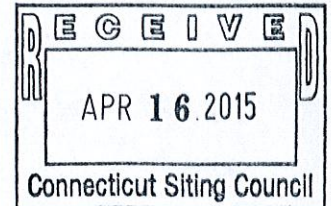




April 13, 2015

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



RE: PSEG Power Connecticut LLC Notice of Exempt Modification Pursuant to  
RCSA § 16-50j-57(a) to Existing Energy Facility Site at  
1 Atlantic Street, Bridgeport, Connecticut ("Notice of Exempt Modification")

ORIGINAL

Dear Chairman Stein:

PSEG Power Connecticut LLC ("PSEG") hereby gives notice to the Connecticut Siting Council ("Council") of its intent to undertake a project that qualifies as an Exempt Modification in accordance with Section 16-50j- 57(a) of the Regulations of Connecticut State Agencies ("RCSA"). This project entails modifications to PSEG's existing monitoring equipment access platform located on the Station's Unit 3 stack as well as the addition of monorails used for testing at PSEG's Bridgeport Harbor Generating Station ("BHS" or "Facility").

### **Proposed Modifications**

The proposed modifications would take place within the existing fenced area at BHS, located at 1 Atlantic Street, Bridgeport, Connecticut. The existing Facility is located on an approximately 58.8-acre parcel identified as Map 22, Block 542, Lot 22 on the City of Bridgeport Tax Map; the coordinates for the station are N 41° 10' 06.22" latitude and W 73° 11' 3.44" longitude. Two generating units currently operate at the BHS site with a net capacity of 400 MW. BHS's two operating units include a dual-fuel (coal/residual oil) unit (Unit 3) and a combustion turbine peaking unit (Unit 4), supplying power to ISO-New England. The subject of this notice involves the Unit 3 stack platform that is used to facilitate exhaust gas monitoring and testing. This platform is located approximately midway up the stack at the 250' level.

This project is part of the Facility's ongoing effort to comply with the United States Environmental Protection Agency's ("EPA") final rule for Mercury and Air Toxic Standards ("MATS") which will be effective on April 15, 2015. The proposed project will include the removal of the existing stack platform (2' 6" in width) and the installation of a replacement 6-foot wide galvanized platform that will include four monorails which are utilized to suspend testing equipment and probes. The replacement platform will provide more ample access and

safer movement of personnel using the platform, while the monorails will aid in the safe and ergonomic suspension of new sampling probes required for MATS testing. The monorails will extend approximately 14 feet from the existing stack. The proposed platform structure will be built at the same height as the existing platform which, as mentioned above, is located at a height of 250 feet on the Unit 3 stack. Attachment A provides multiple drawings of the proposed platform structure. These drawings include details on the platform installation including type of mounting/brackets, platform grading and rail information and other engineering specifications of the platform. Also included as Attachment B, is the Certified Professional Engineer statement confirming that the installation of this platform will not impair the structural integrity of the stack.

### **Compliance with R.C.S.A. § 16-50j-57(b)**

The proposed modifications would not have a substantial adverse environmental effect or cause a significant adverse change or alteration in the physical or environmental characteristics of the Facility in accordance with RCSA § 16-50j-57(b) as follows:

- (A) The proposed project will not extend the boundaries of the site beyond the existing fenced compound. The proposed modification will take place on an existing stack structure on the site and will not require any ground equipment that would extend the boundaries of the site.
- (B) The proposed project will not increase the height of existing associated equipment. The proposed modification will replace an existing stack platform that is located at a height of 250 feet on the Unit 3 stack.
- (C) Noise levels at the site boundary will not be affected by the proposed equipment. No noise will be generated from the proposed structure.
- (D) Electric and magnetic field levels at the site boundary will not be affected by the proposed equipment.
- (E) The proposed project will not cause a significant adverse change or alteration in the physical or environmental characteristics of the site. Attachment C includes a rendering of the proposed project, while the section below describes other environmental considerations.
- (F) The proposed equipment installation will not impair the structural integrity of the facility structures. Attachment B includes the Certified Professional Engineer's statement regarding structural integrity.

In addition:

- This work will not affect wetlands or waterways. BHS is within the Connecticut Coastal Boundary and is mapped within the 100-year floodplain (Zone AE), but is not located within a regulated floodway. As stated above, there is no ground work associated with this Project therefore any surrounding wetlands or waterways will not be impacted in any way.

- These minor modifications are a part of the existing Unit 3 stack structure at BHS and do not pose a significant change in infrastructure that could potentially impede or affect wildlife. There will be no impact to any state-listed endangered, threatened, or special concern species by construction and subsequent operations of the proposed project. PSEG bases this determination due to a response received from the Connecticut Department of Energy and Environmental Protection (“CT DEEP”) on October 21, 2014 regarding PSEG’s request for a Natural Diversity Database Review for another proposed project at BHS which included construction of a new exhaust stack. Upon completion of CTDEEP’s preliminary review, the response letter from CTDEEP stated that due to “the location and siting of this facility, it is unlikely that construction activities and subsequent operations of the facility will negatively impact state-listed species”. The minimal and temporary disruption of increasing the platform size and installing monorails on the Site’s existing Unit 3 stack will have far less impact than the installation of a new exhaust stack from the aforementioned proposed project. Attachment D includes a copy of the CTDEEP correspondence regarding this matter.

PSEG intends to install the proposed platform after the Council's acknowledgement that the proposed activities are exempt. Construction is proposed to commence in May 2015 and all work is scheduled to be completed by mid-June 2015 to comply with the initial EPA MATS testing requirement that all stack tests be conducted by the end of the second quarter of 2015.

Enclosed with this original submittal are two (2) copies of this Notice of Exempt Modification along with a filing fee of \$625.00. A written notice has been provided to the Mayor of Bridgeport describing the proposed installation as required. Please do not hesitate to contact me at (203) 551-6001, or Mr. Robert Silvestri, Manager – Environmental Compliance & Projects (203-551-6032), should you have any questions regarding this notice.

Respectfully Submitted,



Thomas Copus  
PSEG Power Connecticut LLC  
Plant Manager

Enclosures

ATTACHMENT A

PROPOSED PLATFORM DRAWINGS













**ATTACHMENT B**

**CERTIFIED PROFESSIONAL ENGINEER STATEMENT**



# INTERNATIONAL CHIMNEY CORPORATION

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PSEG Power Connecticut, LLC  
Bridgeport Harbor Station  
1 Atlantic Avenue  
Bridgeport, Connecticut 06604

February 13, 2015  
Our File #CB-42872-C

Attention: Mr. Pete Tomas

Subject: Chimney Analysis: PSEG Bridgeport Harbor Station – ICC File # CB-42872-C

The analysis investigates the concrete chimney shell for the modification of the exterior platform and the addition of four monorails at the 243 ft height. The platform modification consists of replacing the current 3 ft wide platform with a 6 ft wide platform.

The analysis is based on ASCE 7-02 and ACI 307-69 criteria. Wind loads, combined with dead loads, govern the design. The design wind speed is 111 mph, exposure "C", with an importance factor of 1.15 for a category IV, essential structure.

The concrete compressive strength is specified as 4000 psi at 28 days. The reinforcing steel is ASTM A165, Grade 40 steel. The allowable concrete stress is 1000 psi, and the allowable reinforcing stress is 12500 psi.

The analysis indicates that the reinforced concrete shell, below the platform at 243 ft, is not overstressed by the proposed chimney modifications.

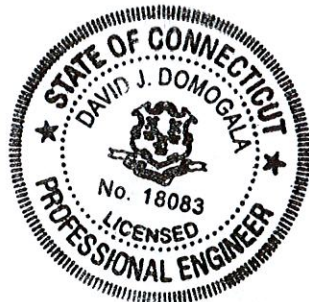
Analysis by: International Chimney Corporation

Dated 12/ 19/2014

Sincerely,

INTERNATIONAL CHIMNEY CORPORATION

David J. Domogala



*David J. Domogala*  
2-13-15



# INTERNATIONAL CHIMNEY CORPORATION

Engineers & Contractors Since 1927

1/

## Chimney Analysis - Unit # 3 Bridgeport Harbor Station

chimney Hgt = 495.625 ft

concrete strength @ 28 days = 4000 psi

reinforcing steel ASTM A15, 40,000psi yield strength

### Wind Loads per ASCE 7-02 (Conn Bldg Code Criteria)

V = 111 mph    I = 1.15    C<sub>f</sub> = 0.65    Exposure "C"

K<sub>d</sub> = 0.95    C<sub>f</sub> = 1.15 (at platform)

$g_z = 0.0256 V^2 I K_z K_d$   
 $g_z = 34.46 K_z$

$P_w = g_z \times C_f = \text{Wind Pressures}$

4 Hgt	C <sub>f</sub>	K <sub>z</sub>	P <sub>w</sub> (psf)
495.6 - 490.0	0.65	1.77	39.6
490.0 - 487.0	1.15	1.77	70.1
487.0 - 426.0	0.65	1.74	39.0
426.0 - 368.0	0.65	1.69	37.8
368.0 - 365.0	1.15	1.65	65.4
365.0 - 304.0	0.65	1.62	36.3
304.0 - 246.0	0.65	1.56	34.9
246.0 - 243.0	1.15	1.53	60.6
243.0 - 135.0	0.65	1.45	32.5
135.0 - 75.0	0.65	1.24	28.2
75.0 - 0.0	0.65	1.19	26.7

HEADQUARTERS: 55 South Long Street, Williamsville, NY 14221

MIDWEST GENERAL OFFICE: 20622 South Amherst Court, Joliet, IL 60433

BRANCH OFFICES: Cleveland, Gulf Coast, Mid-Atlantic, New England, New Jersey, Pittsburgh

**800-828-1446**

Fax 716-634-3983

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HGT	O.D (in)	t (in)	ΔH (in)	Dead Load
495.6	260.0	8		
490.0	262.75	8	67.2	37147 16
487.0	264.31	8	36.0	57216
426.0	294.90	8	732.0	190963
368.0	324.00	8	696.0	948695
365.0	325.48	8	36.0	973 572
304.0	356.07	8	732.0	1505 006
246.0	385.15	8	696.0	2055 606
243.0	386.66	8	36.0	2085 287
135.0	440.81	11	108.0	2198 391
75.0	470.90	16	720.0	3370 950
0.0	508.5	24	900.0	5676 584

Hgt	$\frac{e}{R}$	Mw (Kip-Ft)	$A_c \text{ m}^2$	$A_s \text{ m}^2$	$\rho$
243.0	0.9581	31300	9919	24.8	0.0025
135.0	0.8548	33667	14853	59.0	0.0040
75.0	0.8088	51679	22866	104.2	0.0040
0.0	0.695	79668	36530	160.0	0.0044

Hgt	$\alpha$ (ACI 307-69)	$n = 8.0$
243.0	65°	
135.0	87°	
75.0	95°	
0.0	95°	

**HEADQUARTERS:** 55 South Long Street, Williamsville, NY 14221  
**MIDWEST GENERAL OFFICE:** 20622 South Amherst Court, Joliet, IL 60433  
**BRANCH OFFICES:** Cleveland, Gulf Coast, Mid-Atlantic, New England, New Jersey, Pittsburgh

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 Fax 716-634-3983  
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THIS PROCEEDURE CALCULATES THE CONCRETE AND STEEL STRESS IN A CONCRETE CHIMNEY SHELL

od = outside dia

$$\text{od} := 440.81 \cdot \text{in} \quad A_s := 59.0$$

t = wall thickness

$$t := 11 \cdot \text{in} \quad A_c := 14853$$

M = bending moment from wind or seismic

$$M := 33667000 \cdot \text{ft} \cdot \text{lb}$$

W = weight above section

$$W := 2198391 \cdot \text{lb}$$

As = net area of reinforcing steel

$$p := \frac{A_s}{A_c} \quad p = 0.004$$

Ac = net area of concrete shell cross section

e = M/W

$$\frac{e}{r} := \frac{M}{W}$$

$$n := 8$$

n = Es/Ec

$$r := \frac{\text{od} - t}{2}$$

$$\alpha := 1.5184 \quad (\text{radians, from charts})$$

$$\frac{e}{r} = 0.855$$

$$f_{cw1} := \frac{W \cdot (1 - \cos(\alpha))}{2 \cdot r \cdot t \cdot [(1 - p) \cdot (\sin(\alpha) - \alpha \cdot \cos(\alpha)) - n \cdot p \cdot \pi \cdot \cos(\alpha)]}$$

$$f_{cw} := f_{cw1} \cdot \left[ 1 + \frac{t}{2 \cdot r \cdot (1 - \cos(\alpha))} \right] \quad f_{cw} = 497.162 \frac{\text{lb}}{\text{in}^2}$$

$$f_{sw} := n \cdot f_{cw1} \cdot \left( \frac{1 + \cos(\alpha)}{1 - \cos(\alpha)} \right) \quad f_{sw} = 4300.767 \frac{\text{lb}}{\text{in}^2}$$

THIS PROCEDURE CALCULATES THE CONCRETE AND STEEL STRESS IN A CONCRETE CHIMNEY SHELL

od = outside dia	od := 470.9-in	$A_s := 104.2$
t = wall thickness		
M = bending moment from wind or seismic	t := 16-in	$A_c := 22866$
W = weight above section		
$A_s$ = net area of reinforcing steel	M := 51679000-ft-lb	$p := \frac{A_s}{A_c}$
$A_c$ = net area of concrete shell cross section	W := 3370950-lb	$p = 0.005$
e = M/W		
n = Es/Ec	$e := \frac{M}{W}$	n := 8
-		
	$\frac{e}{r} = 0.809$	$r := \frac{od - t}{2}$
$\alpha := 1.6581$ (radians, from charts)		

$$f_{cw1} := \frac{W \cdot (1 - \cos(\alpha))}{2 \cdot r \cdot t \cdot [(1 - p) \cdot (\sin(\alpha) - \alpha \cdot \cos(\alpha)) - n \cdot p \cdot \pi \cdot \cos(\alpha)]}$$

$$f_{cw} := f_{cw1} \cdot \left[ 1 + \frac{t}{2 \cdot r \cdot (1 - \cos(\alpha))} \right] \quad f_{cw} = 453.769 \frac{\text{lb}}{\text{in}^2}$$

$$f_{sw} := n \cdot f_{cw1} \cdot \left( \frac{1 + \cos(\alpha)}{1 - \cos(\alpha)} \right) \quad f_{sw} = 2952.365 \frac{\text{lb}}{\text{in}^2}$$

THIS PROCEEDURE CALCULATES THE CONCRETE AND STEEL STRESS IN A CONCRETE CHIMNEY SHELL

od = outside dia

t = wall thickness

M = bending moment from wind or seismic

W = weight above section

As = net area of reinforcing steel

Ac = net area of concrete shell cross section

e = M/W

n = Es/Ec

-

$$od := 508.5\text{-in}$$

$$A_s := 104.2$$

$$t := 24\text{-in}$$

$$A_c := 22866$$

$$M := 79668000\text{-ft}\cdot\text{lb}$$

$$p := \frac{A_s}{A_c} \quad p = 0.005$$

$$W := 5676584\text{-lb}$$

$$e := \frac{M}{W}$$

$$n := 8$$

$$r := \frac{od - t}{2}$$

$$\alpha := 1.6581 \quad (\text{radians, from charts})$$

$$\frac{e}{r} = 0.695$$

$$f_{cw1} := \frac{W \cdot (1 - \cos(\alpha))}{2 \cdot r \cdot t \cdot [(1 - p) \cdot (\sin(\alpha) - \alpha \cdot \cos(\alpha)) - n \cdot p \cdot \pi \cdot \cos(\alpha)]}$$

$$f_{cw} := f_{cw1} \cdot \left[ 1 + \frac{t}{2 \cdot r \cdot (1 - \cos(\alpha))} \right] \quad f_{cw} = 484.421 \frac{\text{lb}}{\text{in}^2}$$

$$f_{sw} := n \cdot f_{cw1} \cdot \left( \frac{1 + \cos(\alpha)}{1 - \cos(\alpha)} \right) \quad f_{sw} = 3111.972 \frac{\text{lb}}{\text{in}^2}$$



**ATTACHMENT C**

**PHOTO RENDERING OF PROPOSED PLATFORM**









Existing



Proposed

ATTACHMENT D

NATURAL DIVERSITY DATABASE REVIEW – CTDEEP CORESPONDANCE  
FOR OTHER PROPOSED PROJECT AT BHS





Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

October 21, 2014

Kevin Mahar  
AKRF, Inc.  
307 Fellowship Road, Suite 214  
Mount Laurel, NJ 08054

Re: PSEG Power Connecticut, Bridgeport Harbor Unit 5, Combined Cycle Project in Bridgeport  
Connecticut  
NDDB 201408872

Dear Mr. Mahar:

Materials pertaining to the above project were forwarded to me for review by the DEEP Natural Diversity Database (NDDB). Their records indicate that state-listed species occur in the vicinity of this proposed project.

Given the proposed upgrades, as well as the location and siting of this facility, it is unlikely that construction activities and subsequent operations of the facility will negatively impact state-listed species.

---

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Database should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Database as it becomes available.

This is a preliminary site review and is not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to the DEEP for the proposed site. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEEP Wildlife Division should be requested and species-specific surveys may be required. If the proposed project has not been initiated within one year of this Wildlife Division review, you should contact the NDDB for an updated review.

If you have any additional questions, please feel free to contact me at [Laura.Saucier@ct.gov](mailto:Laura.Saucier@ct.gov), please reference the NDDB number in the subject line of this letter when you e-mail or write.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Laura Saucier'.

Laura Saucier  
Wildlife Biologist

Wildlife Division, Sessions Woods WMA, Post Office Box 1550, Burlington, CT 06013  
(860) 675-8130, [www.ct.gov/deep](http://www.ct.gov/deep)  
Affirmative Action/Equal Opportunity Employer



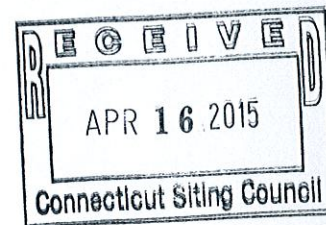
**PSEG**

*Power Connecticut LLC*

**COPY**

April 13, 2015

The Honorable Bill Finch  
Office of the Mayor  
City of Bridgeport  
Margaret E. Morton Government Center  
999 Broad Street  
Bridgeport, CT 06604



RE: PSEG Power Connecticut LLC Notice of Exempt Modification Pursuant to  
RCSA § 16-50j-57(a) to Existing Energy Facility Site at  
1 Atlantic Street, Bridgeport, Connecticut (“Notice of Exempt Modification”)

Dear Mayor Finch:

This letter serves to provide notice and a description of the proposed project at PSEG's Bridgeport Harbor Generating Station (“BHS”) in which PSEG is applying for an Exempt Modification in accordance with Section 16-50j- 57(a) of the Regulations of Connecticut State Agencies (“RCSA”).

The proposed modifications would take place within the existing fenced area at BHS, located at 1 Atlantic Street, Bridgeport, Connecticut. This project entails modifications to PSEG's existing monitoring equipment access platform located on the Station's Unit 3 stack. This stack platform is used to facilitate exhaust gas monitoring and testing and is located approximately midway up the stack at the 250' level. The proposed project will include the removal of the existing stack platform (2'6" in width) and the installation of a replacement 6-foot wide galvanized platform that will include four monorails which are utilized to suspend testing equipment and probes.

This project is part of the Facility's ongoing effort to comply with the United States Environmental Protection Agency's ("EPA") final rule for Mercury and Air Toxic Standards ("MATS") which will be effective on April 15, 2015. The replacement platform will provide more ample access and safer movement of personnel using the platform, while the monorails will aid in the safe and ergonomic suspension of new sampling probes required for MATS testing. The monorails will extend

approximately 14 feet from the existing stack. The proposed platform structure will be built at the same height as the existing platform which, as mentioned above, is located at a height of 250 ft. on the Unit 3 stack.

PSEG has demonstrated compliance with R.C.S.A. § 16-50j-57(b) in the Exempt Modification Application Letter to the Connecticut Siting Council confirming that the proposed modifications would not have a substantial adverse environmental effect or cause a significant adverse change or alteration in the physical or environmental characteristics of the Facility as required.

PSEG intends to install the proposed platform after the Council's acknowledgement that the proposed activities are exempt. Construction is proposed to commence in May 2015 and all work is scheduled to be completed by mid-June 2015 to comply with the initial EPA MATs testing requirement that is effective in the second quarter of 2015.

Please do not hesitate to contact me at (203) 551-6001 should you have any questions regarding this notice.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Thomas Copus', with a long horizontal flourish extending to the right.

Thomas Copus  
PSEG Power Connecticut LLC  
Plant Manager