Woodbridge State Representative	Themis Klarides Connecticut General Assembly 23 East Ct Derby, CT 06418-2640
STATE OFFICIAL/AGENCY	NAME/ADDRESS
Connecticut Attorney General	George Jepsen, Attorney General Office of the Attorney General 55 Elm Street Hartford, CT 06106
State Department of Energy and Environmental Protection	Robert Klee, Commissioner Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127
State Department of Public Utility Control	Arthur House, Chairman Department of Energy and Environmental Protection Public Utilities Regulatory Authority 10 Franklin Square New Britain, CT 06051
State Department of Public Health	Dr. Jewel Mullen, Commissioner Department of Public Health 410 Capitol Avenue Hartford, CT 06134
State Council on Environmental Quality	Susan D. Mellow, Chair Council on Environmental Quality 79 Elm Street Hartford, CT 06106
State Department of Agriculture	Steven K. Reviczky, Commissioner Department of Agriculture 165 Capitol Avenue Hartford, CT 06106
Office of Policy and Management	Benjamin Barnes, Secretary Office of Policy and Management 450 Capitol Avenue Hartford, CT 06106

# Exhibit IX

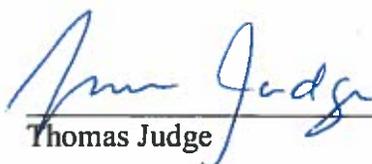
State Department of Economic and Community Development	Catherine Smith, Commissioner Department of Economic and Community Development 505 Hudson Street Hartford, CT 06106
State Department of Transportation	James P. Redeker, Commissioner Department of Transportation 2800 Berlin Turnpike Newington, CT 06111

4. Additionally, I hereby certify, in accordance with Regulations of Connecticut State Agencies Section 16-50j-40 that notice of the Petition was sent via mail service on November 10, 2015 to owners of property that abut the Proposed Site. The table below lists the property owners to whom the petition was provided.

ABUTTER PROPERTY	ABUTTER NAME	ABUTTER MAILING ADDRESS
15 Newton Road	Robert Hayes & Kristen Amon	same
13 Newton Road	Town of Woodbridge	11 Meetinghouse Lane
19 Newton Road	Frank J. & Rita C. Deleo	same
91 Center Road	Nathaniel H. Case	same
89 Center Road	Robert F. Rosasco III	same
75 Center Road	The Church of The Assumption	same
28 Rice Road	Yuriy Gmirya & Anna Sokolina	same
32 Rice Road	Chun Zhong Zhang & Min Xiang Zheng	same
34 N Pease Road	Thomas R. Raich & Catherine A. Scott	same
2 Cornfield Lane	Harold E. Jr. and Roxanne Smullen	same
6 Cornfield Lane	Louis Mark Bruni	same
10 Cornfield Lane	Arline J. & Francis E. McCarthy	same
14 Cornfield Lane	Marrhew B. & Leigh Ann Russ	same
13 Cornfield Lane	Penrhyn Road Trust	c/o BW Consulting ATTN: Jim Betzig 612 Wheelers Farm Road Milford, CT 06461

# Exhibit IX

22 Penrhyn Road	Penrhyn Road Trust	c/o BW Consulting ATTN: Jim Betzig 612 Wheelers Farm Road Milford, CT 06461
71 Newton Road	Woodbridge Park Assoc Inc.	c/o Carrie Swigart P.O. Box 3883 Woodbridge, CT 06525
67 Newton Road	Woodbridge Park Assoc Inc.	c/o Carrie Swigart P.O. Box 3883 Woodbridge, CT 06525
49 Newton Road	Stuart M. Jr. & Michiko Fischer Peck	same
47 Newton Road	Stuart M. Peck Jr. & Michiko Fischer Peck	same
43 Newton Road	Nancy Shattuck	same
39 Newton Road	Jay D. Spiegel & Ann M. Putio	same
44 Newton Road	Michael E. Burns & Kathleen Peterson Burns	same
40 Newton Road	Russell & Stephanie Austin	same
36 Newton Road	Dirienzo Enterprises LLC	same
3 Old Mill Road	David P. & Mildred P. Gibson	same
2 Old Mill Road	Wayne A. & Donna M. Cable	same
3 Meetinghouse Lane	First Church of Christ	same
37 N Pease Road	Jose P. & Holly H. Negreiro	17 Woodbine Road
17 Vernon Court	Laura Torrence	same

  
 \_\_\_\_\_  
 Thomas Judge

Subscribed and sworn to before me  
 This ninth day of November, 2015

  
 \_\_\_\_\_  
 Notary Public/  
 Commissioner of Superior Court

My Commission expires 05/31/2016

# Exhibit X



**CONESTOGA-ROVERS  
& ASSOCIATES**

45 Farmington Valley Drive, Plainville, Connecticut  
06062  
Telephone: (860) 747-1800 Fax: (860) 747-1900  
[www.CRAworld.com](http://www.CRAworld.com)

June 26, 2015

Reference No. 083167

Mr. Shawn C. Crosbie  
Environmental Analyst  
The United Illuminating Company  
180 Marsh Hill Road  
Orange, CT 06477

Dear Mr. Crosbie:

Re: Soil and Groundwater Characterization Event  
Amity Regional High School Fuel Cell Installation Project  
Woodbridge, Connecticut (Site)

## 1.0 Introduction

As requested by The United Illuminating Company (UI), Conestoga-Rovers & Associates (CRA) is pleased to provide this summary of the recent soil and groundwater characterization event conducted for the Fuel Cell Installation project at Amity Regional High School located at 25 Newton Road in Woodbridge, Connecticut (Site).

## 2.0 Scope of Work

The soil and groundwater sampling activities were conducted on June 5, 2015. The following paragraphs provide a summary of the sampling activities. A Site plan with the temporary well and soil boring sample locations are included as Figure 1.

### *Soil Borings*

Four soil borings (MW-1/SB-1, SB-2, SB-3, and SB-4) were advanced to a maximum depth of approximately 8 feet below ground surface (ft bgs) by True Blue Environmental Services (True Blue). Soils were logged in general accordance with the Unified Soil Classification System (USCS) and screened in the field using a photoionization detector (PID). Soils consisted of brown sand and fine to coarse gravel.

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ENGINEERING DESIGN

# Exhibit X



**CONESTOGA-ROVERS  
& ASSOCIATES**

June 26, 2015

Reference No. 083167

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One soil sample was collected from each soil boring at the depths identified in Table 1. All soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Extractable Total Petroleum Hydrocarbons (ETPH), Polychlorinated Biphenyls (PCBs), Total and Toxicity Characteristic Leaching Procedure (TCLP) Resource Conservation and Recovery Act (RCRA) 8 metals, total and reactive cyanide, reactive sulfide, pH, flashpoint, and conductivity. Additionally, the soil sample collected from boring SB-4 was analyzed for herbicides and pesticides.

### ***Temporary Well***

Groundwater was first encountered at approximately 4 ft bgs and a temporary monitoring well was installed at soil boring MW-1/SB-1 to a depth of 6 ft bgs by True Blue.

One grab groundwater sample was collected from MW-1/SB-1. The groundwater sample was analyzed for VOCs, SVOCs, oil and grease, PCBs, herbicides, pesticides, total RCRA 8 metals, total and amenable cyanide, total suspended solids, chloride, pH, and ammonia.

## **3.0 Data Evaluation**

The analytical data resulting from the characterization event was evaluated to determine how the material would potentially be managed. Pursuant to Connecticut Department of Energy and Environmental Protection (CTDEEP) policy on the management of contaminated environmental media, the soil and groundwater analytical data was evaluated relative to the criteria identified in Connecticut Remediation Standard Regulations 22a-133k-1 through 22a-133k-3 (RSRs). The laboratory analytical report is included in Attachment A.

### ***Soil Evaluation***

The soil analytical data was evaluated relative to direct exposure criteria for Industrial/Commercial sites (I/C DEC) and residential sites (Res DEC), and pollutant mobility criteria for areas classified as GA (GA PMC). A summary of detected results is provided in Table 1.

As indicated in Table 1, four SVOCs (benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, and chrysene) were detected above I/C DEC, Res DEC, and/or GA PMC in the soil sample collected from soil boring SB-4. In addition, lead was detected above GA PMC in the

# Exhibit X



**CONESTOGA-ROVERS  
& ASSOCIATES**

June 26, 2015

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soil samples collected from soil borings SB-2 and SB-4. All other constituents in soil were below RSR criteria.

### ***Groundwater Evaluation***

The groundwater analytical data was evaluated relative to surface water protection criteria (SWPC) and groundwater volatilization criteria for Industrial/Commercial sites (I/C GWVC) and residential sites (Res GWVC). In addition, the groundwater was also evaluated relative to groundwater protection criteria (GWPC). A summary of detected results is provided in Table 2.

As indicated in Table 2, one SVOC (bis[2-ethylhexyl]phthalate) was detected above GWPC in groundwater collected from MW-1/SB-1. All other constituents in groundwater were below RSR criteria.

## **4.0 Management Options**

Based on the analytical results, the soil and groundwater at the Site is NOT classified as hazardous waste as it is neither characteristically hazardous nor listed as hazardous waste. As such, it is not subject to Connecticut Hazardous Waste Management Regulations, but is potentially subject to certain management requirements under Connecticut General Statutes (CGS) Section 22a-454 and Regulations of State Agencies (RCSA) Section 22a-209 as discussed below.

Due to constituents detected in the soil and groundwater collected from the Site, the soil was affected by a release and is considered contaminated environmental media. Additionally, the soil and groundwater does not meet RSR criteria and is considered non-RCRA hazardous waste (Connecticut regulated waste designation CR04 [liquid] and CR05 [solid]). These materials must be managed properly upon excavation/removal and stored in an environmentally safe manner. Any mismanagement of non-RCRA hazardous waste may be a potential source of pollution and subject to enforcement action under Sections 22a-427 through 433 of the CGS. Note that such solid wastes (i.e., CR05 waste) do not have to be hauled by a permitted transporter, but they must be transported to a permitted storage treatment or disposal facility approved to accept such waste.

# Exhibit X



**CONESTOGA-ROVERS  
& ASSOCIATES**

June 26, 2015

Reference No. 083167

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Please contact Jeff Lambert at (860) 747-1800 if you have any questions or comments.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in black ink, appearing to read 'Jeff Lambert', written in a cursive style.

Jeff Lambert, LEP, LSP, P.E.

JL/ro/17