

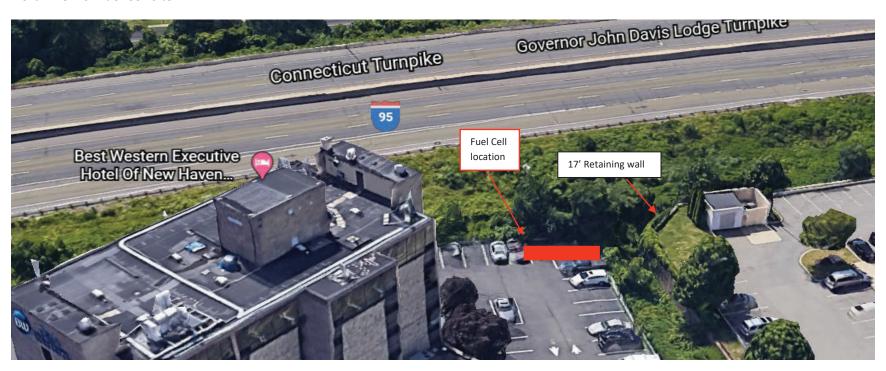
Attachment #1: Fuel Cell Site Location: Aerial Photos and a Class A-2 Certified Survey



Arial View of Fuel Cell location-490 Saw Mill Road, West Haven, CT



North View of Fuel Cell site



East View of Fuel Cell Site



View South towards Fuel Cell

T LAND SURVEYING, LL 58 OLD TAVERN ROAD ORANGE, CT 06477 P:(203)503-1193 FAX:(203)404-0411 MAIL: JSONI2@YAHOO.CO

N CT LAND

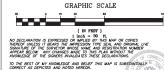
SURVEYING, LLC

OWNER

SAWMILL HAVEN LLC 490 SAW MILL ROAD, WEST HAVEN, CT

MEMORANDUM OF LEASE BY AND BETWEEN AMJ HOSPITALITY INC. AND SPRINT SPECTRUM L.P. DATED SEPTEMBER 1, 1996 AND RECORDED IN VOL 1031, PAGE 622.

9. EASEMENTS, RESTRICTIONS, RIGHTS AND ENCUMBRANCES AS OF RECORD APPEAR IN THE WEST HAVEN LAND RECORDS.



UNDERGROUND UTILITIES

C Lakin 1

4. CERTAIN RIGHTS IN FAVOR OF THE STATE OF CT AS CONTAINED IN A CERTIFICATE OF CONDEMNATION DATED JULY 6, 1976 RECORDED IN VOL 593, PAGE 674. EASEMENT IN FAVOR OF THE SOUTHERN CT GAS COMPANY DATED OCTOBER 11, 1985 AND RECORDED IN VOL. 746, PAGE 270.

7 NOTICE OF MANAGEMENT AGREEMENT BY AND BETWEEN AMJ HOSPITALITY, INC. AND MESSAGE CENTER MANAGEMENT INC. DATED OCTOBER 5, 2000 AND RECORDED IN VOL. 137, PAGE 41.

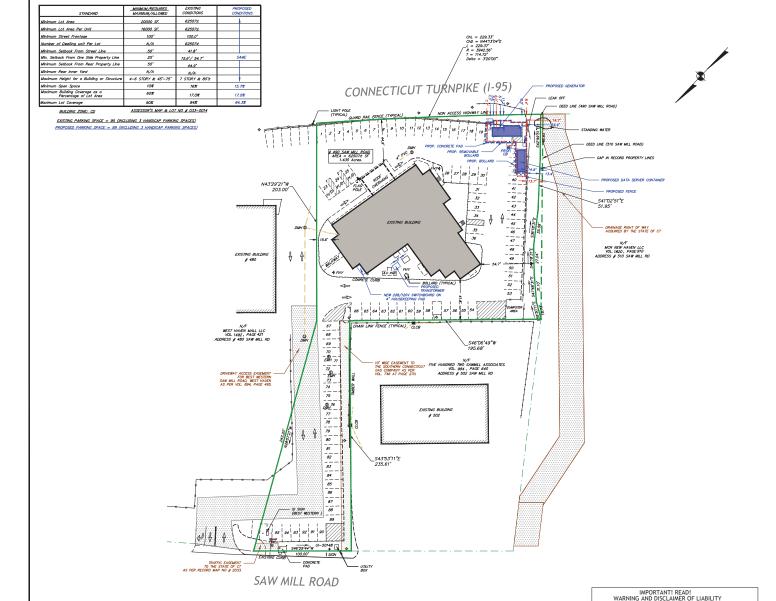
JIGNESH M. SONI, P.L.S. 70386

PROVEMENT LOCATION SURVEY
PREPARED FOR
SAWMILL HAVEN LLC
490 SAW MILL ROAD,
WEST HAVEN, CONNECTICUT

CAD J.S 1" = 30' 201204 PROJECT NO.: 12/25/2020 CAD FILE: 201204

IMPROVEMENT LOCATION SURVEY

EX-1 OF





Attachment #2: Doosan PureCell® Model 400 Data sheet Attachment



PURECELL SYSTEM BENEFITS

Energy Security

Proven PAFC fuel cell technology that is setting durability records

Energy Productivity

Increased efficiency and continuous on-site generation reduces energy costs

Energy Responsibility

Ultra-low emissions equals sustainability

PURECELL SYSTEM COMPETITIVE ADVANTAGES

Long Life

Industry leading 10-year cell stack life assures high availability and low service cost

Modular & Scalable

Solutions for multi-megawatt applications to meet growing energy demand

Experience

Most knowledgeable and experienced team in the industry

High Efficiency

Up to 90% total CHP Efficiency

Grid-Independence

Proven performance delivering power when the utility grid fails

Load Following

Capable of dispatching power to match building needs

Small Footprint

Highest power density among clean generation technologies

Flexible Siting

Indoor, outdoor, rooftop, multi-unit

RATED POWER OUTPUT: 460KW, 480VAC, 50/60HZ

		Operati	ing Mode
Characteristic	Units	Power 460kW	Eco 440kW
Electric Power Output ¹	kW/kVA	460/532	440/518
Electrical Efficiency	%, LHV	43%	45%
Peak Overall Efficiency	%, LHV	90%	90%
Gas Consumption ¹	MMBtu/h, HHV (kW)	4.09 (1,200)	3.77 (1,104)
Gas Consumption ^{1,2}	SCFH (Nm ³ /h)	3,995 (107)	3,674 (98.4)
High Grade Heat Output @ up to 250°F¹	MMBtu/h (kW)	0.72 (212)	0.55 (162)
Low Grade Heat Output @ up to 140°F¹	MMBtu/h (kW)	1.03 (301)	1.00 (292)

And the state of t

FUEL

Supply	Natural Gas
Inlet Pressure	10 to 14 in. water (2.5 - 3.5 mbar)

EMISSIONS^{3,4}

NOx	. 0.02 lbs/MWh (0.009 kg/MWh)
CO	. 0.01 lbs/MWh (0.005 kg/MWh)
VOC	. 0.01 lbs/MWh (0.005 kg/MWh)
SO ₂	Negligible
Particulate Matter	Negligible
CO ₂ ¹ (electric only)	998 lbs/MWh (454 kg/MWh)
(with High-Grade heat recovery)	815 lbs/MWh ⁵ (371 kg/MWh)
(with full heat recovery)	485 lbs/MWh ⁵ (220 kg/MWh)

OTHER

Ambient Operating Temp	20°F to 104°F (-29°C to 40°C)
Relative Humidity	0 to 100%
Sound Level	<65 dBA @ 33 ft. (10m)
Water Consumption No	ONE (up to 86°F (30°C) Ambient Temp.)
Water Discharge No	ONE (Normal Operating Conditions)

CODES AND STANDARDS

ANSI/CSA FC1-2014: Stationary Fuel Cell Power Systems
UL1741-2010: Inverters for Use With Distributed Energy Resources

NOTES

- 1. Average performance during 1st year of operation.
- 2. Based on natural gas higher heating value of 1025 Btu/SCF (40.4 MJ/Nm3)
- 3. Emissions based on 440 kW operation.
- 4. Fuel cells are exempt from air permitting in many U.S. states.
- 5. Includes CO₂ emissions savings due to reduced on-site boiler gas consumption

Doosan Fuel Cell America, Inc.

Corporate Headquarters 195 Governor's Highway South Windsor, CT 06074 860.727.2253

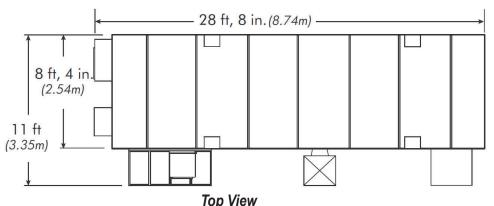
www.doosanfuelcell.com

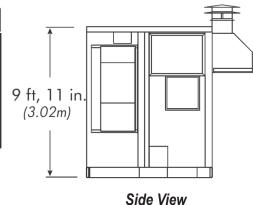


PureCell® Model 400

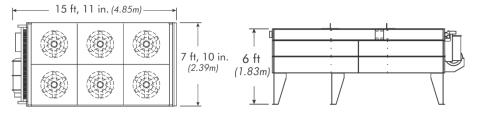
SYSTEM DIMENSIONS

Power Module





Cooling Module



PHYSICAL SPECIFICATIONS		
	Power Module	Cooling Module
Length	28' 11" (8.74m)	15' 11" (4.85m)
Width	8' 4" (2.54m)	7′ 10″ (2.39m)
Height	9' 11" (3.02m)	6' 0" (1.83m)
Weight	57,000 lb (27,216 kg)	3,190lb (1,447 kg)

kWh /ft2 /Year

3k

4k

4,900

USE LESS LAND

0.04 PureCell

PURECELL ADVANTAGE

Top View

OFFSET 3x MORE CO₂









Side View

CAPACITY FACTOR



5.5 Solar 11 Wind 9 30 20 10 7.5 5 2.5 0 0 1k 2k

Acres of Land per MW

CO₂ OFFSET

979,398 kg Acres of Trees Preserved Acres of Trees Preserved

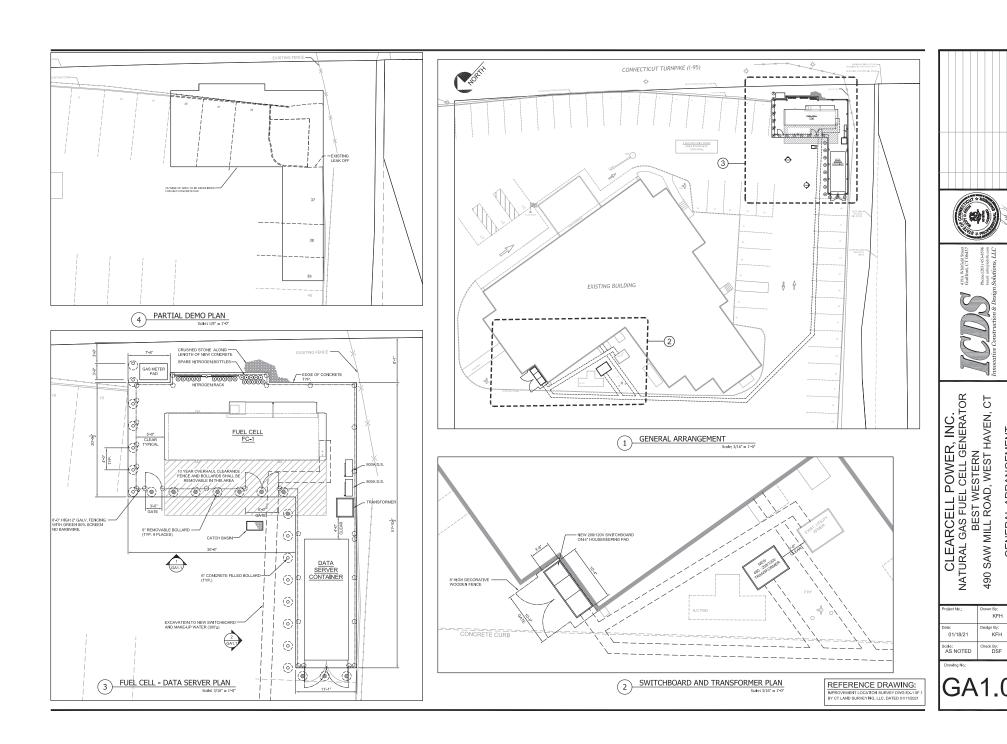
Doosan Fuel Cell America, Inc.

Corporate Headquarters 195 Governor's Highway South Windsor, CT 06074 860.727.2253

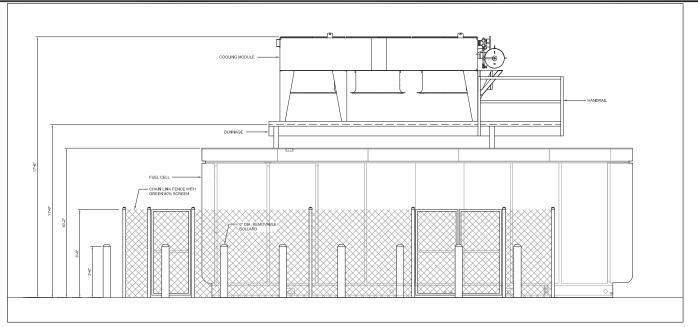
www.doosanfuelcell.com



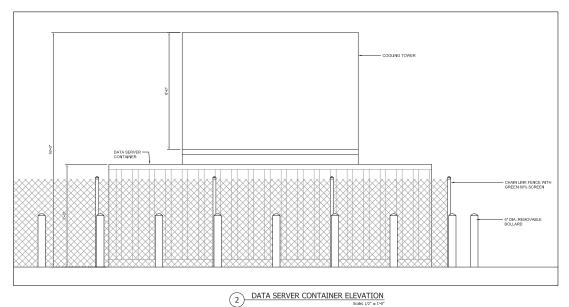
Attachment #3: General Fuel Cell Arrangement Drawings



GENERAL ARRANGEMENT









419A Whitfield Street Guilford, CT 06437

GENERAL ARRANGEMENT ELEVATIONS swn By: KFH esign By: KFH Date: 01/18/21 Scale: AS NOTED heck By: DSF

GA1.1



Attachment #4: United Illuminating Company's LREC contract

Year 9

STANDARD CONTRACT FOR THE PURCHASE AND SALE OF CONNECTICUT CLASS I RENEWABLE ENERGY CREDITS

from

Low or Zero Emission Projects by and between

The United Illuminating Company

and

Clearcell Power, Inc.

LL-09-24391

dated as of October 22, 2020

STANDARD CONTRACT FOR THE PURCHASE AND SALE OF CONNECTICUT CLASS I RENEWABLE ENERGY CREDITS

COVER SHEET

This Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits from Low and Zero Emission Projects ("Agreement") in accordance with Conn. Gen. Stat. § 16-244(r) and 16-244(s), or 16-244(t), as applicable, is entered into as of the following date: October 22, 2020 (the "Effective Date"). This Agreement includes this Cover Sheet together with the appendices hereto. The Parties to this Agreement are the following:

SELLER		BUYER
Clearcell Power, Inc.	Party Name	The United Illuminating Company ("UI")
111 E Jericho Turnpike, 2nd FL Mineola, NY 11501	Address	180 Marsh Hill Road Orange, CT 06477
	Business Website	www.uinet.com
New York	Jurisdiction of Organization	Connecticut
X Corporation ☐ Limited Partnership ☐ LLP ☐ LLC ☐ Partnership ☐ Individual ☐ Other	Company Type	X Corporation ☐ Limited Partnership ☐ LLP ☐ LLC ☐ Partnership ☐ Individual ☐ Other

CONTACT INFORMATION		
SELLER		BUYER
Clearcell Power, Inc. 338 Jericho Turnpike, Suite 325 Syosset, NY 11791 516-216-3218 alina@clearcellpower.com	General (day to day/ administrative)	180 Marsh Hill Road Orange, CT 06477 Mail Stop: AD-2A ATTN: Director, Wholesale Power Contracts Lrec.zrec@uinet.com
ClearCell Power, Inc. C/O Alina Mezh 338 Jericho Turnpike, Suite 325 Syosset, NY 11791 516-216-3218 646-661-5588 alina@clearcellpower.com	Contract	180 Marsh Hill Road Orange, CT 06477 Mail Stop: AD-2A ATTN: Director, Wholesale Power Contracts Lrec.zrec@uinet.com

Clearcell Power, Inc. 338 Jericho Turnpike, Suite 325 Syosset, NY 11791 516-216-3218 alina@clearcellpower.com	Legal Notices	180 Marsh Hill Road Orange, CT 06477 ATTN: General Counsel Lrec.zrec@uinet.com
ClearCell Power, Inc. C/O Alina Mezh 338 Jericho Turnpike, Suite 325 Syosset, NY 11791 516-216-3218 646-661-5588 alina@clearcellpower.com	Performance Assurance	180 Marsh Hill Road Orange, CT 06477 Mail Stop: AD-2A ATTN: Director, Wholesale Power Contracts Lrec.zrec@uinet.com

ACCOUNTING INFORMATION		
Clearcell Power, Inc. 338 Jericho Turnpike, Suite 325 Syosset, NY 11791 516-216-3218 alina@clearcellpower.com	· Invoices · Payments · Settlements	180 Marsh Hill Road Orange, CT 06477 Mail Stop: AD-2A ATTN: Director, Wholesale Power Contracts Lrec.zrec@uinet.com
JPMorgan Chase 220 Jericho Turnpike Syosset, NY 11791 ABA# 021000021 Account# 733608918 Checking	Wire Transfer Numbers (IF APPLICABLE)	The United Illuminating Company 180 Marsh Hill Road Orange, CT 06477 JPMorganChase Bank ABA #021000021 The United Illuminating Company Account Number: 304295078
	Checks (IF APPLICABLE)	The United Illuminating Company 180 Marsh Hill Road Orange, CT 06477 Mail Stop: AD-2A ATTN: Director, Wholesale Power Contracts Lrec.zrec@uinet.com
ABA# Account#	ACH Numbers (IF APPLICABLE)	The United Illuminating Company 180 Marsh Hill Road Orange, CT 06477 JPMorganChase Bank ABA #021000021

The United Illuminating Company	
Account Number: 304295078	

The Parties hereby agree to the following provisions offered in Appendix A, the General Terms and Conditions. Select the appropriate box(es) and/or fill in the required information from each section:

Cover Sheet Elections		
Section 3.1 Facility Description	Facility Site/Location (including Street, City or Town)	490 Saw Mill Road WEST HAVEN CT 06516
	Customer Billing Account Number POD ID	010-0001595-5015 1240030224020
	Technology	Fuel Cell
	Project Size (kW)	Applicable to LREC Projects only ☑ Less than 2,000 kW
		Applicable to ZREC Projects ☐ Greater than 100 kW, but less than 250 kW ☐ Between 250 kW and 1,000 kW
	Installed Capacity	kW (AC) 460.00
Section 5.2 LREC/ZREC Product	LREC	
Section 6.2 Interconnecting Utility	The United Illuminating Company	
Section 7.1 Maximum Annual Quantity	Maximum Annual Quantity LRECs/ZRI	ECs 3,808
Section 7.4 Purchase Price	\$ 100.00 per LREC or ZREC, as ele	ected above in Section 5.2
Section 9.1 Performance Assurance (amount)	\$ 76,160	
Section 10.3.5 Facility Uses Connecticut Manufactured, Researched or Developed Technologies	Manufactured - Y Researched - Y Developed Technologies - Y	

Section 2.2 Delivery Term Start Date	☑ July 1, 2021 □ October 1, 2021
	☐ January 1, 2022 ☐ April 1, 2022

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the Effective Date.

Clearcell Power, Inc.	Party Name	The United Illuminating Company
Chilly	Signature	Fred Regalts
Alina Mezhibovsky	Printed Name	Franklyn Reynolds
CEO	Tītle	

President of UIL Holdings Corporation



Attachment #5: 490 Saw Mill Road Emergency Response Plan

ClearCell Power, Inc. and Doosan Fuel Cell America Fuel Cell Emergency Response Guide

Best Western Hotel 490 Saw Mill Road, West Haven, CT 06516



DISCLAIMER

Doosan Fuel Cell America reserves the right to change or modify, without notice, the design or equipment specifications of the PureCell® system Model 400 without obligation with respect to equipment either previously sold or to be sold. This guide is provided by Doosan Fuel Cell America, and no liability will accrue to Doosan Fuel Cell America based on the information or specifications included herein. No warranties or representations are made by this guide and no warranties or representations shall apply to the equipment except as stated in Doosan Fuel Cell America's standard terms and conditions of sale applicable at the time of purchase, a copy of

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.

which will be provided upon request. The Model 400 is designed to provide safe and reliable service when operated within design specifications, according to all applicable instructions, and with the appropriate operating materials. When operating this equipment, use good judgment and follow safety precautions to avoid damage to equipment and property or injury to personnel. Be sure to understand and follow the procedures and safety precautions contained in all applicable instructions, operating materials, and those listed in this guide.

Policy

The following plan has been developed to minimize the severity of damage to human health, the environment, and property in the event of an unexpected failure.

Scope

This Emergency Response Guide shall be integrated into the site Emergency Response Plan. Information contained in this document shall be customized to meet local requirements and shall be shared with local responders as necessary. This guide is only a template and in no way assumes or transfers liability or ownership. Doosan Fuel Cell America should be contacted if clarification is needed.

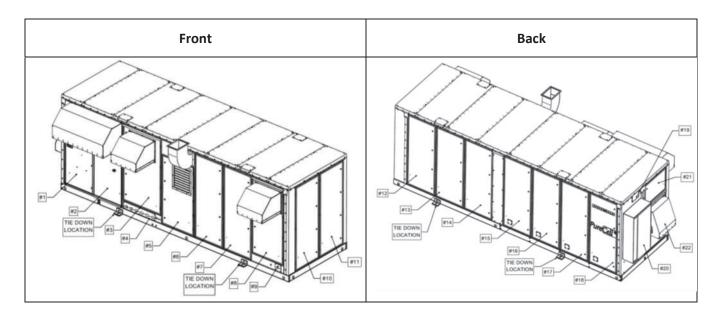
Fuel Cell, Best Western Hotel, 490 Saw Mill Road, West Haven, CT

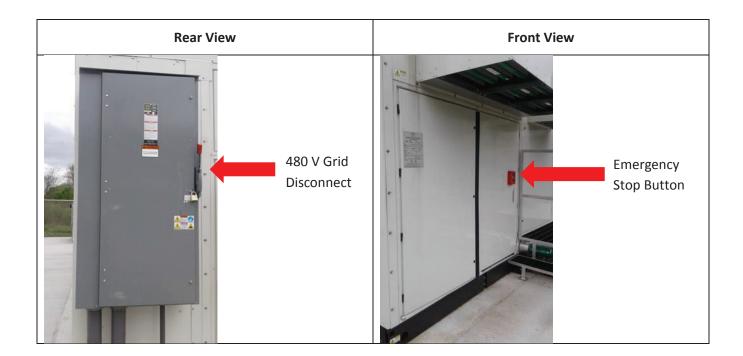
Emergency Contacts and Numbers

Local Emergency Number	911
Doosan Fuel Cell America Control Center	(860) 727-2847
Fire Department – Non-emergency number	West Haven Fire Department (203) 937-3710
Hospital – Non-emergency number	Yale New Haven Hospital 20 York St, New Haven, CT 06510 (203) 688-4242
Electric Utility Name: United Illuminating, Co	(800) 722-5584
Gas Utility	(866) 268-2887
Name: Southern Connecticut Gas Co.	*Gas Leaks Only: 800-513-8898
Local Oil & Chemical Spill Response Division	800-645-8265
Connecticut Oil & Chemical Spill Response Division	860-424-3338
EPA - Environmental Protection Agency Region 1	(800) 424-8802 Environmental Emergency
OSHA - Occupational Safety and Health Admin.	(800) 321-6742 National Emergency Number
Emergency Number	1000, 322 0742 National Emergency Namber
Poison Control Center	(800) 222-1222 National Emergency Number



Fuel Cell Hazard Overview







Rear View Panel	Primary Hazard	Front View Panel	Primary Hazard
1 (Computer	Electrical = 120 VAC	12 (Reformer)	Electrical = 480 VAC
Terminal)			Chemical = Air sensitive catalyst / combustibles
			Thermal = 600°F Reformer
			Pressure = 150 psi steam
		13 (Reformer)	Electrical = 480 VAC
			Chemical = Air sensitive catalyst / combustibles
			Thermal = 600°F Reformer
			Pressure = 150 psi steam
2 (Swing Door)	Electrical = 480 VAC	14 (Reformer)	Electrical = 480 VAC
			Chemical = Air sensitive catalyst / combustibles
			Thermal = 600°F Reformer
			Pressure = 150 psi steam
3 (Mechanical	Electrical = 480 VAC	15 (DC Cell Stack)	Electrical = 300 VDC
Entry)	Chemical = Propylene Glycol		Chemical = Solid phosphoric acid / combustibles
	Thermal = 350°F Steam		
	Pressure = 150 psi Steam		
4 (Mechanical	Chemical = Propylene Glycol	16 (DC Cell Stack)	Electrical = 300 VDC
Entry)	Thermal = 350°F Steam		Chemical = Solid phosphoric acid / combustibles
	Pressure = 150 psi Steam		
5 (TMS)	Electrical = 480 VAC	17 (DC Cell Stack)	Electrical = 300 VDC
	Chemical = Propylene Glycol / Deionized Water /		Chemical = Solid phosphoric acid / combustibles
	Resin		
	Thermal = 350oF Steam		
	Pressure = 150 psi Steam		
6 (ILS)	Electrical = 480 VAC	18 (DC Cell Stack)	Electrical = 300 VDC
	Chemical = Air sensitive catalyst / combustibles		Chemical = Solid phosphoric acid / combustibles
	Thermal = 600°F Reformer		
	Pressure = 150 psi steam		
7 (Fuel	Electrical = 480 VAC	19	Not accessible
Processing Area)	Chemical = Air sensitive catalyst / combustibles		
	Thermal = 600°F Reformer		
0/5	Pressure = 150 psi steam	20/0110	51
8 (Fuel	Electrical = 480 VAC	20 (Grid Connect	Electrical = 480 VAC
Processing Area)	Chemical = Air sensitive catalyst / combustibles	Disconnect)	
	Thermal = 600°F Reformer		
0.4040	Pressure = 150 psi steam	24 (D) - 445'	Floridad 200 VDC
9 (Gas/Nitrogen	Chemical = combustibles	21 (Blower 110)	Electrical = 300 VDC
Inlet)	Flastriant 400 VAC	22	Mechanical = Blower
10 (Reformer)	Electrical = 480 VAC	22	Electrical = 1400 VDC / 480 VAC
	Chemical = Air sensitive catalyst / combustibles		
	Thermal = 600°F Reformer		
44 (D-5	Pressure = 150 psi steam	All Books i	AA-III-da Haranda
11 (Reformer)	Electrical = 480 VAC	ALL Roof Panels	Multiple Hazards
	Chemical = Air sensitive catalyst / combustibles		DO NOT WALK ON ROOF!
	Thermal = 600°F Reformer		
	Pressure = 150 psi steam		



Conditional Assessment

Normal Condition	Potential Abnormal Condition	Respo	onse
Fuel Cell	Dark colored smoke exiting chimney or any other part of enclosure	1. 2.	Establish safe perimeter Contact Doosan Fuel Cell America
White steam exiting power plant at exhaust chimney, above panel #6 (It can be a large amount of white steam depending on ambient	Observable fire or heavy smoke at any point on fuel cell	1.	Control Center (860) 727-2847 Press Fuel Cell 'Stop Button' – Only if safely accessible!
conditions)		2.	Dial 911 or Local Emergency Response Number
		3.	Establish safe perimeter
		4.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Fuel Cell	Grinding or loud intermittent noises	1.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Moderate humming, clicking and fan sounds	Observable fire or heavy smoke at any point on fuel cell	1.	Press Fuel Cell 'Stop Button' – Only if safely accessible!
		2.	Dial 911 or Local Emergency Response Number
		3.	Establish safe perimeter
		4.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Cooling Module	Smoke or fire coming from module	1.	Press Fuel Cell 'Stop Button' – Only if safely accessible!
Fan humming		2.	Dial 911 or Local Emergency Response Number
		3.	Establish safe perimeter
		4.	Contact Doosan Fuel Cell America Control Center (860) 727-2847



	Grinding or loud noise coming from fans	1.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Cooling Module	Small leak dripping from joint, valve or connection	1.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
No leaking from cooling loop piping or coils	Medium to large leak	1.	Follow local spill response protocol or contact Clean Harbors Emergency Cleanup Response (800) 645-8265
		2.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Mechanical Hi/Lo Grade Piping	Small leak dripping from joint, valve or connection	1.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Small amounts of condensate dripping from piping	Medium to large leak	1.	Follow local spill response protocol or contact Clean Harbors Emergency Cleanup Response (800) 645-8265
		2.	Contact Doosan Fuel Cell America Control Center (860) 727-2847
Disconnects/Other Equipment	Smoke or fire coming from equipment	1.	Dial 911 or Local Emergency Response Number
No leaks or smoke		 3. 	Establish safe perimeter Contact Doosan Fuel Cell America Control Center (860) 727-2847
Compressed Gas Manifold (N2/H2)	Leaks – may be able to hear hissing sound.	1.	If Indoors – Evacuate Immediately! Dial 911 or Local Emergency Response Number
No leaks, May hear intermittent gas flow during purges		2. 3.	Establish safe perimeter Contact Doosan Fuel Cell America
			Control Center (860) 727-2847



Fuel Cell Related Safety Data Sheets (SDS)

1	Propylene Glycol – DowFrost®
2	Phosphoric Acid – Solid
3	Reformer/ILS Catalysts
4	Anion/Cation Resin
5	Nitrogen / Hydrogen Compressed Gas Mixture (non-flammable)

Inspections

Inspection Type	Equipment Requirements	Frequency Required
General Maintenance	Laptop, Service Vehicle	Monthly
General Housekeeping	N/A	Monthly
Waste and Chemical Storage*	N/A	Weekly
Internal Combustible Gas Monitor	AT-160 Calibration Kit	Annual
Fire Prevention	N/A	Monthly

^{*}When applicable

Fuel Cell operation is monitored and controlled remotely 24 hours a day 7 days a week by the Doosan Fuel Cell America Control Center. Upset or abnormal occurrences outside of normal operating parameters are immediately identified and service technicians are dispatched within 24 hours to respond when required.

Emergency Procedures

Alarms	There are no audible or visual alarms on Fuel Cell. Alarm conditions are relayed immediately to the Doosan Fuel Cell America Control Center. The Doosan Fuel Cell America Control Center will then contact the appropriate site personnel on the site's emergency contact list.
Emergency Shut Down Onsite	Actuate Fuel Cell Stop Button
Emergency Area Egress - Gas Odor	Evacuate 330 Feet in all directions
Emergency Area Egress - Fire	Evacuate 330 Feet in all directions – CV000 automatic natural gas supply shut off
Emergency Egress - General	Fuel cell is unmanned remotely monitored and controlled. No Doosan Fuel Cell America employees attending unit unless service or maintenance is required.



Signage and labeling



General:

Safety Hazard Analysis

The PureCell® Model 400 fuel cell system has been designed to meet strict ANSI/CSA safety standards to protect against risks from electrical, mechanical, chemical, and combustion safety hazards. The following items are a few of the safety measures incorporated into the design.

Fire Detection and Protection:

The power plant design incorporates a combustible gas sensor as well as thermal fuses located throughout the power module cabinet to detect fire. The detection of a potential flammable gas mixture, a fire, or the failure of this detection circuit will result in a power plant shutdown and a subsequent inert gas (nitrogen) purge of the fuel cell stack and fuel processing system. This event will also result in an alarm callout notification to Doosan Fuel Cell America service personnel. The power plant is designed with an integral emergency-stop button on the outside of the enclosure to enable immediate shutdown in the event of an emergency. There is also a gas shut-off valve and electrical disconnect switch easily accessible to emergency personnel. There are no restrictions for type of fire suppression equipment.

Gas Leak:

Augmenting the internal combustible gas sensor, the power plant also monitors the flow rate of natural gas. If the gas flow rate exceeds the equivalent power production of the power plant then a shutdown will result. The largest possible accumulation from a leak prior to shutdown is below combustible limits. Fuel valves inside the power plant are "fail safe" and will return to their normally closed position upon loss of power. The power plant is designed to have a physical barrier that separates the equipment handling combustible gases (fuel compartment) from electrical or potential spark-creating equipment (motor compartment). The fuel compartment is kept at a negative pressure to contain and remove any potential gas leaks, whereas the motor compartment is pressurized by a fan source to prevent combustible gases from entering.



Hydrogen:

Hydrogen is lighter than air and thus does not pool like other fuels and will readily dissipate with proper ventilation making it less likely to ignite. Although hydrogen has low self-ignition characteristics, the fuel in the power plant is not pure hydrogen. Also, the power plant is not producing or storing hydrogen, it consumes hydrogen-rich gas equal to what it requires to produce power. The fuel cell stack is wrapped in a fire retardant blanket. There are no materials inside the unit that would sustain a flame. There is no large volume of gas or any ignition that occurs within the cell stack.

Phosphoric Acid:

Phosphoric acid is integral part of the fuel cell system, acting as the electrolyte within the fuel cell stack. Phosphoric acid is a surprisingly common substance that is contained in common cola drinks. A leak of phosphoric acid is not possible because phosphoric acid is not in liquid form once applied in the equipment. There is no reservoir of liquid. Phosphoric acid is contained in the porous structure of the fuel cell stack material by capillary action, similar to how ink is absorbed into a blotter.

Fluid Leak:

All pressurized water vessels are designed to ASME boiler codes and inspected annually. All piping, welds, etc. meet pressurized piping standards. There are three fluid sources inside the fuel cell power module:

- 1) Water produced through the electrochemical process is "pure" water and is reclaimed and reused by the process.
- 2) Fluid used in the external cooling module, which is water mixed with a polypropylene glycol and a rust inhibitor to prevent rust and freezing in colder climates.
- 3) Fluid used in the heat recovery loops, this is the same glycol solution used in the external cooling module.

If a leak is observed around the fuel cell power module or absorption use a gray or blue absorbent mat, pad, or boom to contain the leak and prevent it from entering any drains. Contact Doosan Fuel Cell America, Inc Control Center for further assistance in identifying the leak source.

Hazardous Waste:

The fuel cell does not produce any hazardous waste. Standard Material Safety Data Sheets (MSDS) are available upon request.



APPENDIX 1 – SAFETY DATA SHEETS





Revision date: 04-07-2014

SAFETY DATA SHEET

1. Identification

Product identifier: PHOSPHORIC ACID

Other means of identification

Synonyms: Ortho-Phosphoric Acid, White Phosphoric Acid

Product No.: 0240, 6908, 2798, 2797, 5854, 2796, 5804, 2788, 0259, 5372, 0274, 0269, 0268, 0265, 0264,

0262, 0260, 0255, 0251

Recommended use and restriction on use

Recommended use: Not available. Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company Name: Avantor Performance Materials, Inc. Address: 3477 Corporate Parkway, Suite 200

Center Valley, PA 18034

Telephone:

Customer Service: 855-282-6867

Fax: Contact Person: e-mail:

Environmental Health & Safety info@avantormaterials.com

Emergency telephone number: 24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

2. Hazard(s) identification

Hazard classification

Physical hazards

Corrosive to metals Category 1

Health hazards

Acute toxicity (Oral) Category 4
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Specific target organ toxicity - single Category 3

exposure

Unknown toxicity

Acute toxicity, oral 0 %
Acute toxicity, dermal 0 %
Acute toxicity, inhalation, vapor 100 %
Acute toxicity, inhalation, dust or mist 100 %

Unknown toxicity

COP

SOUF

Acute hazards to the aquatic 84 %

environment

Chronic hazards to the aquatic 84 %

environment

Label elements

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CELL





Revision date: 04-07-2014

Hazard symbol:



Signal word: Danger

Hazard statement: May be corrosive to metals.

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

Precautionary statement

Prevention: Keep only in original container. Do not breathe dust/fume/mist/vapors. Do

not eat, drink or smoke when using this product. Use only outdoors or in a

well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling.

Response: Absorb spillage to prevent material damage. IF SWALLOWED: Rinse

mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON

CENTER or doctor/physician.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly

closed. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

Other hazards which do not result in GHS classification:

None.

3. Composition/information on ingredients

Mixtures

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*	
PHOSPHORIC ACID	T	7664-38-2	80 - 90%	

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information: Get medical advice/attention if you feel unwell. Show this safety data sheet

to the doctor in attendance.

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Ingestion: Do NOT induce vomiting. Call a physician or poison control center

immediately. If vomiting occurs, keep head low so that stomach content

doesn't get into the lungs.

Inhalation: Move to fresh air. Call a physician or poison control center immediately.

Apply artificial respiration if victim is not breathing If breathing is difficult,

give oxygen.

Skin contact: Immediately flush with plenty of water for at least 15 minutes while

removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse.

Destroy or thoroughly clean contaminated shoes.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do,

remove contact lenses. Call a physician or poison control center

immediately. In case of irritation from airborne exposure, move to fresh air.

Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Symptoms: Causes severe skin and eye burns. Causes digestive tract burns.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed.

5. Fire-fighting measures

General fire hazards: No data available

Suitable (and unsuitable) extinguishing media

Suitable extinguishing

media:

The product is non-combustible. Use fire-extinguishing media appropriate

for surrounding materials.

Unsuitable extinguishing

media:

None known.

Specific hazards arising from

the chemical:

Not combustible, but if involved in a fire decomposes to produce toxic

gases.

Special protective equipment and precautions for firefighters

Special fire fighting

procedures:

Move containers from fire area if you can do so without risk. Use water

spray to keep fire-exposed containers cool.

Special protective equipment

for fire-fighters:

Firefighters must use standard protective equipment including flame

retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Product is highly acidic. Wear protective gear if

spilled during fire fighting.

6. Accidental release measures

Personal precautions. protective equipment and emergency procedures:

See Section 8 of the MSDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Keep upwind.

Ventilate closed spaces before entering them.

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Methods and material for containment and cleaning Neutralize with lime or soda ash. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill

for later recovery and disposal.

Notification Procedures:

Inform authorities if large amounts are involved.

Environmental precautions:

Do not contaminate water sources or sewer. Prevent further leakage or

spillage if safe to do so.

7. Handling and storage

Precautions for safe handling:

Do not get in eyes, on skin, on clothing. Do not taste or swallow. Wash thoroughly after handling. Do not eat, drink or smoke when using the product. Use caution when adding this material to water. Add material slowly when mixing with water. Do not add water to the material; instead, add the material to the water.

Conditions for safe storage,

including any incompatibilities: Do not store in metal containers. Keep container tightly closed. Store in a

well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Chemical identity	Туре	Exposure Limit values	Source
PHOSPHORIC ACID	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (2011)
	STEL	3 mg/m3	US. ACGIH Threshold Limit Values (2011)
	REL	1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	STEL	3 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	1 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2008)
	TWA	1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	3 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 mg/m3	US. Tennessee, OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	3 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	10 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (12 2010)
	AN ESL	1 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (12 2010)
	TWA PEL	1 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	STEL	3 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)

Appropriate engineering controls

No data available.





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Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used.

Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the

immediate work area.

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection: Chemical resistant gloves

Other: Wear suitable protective clothing and gloves.

Respiratory protection: In case of inadequate ventilation use suitable respirator. Respirator type:

Chemical respirator with acid gas cartridge.

Hygiene measures: Provide eyewash station and safety shower. Observe good industrial

hygiene practices. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid

contact with eyes. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state: Liquid
Form: Liquid
Color: Colorless
Odor: Odorless

Odor threshold: No data available.

pH: 1.5 0.1 N Aqueous solution

Melting point/freezing point:

Initial boiling point and boiling range:

Flash Point:

Evaporation rate:

Flammability (solid, gas):

21.1 °C

158 °C

Not applicable

No data available.

No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):

Flammability limit - lower (%):

Explosive limit - upper (%):

Explosive limit - lower (%):

No data available.

Explosive limit - lower (%):

No data available.

Vapor pressure: 0.3 kPa

Vapor density: No data available. Relative density: 1.69 (20 °C)

Solubility(ies)

Solubility in water:
Solubility (other):
No data available.
Partition coefficient (n-octanol/water):
No data available.
Auto-ignition temperature:
No data available.
Decomposition temperature:
No data available.
Viscosity:
No data available.

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10. Stability and reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous

reactions:

Hazardous polymerization does not occur.

Conditions to avoid: Avoid contact with oxidizing agents. Avoid contact with strong reducing

agents. Contact with alkalis.

Incompatible materials: Strong reducing agents. Alkalies. Strong oxidizing agents. Metals.

Hazardous decomposition

products:

oxides of phosphorus

11. Toxicological information

Information on likely routes of exposure

Ingestion: Harmful if swallowed.

Inhalation: Severely irritating to respiratory system.

Skin contact: Causes severe skin burns.

Eye contact: Causes serious eye damage.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix (Rat): 1,700 mg/kg

Dermal

Product: ATEmix (): 3,044.44 mg/kg

Inhalation

Product: No data available.

Repeated dose toxicity

Product: No data available.

Skin corrosion/irritation

Product: Causes severe skin burns.

Serious eye damage/eye irritation

Product: Causes serious eye damage.

Respiratory or skin sensitization

Product: Not a skin sensitizer.

Carcinogenicity

Product: This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ cell mutagenicity

In vitro Product:

No mutagenic components identified

In vivo

Product: No mutagenic components identified

Reproductive toxicity

Product: No components toxic to reproduction

Specific target organ toxicity - single exposure
Product: None known.

Specific target organ toxicity - repeated exposure

Product: None known.

Aspiration hazard

Product: Not classified

Other effects: Not known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and degradability

Biodegradation

Product: Expected to be readily biodegradable.

BOD/COD ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF)

Product: No data available on bioaccumulation.

Partition coefficient n-octanol / water (log Kow)
Product: No data available.

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Mobility in soil: The product is water soluble and may spread in water systems.

Other adverse effects: The product may affect the acidity (pH-factor) in water with risk of harmful

effects to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local

laws.

Contaminated packaging: Since emptied containers retain product residue, follow label warnings even

after container is emptied.

14. Transport information

DOT

UN number: UN 1805

UN proper shipping name: Phosphoric acid solution

Transport hazard class(es)

 Class(es):
 8

 Label(s):
 8

 Packing group:
 III

 Marine Pollutant:
 No

IMDG

UN number: UN 1805

UN proper shipping name: PHOSPHORIC ACID SOLUTION

No

Transport hazard class(es)

Class(es): 8
Label(s): 8
EmS No.: F-A, S-B
Packing group: III

IATA

UN number: UN 1805

Proper Shipping Name: Phosphoric acid, solution

Transport hazard class(es):

15. Regulatory information

US federal regulations

Marine Pollutant:

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

PHOSPHORIC ACID Reportable quantity: 5000 lbs.

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Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories X Acute (Immediate) X Chronic (Delayed) Pressure Generating Reactive SARA 302 Extremely hazardous substance None present or none present in regulated quantities. SARA 304 Emergency release notification Chemical identity PHOSPHORIC ACID 5000 lbs. SARA 311/312 Hazardous chemical

Chemical identity Threshold Planning Quantity PHOSPHORIC ACID 500 lbs

SARA 313 (TRI reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

PHOSPHORIC ACID Reportable quantity: 5000 lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US state regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

PHOSPHORIC ACID

US. Massachusetts RTK - Substance List

PHOSPHORIC ACID Listed

US. Pennsylvania RTK - Hazardous Substances

PHOSPHORIC ACID Listed

US. Rhode Island RTK

PHOSPHORIC ACID Listed

Inventory Status:

Australia AICS: On or in compliance with the inventory Canada DSL Inventory List: On or in compliance with the inventory EINECS, ELINCS or NLP: On or in compliance with the inventory On or in compliance with the inventory Japan (ENCS) List: China Inv. Existing Chemical Substances: Not in compliance with the inventory. Korea Existing Chemicals Inv. (KECI): On or in compliance with the inventory Canada NDSL Inventory: Not in compliance with the inventory. Philippines PICCS: On or in compliance with the inventory US TSCA Inventory: On or in compliance with the inventory New Zealand Inventory of Chemicals: On or in compliance with the inventory Japan ISHL Listing: Not in compliance with the inventory. Japan Pharmacopoeia Listing: Not in compliance with the inventory.

16.Other information, including date of preparation or last revision

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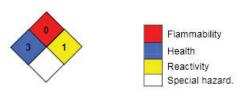




Version: 1.0

Revision date: 04-07-2014

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue date: 04-07-2014

Revision date: No data available.

Version #: 1.0

Further information: No data available.

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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Shift Max 2	230, Reduced Heterogeneous Catalyst, FC72372
	CT AND COMPANY IDENTIFICATION
Doosan Fuel Cell America, Inc. 195 Governors Hwy, South Windsor, CT 05074 USA	TELEPHONE: 24 HOUR BMERGENCY: 1-800-424-9300 (CHEMTREG) PRODUCT INFORMATION: 869-727-2300
MSDS NO: NN58	INITIAL RELEASE DATE: 4/23/2009 REVISION DATE:
GENERIC DESCRIPTION: PHYSICAL FORM: COLOR: ODOR: NFPA 704 CODES: HEALTH:	Reduced catalyst Cylindrical tablets Dark brown None 1 FLAMMABILITY: 4 REACTIVITY: 2
NOTE: NFPA = NATIONAL FIRE PRO	OTECTION ASSOCIATION

SECTION 2. C	OWEOSITION	INFORMATION ON INGRE	DIENTS	
CAC MUMBER	3. Teleporoces			SURE LIMITS
CAS NUMBER	WWT/VOL	COMPONENTS	OSHA	AGGIH
The following !	te the compositi	on of the packed tablets;		
1344-28-1	9-12	Aluminum oxide	15 mg/m3 5 mg/m3 (respirable)	1 mg/m³ (respirable)
7440-50-8	55-62	Copper	1 mg/m3	1 mg/m³ (dust)
1314-13-2	28-33	Zinc oxide	15 mg/m3 5 mg/m3 (respirable)	2 mg/m³ (respirable)

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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Shift Max 230, Reduced Heterogeneous Catalyst, FC72372

SECTION 3. EFFECTS OF OVEREXPOSURE

ACUTE EFFECTS:

EYE:

May cause Irritation

SKIN:

Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

INHALATION:

Protonged or repeated inhalation may cause lung damage. Prolonged or excessive

inhalation may cause respiratory tract irritation.

ORAL:

Moderately toxic and may be harmful if swallowed; may damage the liver, pancreas,

kidney or nervous systems.

REPEATED EXPOSURE EFFECTS:

EYE:

Signs and symptoms of overexposure may include scratch or abrasion, damage to

cornea (necrosis).

SKIN:

Overexposure may cause skin rash, dermatitis and or itching.

INHALATION:

Overexposure may cause coughing, wheezing, shortness of breath, difficult breathing,

chest pain.

ORAL:

Ingestion may cause upset stomach and intestinal distress.

SECTION 3. EFFECTS OF OVEREXPOSURE

NOTE TO PHYSICIANS: N/D

THIS MATERIAL CONTAINS THE FOLLOWING COMPONENTS WITH THE SPECIAL HAZARDS LISTED BELOW.

CARCINOGENS

N/A

TERATOGENS

N/A

MUTAGENS

N/A

REPRODUCTIVE TOXINS

N/A

SENSITIZERS

N/A

COMMENTS:

None

NTP CLASSIFICATION:

N/A

IARC CLASSIFICATION:

N/A

OSHA CLASSIFICATION:

N/A



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04-30-2009

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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Shift Max 230, Reduced Heterogeneous Catalyst, FC72372

SECTION 4. FIRST AID MEASURES

EYE: Immediately flush eyes with plenty of water for at least 30 minutes. Get immediate medical

attention.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation develops or persists.

INHALATION: Remove to fresh air. If breathing is difficult seek immediate medical attention.

ORAL: If swallowed, do NOT induce vomiting. Give victim large quantities of water. Call a

physician or polson control center immediately. Never give anything by mouth to an

unconscious person.

COMMENTS: Exposure to fumes of the metal oxides may cause metal fume fever including irritation of

eyes and respiratory tract and flu-like symptoms.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT (METHOD):

AUTOIGNITION TEMPERATURE:

N/A

FLAMMABILITY LIMITS IN AIR: N/A

EXTINGUISHING MEDIA:

Protect exposures; cool with water fog. For small fires use Class D extinguishing

media.

UNSUITABLE EXTINGUISHING MEDIA:

FIRE FIGHTING PROCEDURES:

Wear full protective clothing and SCBA's.

UNUSUAL FIRE HAZARDS:

Packed material will spontaneously oxidize in air, producing significant heat. Keep away from combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS:

Toxic metal furnes may be emitted if thermally decomposed.

SECTION 6. ACCIDENTAL RELEASE MEASURES

CONTAINMENT / CLEAN UP:

Small spill

With shovel or scoop, place material onto clean, dry non-flammable surface to allow catalyst to oxidize. Place oxidized catalyst into container and cover loosely. Remove containers from spill

area. Protect against inhalation of dusts or furnes, Wear eye protection.

Large spill

Wet methods of cleanup are preferred. Keep airborne particulates to a minimum. Protect against Inhalation of dusts or furnes, Wear eye protection. Place in appropriate containers for disposal.



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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Shift Max 230, Reduced Heterogeneous Catalyst, FC72372

SECTION 7. HANDLING AND STORAGE

HANDLING:

No special precautions for intact containers.

STORAGE:

Store in dry area. Prevent exposure to air by maintaining under an inert gas atmosphere such as nitrogen. Use additional precautions to prevent asphyxiant hazards due to inert

gas usage.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

LOCAL EXHAUST:

If user operations generate dust or furne, use ventilation to keep exposure to

airborne contaminates below the exposure limits.

GENERAL VENTILATION:

PERSONAL PROTECTIVE EQUIPMENT FOR ROUTINE HANDLING

EYES: SKIN:

Wear safety glasses with side shields or goggles.

Wear protective clothing, including long sleeves and gloves to prevent skin contact.

SUITABLE GLOVES: Impermeable, such as latex, Nitrile, etc.

INHALATION: Wear NIOSH approved respirator with particulate filter.

PERSONAL PROTECTIVE EQUIPMENT FOR SPILLS

EYES:

Chemical goggles

SKIN:

Chemical resistant gloves

INHALATION / SUITABLE RESPIRATOR: (Min) Use NIOSH-approved respirator with particulate filter

PRECAUTIONARY MEASURES: N/D



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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Shift Max 230, Reduced Heterogeneous Catalyst, FC72372

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

TYPICAL PHYSICAL PROPERTIES ARE GIVEN BELOW.

APPEARANCE: Cylindrical tablets

COLOR: Dark brown

OK. Dak blown

ODOR: None

ODOR THRESHOLD: N/A

pH: N/A

BOILING POINT C (F): N/A MELTING POINT C (F): N/A

SOLUBILITY IN WATER: Insoluble

VISCOSITY AT____: N/A

VISCOSITY AT___:

RELATIVE DENSITY TO: 65-85 lb./CF (bulk)

POUR POINT C (F): N/A

FREEZING POINT C (F): N/A

VOLATILE ORGANIC COMPOUND:

SPECIFIC GRAVITY: $(H_2O = 1) > 8$ VAPOR PRESSURE - mmHg: N/A

VAPOR DENSITY @ TEMP:____: N/A

EVAPORATION RATE RELATIVE TO ::

EXPLOSIVE PROPERTIES: Will not explode

OXIDIZING PROPERTIES: Not an oxidizer

SECTION 10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.):

Generally considered stable when contained under an Inert

atmosphere.

CONDITIONS TO AVOID: Exposure to air.

INCOMPATIBILITY (MATERIALS TO AVOID):

Combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition may produce metal oxide fumes.

HAZARDOUS POLYMERIZATION:

Not expected to occur.



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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Shift Max 230, Reduced Heterogeneous Catalyst, FC72372

SECTION 11. TOXICOLOGICAL DATA

Exposure to metal oxide fume may produce "metal fume fever" which is characterized by flu-like symptoms including fever, chills and general aches.

SECTION 12. ECOLOGICAL INFORMATION

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Local regulations may vary; all waste must be disposed/recycled/reclaimed in accordance with federal, state and local environmental control regulations.

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: Self-heating solld, inorganic, N.O.S.

HAZARD TECHNICAL NAME: Reduced copper catalysts.

HAZARD CLASS: 4.2

UN NUMBER:

PACKING GROUP: II

SECTION 15. REGULATORY INFORMATION

TSCA STATUS: Component materials are in the TSCA inventory.

EPA SARA TITLE III CHEMICAL LISTINGS:

SECTION 302 HAZARDOUS SUBSTANCES: No

SECTION 355 EXTREMELY HAZARDOUS SUBSTANCES:

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MATERIAL SAFETY DATA SHEET

Shift Max 230, Reduced Heterogeneous Catalyst, FC72372 PRODUCT NAME:

SECTION 15. REGULATORY INFORMATION, CONTINUED

SECTION 312 HAZARD CLASS:

ACUTE:

Yes

CHRONIC:

Yes

No

FIRE: Yes

PRESSURE:

REACTIVE: No

SECTION 372 TOXIC CHEMICALS: Copper.

SECTION 16. OTHER INFORMATION

COMMENTS:

N/D = Not Determined

N/A = Not Applicable

As a unit, the materials do not pose a hazard. However, should the container be compromised and the packed catalyst become available, measures must be taken to prevent exposure to air.

PREPARED BY: D. Black, J. Preston

Revision By:

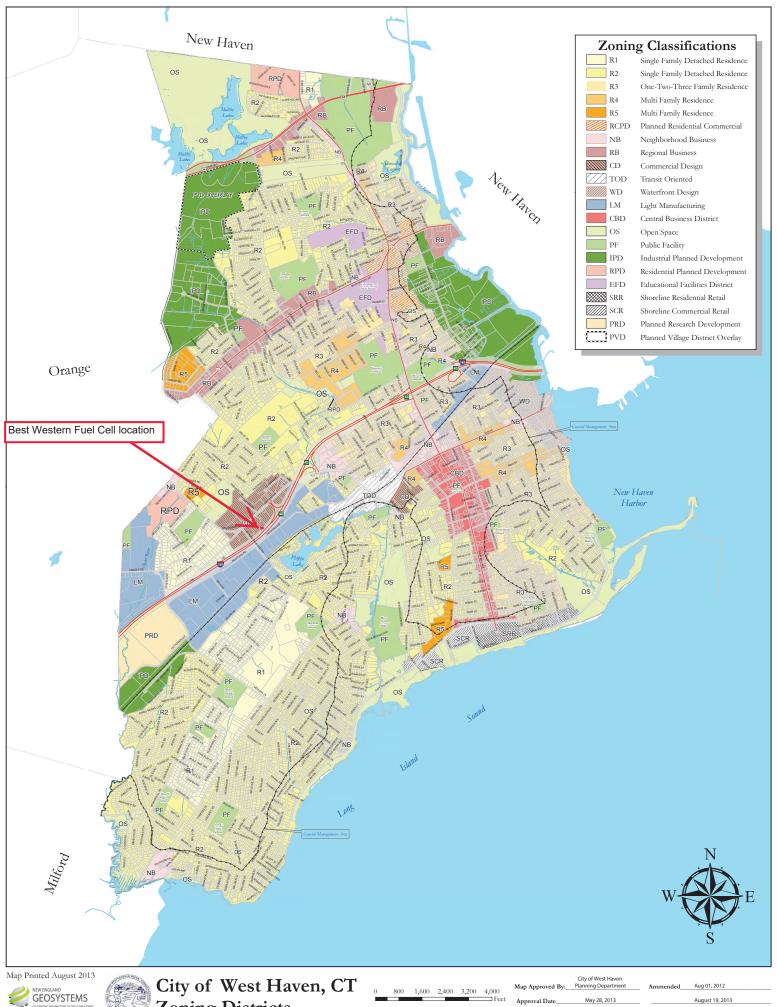
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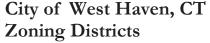
INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.



Attachment #6: West Haven, CT Zoning Map







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Map Approved By:_	City of West Haven Planning Department	Amr
Approval Date	May 28, 2013	
Tom .: D .	lune 26 2006	



Nearest residential homes to the Best Western Hotel Fuel Cell



Attachment #7	7: Zoning Board a	and Planning a	nd Zoning Com	nmission Certifi	cates of Approva



CITY OF WEST HAVEN, CONNECTICUT



ZONING BOARD OF APPEALS

City Hall | 355 Main Street | First Floor West Haven, Connecticut 06516-0312 Phone 203.937.3580 Fax 203.937.3742

CERTIFICATE OF DECISION

February 24, 2021

Josh Abrams 17 Stanton Avenue South Hadley, MA. 01075

490 Saw Mill Road Several variances to place a Fuel Cell generator and data server in the Southwest corner of the Best Western Hotel property. 1. To permit 89 parking spaces where 95 exist. 2. A side yard variance to permit 14.9' where 25' is required and, 3. A rear yard variance to permit 11.2' where 50' is required. In the CD Commercial Design district pursuant to Section 60, 20.1 of the West Haven Zoning Regulations. Owner: Eshagh Malekan / Applicant: Clear Cell Power, Inc. File# 028-21 V

APPLICANT:

ClearCell

OWNER:

Eshagh Malekan

DATE OF MEETING: February 17, 2021

FILE:

#028-21 V

ACTION:

Approved March 15, 2021

EFFECTIVE DATE: APPROVED PLAN:

Improvement Location Survey Ct Land Surveying, LLC. Prepared for

Sawmill Haven, LLC. EX-1 dated 01-11-21. Clearcell Power, INC. Natural Gas Fuel Cell

Generator GA1.0 - GA1.1, dated 01-18-2021

CONDITIONS:

None

The above referenced matter was approved on the date stated above and a Notice of Decision was published in the New Haven Register on February 26, 2021

PLEASE NOTE Per Section 92.3.7 of the West Haven Zoning Regulations:

Applicant Certificate of Decision to be recorded. An application approval shall be effective upon recording of the Certificate of Decision for the zoning relief granted in the West Haven Land Records. Any approval for which a Certificate of Decision has been issued but not recorded shall automatically be null and void.

Sincerely

Catherine Conniff

Assistant City Planner /Zoning Enforcement Officer/ Inland Wetlands



CITY OF WEST HAVEN, CONNECTICUT Planning and Zoning Commission



City Hall | 355 Main Street | First Floor West Haven, Connecticut 06516-0312 Phone 203.937.4202 Fax 203.937.3742 CITY HALL 1898-1967

CERTIFICATE OF DECISION

March 4, 2021

Eshagh Malekan 111 E. Jericho Turnpike Mineola, NY. 11501

<u>490 Sawmill Road</u> – Special Permit and Site Plan Review applications to install a Fuel Cell Generator and Data Server at the Best Western Hotel. Owner: Eshagh Malekan Applicant: ClearCell Power, Inc. File # SP 21-05, SR 21-06

APPLICANT: ClearCell Power, Inc.
OWNER: Eshagh MaleKan
PATE OF MEETING: February 23, 2021
FILE: SP 21-05, SR 21-06

ACTION: Approved EFFECTIVE DATE: March 15, 2021

APPROVED PLANS: Improvement Location Survey drawn by CT land Surveying, LLC EX-1 dated 12/25/20, Clearcell Power, INC Natural Gas Fuel Cell Generator General Arrangement and Elevation, drawn by Innovative Construction & Design Solutions, LLC, GA1.0-GA1.1, dated 01/18/2021

The above referenced matter was approved on the date stated above and a Notice of Decision was published in the New Haven Register on March 5, 2021

PLEASE NOTE, Per Section 92.3.7 of the West Haven Zoning Regulations:

Applicant Certificate of Decision to be recorded. An application approval shall be effective upon recording of the Certificate of Decision for the zoning relief granted <u>in the West Haven Land Records</u>. Any approval for which a Certificate of Decision has been issued but not recorded shall automatically be null and void.

Sincerely, Catherine Conniff Assistant City Planner From: Frank Gladwin

Sent: Sunday, February 7, 2021 3:54 PM **To:** Cathy Conniff <conniff@westhaven-ct.gov>

Cc: Kimberly L. Leindorf < leindorf@westhaven-ct.gov>; Lloyd Adams

<ladams@westhaven-ct.gov>

Subject: 490 SMRd Site Plan Review (Fuel Cell)

Cathy, I have provided by comments for the Site Plan Review for the proposed Fuel Cell at 490 SMRd see below:

- 1. Clarify the distance of the fence from the south and west lot line--see the attached updated survey 2-8-2021 REV-490 SAW MILL for added dimension.
- 2. Clarify the catch basin water discharge: the catch basin is to allow site drainage under the fuel cell pad to the existing point of discharge. The size and details will be address during design phase.
- 3. Clarify emergency access to the fuel cell, any fire lanes? A knox box can be provided to allow access to disc. switch MD-1. There will be no change to the exiting fire lanes.
- 4. What is the status of the CT Siting Council? In process of filing
- 5. Clarify the type transformer located inside the fence between the fuel cell and the DATA Server Container, (liquid filled or dry type)? The 300 kva dry type transformer is to supply required operation voltage for the Data server. Cut sheets will be part of the submittal phase.

Please contact the WHBD at 203-937-3590 if you have any questions regarding this matter.

Special Permit Criteria

85.4.1	The principal vehicular access for such use is not located on a minor street (local), but is located on an arterial street or collector street within one-quarter mile of an arterial streetThe generator is located in the rear parking area off of Saw Mill Road
85.4.2	Such use is so located as to draw a minimum of vehicular traffic to and through local streets within any surrounding residential development
85.4.3	The architectural and landscaping treatment of such use will blend harmoniously with the rest of the area. Yes-the green slates screen in the fence and the ground cover will blend in with the surrounding environment.
85.4.4	Provisions have been made to minimize any disturbances or nuisance to surrounding properties arising out of the creation of such use , including the provision of landscaped screens and buffers. The green slate screen surrounding the units and the siting in the corner closest to the I-95 with plantings and ground cover to blend in with surroundings
85.5.5	Reservoir space at vehicular entrances and exits are provided to prevent traffic congestion and vehicular entrances and exits for

	such use are separately providedOnce installed, there will only be biweekly maintenance checks
85.4.6	Provision is made with respect to drainage, outside lighting or illumination and signs so as to minimize any adverse effect on the character of the surrounding area.
	Providing a catch basin which directs flow under the new concrete pad and directly to the existing outflow area; Only one light internal to fence area for safety
85.4.7	Provision is made with respect to requirements for soundproofing, construction of fences, barriers, or other safety devices.
	Safety: bollards to be located around the fence area to protect from wayward vehicles. Fencing and screen slates to keep general public from work area—there are no moving parts and we have these near schools and offices without fencing.



Attachment #8: California Air Resources Board Emission Certification

State of California AIR RESOURCES BOARD

Executive Order DG-040-A

Distributed Generation Certification of Doosan Fuel Cell America Corporation 440 kW PureCell® System Model 400

WHEREAS, the Air Resources Board (ARB) was given the authority under California Health and Safety Code section 41514.9 to establish a statewide Distributed Generation (DG) Certification Program to certify electrical generation technologies that are exempt from the permit requirements of air pollution control or air quality management districts;

WHEREAS, this DG Certification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules and regulations;

WHEREAS, UTC Power Corporation applied for a DG Certification of its 440 kW PureCell® System Model 400 fuel cell and whose application was deemed complete on December 10, 2012;

WHEREAS, UTC Power Corporation was issued DG Certificate DG-040 on December 26, 2012, for its 440 kW PureCell® System Model 400 fuel cell;

WHEREAS, UTC Power Corporation had demonstrated, according to test methods specified in California Code of Regulations (CCR), title 17, §94207, that its natural-gas-fueled 440 kW PureCell® System Model 400 has complied with the following emission standards:

- Emissions of oxides of nitrogen no greater than 0.07 pounds per megawatt-hour;
- 2. Emissions of carbon monoxide no greater than 0.10 pounds per megawatt-hour; and
- 3. Emissions of volatile organic compounds no greater than 0.02 pounds per megawatt-hour.

WHEREAS, UTC Power Corporation had demonstrated that its 440 kW PureCell® System Model 400 fuel cell complies with the emissions durability requirements in CCR, title 17, §94207(d);

WHEREAS, UTC Power, a division of United Technologies Corporation, sold its fuel cell operation to ClearEdge Power, Inc. Subsequently, ClearEdge Power Inc. declared bankruptcy and Doosan Corporation purchased the assets of ClearEdge Power on July 2014, and re-organization into Doosan Fuel Cell

America; wherein it was noted that no material changes to model form, fit, or function were made;

WHEREAS, on February 13, 2017, Doosan Fuel Cell America applied for a change in ownership for the 440 kW PureCell® System Model 400;

WHEREAS, Doosan Fuel Cell America, Corporation was issued DG Certificate DG-040-A on April 26, 2017, for its 440 kW PureCell® System Model 400 fuel cell;

WHEREAS, Doosan Fuel Cell America, Corporation applied for recertification of its DG certificate for the 440 kW PureCell® System Model 400 fuel cell and whose application was deemed complete on December 22, 2017; and

WHEREAS, I find that the Applicant, Doosan Fuel Cell America, has met the requirements specified in CCR, title 17, article 3, Distributed Generation Certification Program and has satisfactorily demonstrated that the 440 kW PureCell® System Model 400 fuel cell meets the DG Certification Regulation 2007 Fossil Fuel Emission Standards.

NOW THEREFORE, IT IS HEREBY ORDERED, that a DG Certification, Executive Order DG-040-A, is hereby extended.

This DG Certification:

- 1) Is subject to all conditions and requirements of CCR, title 17, article 3, Distributed Generation Certification Program, including the provisions relating to inspection, denial, suspension, and revocation;
- Shall be void if any manufacturer's modification results in an increase in emissions or changes the efficiency or operating conditions of a model, such that the model no longer meets the 2007 DG Certification emission standards; and
- 3) Shall expire on the 26th day of December 2022.

Executed at Sacramento, California, this 24th day of January 2018.

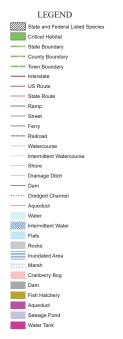
/S/

Floyd V. Vergara, Esq., P.E. Chief, Industrial Strategies Division



Attachment #9: West Haven DEEP Diversity Database Areas Map/ DEP Wetland Soils

NATURAL DIVERSITY DATA BASE AREAS WEST HAVEN, CT



EXPLANATION

This may depicts general locations of star and federal listed species and critical habitats. The map is intended to use and a generacting tool to determine the potential star better and the star of the star of

Use the CTECO Interactive Map Viewers at http://cteco.uconn.edu to more precisely search for and locate sites and to view NDDB Areas with aerial imagery.

For more information about State Listed Species, contact DEEP, Burerau of Natural Resources, Wildlife Division. email: deep.nddbrequest@ct.gov Tel: 860-424-3011

DATA SOURCES

*NDDB Information - Locations of attate and federal listed species and critical habitats are based on that collected by the protection, period concerns and proposed on the collected by Protection, period concerns within group and the increditive community and completely the Natural Diversity Data (NDDB). The information is not necessarily the increditive community and completely be Natural Diversity Data (NDDB). The information is not necessarily the investigations, in some cases bootston have been derived investigations, in some cases bootston have been derived innectations. The cases typicis are community beatine falls in the content of the complete. The cases typic is community beatine falls increased the complete of the content of the content

melsite (www.cteco.ucom.edu) for this map and a variety of others. Visit the DEEP website (www.ct.gov/deep/gis) to download the base map digital spatial data shown on this map.



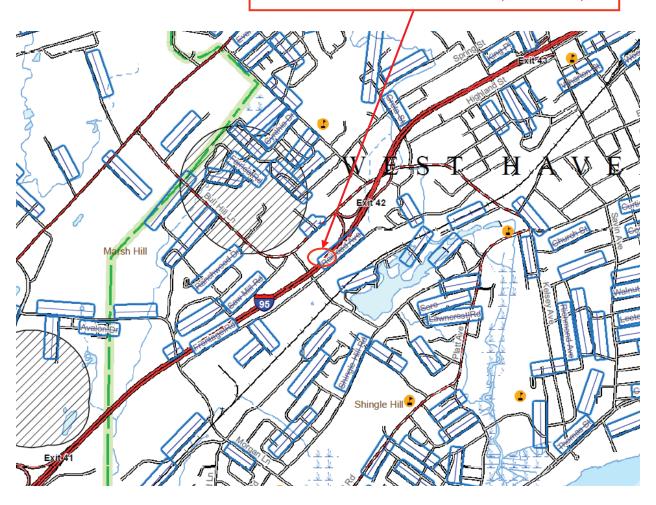




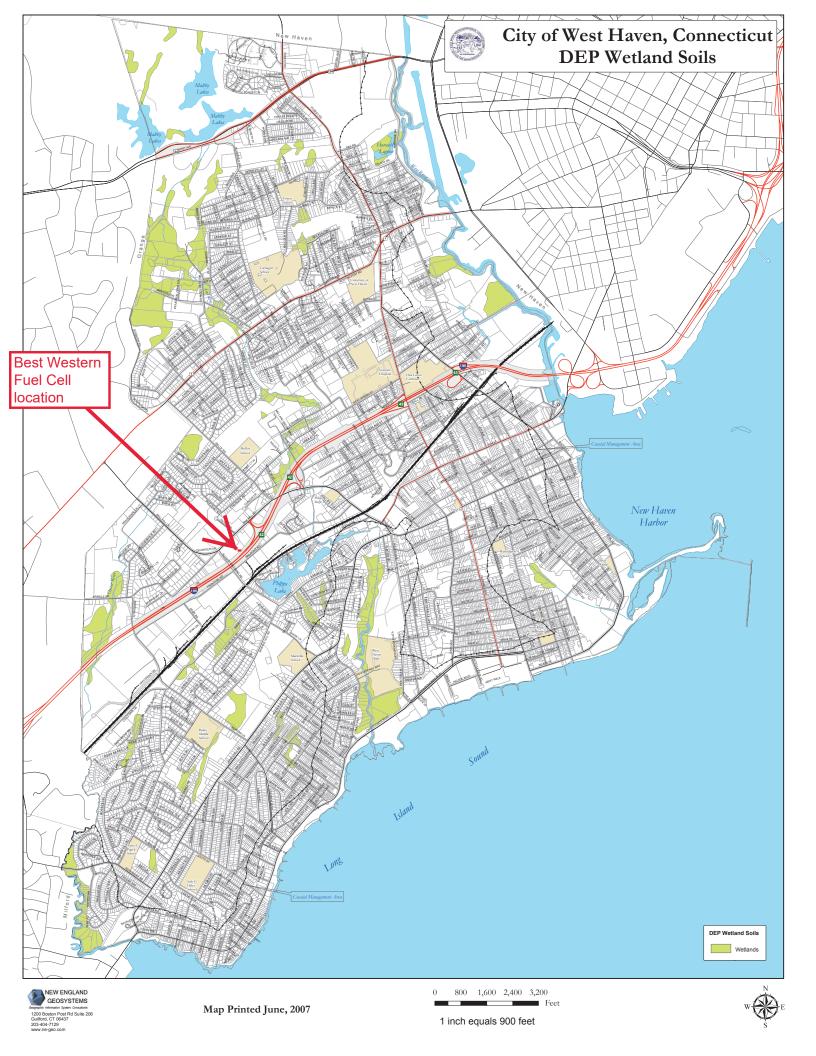
Map prepared by CT DEEP



Location for Fuel Cell: 490 Saw Mill Road, West Haven, CT



Enlargement of the Natural Diversity Data Base Map-West Haven, CT





Attachment #10: Notification Letter, Abutters Map--Certified Mail Receipts



March 27, 2021

RE: Petition of ClearCell Power, Inc. for a declaratory ruling for the location and construction of a 0.46 Megawatt Fuel Cell customer-side distributed energy resource at 490 Saw Mill Road, West Haven, Connecticut

Dear Recipient:

Pursuant to Section 16-50j-40 of the Connecticut Siting Council's (the "Council") Rules of Practice, we are notifying you that ClearCell Power, Inc. intends to file a petition for declaratory ruling with the Connecticut Siting Council ("Council") on or about March 27, 2021. The petition will request the Council's approval to install one (1) 460 kW fuel cell and ancillary equipment in support of a customer-sided, distributed generation project at 490 Saw Mill Road, West Haven, CT 061010. The fuel cell will be powered by natural gas, and the generated electricity will be consumed on-site. If there is any excess electricity generated, as agreed upon with United Illuminating Co., the power will be distributed to the grid.

The fuel cell's proposed placement is located in the Best Western hotel parking lot in the southern corner closest to the I-95. The proposed fuel cell plant will be approximately 29 feet long, 8 feet wide, and 10 feet high. Some ancillary equipment, such as the cooling module, will be installed on the fuel cell roof to minimize the installation's footprint.

Should you have any questions, concerns, or require additional information, please contact any of the following:

ClearCell Power, Inc.
C/O Ai-Builders-New England, LLC
Josh Abrams
413-388-3805
AiBuildersNE@gmail.com

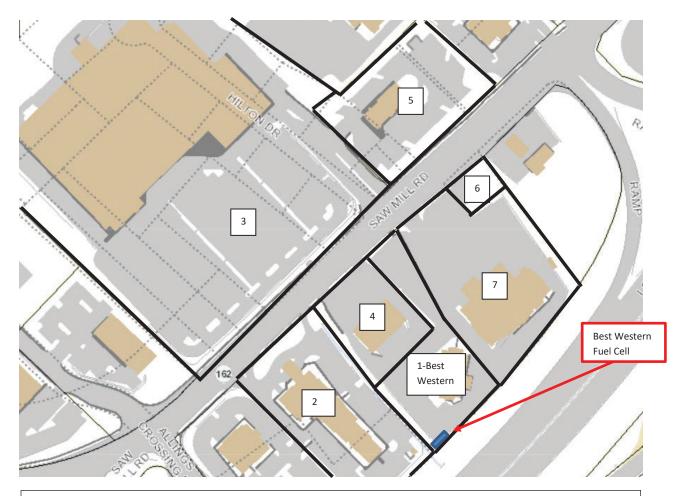
Sincerely,

ClearCell Power, Inc.

Josh Abrams (413) 388-3805

AiBuildersNE@gmail.com

Connecticut Siting Council 10 Franklin Square New Britain, CT 06051 860-827-2935



Abutters to Best Western, 490 Saw Mill Road, West Haven, CT

033-00140-0000	[Map #1]
BEST WESTERN	
111 E JERIKO TURNPIKE	
MINEOLA, NY 11501	
032-0067-0-0000	[Map #2]
MCR NEW HAVEN LLC	
510 SAWMILL RD	
WEST HAVEN, CT 06516	

032-0039--0—0000 [Map #3] WAL-MART REAL ESTATE BUSINESS PO BOX 8050 MS0555

BENTONVILLE AR 72712

OAKBROOK IL 60523

032-0066-0--0000 [Map #4] FIVE HUNDRED TWO SAW MILL ASSOC PO BOX 4797 STAMFORD CT 06907

032—0039-0-0008 [Map #5] MCDONALDS USA LLC ONE MCDONALDS PLAZA 033-0012-0-0000 [Map #6]
WEST HAVEN MALL, LLC
2321 KENNEDY BLVD
NORTH BERGEN, NJ 07047
033-0013-0-0000 [Map #7]
WEST HAVEN MALL LLC
PO BOX 5200
WEEHAWKEN, NJ 070S6

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PS Form **3877**, January 2017 (Page 1 of 2)

Listed by Sender

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Attachment #11: West Haven and Connecticut State Officials-Certified Mail Receipts



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2.	State Department of Energy Environmental	
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	Katie Dykes, Commissioner 79 Elm Street	
	Hartford, CT 06103	
3.		
	State Department of Economic and Community Development	
	David Lehman, Commissioner	
	450 Columbus Boulevard, Suite 5, Hartford, CT 06103	
4.	Office of Policy and Management	. '
	Melissa McCaw, Secretary	
	450 Capitol Avenue	1 .
	Hartford, CT 06106	
5.	Southern Central Regional Council of Governments	
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	127 Washington Avenue, 4th Floor West	1
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6.	Public Utilities Regulatory Authority	
	c/o Marissa Paslick Gillett, Chairman	
	10 Franklin Square	
	New Britain, CT 06051	
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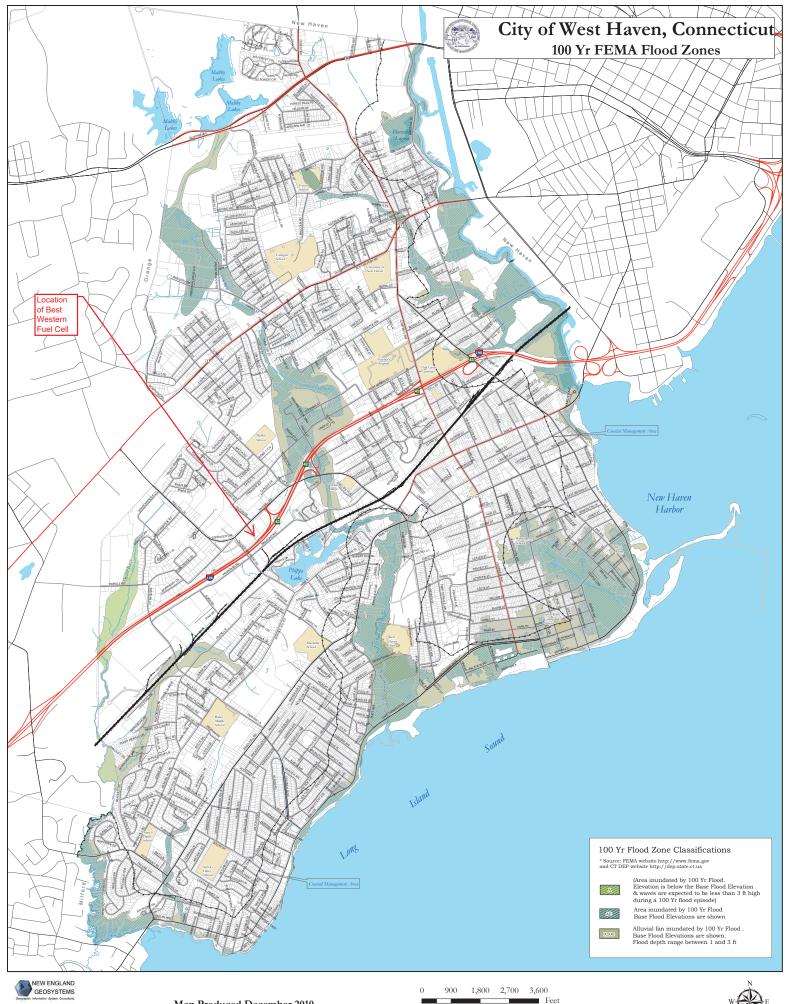








Attachment #12: West Haven FEMA Flood Map







Attachment #13: Doosan Natural Gas Desulfurization Process Memorandum



Date: 2017-01-05

PureCell Model 400 Fuel Processing System (FPS)

The FPS converts pipeline-quality natural gas into hydrogen reformate – a hydrogen-rich gas that is delivered to the anode side of the fuel cell stacks. This module includes a condenser to recover water generated in the fuel cell reaction by condensing water vapor from the process exhaust. This eliminates the need for makeup water under most operating conditions. The recovered water is used in the steam reformation process. The main components of the FPS include the following:

Hydro-Desulfurizer

The desulfurizer system removes sulfur used as an odorant in natural gas, which is a poison to the catalysts used in the fuel cell systems. Sulfur is converted to zinc-sulfide, a non-hazardous waste, within the desulfurizer and remains there until an overhaul is required, nominally after 10 years. This system will also remove small amounts of oxygen in the gas.

Steam Reformer

Steam (H₂O) generated in the cell stack cooling loop of the TMS is combined in the reformer with methane (CH₄) in the natural gas to generate a gas composed of hydrogen (H₂), carbon monoxide (CO), and carbon dioxide (CO₂).

Equation 1

Integrated Low-Temperature Shift Converter

The integrated low-temperature shift converter (ILS) generates additional hydrogen through a water-gas reaction in which CO and water is converted to hydrogen and CO₂. The reduced CO content minimizes its adverse effect on fuel cell stack performance.

CO + H2O = H2 + CO2 Equation 2

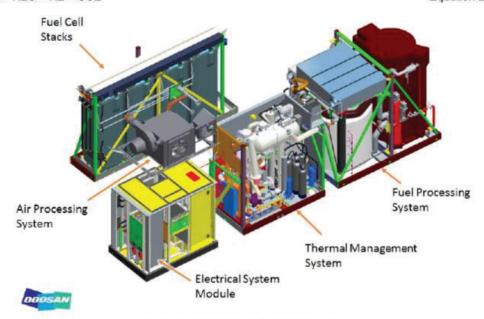


Figure 1. PureCell Model 400 Subsystems

Desulfurization Memorandum

PureCell® Model 400 Stationary Fuel Cell System



Date: 2017-01-05

Sulfur Background

Sulfur is present in pipeline natural gas. It is primarily used as an odorant so leaks can be detected. Unfortunately, sulfur is also a poison to fuel cell systems and exposure to sulfur will drastically reduce the life and efficiency of the fuel cell.

Types of sulfur found in natural gas vary from region to region. Some common examples are:

- Hydrogen Sulfide (H₂S)
- Tetrahydrothiophene (THT)
- Mercaptain (MCP) Broad family of sulfur molecules characterized by a sulfur atom attached to a hydrocarbon molecule or chain

The majority of it the odorants are organic with the exception of hydrogen sulfide. Standard pipeline natural gas contains up to 6 parts per million by volume (ppmv) sulfur on average with spikes as high as 30 ppmv possible. In order to successfully maintain operation of the fuel cell for a period of 10 years, the sulfur levels must be reduced to less than 0.02 ppmv, or a 99.7% removal rate. An additional benefit of this is that it removes sulfur dioxide from the emissions of the fuel cell power plant.

Sulfur Removal Techniques

Sulfur removal can be broken down into two main techniques, physical capture and reactive capture.

Physical capture involves using porous media such as activated carbon or molecular sieves to capture and concentrate the odorant before it enters the fuel cell. Doosan elected not to pursue this path due to several factors, including:

- · The process concentrates the odorant and turned it into hazardous waste
- The concentrated odorant is highly toxic and requires specially trained personnel to handle the waste
- . Would result in more service being required at customer sites to maintain the system

Reactive capture is the method used by Doosan to remove sulfur. It involves chemically reacting the odorant over a catalyst bed in order to separate the sulfur molecule. Once the sulfur molecule is separated from the odorant, the remaining odorant is destroyed in another catalyst bed. The sulfur molecule is then captured and converted to a compound called Zinc Sulfide.

*
$$S + H_2 \leftrightarrow H_2 S$$
 + * Equation 4 $H_2 S + ZnO_{(s)} \leftrightarrow ZnS_{(s)} + H_2 O$ Equation 5

Doosan's system has been sized such that it will run for the 10 year service life of the unit and not need to be changed out. When the unit is removed from service, the decommissioning or refurbishment of the unit will be carried out by trained personnel and a company specializing in removal of the waste Zinc Sulfide will recover the spent material. Zinc sulfide has some commercial value, so that company will either process it and sell it or split it into Zinc and Sulfur and sell them separately.

Respectfully,
Jesse Hayes, Director, Product Management, Doosan Fuel Cell
195 Governors Highway
South Windsor, CT 06074
Jesse.hayes@doosan.com
(860) 560-3309