

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

IN RE:	:	
	:	
A PETITION OF NRG CURTAILMEENT	:	PETITION NO. _____
SOLUTIONS, INC. FOR A DECLARATORY	:	
RULING ON THE NEED TO OBTAIN A	:	
SITING COUNCIL CERTIFICATE TO	:	
INSTALL EMERGENCY GENERATING	:	
DEVICES, AT 935 MIDDLE STREET,	:	
BRISTOL, CONNECTICUT	:	FEBRUARY 22, 2022

**PETITION FOR A DECLARATORY RULING:
INSTALLATION HAVING NO
SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT**

I. Introduction

Pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies (“R.C.S.A.”), NRG Curtailment Solutions, Inc. (“NRG”) hereby petitions the Connecticut Siting Council (the “Council”) for a declaratory ruling (“Petition”) that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required under Section 16-50k(a) of the Connecticut General Statutes (“C.G.S.”) for the installation of four, 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”) located inside two existing buildings on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Property”). *See* ESPN Campus Aerial Photograph and Electrical Site Plan included in Attachment 1.

II. The Property

The Property consists of four (4) separate parcels of land, totaling approximately 115 acres, located on the east side of Middle Road (State Route 229) and south of Ronzo Road and

straddles the Bristol/Southington town line.¹ The Property is owned by L.I.C. Warehouse Realty Co. and is the home of the United States broadcast operations for ESPN. The Bristol portion of the Property is located in and surrounded by the City of Bristol's IP-1 Industrial Park (IP-1) Zone. The southerly portion of the Property is in Southington's B (Business) zone. The Property is surrounded by industrial and commercial land uses with some residential uses located to the south and southeast. The existing generator plant buildings on the ESPN Campus are in the northeast portion of the Property. *See Attachment 1.*

III. Electric Generating Facilities

Pursuant to C.G.S. Section 16-50i(a), the Council has jurisdiction over certain "facilities" as defined, including, "electric generating and storage facilities" as described in C.G.S. Section 16-50i(a)(3)). An electric generating facility does not, however, include an "emergency generating device" as that term is defined in C.G.S. Section 16-50i(f). Emergency generating device is defined as:

an electric generating device with a generating capacity of five megawatts or less, installed primarily for the purpose of providing emergency backup electrical power for not more than 500 hours per year, and that (1) does not have a substantial adverse environmental effect, as determined by the council, or (2) is owned and operated by an entity other than an electric distribution of gas company, or (3) is under construction or in operation prior to May 2, 1989.

On March 2, 2020, the Petitioner applied for and received local building, electrical, plumbing, heating and cooling and fire protection permits (collectively the "City Permits") from the City of Bristol, for the installation of four (4) 2.46 MW Caterpillar G3520H natural gas-fired generators on the ESPN campus. Installation of the EGDs was completed in December 2020. Copies of the City Permits, generator specification and photographs of the new EGD are

¹ A majority of the ESPN Campus, two parcels totaling 83.39 acres, are located in the City of Bristol. The two remaining parcels, totaling 31.6 acres are located in the Town of Southington.

included in Attachment 2. Two EGDs, totaling 4.92 MW, were installed in ESPN's Generator Plant Building 1B, and two EGDs, totaling 4.92 MW, were installed in ESPN's Generator Plant Building 2. *See* Partial Aerial Photograph showing Generator Plant Buildings 1B and 2 included as Attachment 3.

The EGDs are owned and operated by NRG and are interconnected behind ESPN's utility meter. All of the power generated by the EGDs is consumed by ESPN and no power from the EGDs will be exported to the ISO-NE grid. In addition, when requested by ISO-New England, the EGDs will support ISO-NE and Eversource demand response programs, which are designed to reduce the overall strain on the grid and increase grid reliability. NRG is currently under contract to transfer ownership of the EGDs to Palm Energy, LLC. NRG anticipates the sale of the units to close no later than the end of 2022.

IV. Discussion

A. Electric Generating Facilities

The Council's definition of Electric Generating Facility does not include emergency generators that (1) have a capacity of 5 MW or less, (2) are installed for the primary purpose of providing backup power, and (3) are operated for not more than 500 hours per year. Each of the NRG EGDs described above have a generating capacity of less than 5 MW and, pursuant to the limitation imposed by the New Source Review Permit to Construct and Operate a Stationary Source (the "Air Permit") issued by the Connecticut Department of Energy and Environmental Protection ("DEEP"), may operate for 1750 hours in a consecutive 12-month period. Although

the EGDs will provide the ESPN Campus with backup power, they will be operated primarily to support ISO-NE and Eversource demand response programs.²

B. The EGDs Will Not Have A Substantial Adverse Environmental Effect

NRG respectfully submits that the installation of four (4) 2.46 MW EGDs inside two existing buildings on the ESPN Campus does not involve a significant alteration in the physical and environmental characteristics of the Property and will not have a substantial adverse environmental effect.

1. Natural Environment and Ecological Balance

The ESPN campus is developed with seventeen (17) multi-story buildings, structured and ground-based parking areas, site landscaping and internal site access driveways. The southeast portion of the Property is developed with a large satellite dish installation. An existing electric transmission line extends from north to south along the eastern edge of the Property and an Eversource electric substation is located to the south of ESPN Generator Plant Building 1B. The Property is surrounded by industrial and commercial land uses to the north, west and northeast, and residential land uses to the south and southeast. *See Attachment 1.*

Generator Plant Buildings 1B and 2 in the northeast portion of the ESPN Campus are setback approximately 100 feet and 200 feet, respectively, from the nearest adjacent Property boundaries to the east. The existing natural vegetated buffer between the generator buildings and

² Prior to the issuance of the Air Permits and the installation of the EGDs, NRG completed a permitting analysis and determined that the EGDs would satisfy the statutory criteria of C.G.S. Section 16-50i(f). As such, the EGDs did not constitute an electric generating facility under the Council's jurisdiction. NRG therefore, did not seek Council approval for the EGDs before applying for and receiving local building and electrical permits for the installation of the units. More recently, during the due diligence evaluation period associated with the sale of the units and in further consultation with its outside counsel, it was determined that the EGDs may not satisfy the criteria of C.G.S. Section 16-50i(f). In an abundance of caution, NRG decided to seek a determination, in the form of a declaratory ruling from the Council that the installation of the four EGDs would not require the issuance of a Certificate as the installation of the units would not result in a significant adverse environment effect.

the commercial and residential uses to the east has not been impacted nor modified by the installation of the EGDs. The installation of the EGDs inside the existing Generator Plant Buildings at ESPN do not impact any historic or recreational resources, wildlife, water quality or water resources or agricultural resources on the Property.

2. Visual Effects

As described above, the EGDs are located inside the existing buildings in the northeasterly portion of the ESPN campus and will not be visible from outside either of the structures. New generator exhaust stacks, associated with the EGDs, are located on the roof of the generator buildings and are visible from portions of the Property to the west of the generator buildings. The installation of the EGDs do not, therefore, result in an adverse visual impact. Copies of Photographs of the generator units and specifications for the Caterpillar G3520H Engine are included in Attachment 4.

3. Air Quality

Air emissions from the EGDs comply with the state and federal air quality standards as determined by the Bureau of Air Management of the Connecticut Department of Energy and Environmental Protection (“DEEP”). On March 12, 2020, DEEP issued Air Permits pursuant to Section 22a of the General Statutes and Section 22a-174-3a of the Regulations of Connecticut State Agencies for each of the four EGDs described herein. Copies of the Air Permits are included in Attachment 5.

4. Noise

According to an Acoustic Evaluation prepared by Cavanaugh Tocci, the EGDs, with the inclusion of certain recommended noise control measures (engine exhaust silencers, radiator discharge silencers and the replacement of a “man door” on the east side of Generator Building

1B) the operation of the EGDs will comply with the City of Bristol and State of Connecticut Noise Regulations. *See* Attachment 6.

C. Notice to the City, Property Owner and Abutting Landowners

On February 22, 2022, a copy of this Petition was sent to Bristol's Mayor, Jeffrey Caggiano; Edward Spyros, Bristol's Zoning Enforcement Officer; Mark Sciota, Southington's Town Manager; Maryellen Edwards, Southington's Director of Planning and Community Development; L.I.C. Warehouse Realty, Co., the Owner of the Property; and Thomas Carroll, Esq., Principle Counsel at ESPN. Copies of the letters accompanying the Petition copies sent to the individuals identified above are included in Attachment 7.

A copy of this Petition was also sent to the owners of land that is considered to abut the Property. A sample abutter's letter and the list of those abutting landowners to whom notice was sent is included in Attachment 8.

V. Conclusion

Based on the information provided above, NRG respectfully requests that the Council issue a determination, in the form of a declaratory ruling, that the installation of the EGDs will not have a substantial adverse environmental effect and will not require the issuance of a Certificate pursuant to § 16-50k of the General Statutes.

Respectfully submitted,

NRG CURTAILMENT SOLUTIONS, INC.

By 

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200
Its Attorneys

ATTACHMENT 1



Google Earth

229

229

935 Middle St

Ronzo Rd

Dell Manor Dr

Emmett St

Birch St

Balmoral

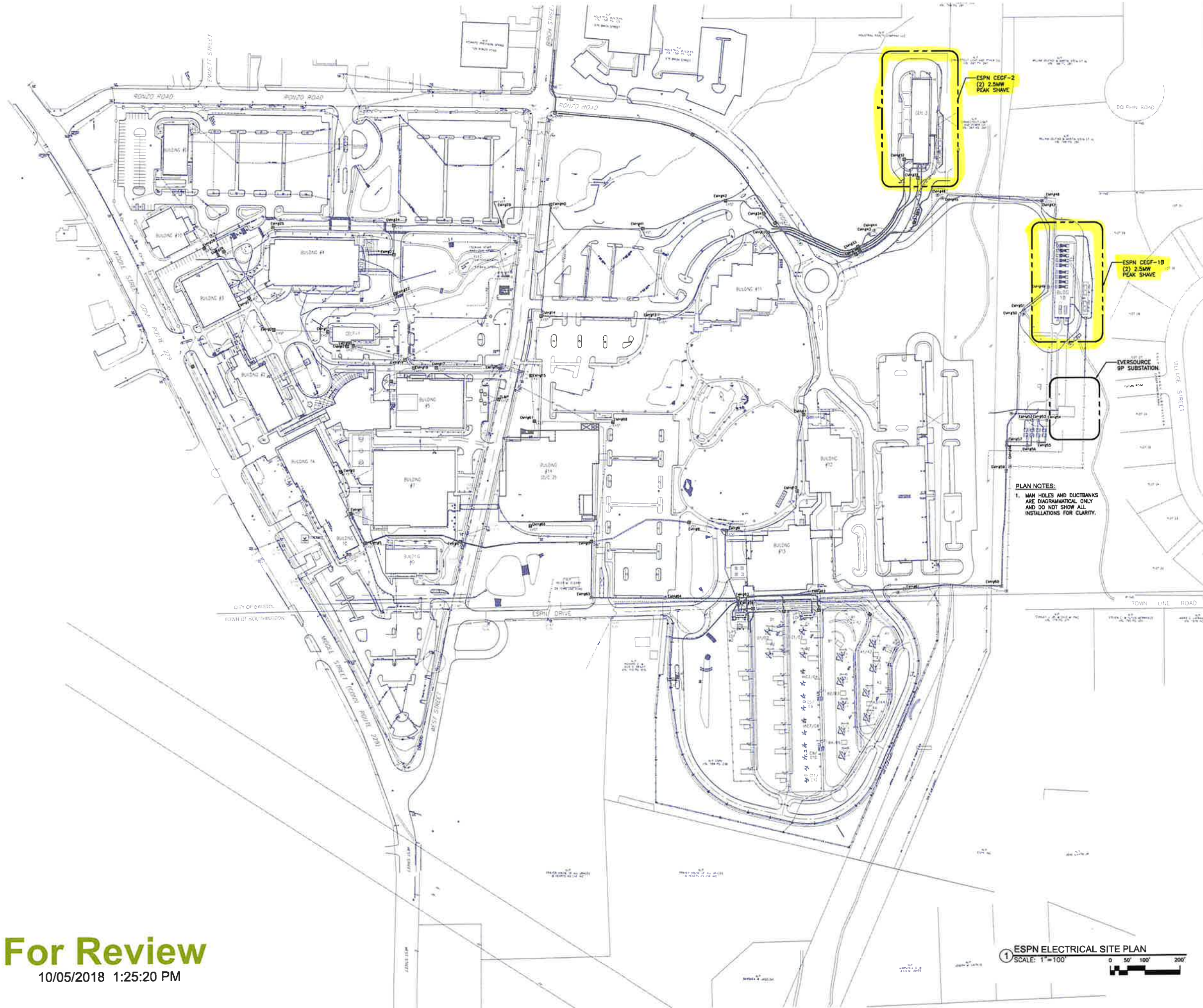
1000 ft

N

CEAT 1B

CEAT 2

For Review
 10/05/2018 1:25:20 PM



1 ESPN ELECTRICAL SITE PLAN
 SCALE: 1"=100'

FEA
FACILITIES ENGINEERING ASSOCIATES, P.C.
 128 Garden Street, Farmington, CT 06032
 Phone: 860-677-2285
 Fax: 860-678-9433
 www.feace.com

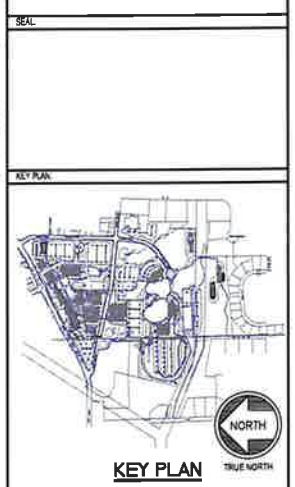
THIS DOCUMENT, INCLUDING THE DESIGNS HEREIN, IS THE PROPERTY OF FACILITIES ENGINEERING ASSOCIATES AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN THE TITLE PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF FACILITIES ENGINEERING ASSOCIATES, P.C.

OWNER ESPN
CONSULTANT Facilities Engineering Associates, P.C.

MEP ENGINEER
FACILITIES ENGINEERING ASSOCIATES, P.C.
 128 Garden Street
 Farmington, CT 06032
 Phone: 860-677-2285
 www.feace.com



PROJECT
 NATURAL GAS GENERATORS
 BRISTOL, CT.



NO.	DATE	DESCRIPTION

PROJECT NO: 21483
 CAD DWG FILE: 210422.DWG
 DRAWN BY: FA
 CHECKED BY: BTB
 SHEET TITLE:

**CAMPUS
 ELECTRICAL SITE
 PLAN**

ES100#C

ATTACHMENT 2



City of Bristol
111 North Main Street
Bristol, CT 06010

Permit #: B-20-44

BUILDING PERMIT
POST THIS PERMIT CONSPICUOUSLY

Owner:

Address:

Owner Phone Number:

Contractor Name: A/Z Corporation
Project Description: Install 4 new 2.5 MW generators
Estimated Cost: 110000

Map/Block/Lot:

Location:

0 RONZO RD ESPN Building 5 - 700
Birch St

In accordance with this application, plans and specifications submitted to the Building Department, this project will be completed subject to the State of Connecticut Building Codes. Otherwise this permit will be null and void. Occupancy of this new building or addition prior to issuance of Certification of Occupancy will be considered a violation of the state Building Code.

Permit #: B-20-44

Expires in 6 months if construction is not continuous.

Date Issued: March 02, 2020

This is an e-permit. To learn more, scan this barcode or visit bristolct.viewpointcloud.com/#!/records/5368





City of Bristol
111 North Main Street
Bristol, CT 06010

Permit #: E-20-36

ELECTRICAL PERMIT
POST THIS PERMIT CONSPICUOUSLY

Owner: ESPN-Disney
Address: ESPN Drive
Bristol, CT
Contractor Name: Perry Lorenz
Project Description: Provide wiring for (4) new 2.5 MW natural Gas Generators. (2) in Generator Building #1B and (2) in Generator 2

Map/Block/Lot: **Location:** 0 RONZO RD ESPN Building 5 - 700 Birch St

In accordance with this application, plans and specifications submitted to the Building Department, this project will be completed subject to the State of Connecticut Building Codes. Otherwise this permit will be null and void. Occupancy of this new building or addition prior to issuance of Certification of Occupancy will be considered a violation of the state Building Code.

Permit #: E-20-36

Expires in 6 months if construction is not continuous.

Date Issued: March 02, 2020

This is an e-permit. To learn more, scan this barcode or visit bristolct.viewpointcloud.com/#!/records/5515



E-1 UNLIMITED ELECTRICAL CONTRACTOR

The holder of this license shall be permitted to do all electrical work as defined in section 20-330 of the general statutes. The requirements to qualify for this license exam shall be two (2) years as a unlimited licensed journeyman or at least six (6) years of equivalent experience and training.

C-5 LIMITED ELECTRICAL CONTRACTOR

The holder of this license may perform only work limited to low voltage, alarm or signal work, audio and sound systems, and telephone-interconnect. The voltage of any system is not to exceed forty-eight (48) volts or eight (8) amperes where such work commences at an outlet receptacle or connection previously installed by a person holding the proper electrical license. The requirements to qualify for this license examination shall be two (2) years as a properly licensed journeyman or at least six (6) years of equivalent experience and training.

L-1 ELECTRICAL LINES CONTRACTOR

The holder of this license may perform only work limited to line construction, including distribution systems, and their allied work, for public and private companies; installation, maintenance and repair of all high-voltage cable splicing and pulling wire for all systems in excess of 2,400 volts; traffic signal and highway lighting installation,

maintenance and repair. The requirements to qualify for this license examination shall be two (2) years as a properly licensed journeyman or at least six (6) years of equivalent experience and training.

L-5 LIMITED ELECTRICAL CONTRACTOR

The holder of this license may perform only work limited to low voltage, alarm or signal work, audio and sound systems. The installation or repair of any telecommunication work is not authorized with the exception of the interface wiring from an alarm system to an existing telephone connection for monitoring purposes. The voltage of the system is not to exceed 25 volts or five amperes where such work commences at an outlet receptacle or connection previously installed by a person holding the proper electrical license. The requirements to qualify for this license examination shall be two (2) years as a properly licensed journeyman or at least six (6) years of equivalent experience and training.

T-1 LIMITED ELECTRICAL CONTRACTOR

The holder of this license may perform only work limited to telephone-interconnect systems where such work commences at an outlet receptacle or connection previously installed by a person holding the proper electrical license. The requirements to qualify for this license examination shall be licensed journeyman or at least six (6) years of equivalent experience and training.



City of Bristol
111 North Main Street
Bristol, CT 06010

Permit #: P-20-39

PLUMBING PERMIT
POST THIS PERMIT CONSPICUOUSLY

Owner: ESPN- Rich Masotti
Address: ESPN Drive
Bristol, CT
Contractor Name: David Berardinelli
Project Description: Modify fire protection system to accommodate 4 new natural gas generators

Map/Block/Lot: **Location:** 0 RONZO RD ESPN Building 5 - 700
Birch St

In accordance with this application, plans and specifications submitted to the Building Department, this project will be completed subject to the State of Connecticut Building Codes. Otherwise this permit will be null and void. Occupancy of this new building or addition prior to issuance of Certification of Occupancy will be considered a violation of the state Building Code.

Permit #: P-20-39

Expires in 6 months if construction is not continuous.

Date Issued: March 02, 2020

This is an e-permit. To learn more, scan this barcode or visit bristolct.viewpointcloud.com/#!/records/5696





City of Bristol
111 North Main Street
Bristol, CT 06010

Permit #: H-20-43

HEATING AND COOLING PERMIT
POST THIS PERMIT CONSPICUOUSLY

Owner: ESPN/Disney Richard Masotti
Address: Bristol, CT
Contractor Name: David E Berardinelli
Project Description: Provide duct work 7 exhaust stack for (4) new 2.5 MW natural gas generators. (2) Generators in Building 1B and (2) generators in building 2

Map/Block/Lot: **Location:** 0 RONZO RD ESPN Building 5 - 700 Birch St

In accordance with this application, plans and specifications submitted to the Building Department, this project will be completed subject to the State of Connecticut Building Codes. Otherwise this permit will be null and void. Occupancy of this new building or addition prior to issuance of Certification of Occupancy will be considered a violation of the state Building Code.

Permit #: H-20-43

Expires in 6 months if construction is not continuous.

Date Issued: March 02, 2020

This is an e-permit. To learn more, scan this barcode or visit bristolct.viewpointcloud.com/#!/records/5519





City of Bristol
111 North Main Street
Bristol, CT 06010

Permit #: P-20-24

PLUMBING PERMIT
POST THIS PERMIT CONSPICUOUSLY

Owner: ESPN/Disney -- Richard Masotti
Address: Bristol, CT
Contractor Name: David E Berardinelli
Project Description: Provide new piping for (4) new 2.5 MW Natural Gas generators. (2) in Generator Building 1B and (2) in Generator 2

Map/Block/Lot: **Location:** 0 RONZO RD ESPN Building 5 - 700 Birch St

In accordance with this application, plans and specifications submitted to the Building Department, this project will be completed subject to the State of Connecticut Building Codes. Otherwise this permit will be null and void. Occupancy of this new building or addition prior to issuance of Certification of Occupancy will be considered a violation of the state Building Code.

Permit #: P-20-24

Expires in 6 months if construction is not continuous.

Date Issued: March 02, 2020

This is an e-permit. To learn more, scan this barcode or visit bristolct.viewpointcloud.com/#!/records/5517



ATTACHMENT 3



ATTACHMENT 4





G3520H

GAS ENGINE TECHNICAL DATA



ENGINE SPEED (rpm):	1500	RATING STRATEGY:	HIGH EFFICIENCY
COMPRESSION RATIO:	12.1	APPLICATION:	GENSET
AFTERCOOLER TYPE:	SCAC	RATING LEVEL:	CONTINUOUS
AFTERCOOLER - STAGE 2 INLET (°F):	118	FUEL:	NAT GAS
AFTERCOOLER - STAGE 1 INLET (°F):	192	FUEL SYSTEM:	CAT LOW PRESSURE
JACKET WATER OUTLET (°F):	210		WITH AIR FUEL RATIO CONTROL
ASPIRATION:	TA	FUEL PRESSURE RANGE(psig): (See note 1)	2.0-5.0
COOLING SYSTEM:	JW+OC+1AC, 2AC+GB	FUEL METHANE NUMBER:	85
CONTROL SYSTEM:	ADEM4 W/ IM	FUEL LHV (Btu/scf):	905
EXHAUST MANIFOLD:	DRY	ALTITUDE CAPABILITY AT 77°F INLET AIR TEMP. (ft):	2953
COMBUSTION:	LOW EMISSION	POWER FACTOR:	0.8
NOx EMISSION LEVEL (g/bhp-hr NOx):	0.5	VOLTAGE(V):	4160-13800

RATING	NOTES	LOAD	100%	75%	50%
GENSET POWER (WITH GEARBOX, WITHOUT FAN)	(2)(3)	ekW	2469	1852	1235
GENSET POWER (WITH GEARBOX, WITHOUT FAN)	(2)(3)	kVA	3086	2315	1543
ENGINE POWER (WITHOUT GEARBOX, WITHOUT FAN)	(3)	bhp	3448	2591	1742
GENERATOR EFFICIENCY	(2)	%	96.8	96.6	95.8
GENSET EFFICIENCY(@ 1.0 Power Factor) (ISO 3046/1)	(4)(5)	%	43.3	42.4	40.5
THERMAL EFFICIENCY	(4)(6)	%	41.3	42.7	45.1
TOTAL EFFICIENCY (@ 1.0 Power Factor)	(4)(7)	%	84.6	85.1	85.6

ENGINE DATA						
GENSET FUEL CONSUMPTION (ISO 3046/1)	(8)	Btu/ekW-hr	7942	8091	8466	
GENSET FUEL CONSUMPTION (NOMINAL)	(8)	Btu/ekW-hr	8216	8370	8758	
ENGINE FUEL CONSUMPTION (NOMINAL)	(8)	Btu/bhp-hr	5884	5982	6207	
AIR FLOW (77°F, 14.7 psia) (WET)	(9)	ft ³ /min	6621	4920	3306	
AIR FLOW (WET)	(9)	lb/hr	29359	21817	14660	
FUEL FLOW (60°F, 14.7 psia)		scfm	374	285	199	
COMPRESSOR OUT PRESSURE		in Hg(abs)	146.9	111.7	77.9	
COMPRESSOR OUT TEMPERATURE		°F	469	390	296	
AFTERCOOLER AIR OUT TEMPERATURE		°F	127	124	120	
INLET MAN. PRESSURE	(10)	in Hg(abs)	140.8	105.4	72.0	
INLET MAN. TEMPERATURE (MEASURED IN PLENUM)	(11)	°F	129	124	121	
TIMING	(12)	°BTDC	22	20	16	
EXHAUST TEMPERATURE - ENGINE OUTLET	(13)	°F	736	804	904	
EXHAUST GAS FLOW (@engine outlet temp, 14.5 psia) (WET)	(14)	ft ³ /min	15842	12466	9061	
EXHAUST GAS MASS FLOW (WET)	(14)	lb/hr	30382	22599	15206	
MAX INLET RESTRICTION	(15)	in H ₂ O	14.46	10.10	7.34	
MAX EXHAUST RESTRICTION	(15)	in H ₂ O	20.09	11.36	5.44	

EMISSIONS DATA - ENGINE OUT					
NOx (as NO ₂)	(16)(17)	g/bhp-hr	0.50	0.50	0.50
CO	(16)(18)	g/bhp-hr	1.88	1.74	1.57
THC (mol. wt. of 15.84)	(16)(18)	g/bhp-hr	3.21	3.11	2.80
NMHC (mol. wt. of 15.84)	(16)(18)	g/bhp-hr	0.48	0.47	0.42
NMNEHC (VOCs) (mol. wt. of 15.84)	(16)(18)(19)	g/bhp-hr	0.39	0.37	0.34
HCHO (Formaldehyde)	(16)(18)	g/bhp-hr	0.26	0.25	0.24
CO ₂	(16)(18)	g/bhp-hr	412	420	438
EXHAUST OXYGEN	(16)(20)	% DRY	9.9	9.6	9.1
LAMBDA	(16)(20)		1.81	1.76	1.69

ENERGY BALANCE DATA					
LHV INPUT	(21)	Btu/min	338069	258332	180200
HEAT REJECTION TO JACKET WATER (JW)	(22)(31)	Btu/min	37205	32116	26023
HEAT REJECTION TO ATMOSPHERE (INCLUDES GENERATOR)	(23)	Btu/min	10525	8650	7089
HEAT REJECTION TO LUBE OIL (OC)	(24)(31)	Btu/min	10631	9536	8193
HEAT REJECTION TO EXHAUST (LHV TO 77°F)	(25)(26)	Btu/min	91509	73879	55106
HEAT REJECTION TO EXHAUST (LHV TO 248°F)	(25)	Btu/min	63134	52857	41265
HEAT REJECTION TO A/C - STAGE 1 (1AC)	(27)(31)	Btu/min	26659	14456	5121
HEAT REJECTION TO A/C - STAGE 2 (2AC)	(28)(32)	Btu/min	18722	12364	6821
HEAT REJECTION FROM GEARBOX (GB)	(29)(32)	Btu/min	1155	868	584
PUMP POWER	(30)	Btu/min	859	859	859

CONDITIONS AND DEFINITIONS

Engine rating obtained and presented in accordance with ISO 3046/1. (Standard reference conditions of 77°F, 29.60 in Hg barometric pressure.) No overload permitted at rating shown. Consult the altitude deration factor chart for applications that exceed the rated altitude or temperature.

Emission levels are at engine exhaust flange prior to any after treatment. Values are based on engine operating at steady state conditions, adjusted to the specified NOx level at 100% load. Tolerances specified are dependent upon fuel quality. Fuel methane number cannot vary more than ± 3.

For notes information consult page three.

FUEL USAGE GUIDE

CAT METHANE NUMBER	<50	50	60	70	75	85	100
SET POINT TIMING	-	16	16	16	16	22	22
DERATION FACTOR	0	0.65	0.80	0.90	1	1	1

ALTITUDE DERATION FACTORS AT RATED SPEED

INLET AIR TEMP °F	ALTITUDE (FEET ABOVE SEA LEVEL)													
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	
130	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
120	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
110	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
100	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
90	1	1	0.94	0.87	0.81	0.75	0.72	0.69	0.66	0.63	0.60	0.56	0.53	0.53
80	1	1	1	0.98	0.93	0.88	0.83	0.78	0.73	0.68	0.64	0.60	0.55	0.55
70	1	1	1	1	0.95	0.90	0.85	0.81	0.76	0.71	0.66	0.61	0.56	0.56
60	1	1	1	1	0.95	0.90	0.85	0.81	0.76	0.71	0.66	0.61	0.56	0.56
50	1	1	1	1	0.95	0.90	0.85	0.81	0.76	0.71	0.66	0.61	0.56	0.56

AFTERCOOLER HEAT REJECTION FACTORS (ACHRF)

INLET AIR TEMP °F	ALTITUDE (FEET ABOVE SEA LEVEL)													
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	
130	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
120	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
110	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
100	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
90	1.05	1.08	1.12	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
80	1	1.03	1.07	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
70	1	1	1.01	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
60	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	1	1	1	1	1	1	1	1	1	1	1	1	1	1

FUEL USAGE GUIDE:

This table shows the derate factor and full load set point timing required for a given fuel. Note that deration and set point timing adjustment may be required as the methane number decreases. Methane number is a scale to measure detonation characteristics of various fuels. The methane number of a fuel is determined by using the Caterpillar methane number calculation.

ALTITUDE DERATION FACTORS:

This table shows the deration required for various air inlet temperatures and altitudes. Use this information along with the fuel usage guide chart to help determine actual engine power for your site. The derate factors shown do not take into account external cooling system capacity. The derate factors provided assume the external cooling system can maintain the specified cooling water temperatures at site conditions.

ACTUAL ENGINE RATING:

To determine the actual rating of the engine at site conditions, one must consider separately, limitations due to fuel characteristics and air system limitations. The Fuel Usage Guide deration establishes fuel limitations. The Altitude/Temperature deration factors and RPC (reference the Caterpillar Methane Program) establish air system limitations. RPC comes into play when the Altitude/Temperature deration is less than 1.0 (100%). Under this condition, add the two factors together. When the site conditions do not require an Altitude/Temperature derate (factor is 1.0), it is assumed the turbocharger has sufficient capability to overcome the low fuel relative power, and RPC is ignored. To determine the actual power available, take the lowest rating between 1) and 2).

- 1) Fuel Usage Guide Deration
- 2) $1 - ((1 - \text{Altitude/Temperature Deration}) + (1 - \text{RPC}))$

AFTERCOOLER HEAT REJECTION FACTORS(ACHRF):

To maintain a constant air inlet manifold temperature, as the inlet air temperature goes up, so must the heat rejection. As altitude increases, the turbocharger must work harder to overcome the lower atmospheric pressure. This increases the amount of heat that must be removed from the inlet air by the aftercooler. Use the aftercooler heat rejection factor (ACHRF) to adjust for inlet air temp and altitude conditions. See notes 31 and 32 for application of this factor in calculating the heat exchanger sizing criteria. Failure to properly account for these factors could result in detonation and cause the engine to shutdown or fail.

INLET AND EXHAUST RESTRICTIONS FOR ALTITUDE CAPABILITY:

The altitude derate chart is based on the maximum inlet and exhaust restrictions provided on page 1. Contact factory for restrictions over the specified values. Heavy Derates for higher restrictions will apply.

NOTES:

1. Fuel pressure range specified is to the engine fuel control valve. Additional fuel train components should be considered in pressure and flow calculations.
2. Generator efficiencies, power factor, and voltage are based on standard generator. [Genset Power (ekW) is calculated as: (Engine Power (bkW) - Gearbox Power (bkW)) x Generator Efficiency], [Genset Power (kVA) is calculated as: (Engine Power (bkW) - Gearbox Power (bkW)) x Generator Efficiency / Power Factor]
3. Rating is with two engine driven water pumps. Tolerance is (+)3, (-)0% of full load.
4. Efficiency represents a Closed Crankcase Ventilation (CCV) system installed on the engine.
5. Genset Efficiency published in accordance with ISO 3046/1, based on a 1.0 power factor.
6. Thermal Efficiency is calculated based on energy recovery from the jacket water, lube oil, 1st stage aftercooler, and exhaust to 248°F with engine operation at ISO 3046/1 Genset Efficiency, and assumes unburned fuel is converted in an oxidation catalyst.
7. Total efficiency is calculated as: Genset Efficiency + Thermal Efficiency. Tolerance is ±10% of full load data.
8. ISO 3046/1 Genset fuel consumption tolerance is (+)5, (-)0% at the specified power factor. Nominal genset and engine fuel consumption tolerance is ± 1.5% of full load data at the specified power factor.
9. Air flow value is on a 'wet' basis. Flow is a nominal value with a tolerance of ± 5 %.
10. Inlet manifold pressure is a nominal value with a tolerance of ± 5 %.
11. Inlet manifold temperature is a set point nominal value. Aftercooler Stage 2 inlet temperature should be controlled to the rated value with a tolerance of (+)5.4°F, (-)0°F to obtain nominal inlet manifold temperature with a tolerance of (+)5.4°F, (-)0°F.
12. Timing indicated is for use with the minimum fuel methane number specified. Consult the appropriate fuel usage guide for timing at other methane numbers.
13. Exhaust temperature is a nominal value with a tolerance of (+)63°F, (-)54°F.
14. Exhaust flow value is on a 'wet' basis. Flow is a nominal value with a tolerance of ± 6 %.
15. Inlet and Exhaust Restrictions are maximum allowed values at the corresponding loads. Increasing restrictions beyond what is specified will result in a significant engine derate.
16. Emissions data is at engine exhaust flange prior to any after treatment.
17. NOx tolerances are ± 18% of specified value.
18. CO, CO2, THC, NMHC, NMNEHC, and HCHO are the maximum values expected under steady state conditions. THC, NMHC, and NMNEHC do not include aldehydes. An oxidation catalyst may be required to meet Federal, State or local CO or HC requirements.
19. VOCs - Volatile organic compounds as defined in US EPA 40 CFR 60, subpart JJJJ
20. Exhaust Oxygen tolerance is ± 0.5; Lambda tolerance is ± 0.05. Lambda and Exhaust Oxygen level are the result of adjusting the engine to operate at the specified NOx level.
21. LHV rate tolerance is ± 1.5%.
22. Heat rejection to jacket water value displayed includes heat to jacket water alone. Value is based on treated water. Tolerance is ± 10% of full load data.
23. Heat rejection to atmosphere based on treated water. Tolerance is ± 50% of full load data.
24. Lube oil heat rate based on treated water. Tolerance is ± 20% of full load data.
25. Exhaust heat rate based on treated water. Tolerance is ± 10% of full load data.
26. Heat rejection to exhaust (LHV to 77°F) value shown includes unburned fuel and is not intended to be used for sizing or recovery calculations.
27. Heat rejection to A/C - Stage 1 based on treated water. Tolerance is ±5% of full load data.
28. Heat rejection to A/C - Stage 2 based on treated water. Tolerance is ±5% of full load data.
29. Heat rejection to Gearbox based on treated water. Tolerance is ±5% of full load data.
30. Pump power includes engine driven jacket water and aftercooler water pumps. Engine brake power includes effects of pump power.
31. Total Jacket Water Circuit heat rejection is calculated as: $(JW \times 1.1) + (OC \times 1.2) + (1AC \times 1.05) + [0.725 \times (1AC + 2AC) \times (ACHRF - 1) \times 1.05]$. Heat exchanger sizing criterion is maximum circuit heat rejection at site conditions, with applied tolerances. A cooling system safety factor may be multiplied by the total circuit heat rejection to provide additional margin.
32. Total Second Stage Aftercooler Circuit heat rejection is calculated as: $(2AC \times 1.05) + [(1AC + 2AC) \times 0.275 \times (ACHRF - 1) \times 1.05] + (GB \times 1.05)$. Heat exchanger sizing criterion is maximum circuit heat rejection at site conditions, with applied tolerances. A cooling system safety factor may be multiplied by the total circuit heat rejection to provide additional margin.

FREE FIELD MECHANICAL & EXHAUST NOISE

MECHANICAL: Sound Power (1/3 Octave Frequencies)

Gen Power Without Fan	Percent Load	Engine Power	Overall	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz
ekW	%	bhp	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
2469	100	3448	121.9	84.9	96.4	96.1	98.4	100.7	106.8	105.2	105.9	106.3	107.5
1852	75	2591	119.1	84.1	94.8	94.8	96.3	97.6	105.0	103.1	104.2	104.3	106.1
1235	50	1742	116.8	81.3	91.7	92.2	94.3	96.6	103.2	100.9	102.6	103.4	107.0

MECHANICAL: Sound Power (1/3 Octave Frequencies)

Gen Power Without Fan	Percent Load	Engine Power	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
ekW	%	bhp	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
2469	100	3448	105.3	107.8	108.0	106.6	106.9	105.9	105.4	112.9	117.9	111.7	105.6
1852	75	2591	103.7	106.5	107.0	105.2	105.8	105.9	106.5	114.5	104.8	107.8	101.0
1235	50	1742	102.6	105.6	106.3	104.3	105.1	105.2	108.8	104.6	101.7	104.0	94.4

EXHAUST: Sound Power (1/3 Octave Frequencies)

Gen Power Without Fan	Percent Load	Engine Power	Overall	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz
ekW	%	bhp	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
2469	100	3448	129.3	92.5	104.2	113.3	114.1	108.4	111.3	117.7	115.4	118.0	116.3
1852	75	2591	126.2	90.2	108.1	113.5	113.1	103.5	105.5	110.3	110.1	110.5	109.0
1235	50	1742	123.3	87.8	105.6	114.5	112.7	99.2	101.5	104.5	102.8	101.7	102.9

EXHAUST: Sound Power (1/3 Octave Frequencies)

Gen Power Without Fan	Percent Load	Engine Power	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
ekW	%	bhp	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
2469	100	3448	116.7	116.8	116.7	117.2	118.2	118.8	116.9	117.2	119.2	116.6	113.5
1852	75	2591	109.7	110.1	113.7	115.6	116.3	116.5	116.2	116.1	116.3	112.8	111.9
1235	50	1742	103.5	104.4	109.9	112.5	114.2	113.8	112.8	112.4	111.6	110.6	109.7

SOUND PARAMETER DEFINITION:

Sound Power Level Data - DM8702-03

Sound power is defined as the total sound energy emanating from a source irrespective of direction or distance. Sound power level data is presented under two index headings:

- Sound power level – Mechanical
- Sound power level – Exhaust

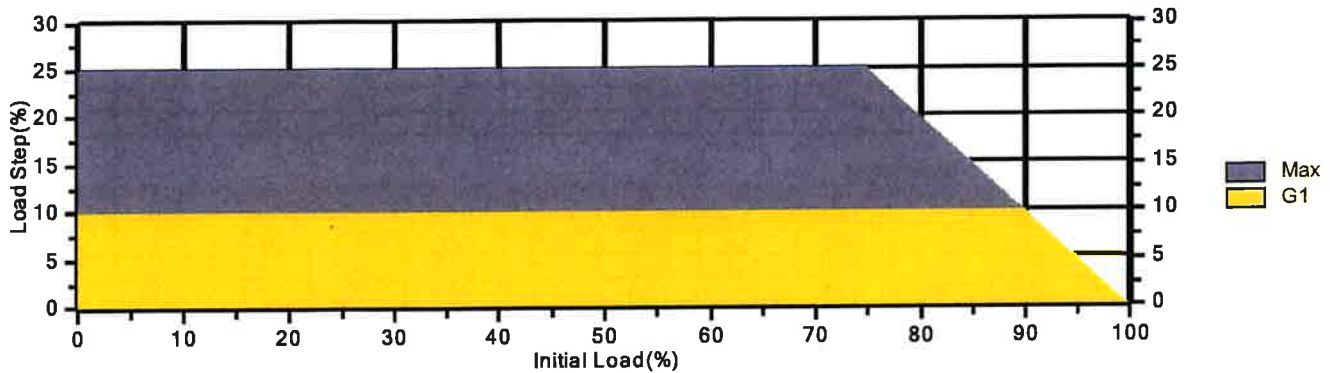
Mechanical: Sound power level data is calculated in accordance with ISO 3747. The data is recorded with the exhaust sound source isolated.

Exhaust: Sound power level data is calculated in accordance with ISO 6798 Annex A. Exhaust data is post-catalyst on gas engine ratings labeled as "Integrated Catalyst".

Measurements made in accordance with ISO 3747 and ISO 6798 for mechanical and exhaust sound level only. Frequency bands outside the displayed ranges are not measured, due to physical test, and environmental conditions that affect the accuracy of the measurement. No cooling system noise is included unless specifically indicated. Sound level data is indicative of noise levels recorded on one engine sample in a survey grade 3 environment.

How an engine is packaged, installed and the site acoustical environment will affect the site specific sound levels. For site specific sound level guarantees, sound data collection needs to be done on-site or under similar conditions.

Load Acceptance



Transient Load Acceptance					
Load Step	Frequency Deviation +/- (%)	Voltage Deviation +/- (%)	Recovery Time (sec)	Classification as Defined by ISO 8528 - 5	Notes
25	+5/-15	+10/-25	30		
20	+8/-13	+11/-19	22.5		
15	+10/-10	+12/-12	15		
10	+10/-10	+14/-14	10	G1	2
5	+6/-6	+6/-6	10	G1	2
-10	+10/-10	+14/-14	10		
-15	+10/-10	+12/-12	15		
-25	+18/-10	+10/-10	25		
Breaker Open	+24/-15	+18/-15	20		1
Recovery Specification	+1.75/-1.75	+5/-5			
Steady State Specification	+1.25/-1.25	+5/-5			

Transient Information

The transient load steps listed above are stated as a percentage of the engine's full rated load as indicated in the appropriate performance technical data sheet. Site ambient conditions, fuel quality, inlet/exhaust restriction and emissions settings will all affect engine response to load change. Engines that are not operating at the standard conditions stated in the Technical data sheet should be set up according to the guidelines included in the technical data; applying timing changes and/or engine derates as needed. Adherence to the engine settings guidelines will allow the engines to retain the transient performance stated in the tables above as a percentage of the site derated power (where appropriate). Fuel supply pressure and stability is critical to transient performance. Proper installation requires that all fuel train components (including filters, shut off valves, and regulators) be sized to ensure adequate fuel be delivered to the engine. The following are fuel pressure requirements to be measured at the engine mounted fuel control valve.

- a. Steady State Fuel Pressure Stability +/- .15 psi/sec
- b. Transient fuel Pressure Stability +/- .15 psi/sec

Inlet water temperature to the SCAC must be maintained at specified value for all engines. It is important that the external cooling system design is able to maintain the Inlet water temp to the SCAC to within +/- 1 °C during all engine-operating cycles. The SCAC inlet temperature stability criterion is to maintain stable inlet manifold air temperature. The Air Fuel Ratio control system requires up to 180 seconds to converge after a load step has been performed for NOx to return to nominal setting. If the stabilization time is not met between load steps the transient performance listed in the document may not be met. Differences in generator inertia may change the transient response of engine. Engine Governor gains and Voltage regulator settings may need to be tuned for site conditions. The time needed to start and stabilize at rated engine speed is a minimum of 60 seconds after a successful crank cycle. Engines must be maintained in accordance to guidelines specified in the Caterpillar Service Manuals applicable to each engine. Wear of components outside of the specified tolerances will affect the transient capability of the engine. Transient performance data is representative of a "Hot" (previously loaded or fully heat soaked) genset.

NOTES

1. For unloading the engine to 0% load from a loaded condition no external input is needed. The engine control algorithm employs a load sensing strategy to determine a load drop. In the event that the local generator breaker opens the strategy provides control to the engine that resets all control inputs to the rated idle condition. This prevents engine over speeding and will allow the engine to remain running unloaded at the rated synchronous speed.
2. The engines specified above have been tested against the voltage deviation, frequency deviation, and recovery time requirements defined in ISO 8528 - 5. At this time the engines stated above will meet class G1 transient performance as defined by ISO 8528 - 5 with exceptions.

ATTACHMENT 5



MAR 12 2020

Mr. Phil Kairis
VP Reliability Solutions
NRG Curtailment Solutions, Inc.
17685 Juniper Path
Lakeville, Minnesota 55044

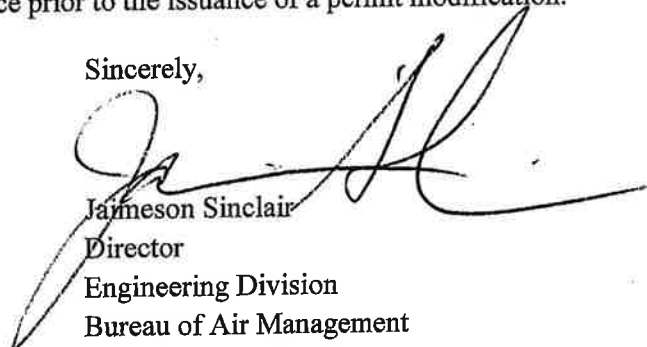
Dear Mr. Kairis:

Enclosed are copies of your new permits to construct and operate four 2.5 MW Caterpillar natural gas fired generators, Model No. G3520H at the above location.

This letter does not relieve you of the responsibility to comply with the requirements of other appropriate Federal, State, and municipal agencies. These permits are not transferable from one permittee to another without prior written approval, from one location to another, or from one piece of equipment to another. The permits must be made available at the site of operation throughout the period that such permit is in effect.

Permit renewal applications must be filed at least one hundred twenty (120) days prior to the permit expiration date, if applicable. Pursuant to Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA), NRG Curtailment Solutions, Inc. must apply for a permit modification/revision in writing if it plans any physical change, change in method of operation, or addition to this source which constitutes a modification or revision pursuant to RCSA sections 22a-174-1 and 22a-174-2a, respectively. Any such changes should first be discussed with Mr. Kevin J. O'Neil of the Bureau of Air Management, by calling (860) 424-4152. Such changes shall not commence prior to the issuance of a permit modification.

Sincerely,



Jameson Sinclair
Director
Engineering Division
Bureau of Air Management

JS:KJO:jad
cc (via electronic mail): Keith Hill, Air Enforcement
Enclosure



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	NRG Curtailment Solutions, Inc.
Address	804 Carnegie Center, Princeton, NJ
Equipment Location	ESPN Campus, 935 Middle Street, Bristol CT
Equipment Description	2.5 MW Caterpillar Natural Gas-fired Generator Model No. G3520H (EU-19)
Town-Permit Numbers	026-0117
Premises Number	229
Stack Number	19
Permit Issue Date	MAR 12 2020
Expiration Date	None


Betsey C. Wingfield
Deputy Commissioner


Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

NRG Curtailment Solutions LLC provides private demand response services. It is a subsidiary of NRG Energy, Inc. the company, in an agreement with ESPN, Inc., has installed four 2.5 MW Caterpillar Model No. G3520H natural gas fired generators at the ESPN Campus located in Bristol, CT. These generators are to be interconnected behind the customer's utility meter and operated primarily when requested to do so by ISO New England in support of the demand response program designed to reduce the strain on the grid and increase reliability. The intent of the generated power on the campus is to be consumed on-site during demand response runs, economic peak shaving, and emergency situations; no power will be exported to the ISO-NE grid. These engines are designated as EU-17 through EU-20. Two of these engines are located in Generator Plant 1B and two are located in Generator Plant 2B. EU-19 shall operate in accordance with Permit No. 026-0117 and is located in Generator Plant 2B.

B. Equipment Design Specifications

1. Fuel Type: Natural Gas
2. Maximum Fuel Firing Rate (MCF/hr): 22.5
3. Maximum Gross Heat Input (MMBtu/hr): 20.36

C. Control Equipment Design Specifications

1. Oxidation Catalyst
 - a. Catalyst Elements by Clariant Corporation / Housing by Harco Manufacturing
 - b. Catalyst Type: CO, VOC, Formaldehyde and Acrolein Reduction
2. Minimum CO Reduction Efficiency: 99.0%
3. Minimum VOC Reduction Efficiency: 89.7%
4. Minimum Formaldehyde Reduction Efficiency: 99.1%

D. Stack Parameters

1. Minimum Stack Height (ft): 42
2. Stack Inside Diameter (ft): 2.0
3. Minimum Exhaust Gas Flow Rate (acfm): 15,882
4. Minimum Stack Exit Temperature (°F): 734
5. Minimum Distance from Stack to Nearest Property Line (ft): 98

PART II. OPERATIONAL CONDITIONS

A. Equipment

1. Maximum Operating Hours over any Consecutive 12 Month Period (hr): 1,750
2. Maximum Allowable Fuel Consumption over any Consecutive 12 Month Period (MMCF): 39.375

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Short Term Emission Limits

These short term emission limits do not apply during periods of startup and shutdown, unless otherwise noted.

1. Criteria Pollutants

Pollutant	lb/hr	gm/bhp-hr
PM	0.033	
PM ₁₀	0.033	
PM _{2.5}	0.033	
SO ₂	0.012	
NO _x	3.801	0.50
VOC	0.305	0.04
CO	0.144	0.019

2. Non-Criteria Pollutants

Pollutant	lb/hr
Formaldehyde	0.0178
Acrolein	0.00733

B. Startup and Shutdown Emission Limits

1. CO emissions shall not exceed 3.6 pounds per startup event and 1.2 pounds per shutdown event.
2. VOC emissions shall not exceed 0.75 pounds per startup event and 0.25 pounds per shutdown event.
3. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints:

- a. The oxidation catalyst shall not be bypassed during startup or shutdown;
 - b. The duration of startup shall not exceed 15 minutes;
 - c. The duration of shutdown shall not exceed 5 minutes.
4. Emissions during these periods shall be counted towards the annual emission limits stated herein.

C. Allowable Annual Emission Limits

Pollutant	Tons per 12 Consecutive Months
PM	0.03
PM ₁₀	0.03
PM _{2.5}	0.03
SO ₂	0.0105
NO _x	3.33
VOC	0.43
CO	0.99

D. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCMA Section 22a-174-29. [STATE ONLY REQUIREMENT]

E. Opacity

Opacity resulting from operation of this engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

F. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- NO_x, CO, Acrolein and Formaldehyde: Most recent Department approved stack test
- PM₁₀/PM_{2.5}, and VOC: Manufacturer's Data
- SO₂: AP-42 5. Edition

G. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter.
2. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.

3. The Permittee shall perform inspections of the control device as recommended by the manufacturer.
4. In accordance with RCSA §22a-174-22f(f) the Permittee shall perform an inspection and tune-up of the engine a minimum of once per calendar year. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted in accordance with the requirements of RCSA §22a-174-22f(f). The inspection and tune-up of the engine shall be conducted according to the manufacturer's procedures or, if the manufacturer's recommendations are not available, according to best available practices.

B. Record Keeping

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of monthly and consecutive 12 month hours of operation. The consecutive 12 month hours of operation shall be determined by adding the current month's hours of operation to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall calculate and record the monthly and consecutive 12 month PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

Emissions during startup and shutdown shall be counted towards the annual emission limitation in Part III.C of this permit.

4. The Permittee shall continuously record and maintain records of the oxidation catalyst inlet temperature (°F).
5. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this equipment; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR §60.7(b)]

Such records shall contain the following information:

- a. type of event (startup, shutdown, or malfunction);
 - b. equipment affected;
 - c. date of event;
 - d. duration of event (minutes);
 - e. fuel being used during event; and
 - f. total VOC and CO emissions emitted (lb) during the event.
6. The Permittee shall keep records of all inspections, tune-ups, and maintenance of the engine and oxidation catalyst. The records shall include:
 - a. the name of the person;
 - b. the date;

- c. the results or actions; and
- d. the date the catalyst is replaced.

7. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall notify the commissioner in writing of any malfunction of the engine, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:
 - a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
 - b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.
2. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.

PART V. STACK EMISSION TEST REQUIREMENTS

A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.

B. Stack testing shall be required for the following pollutants:

- PM PM₁₀ PM_{2.5} SO₂ NO_x CO
 VOC Opacity Other (HAPs): Acrolein, Formaldehyde

C. The Permittee shall conduct initial stack testing for the above pollutants within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The Permittee shall submit test results within 60 days after completion of testing.

D. For testing being conducted pursuant to 40 CFR Part 60, the test report shall be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate. [40 CFR §60.8(a)]

E. Recurrent stack testing for the above pollutants shall be conducted within five years from the date of the previous stack test.

- F. Stack test results shall be reported as follows:
- a. NO_x & CO: lb/hr, gm/bhp-hr, and lb/MW-hr
 - b. HAPs: lb/hr, and µg/m³

PART VI. OPERATION AND MAINTENANCE REQUIREMENTS

A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

- B. The Permittee shall operate and maintain this equipment, any air pollution control equipment, and any monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction.
- C. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

PART VII. SPECIAL REQUIREMENTS

- A. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60 Subparts: JJJJ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 63 Subparts: ZZZZ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

C. Premises Emissions Summary

1. On January 1st of each calendar year, if the potential emissions of NO_x and/or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
 - a. Monitor NO_x and/or VOC emissions, as applicable, from the premises for such calendar year.
 - b. Calculate and record annual NO_x and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1st of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
 - c. If actual NO_x and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1st of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.
2. A Permittee with either of the following premises is exempt from Part VII.C.1 requirements of this permit if, on January 1st of the subject year, the:
 - a. Premises is operating in accordance with a valid Title V permit issued pursuant to RCSCA section 22a-174-33; or
 - b. Premises is operating in accordance with a valid Approval of Registration issued pursuant to the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution issued on November 9, 2015.

- D. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute

shutdown of the engine.

- E. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- F. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

PART VIII. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

- H.** The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I.** Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	NRG Curtailment Solutions, Inc.
Address	804 Carnegie Center, Princeton, NJ
Equipment Location	ESPN Campus, 935 Middle Street, Bristol CT
Equipment Description	2.5 MW Caterpillar Natural Gas-fired Generator Model No. G3520H (EU-20)
Town-Permit Numbers	026-0118
Premises Number	229
Stack Number	20
Permit Issue Date	MAR 12 2020
Expiration Date	None


Betsey C. Wingfield
Deputy Commissioner

3/12/2020
Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

NRG Curtailment Solutions LLC provides private demand response services. It is a subsidiary of NRG Energy, Inc. the company, in an agreement with ESPN, Inc., has installed four 2.5 MW Caterpillar Model No. G3520H natural gas fired generators at the ESPN Campus located in Bristol, CT. These generators are to be interconnected behind the customer's utility meter and operated primarily when requested to do so by ISO New England in support of the demand response program designed to reduce the strain on the grid and increase reliability. The intent of the generated power on the campus is to be consumed on-site during demand response runs, economic peak shaving, and emergency situations; no power will be exported to the ISO-NE grid. These engines are designated as EU-17 through EU-20. Two of these engines are located in Generator Plant 1B and two are located in Generator Plant 2B. EU-20 shall operate in accordance with Permit No. 026-0118 and is located in Generator Plant 2B.

B. Equipment Design Specifications

1. Fuel Type: Natural Gas
2. Maximum Fuel Firing Rate (MCF/hr): 22.5
3. Maximum Gross Heat Input (MMBtu/hr): 20.36

C. Control Equipment Design Specifications

1. Oxidation Catalyst
 - a. Catalyst Elements by Clariant Corporation / Housing by Harco Manufacturing
 - b. Catalyst Type: CO, VOC, Formaldehyde and Acrolein Reduction
2. Minimum CO Reduction Efficiency: 99.0%
3. Minimum VOC Reduction Efficiency: 89.7%
4. Minimum Formaldehyde Reduction Efficiency: 99.1%

D. Stack Parameters

1. Minimum Stack Height (ft): 42
2. Stack Inside Diameter (ft): 2.0
3. Minimum Exhaust Gas Flow Rate (acfm): 15,882
4. Minimum Stack Exit Temperature (°F): 734
5. Minimum Distance from Stack to Nearest Property Line (ft): 98

PART II. OPERATIONAL CONDITIONS

A. Equipment

1. Maximum Operating Hours over any Consecutive 12 Month Period (hr): 1,750
2. Maximum Allowable Fuel Consumption over any Consecutive 12 Month Period (MMCF): 39.375

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Short Term Emission Limits

These short term emission limits do not apply during periods of startup and shutdown, unless otherwise noted.

1. Criteria Pollutants

Pollutant	lb/hr	gm/bhp-hr
PM	0.033	
PM ₁₀	0.033	
PM _{2.5}	0.033	
SO ₂	0.012	
NO _x	3.801	0.50
VOC	0.305	0.04
CO	0.144	0.019

2. Non-Criteria Pollutants

Pollutant	lb/hr
Formaldehyde	0.0178
Acrolein	0.00733

B. Startup and Shutdown Emission Limits

1. CO emissions shall not exceed 3.6 pounds per startup event and 1.2 pounds per shutdown event.
2. VOC emissions shall not exceed 0.75 pounds per startup event and 0.25 pounds per shutdown event.
3. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints:

- a. The oxidation catalyst shall not be bypassed during startup or shutdown;
 - b. The duration of startup shall not exceed 15 minutes;
 - c. The duration of shutdown shall not exceed 5 minutes.
4. Emissions during these periods shall be counted towards the annual emission limits stated herein.

C. Allowable Annual Emission Limits

Pollutant	Tons per 12 Consecutive Months
PM	0.03
PM ₁₀	0.03
PM _{2.5}	0.03
SO ₂	0.0105
NO _x	3.33
VOC	0.43
CO	0.99

D. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA Section 22a-174-29. [STATE ONLY REQUIREMENT]

E. Opacity

Opacity resulting from operation of this engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

- F. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- NO_x, CO, Acrolein and Formaldehyde: Most recent Department approved stack test
- PM₁₀/PM_{2.5}, and VOC: Manufacturer's Data
- SO₂: AP-42 5. Edition

- G. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter.
2. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.

3. The Permittee shall perform inspections of the control device as recommended by the manufacturer.
4. In accordance with RCSA §22a-174-22f(f) the Permittee shall perform an inspection and tune-up of the engine a minimum of once per calendar year. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted in accordance with the requirements of RCSA §22a-174-22f(f). The inspection and tune-up of the engine shall be conducted according to the manufacturer's procedures or, if the manufacturer's recommendations are not available, according to best available practices.

B. Record Keeping

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of monthly and consecutive 12 month hours of operation. The consecutive 12 month hours of operation shall be determined by adding the current month's hours of operation to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall calculate and record the monthly and consecutive 12 month PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

Emissions during startup and shutdown shall be counted towards the annual emission limitation in Part III.C of this permit.

4. The Permittee shall continuously record and maintain records of the oxidation catalyst inlet temperature (°F).
5. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this equipment; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR §60.7(b)]

Such records shall contain the following information:

- a. type of event (startup, shutdown, or malfunction);
 - b. equipment affected;
 - c. date of event;
 - d. duration of event (minutes);
 - e. fuel being used during event; and
 - f. total VOC and CO emissions emitted (lb) during the event.
6. The Permittee shall keep records of all inspections, tune-ups, and maintenance of the engine and oxidation catalyst. The records shall include:
 - a. the name of the person;
 - b. the date;
 - c. the results or actions; and

d. the date the catalyst is replaced.

7. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall notify the commissioner in writing of any malfunction of the engine, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:
 - a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
 - b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.
2. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.

PART V. STACK EMISSION TEST REQUIREMENTS

- A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.
- B. Stack testing shall be required for the following pollutants:

<input type="checkbox"/> PM	<input type="checkbox"/> PM ₁₀	<input type="checkbox"/> PM _{2.5}	<input type="checkbox"/> SO ₂	<input checked="" type="checkbox"/> NO _x	<input checked="" type="checkbox"/> CO
<input checked="" type="checkbox"/> VOC	<input type="checkbox"/> Opacity	<input checked="" type="checkbox"/> Other (HAPs): Acrolein, Formaldehyde			
- C. The Permittee shall conduct initial stack testing for the above pollutants within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The Permittee shall submit test results within 60 days after completion of testing.
- D. For testing being conducted pursuant to 40 CFR Part 60, the test report shall be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate. [40 CFR §60.8(a)]
- E. Recurrent stack testing for the above pollutants shall be conducted within five years from the date of the previous stack test.
- F. Stack test results shall be reported as follows:
 - a. NO_x & CO: lb/hr, gm/bhp-hr, and lb/MW-hr
 - b. HAPs: lb/hr, and µg/m³

PART VI. OPERATION AND MAINTENANCE REQUIREMENTS

- A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
- B. The Permittee shall operate and maintain this equipment, any air pollution control equipment, and

any monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction.

- C. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

PART VII. SPECIAL REQUIREMENTS

- A. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60 Subparts: JJJJ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 63 Subparts: ZZZZ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

C. Premises Emissions Summary

1. On January 1st of each calendar year, if the potential emissions of NO_x and/or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
 - a. Monitor NO_x and/or VOC emissions, as applicable, from the premises for such calendar year.
 - b. Calculate and record annual NO_x and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1st of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
 - c. If actual NO_x and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1st of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.

2. A Permittee with either of the following premises is exempt from Part VII.C.1 requirements of this permit if, on January 1st of the subject year, the:
 - a. Premises is operating in accordance with a valid Title V permit issued pursuant to RCSCA section 22a-174-33; or
 - b. Premises is operating in accordance with a valid Approval of Registration issued pursuant to the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution issued on November 9, 2015.

- D. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute shutdown of the engine.

- E. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- F. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

PART VIII. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner

under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

- I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.



Connecticut Department of

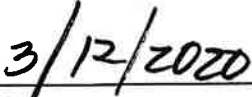
**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	NRG Curtailment Solutions, Inc.
Address	804 Carnegie Center, Princeton, NJ
Equipment Location	ESPN Campus, 935 Middle Street, Bristol CT
Equipment Description	2.5 MW Caterpillar Natural Gas-fired Generator Model No. G3520H (EU-17)
Town-Permit Numbers	026-0115
Premises Number	229
Stack Number	17
Permit Issue Date	MAR 12 2020
Expiration Date	None


Betsey C. Wingfield
Deputy Commissioner


Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

NRG Curtailment Solutions LLC provides private demand response services. It is a subsidiary of NRG Energy, Inc. the company, in an agreement with ESPN, Inc., has installed four 2.5 MW Caterpillar Model No. G3520H natural gas fired generators at the ESPN Campus located in Bristol, CT. These generators are to be interconnected behind the customer's utility meter and operated primarily when requested to do so by ISO New England in support of the demand response program designed to reduce the strain on the grid and increase reliability. The intent of the generated power on the campus is to be consumed on-site during demand response runs, economic peak shaving, and emergency situations; no power will be exported to the ISO-NE grid. These engines are designated as EU-17 through EU-20. Two of these engines are located in Generator Plant 1B and two are located in Generator Plant 2B. EU-17 shall operate in accordance with Permit No. 026-0115 and is located in Generator Plant 1B.

B. Equipment Design Specifications

1. Fuel Type: Natural Gas
2. Maximum Fuel Firing Rate (MCF/hr): 22.5
3. Maximum Gross Heat Input (MMBtu/hr): 20.36

C. Control Equipment Design Specifications

1. Oxidation Catalyst
 - a. Catalyst Elements by Clariant Corporation / Housing by Harco Manufacturing
 - b. Catalyst Type: CO, VOC, Formaldehyde and Acrolein Reduction
2. Minimum CO Reduction Efficiency: 99.0%
3. Minimum VOC Reduction Efficiency: 89.7%
4. Minimum Formaldehyde Reduction Efficiency: 99.1%

D. Stack Parameters

1. Minimum Stack Height (ft): 45
2. Stack Inside Diameter (ft): 2.0
3. Minimum Exhaust Gas Flow Rate (acfm): 15,882
4. Minimum Stack Exit Temperature (°F): 734
5. Minimum Distance from Stack to Nearest Property Line (ft): 115

PART II. OPERATIONAL CONDITIONS

A. Equipment

- 1. Maximum Operating Hours over any Consecutive 12 Month Period (hr): 1,750
- 2. Maximum Allowable Fuel Consumption over any Consecutive 12 Month Period (MMCF): 39.375

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Short Term Emission Limits

These short term emission limits do not apply during periods of startup and shutdown, unless otherwise noted.

1. Criteria Pollutants

Pollutant	lb/hr	gm/bhp-hr
PM	0.033	
PM ₁₀	0.033	
PM _{2.5}	0.033	
SO ₂	0.012	
NO _x	3.801	0.50
VOC	0.305	0.04
CO	0.144	0.019

2. Non-Criteria Pollutants

Pollutant	lb/hr
Formaldehyde	0.0178
Acrolein	0.00733

B. Startup and Shutdown Emission Limits

- 1. CO emissions shall not exceed 3.6 pounds per startup event and 1.2 pounds per shutdown event.
- 2. VOC emissions shall not exceed 0.75 pounds per startup event and 0.25 pounds per shutdown event.
- 3. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints:

- a. The oxidation catalyst shall not be bypassed during startup or shutdown;
 - b. The duration of startup shall not exceed 15 minutes;
 - c. The duration of shutdown shall not exceed 5 minutes.
4. Emissions during these periods shall be counted towards the annual emission limits stated herein.

C. Allowable Annual Emission Limits

Pollutant	Tons per 12 Consecutive Months
PM	0.03
PM ₁₀	0.03
PM _{2.5}	0.03
SO ₂	0.0105
NO _x	3.33
VOC	0.43
CO	0.99

D. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCMA Section 22a-174-29. [STATE ONLY REQUIREMENT]

E. Opacity

Opacity resulting from operation of this engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

F. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- NO_x, CO, Acrolein and Formaldehyde: Most recent Department approved stack test
- PM₁₀/PM_{2.5}, and VOC: Manufacturer's Data
- SO₂: AP-42 5. Edition

G. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter.
2. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.

3. The Permittee shall perform inspections of the control device as recommended by the manufacturer.
4. In accordance with RCSA §22a-174-22f(f) the Permittee shall perform an inspection and tune-up of the engine a minimum of once per calendar year. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted in accordance with the requirements of RCSA §22a-174-22f(f). The inspection and tune-up of the engine shall be conducted according to the manufacturer's procedures or, if the manufacturer's recommendations are not available, according to best available practices.

B. Record Keeping

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of monthly and consecutive 12 month hours of operation. The consecutive 12 month hours of operation shall be determined by adding the current month's hours of operation to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall calculate and record the monthly and consecutive 12 month PM_{10} , $PM_{2.5}$, SO_2 , NO_x , VOC, and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

Emissions during startup and shutdown shall be counted towards the annual emission limitation in Part III.C of this permit.

4. The Permittee shall continuously record and maintain records of the oxidation catalyst inlet temperature ($^{\circ}F$).
5. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this equipment; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR §60.7(b)]

Such records shall contain the following information:

- a. type of event (startup, shutdown, or malfunction);
 - b. equipment affected;
 - c. date of event;
 - d. duration of event (minutes);
 - e. fuel being used during event; and
 - f. total VOC and CO emissions emitted (lb) during the event.
6. The Permittee shall keep records of all inspections, tune-ups, and maintenance of the engine and oxidation catalyst. The records shall include:
 - a. the name of the person;
 - b. the date;

- c. the results or actions; and
 - d. the date the catalyst is replaced.
7. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall notify the commissioner in writing of any malfunction of the engine, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:
 - a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
 - b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.
2. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.

PART V. STACK EMISSION TEST REQUIREMENTS

- A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.
- B. Stack testing shall be required for the following pollutants:

<input type="checkbox"/> PM	<input type="checkbox"/> PM ₁₀	<input type="checkbox"/> PM _{2.5}	<input type="checkbox"/> SO ₂	<input checked="" type="checkbox"/> NO _x	<input checked="" type="checkbox"/> CO
<input type="checkbox"/> VOC	<input type="checkbox"/> Opacity	<input checked="" type="checkbox"/> Other (HAPs): Acrolein, Formaldehyde			
- C. The Permittee shall conduct initial stack testing for the above pollutants within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The Permittee shall submit test results within 60 days after completion of testing.
- D. For testing being conducted pursuant to 40 CFR Part 60, the test report shall be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate. [40 CFR §60.8(a)]
- E. Recurrent stack testing for the above pollutants shall be conducted within five years from the date of the previous stack test.
- F. Stack test results shall be reported as follows:
 - a. NO_x & CO: lb/hr, gm/bhp-hr, and lb/MW-hr
 - b. HAPs: lb/hr, and µg/m³

PART VI. OPERATION AND MAINTENANCE REQUIREMENTS

- A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

- B. The Permittee shall operate and maintain this equipment, any air pollution control equipment, and any monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction.
- C. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

PART VII. SPECIAL REQUIREMENTS

- A. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60 Subparts: JJJJ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 63 Subparts: ZZZZ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- C. **Premises Emissions Summary**

- 1. On January 1st of each calendar year, if the potential emissions of NO_x and/or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
 - a. Monitor NO_x and/or VOC emissions, as applicable, from the premises for such calendar year.
 - b. Calculate and record annual NO_x and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1st of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
 - c. If actual NO_x and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1st of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.
- 2. A Permittee with either of the following premises is exempt from Part VII.C.1 requirements of this permit if, on January 1st of the subject year, the:
 - a. Premises is operating in accordance with a valid Title V permit issued pursuant to RCSCA section 22a-174-33; or
 - b. Premises is operating in accordance with a valid Approval of Registration issued pursuant to the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution issued on November 9, 2015.

- D. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute

shutdown of the engine.

- E. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- F. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

PART VIII. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

- H.** The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I.** Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	NRG Curtailment Solutions, Inc.
Address	804 Carnegie Center, Princeton, NJ
Equipment Location	ESPN Campus, 935 Middle Street, Bristol CT
Equipment Description	2.5 MW Caterpillar Natural Gas-fired Generator Model No. G3520H (EU-18)
Town-Permit Numbers	026-0116
Premises Number	229
Stack Number	18
Permit Issue Date	MAR 12 2020
Expiration Date	None


Betsey C. Wingfield
Deputy Commissioner

3/12/2020
Date

ORIGINAL

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

NRG Curtailment Solutions LLC provides private demand response services. It is a subsidiary of NRG Energy, Inc. the company, in an agreement with ESPN, Inc., has installed four 2.5 MW Caterpillar Model No. G3520H natural gas fired generators at the ESPN Campus located in Bristol, CT. These generators are to be interconnected behind the customer's utility meter and operated primarily when requested to do so by ISO New England in support of the demand response program designed to reduce the strain on the grid and increase reliability. The intent of the generated power on the campus is to be consumed on-site during demand response runs, economic peak shaving, and emergency situations; no power will be exported to the ISO-NE grid. These engines are designated as EU-17 through EU-20. Two of these engines are located in Generator Plant 1B and two are located in Generator Plant 2B. EU-18 shall operate in accordance with Permit No. 026-0116 and is located in Generator Plant 1B.

B. Equipment Design Specifications

1. Fuel Type: Natural Gas
2. Maximum Fuel Firing Rate (MCF/hr): 22.5
3. Maximum Gross Heat Input (MMBtu/hr): 20.36

C. Control Equipment Design Specifications

1. Oxidation Catalyst
 - a. Catalyst Elements by Clariant Corporation / Housing by Harco Manufacturing
 - b. Catalyst Type: CO, VOC, Formaldehyde and Acrolein Reduction
2. Minimum CO Reduction Efficiency: 99.0%
3. Minimum VOC Reduction Efficiency: 89.7%
4. Minimum Formaldehyde Reduction Efficiency: 99.1%

D. Stack Parameters

1. Minimum Stack Height (ft): 45
2. Stack Inside Diameter (ft): 2.0
3. Minimum Exhaust Gas Flow Rate (acfm): 15,882
4. Minimum Stack Exit Temperature (°F): 734
5. Minimum Distance from Stack to Nearest Property Line (ft): 115

PART II. OPERATIONAL CONDITIONS

A. Equipment

1. Maximum Operating Hours over any Consecutive 12 Month Period (hr): 1,750
2. Maximum Allowable Fuel Consumption over any Consecutive 12 Month Period (MMCF): 39.375

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Short Term Emission Limits

These short term emission limits do not apply during periods of startup and shutdown, unless otherwise noted.

1. Criteria Pollutants

Pollutant	lb/hr	gm/bhp-hr
PM	0.033	
PM ₁₀	0.033	
PM _{2.5}	0.033	
SO ₂	0.012	
NO _x	3.801	0.50
VOC	0.305	0.04
CO	0.144	0.019

2. Non-Criteria Pollutants

Pollutant	lb/hr
Formaldehyde	0.0178
Acrolein	0.00733

B. Startup and Shutdown Emission Limits

1. CO emissions shall not exceed 3.6 pounds per startup event and 1.2 pounds per shutdown event.
2. VOC emissions shall not exceed 0.75 pounds per startup event and 0.25 pounds per shutdown event.
3. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints:

- a. The oxidation catalyst shall not be bypassed during startup or shutdown;
 - b. The duration of startup shall not exceed 15 minutes;
 - c. The duration of shutdown shall not exceed 5 minutes.
4. Emissions during these periods shall be counted towards the annual emission limits stated herein.

C. Allowable Annual Emission Limits

Pollutant	Tons per 12 Consecutive Months
PM	0.03
PM ₁₀	0.03
PM _{2.5}	0.03
SO ₂	0.0105
NO _x	3.33
VOC	0.43
CO	0.99

D. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCRA Section 22a-174-29. [STATE ONLY REQUIREMENT]

E. Opacity

Opacity resulting from operation of this engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

F. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- NO_x, CO, Acrolein and Formaldehyde: Most recent Department approved stack test
- PM₁₀/PM_{2.5}, and VOC: Manufacturer's Data
- SO₂: AP-42 5. Edition

G. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter.
2. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.

3. The Permittee shall perform inspections of the control device as recommended by the manufacturer.
4. In accordance with RCSA §22a-174-22f(f) the Permittee shall perform an inspection and tune-up of the engine a minimum of once per calendar year. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted in accordance with the requirements of RCSA §22a-174-22f(f). The inspection and tune-up of the engine shall be conducted according to the manufacturer's procedures or, if the manufacturer's recommendations are not available, according to best available practices.

B. Record Keeping

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of monthly and consecutive 12 month hours of operation. The consecutive 12 month hours of operation shall be determined by adding the current month's hours of operation to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall calculate and record the monthly and consecutive 12 month PM_{10} , $PM_{2.5}$, SO_2 , NO_x , VOC , and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

Emissions during startup and shutdown shall be counted towards the annual emission limitation in Part III.C of this permit.

4. The Permittee shall continuously record and maintain records of the oxidation catalyst inlet temperature ($^{\circ}F$).
5. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this equipment; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR §60.7(b)]

Such records shall contain the following information:

- a. type of event (startup, shutdown, or malfunction);
 - b. equipment affected;
 - c. date of event;
 - d. duration of event (minutes);
 - e. fuel being used during event; and
 - f. total VOC and CO emissions emitted (lb) during the event.
6. The Permittee shall keep records of all inspections, tune-ups, and maintenance of the engine and oxidation catalyst. The records shall include:
 - a. the name of the person;
 - b. the date;

- c. the results or actions; and
- d. the date the catalyst is replaced.

7. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall notify the commissioner in writing of any malfunction of the engine, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:
 - a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
 - b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.
2. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.

PART V. STACK EMISSION TEST REQUIREMENTS

- A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.
- B. Stack testing shall be required for the following pollutants:

<input type="checkbox"/> PM	<input type="checkbox"/> PM ₁₀	<input type="checkbox"/> PM _{2.5}	<input type="checkbox"/> SO ₂	<input checked="" type="checkbox"/> NO _x	<input checked="" type="checkbox"/> CO
<input type="checkbox"/> VOC	<input type="checkbox"/> Opacity	<input checked="" type="checkbox"/> Other (HAPs): Acrolein, Formaldehyde			
- C. The Permittee shall conduct initial stack testing for the above pollutants within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The Permittee shall submit test results within 60 days after completion of testing.
- D. For testing being conducted pursuant to 40 CFR Part 60, the test report shall be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate. [40 CFR §60.8(a)]
- E. Recurrent stack testing for the above pollutants shall be conducted within five years from the date of the previous stack test.
- F. Stack test results shall be reported as follows:
 - a. NO_x & CO: lb/hr, gm/bhp-hr, and lb/MW-hr
 - b. HAPs: lb/hr, and µg/m³

PART VI. OPERATION AND MAINTENANCE REQUIREMENTS

- A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

- B. The Permittee shall operate and maintain this equipment, any air pollution control equipment, and any monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction.
- C. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

PART VII. SPECIAL REQUIREMENTS

- A. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60 Subparts: JJJJ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 63 Subparts: ZZZZ and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

C. Premises Emissions Summary

1. On January 1st of each calendar year, if the potential emissions of NO_x and/or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
 - a. Monitor NO_x and/or VOC emissions, as applicable, from the premises for such calendar year.
 - b. Calculate and record annual NO_x and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1st of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
 - c. If actual NO_x and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1st of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.
2. A Permittee with either of the following premises is exempt from Part VII.C.1 requirements of this permit if, on January 1st of the subject year, the:
 - a. Premises is operating in accordance with a valid Title V permit issued pursuant to RCSA section 22a-174-33; or
 - b. Premises is operating in accordance with a valid Approval of Registration issued pursuant to the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution issued on November 9, 2015.

- D. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute

shutdown of the engine.

- E. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- F. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

PART VIII. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

- H.** The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I.** Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

ATTACHMENT 6

November 11, 2019

Mr. Brian Soucy
 Facilities Engineering Associates, P.C.
 128 Garden Street
 Farmington, CT 06032

SUBJECT: Acoustic Evaluation
 Natural Gas Generators
 ESPN, Bristol, CT

Dear Mr. Soucy,

At your request, Cavanaugh Tocci has evaluated the acoustic impact associated with the proposed installation and operation of four 2.5 MW natural gas generators at the ESPN campus in Bristol Connecticut. It is our understand that two generators will be located in Central Emergency Generating Facility (CEGF) 1B and two generators will be located in CEGF Building 2. The objectives of this evaluation were:

- To define acoustic design goals based on applicable noise regulations,
- To estimate the acoustic impact of the proposed project in the surrounding community.

Results of the evaluation are summarized herein.

Environmental Sound Regulations

There are two regulations that are pertinent with respect to sound produced by the proposed Project. These are the Connecticut Regulations for the Control of Noise, which are enforced by the Connecticut Department of Energy and Environmental Protection, and City of Bristol, Connecticut Noise Regulation. The following briefly discusses the applicable aspects of these regulations.

State of Connecticut Noise Regulation

The State of Connecticut Noise Regulation (Section 22a-69-1 to 7.4) defines sound level limits for environmental sound produced by the Project. These limits are based on both emitter and receptor land use classifications, and are listed below in Table 1:

Table 1: Connecticut Regulations for the Control of Noise Sound Level Limits (dBA)

Emitter Class	Receptor Class			
	C	B	A/Day	A/Night
C	70	66	61	51
B	62	62	55	45
A	62	55	55	45

Definitions

In the above table, day is defined as the time interval 7:00 a.m. to 10:00 p.m. Night is defined as the time interval 10:00 p.m. to 7:00 a.m. Noise Zone Classifications are based on the actual use of the land. Where multiple land uses exist on the same property, the least restrictive limits apply.

- A Class A noise zone is land generally designated for residential use or areas where serenity and tranquility are essential to the intended use.
- A Class B noise zone includes land uses generally of a commercial nature.
- A Class C noise zone includes uses generally of an industrial nature including power utilities.

Exceptions and Other Limit Provisions

Section 22a-69-1.8 Exemptions

These regulations shall not apply to:

- (f) Noise created as a result of, or relating to an emergency

Section 22a-69-3.3 Prominent Discrete Tones

To offset the undesirable nature of tonal sound in the environment, the regulation penalizes sources of prominent, audible discrete tones. If a facility produces such sounds, the applicable limits in Table 1 are reduced by 5 dBA. In its definitions (Section 22a-69-1.2), the regulation defines a method for identifying prominent discrete tones based on measuring one third octave band sound levels.

City of Bristol, Connecticut Noise Regulations

Chapter 15 Article II of the Code of Ordinances of the City of Bristol, Connecticut is a noise regulation that is applicable to this project. The definitions and limits found in this regulation are nearly identical to the state regulations with limits based on zoning districts as opposed to actual land use.

Recommended Sound level Limits

Based our review of zoning districts and land use in the project area, we note the following the following:

- The project is located in the Bristol IP-1 Zone designated for Industrial Park use. The project would be operated as a source of electrical power which would be classified as a as an "Emitter Class C" land use under the State of Connecticut noise regulation.
- Properties surrounding the Project include vacant land which is zoned for residential land use, and commercial uses within the IP-1 zoning district of the City of Bristol.

Since the generators may operate at any time of day and are not exempted for “emergency use”, it is our opinion that the Project will comply with the above referenced regulations provided:

- Sound produced by the operation of the generators is 51 dBA or less at adjacent and distant residential property boundaries during nighttime hours. This limit is increased to 61 dBA during daytime hours.
- Sound produced by the operation of the generators is 66 dBA or less at nearby commercial land uses.

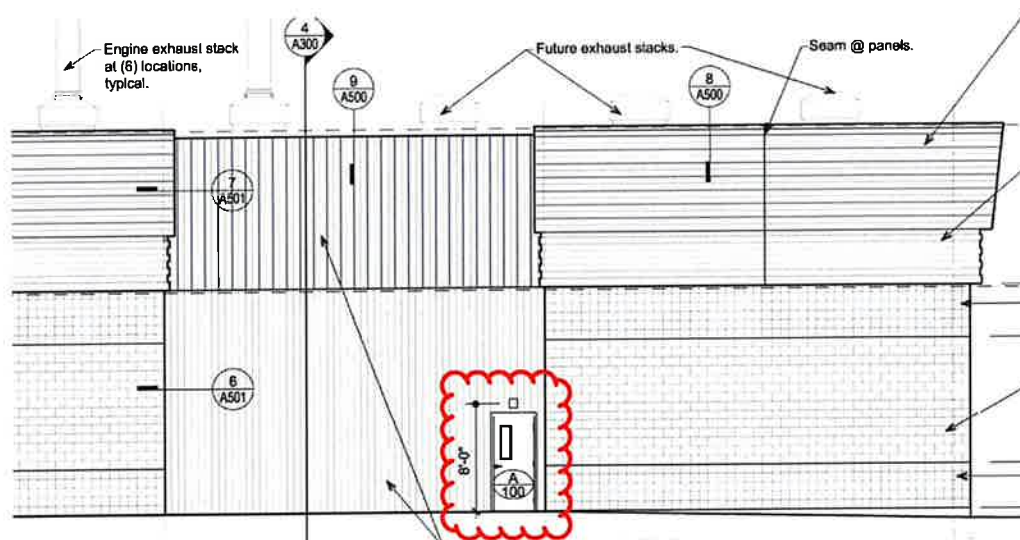
Figure 1 is an aerial photograph of the Project area indicating where these limits would be applied.

Estimated Project Noise Impacts

We have calculated estimates of project related sound impacts at various receptor locations using manufacturers sound data for the generator and radiator systems. Sound controls that are included in our acoustic modeling are:

- Harco Model 48160VCS 24 SI SP Super Critical Grade engine exhaust silencers.
- Vibro Acoustic Model RD-MV-F5 3-foot long duct silencers at the discharge of the radiators.

In addition, our analysis included review of sound measurements conducted in and adjacent to CEFG 1B with generators 5 and 6 operating (10/16/2019). These measurements indicated that sound penetrating the man door on the east side of this building was compromising the acoustic isolation performance of the east façade of the building.



Mr. Brian Soucy, November 11, 2019
Acoustic Evaluation
Natural Gas Generators

Page 4

To reduce sound impacts at the east property line adjacent to Building CEGF 1B we recommend replacing this door with an acoustically rated door with a sound isolation rating of STC-55. Product literature for an Overly Door Company Model 5592175 Door is included at the end of this report. Alternatively, you may consider adding an entry vestibule on either the interior or exterior side of the door. If you would like to pursue this option, we would be pleased to review the acoustic details.

Our modeling indicates that with the above controls (including the recommended door replacement) project sound impacts at all adjacent properties are expected to comply with the most stringent sound level limits of the State and Local noise regulations.

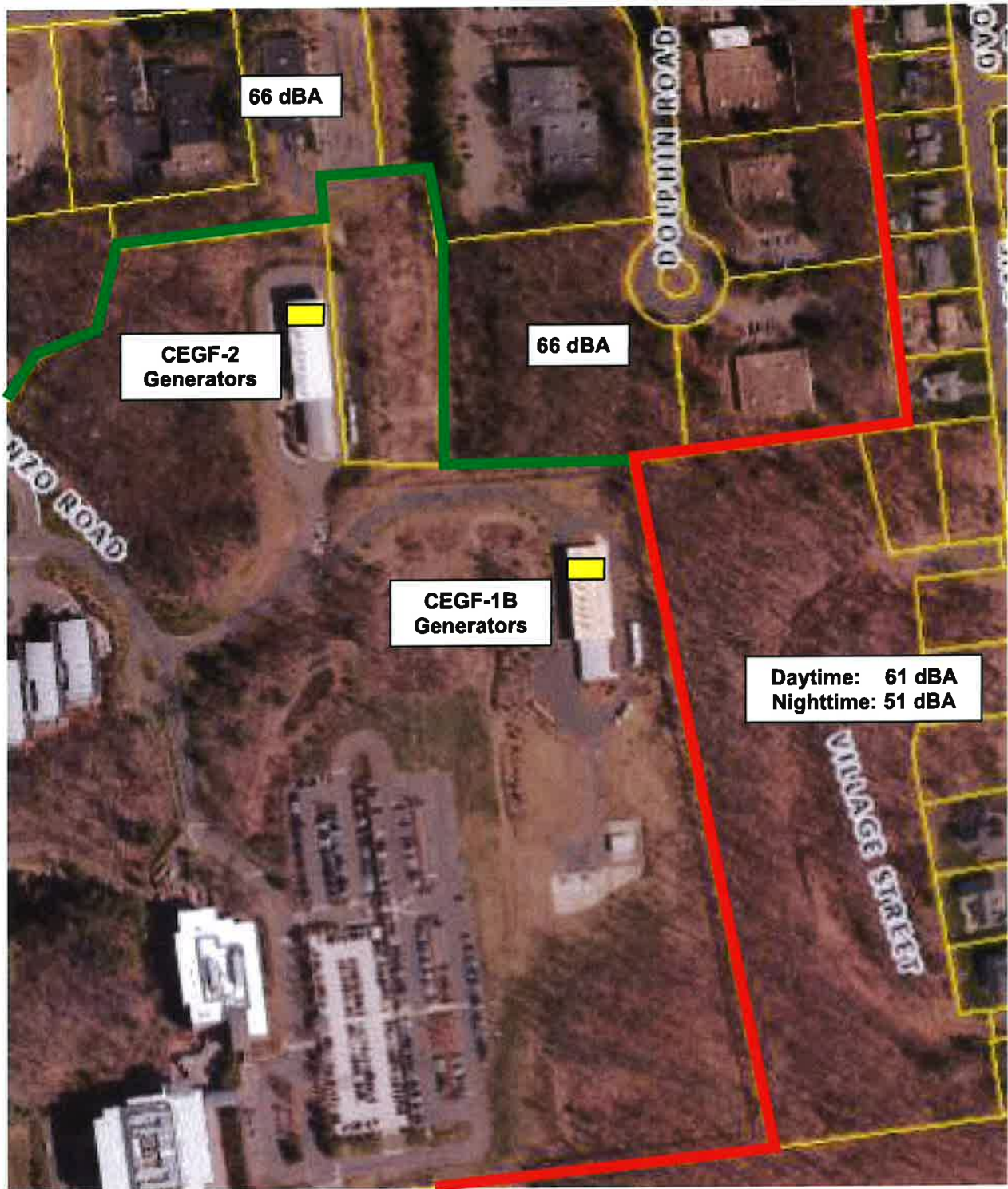
If you have any further questions, please do not hesitate to call me.

Sincerely,
CAVANAUGH TOCCI



Douglas H. Bell
19181/Acoustic Evaluation - Natural Gas Generators - ESPN.docx

FIGURES



Regulatory Sound Level Limits (dBA) for Project Related Sound

Figure 1



Product Literature

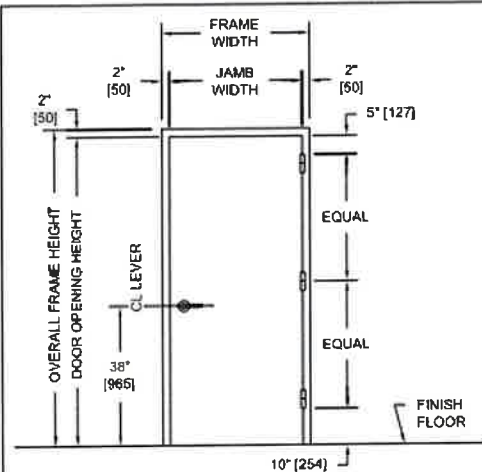
SERIES

SC

OVERLY DOOR COMPANY

574 WEST OTTERMAN STREET
POST OFFICE BOX 70
GREENSBURG, PA 15601-0070
TELEPHONE: 724-834-7300
FAX: 724-830-2871

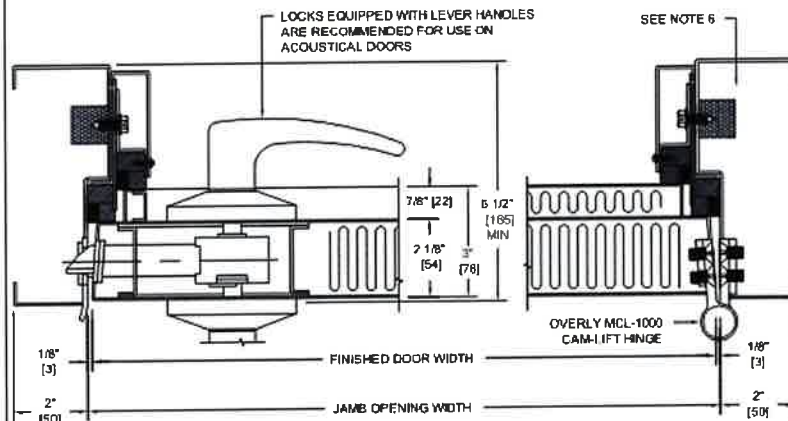
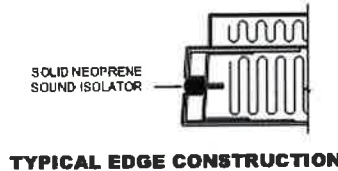
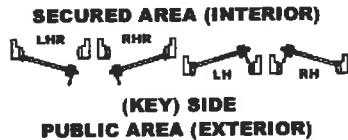
MODEL NO. 5592175 / UL FIRE RATED / STC 55 / FLUSH SOUND CONTROL DOOR AND FRAME ASSEMBLY / DUAL COMPRESSION SEALS



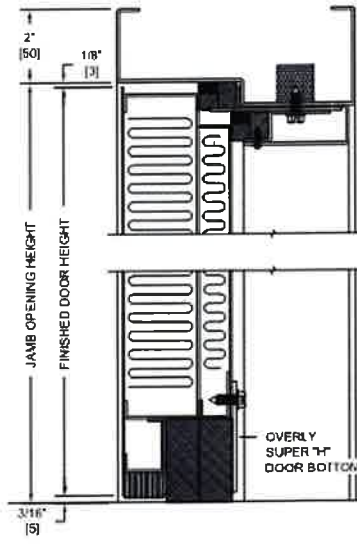
PUBLIC SIDE ELEVATION
RIGHT HAND REVERSE LEVEL SHOWN

NOTES:

1. All exposed surfaces of door and frame to receive one coat of rust inhibitive prime paint.
2. Door bottom requires flush level sealing surface. Wood, aluminum, or stainless steel threshold recommended. Do not seal against carpet.
3. Frame is equipped with Overly dual compression seals at head and jambs. Door is equipped with an Overly Super "H" door bottom.
4. Door weight is 20.4 pounds per square foot.
5. Door can be equipped with standard builders hardware, Customer to specify. Concealed hardware is not recommended for acoustical doors.
6. Frames equipped with masonry anchors must be grouted full in field. Bolt-in type frames must have all voids in head and jambs packed with 6 to 12 pound density mineral wool and all voids between wall and frame continuously caulked.
7. UL fire labels available in compliance with UL10B and UL10C/UBC7-2. Consult factory for specifics.
8. Unit tested as single door at Riverbank Acoustical Laboratories. Results are described in Test Report No. TL92-175 with sound transmission results as shown in chart below.
9. The panel on the interior side of the door is factory recessed to accommodate cylindrical locksets. Mortise locksets require extension of push side cylinders, spindles, and thru-bolt screws.
10. Door construction is covered by US Patent No. 5,417,029.



HORIZONTAL SECTION



VERTICAL SECTION

SOUND TRANSMISSION LOSS IN dB AT FREQUENCY / HERTZ																	
100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
38	39	39	42	44	46	51	52	53	55	55	58	61	63	64	67	68	70

ALL DIMENSIONS
BOTH IN INCHES
AND MILLIMETERS

ENGO-062 Rev#2 11/09/2010

ATTACHMENT 7

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

February 22, 2022

Via Certificate of Mailing

Jeffrey Caggiano, Mayor
City of Bristol
111 North Main Street, 3rd Floor
Bristol, CT 06010

Re: **NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – State and Local Government Officials Notice**

Dear Mayor Caggiano:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. A full copy of the Petition is attached for your review.

24215600-v1

Robinson + Cole

February 22, 2022

Page 2

If you have any questions regarding the Petition, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment

February 22, 2022

Via Certificate of Mailing

Edward Spyros, Zoning Enforcement Officer
City of Bristol
111 North Main Street, 2nd Floor
Bristol, CT 06010

Re: **NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – State and Local Government Officials Notice**

Dear Mr. Spyros:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. A full copy of the Petition is attached for your review.

Robinson+Cole

February 22, 2022

Page 2

If you have any questions regarding the Petition, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment

February 22, 2022

Via Certificate of Mailing

Mark Sciota, Town Manager
Town of Southington
75 Main Street
Southington, CT 06489

Re: NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – State and Local Government Officials Notice

Dear Mr. Sciota:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. A full copy of the Petition is attached for your review.

Robinson+Cole

February 22, 2022
Page 2

If you have any questions regarding the Petition, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment

February 22, 2022

Via Certificate of Mailing

Maryellen Edwards, Director of Planning and Community Development
Town of Southington
Municipal Center
196 North Main Street
Southington, CT 06489

Re: **NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – State and Local Government Officials Notice**

Dear Ms. Edwards:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. A full copy of the Petition is attached for your review.

February 22, 2022
Page 2

If you have any questions regarding the Petition, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment

February 22, 2022

Via Certificate of Mailing

L.I.C. Warehouse Realty, Co.
c/o Walter Riemer
ESPN
ESPN Plaza
Bristol, CT 06010

Re: **NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – State and Local Government Officials Notice**

Dear Mr. Riemer:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. A full copy of the Petition is attached for your review.

Robinson + Cole

February 22, 2022
Page 2

If you have any questions regarding the Petition, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment

February 22, 2022

Via Certificate of Mailing

Thomas Carroll, Esq.
Principle Counsel
ESPN
ESPN Plaza
Bristol, CT 06010

Re: **NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – State and Local Government Officials Notice**

Dear Attorney Carroll:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. A full copy of the Petition is attached for your review.

Robinson+Cole

February 22, 2022

Page 2

If you have any questions regarding the Petition, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment

ATTACHMENT 8

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

February 22, 2022

Via Certificate of Mailing

«Name_and_Address»

Re: NRG Curtailment Solutions, Inc. Petition for a Declaratory Ruling on the Need to Obtain a Siting Council Certificate to Install Emergency Generating Devices at 935 Middle Street, Bristol, Connecticut – Adjacent Property Owner Notice

Dear «Salutation»:

Pursuant to the provisions of §16-50j-40(a) of the Regulations of Connecticut State Agencies, this letter serves as notice that NRG Curtailment Solutions, Inc. (“NRG”) intends to file a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) on or about February 22, 2022, seeking approval for the installation of four (4) emergency generating devices on the ESPN Campus at 935 Middle Street (State Route 229) in Bristol, Connecticut (the “Project”). The subject property is owned by L.I.C. Warehouse Realty Co.

The Project involves the installation of four (4) 2.46 megawatt (“MW”) natural gas-fired emergency generating devices (“EGDs”). Two of the EGDs are located in the existing Generating Plant Building 1B and two EGDs are located in the existing Generator Plant Building 2. Both buildings are located in the northeast portion of the ESPN Campus. Attached to this letter is an aerial photograph showing ESPN Campus and a campus plan showing the location of Generating Plant Buildings 1B and 2.

February 22, 2022
Page 2

If you have any questions, please feel free to contact me. My contact information is provided above. You may also contact the Council directly at 860-827-2935.

Respectfully,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin, Esq.

KCB/kmd
Attachment



FEA
FACILITIES ENGINEERING ASSOCIATES, P.C.
 100 Main Street
 Westport, CT 06890
 Phone: 860-437-7233
 Fax: 860-437-7235
 www.fea.com

THE DOCUMENT, INCLUDING THE DESIGN, DRAWINGS, SPECIFICATIONS, AND ALL OTHER INFORMATION, IS THE PROPERTY OF FACILITIES ENGINEERING ASSOCIATES, P.C. AND IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED ON THE DRAWING. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF FACILITIES ENGINEERING ASSOCIATES, P.C.

SEP ENGINEER
 FACILITIES ENGINEERING ASSOCIATES P.C.
 100 Main Street
 Westport, CT 06890
 Phone: 860-437-7233
 Fax: 860-437-7235
 www.fea.com

ESPN

NATIONAL GAS GENERATORS
 BRISTOL, CT.

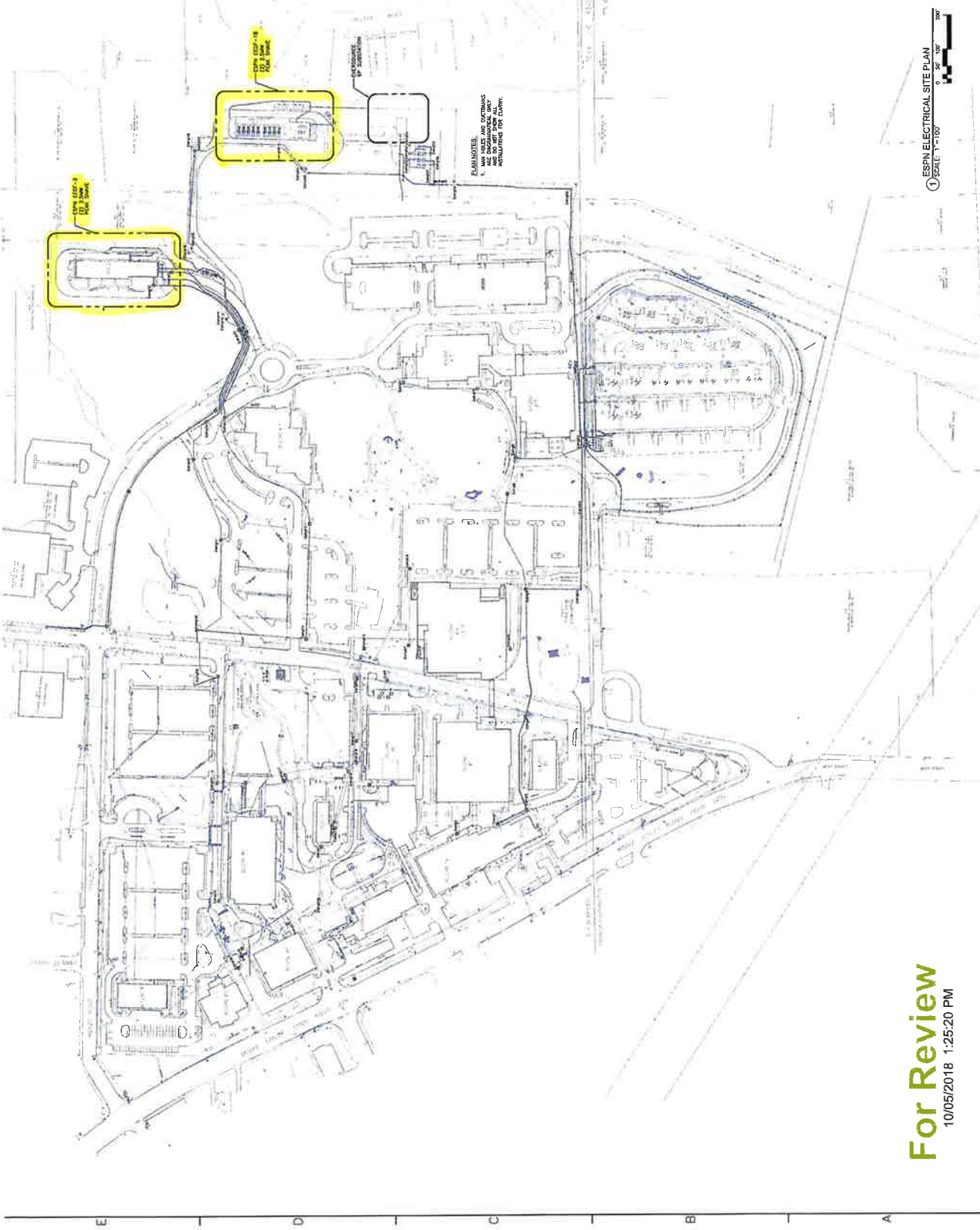
KEY PLAN



NO.	DESCRIPTION
1	ESPIN ELECTRICAL SITE PLAN

CAMPUS
 ELECTRICAL SITE
 PLAN

ES100#C



PLAN NOTES:
 1. MAN HOLE AND DUCT BANKS
 AND DO NOT SHOW ALL
 INFORMATION FOR CONCRETE

For Review
 10/05/2018 1:25:20 PM

**NRG CURLTAILMENT SOLUTIONS, INC.
935 MIDDLE STREET, BRISTOL, CT**

ADJOINING PROPERTY OWNERS

BRISTOL

<u>Property Address</u>	<u>Owner Name and Mailing Address</u>
924 Middle Street	Middle Street Ventures LLC 211 Boulevard of the Americas, Suite 104 Lakewood, NJ 08701
916 Middle Street	Middle Street Ventures LLC 211 Boulevard of the Americas, Suite 104 Lakewood, NJ 08701
894 Middle Street	The City of Bristol 111 No. Main Street Bristol, CT 06010
289 Enterprise Drive	289 Enterprise Drive LLC 43 Ridgecrest Lane Bristol, CT 06010
852 Middle Street	Estate of Janet F. George M. Farago, Jr. 852 Middle Street Bristol, CT 06010
848 Middle Street	WTM & K DelFino LLC 785 Middle Street Bristol, CT 06010
840 Middle Street	WTM & K DelFino LLC 785 Middle Street Bristol, CT 06010
830 Middle Street	WTM & K DelFino LLC 785 Middle Street Bristol, CT 06010
Emmett Street	Marilyn William P. and Karen M. DelFino 3 Dewitt Drive Bristol, CT 06010

<u>Property Address</u>	<u>Owner Name and Mailing Address</u>
65 Ronzo Road	F&F Realty of Bristol LLC 65 Ronzo Road Bristol, CT 06010
79 Ronzo Road	James P. and Frank Radcliff c/o Donald Radcliff 618 Independence Drive Jacksonville, FL 28546-7312
97 Ronzo Road	Charles and Jean Radcliff c/o Donald Radcliff 97 Ronzo Road Bristol, CT 06010
125 Ronzo Road	Atlantic Precision Spring Inc. 125 Ronzo Road Bristol, CT 06010
575 Birch Street	Industrial Builders & Realty LLC 785 Middle Street Bristol, CT 06010
110 Dolphin Road	Industrial Builders & Realty LLC 785 Middle Street Bristol, CT 06010
Birch Street	Connecticut Light & Power Co. 107 Selden Street Berlin, CT 06037
Dolphin Road	Industrial Builders & Realty LLC 785 Middle Street Bristol, CT 06010
Village Street	Industrial Builders & Realty LLC 785 Middle Street Bristol, CT 06010

SOUTHINGTON

<u>Property Address</u>	<u>Owner Name and Mailing Address</u>
69 Elizabeth Drive	Stanley and Dale Pac 69 Elizabeth Drive Southington, CT 06489
195 Westwood Road	Gene Martin Jr. 195 Westwood Road Southington, CT 06489
191 Westwood Road	Jinyuan Li and Jianying Zhao 191 Westwood Road Southington, CT 06489
179 Westwood Road	Scot and Kristine Parsons 179 Westwood Road Southington, CT 06489
147 Westwood Road	Joseph M. Vaitkus 147 Westwood Road Southington, CT 06489
109 Westwood Road	Everton Palmer Jr. 109 Westwood Road Southington, CT 06489
124 Westwood Road	Joel Haddock and Sharee Nicholls 124 Westwood Road Southington, CT 06489
87 Westwood Road	Tomasz Gora and Dorota Sadej-Gora 87 Westwood Road Southington, CT 06489
45 Balmoral Drive	Ali M. and Nuray Elevulu 45 Balmoral Drive Southington, CT 06489
52 Balmoral Drive	Lovely Development Inc. 710 Main Street, Suite 11 Plantsville, CT 06479
46 Balmoral Drive	Sheree Shields 46 Balmoral Drive Southington, CT 06489

61 Westwood Road	Lovely Development Inc. 710 Main Street, Suite 11 Plantsville, CT 06479
2095 West Street	Prayer House of All Graces and Two Heart 5 East Ridge Road Ridgefield, CT 06877
2070 West Street	Leavitt Real Estate Holding LLC 2070 West Street Southington, CT 06489
2156 West Street	216 West Street LLC 43 Ridge Crest Lane Bristol, CT 06010
2176 West Street	VJBASILE III LLC 43 Ridgecrest Lane Bristol, CT 06010