

MODIFIED
on August 8, 2023
by Christina Kielczewska

REGISTRATION CERTIFICATE

EPAC-10 REV. 7-73



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



STACK NO. 00701000501

EQUIPMENT CLASSIFICATION



**FUEL
BURNING**



INCINERATOR



**PROCESS
MFG.**



**AIR POLLUTION
CONTROL**

REGISTRATION NO.

00700057

FIRM NAME

ELECTRIC BOAT DIVISION

DATE ISSUED

12/05/73

LOCATION OF EQUIPMENT (No. & Street, Town, Zip)

EASTERN POINT RD

GROTON CONN 06340

COMMISSIONER OR HIS REPRESENTATIVE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

REGISTRATION CERTIFICATE
EPAC-10 REV. 7-73



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TRANSFERRED TO:
Electric Boat Corp.



ENGINEER: WFS DATE: 6/22/97

STACK NO. 00701000501

EQUIPMENT CLASSIFICATION
 FUEL BURNING INCINERATOR

PROCESS MFG.

AIR POLLUTION CONTROL

REGISTRATION NO.
00700057

DATE ISSUED
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FIRM NAME
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LOCATION OF EQUIPMENT (No. & Street, Town, Zip)
EASTERN POINT RD

GROTON CUNN 06340

COMMISSIONER OR HIS REPRESENTATIVE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BURNING EQUIPMENT REGISTRATION

STATE OF CONNECTICUT

PREMISE NO. 70-04

1. APPLICATION NO. EB-1	2. STACK NO. 217-1
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NEW 5-72
Department of Environmental Protection, Air Compliance Section, State Office Bldg., Hartford, Conn. 06115. Tel. 566-2690

05

3. FIRM General Dynamics Corporation	LEGAL NAME	BUSINESS ADDRESS (No. & Street, City, Zip Code) Eastern Point Road Groton, Ct. 06340	PHONE 446-6111
4. DIVISION Electric Boat Division			
5. APPLICANT Robert H. Secor			
6. INSTALLATION			
7. EQUIPMENT BEING REGISTERED Superior Fire Tube Boiler 200 BHP	TYPE OF EQUIPMENT (e.g., Boiler)	AIR POLLUTION CONTROL EQUIPMENT USED (If "Yes," file form EP-7) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

8. MAJOR ACTIVITY OF FIRM

MFG. OFFICE RETAIL OR WHLSE. STORE SCHOOL OR CHURCH HOTEL/MOTEL HOSPITAL OR LAB. WAREHOUSE RESIDENCE OR APTS. OTHER (Specify)

9. TYPES OF FUELS USED	FUEL	GRADES (x)	SULFUR CONTENT	ASH CONTENT	ANNUAL USAGE (Tons, Gals., or Cu. Ft.)	MAXIMUM FIRING RATE		SEASONAL USE			FUEL SUPPLIER	
						(Lbs., Gals., Cu. Ft./hr.)	(BTU/hr.)	Month	to	Month	Name	City or Town
<input type="checkbox"/> COAL	<input type="checkbox"/> OIL	Bituminous	. %	. %								
		Anthracite	. %	. %								
		Kerosene	. %	. %								
		2	. %	. %								
		4	.48 %	.03 %	170,000 gal	55 gal/hr	7.94 x 10 ⁶	Sept	May	Hess Oil Co.	Groton, Ct.	
		5	. %	. %								
	6	. %	. %									
	NAT. GAS				428,000 ccf	8,400 cf/hr	8.7 E6	Sept	May	Eversource	CT	

CODED

10. BURNER EQUIPMENT

ARE OIL HEATERS USED? YES NO

OIL TEMPERATURE BEFORE INJECTION: 110 °F

BURNER MANUFACTURER: Superior Combustion Industries, Inc.

BURNER MODEL No.: BRGH-6

11. TYPE OF COAL BURNER

HAND FIRED UNDERFEED STOKER TRAVELING GRATE CHAIN GRATE SPREADER STOKER STOKER WITH GAS REINJECTION CYCLONE FURNACE PULVERIZED COAL OTHER (Specify)

12. TYPE OF OIL BURNER

PRESSURE OR GUN ROTARY CUP STEAM ATOMIZER AIR ATOMIZER TANGENTIALLY FIRED OTHER (Specify)

13. COMBUSTION

OVERFIRE AIR CONTROL: YES NO

TYPE: TIME SWITCHED SMOKE INDICATOR MANUAL OTHER (Specify)

TYPE OF DRAFT: FORCED INDUCED NATURAL

14. POLLUTANTS EMITTED	MATERIAL	RATE OF EMISSIONS (Tons/Yr.)	METHOD USED TO DETERMINE EMISSIONS	15. EQUIPMENT INFORMATION	BREACHING GAS TEMPERATURE (°F)	No. OF IDENTICAL UNITS
	Particulate	1.62	Table 1-5		400 350 F	
	NO ₂	6.3			DATE SOURCE STARTED UP: 1963	
					EXHAUST GAS FLOW RATE (ACFM):	NORMAL MAXIMUM
			OPERATING HOURS:	HOURS PER DAY HOURS PER YEAR		

16. STACK INFORMATION

STACK EXIT DIRECTION: HORIZ. VERT.

STACK EXIT DIMENSIONS: I.D. 18" in. OR _____ in. X _____ in.

STACK HEIGHT (Feet): ~~40~~ 50 (correction to redline added 04/11/2023)

IS STACK EQUIPPED WITH RAIN HAT? YES NO

SMOKE INDICATOR IN STACK: YES NO

MAKE AND MODEL NO. _____

STACK LINING: METAL REFRACTORY OTHER (Specify)

17. STACK LOCATION

Name of nearest intersecting street: Allene Street and Thames Street

Distance to stack from intersection: 200 FT.

DIRECTION TO STACK: (Circle one) N, NE, E, SE, S, SW, **W**, NW

18. CERTIFICATION

I certify that I have examined the above information and that to the best of my knowledge it is true and complete. (Signature subjects signer to provisions of the General Statutes regarding false and misleading statements).

SIGNED: Robert H. Secor

TITLE: Chief of Environmental Control

DATE: 9-29-72

MAIN FILE

PLEASE DO NOT WRITE IN THIS SPACE

DATE RCV'D FROM APPLICANT. 7/23/77

DATE REVIEWED BY

DATE COPY SENT TO LOCAL AGENCY BY

REGISTRATION NUMBER 070-0057

PREMISE NO. 70-05

STACK NO. 1

STATE GRID CO-ORDINATES
X 784000 783250
Y 187500 189375 Z=20'

783300
189000

REGISTRATION CARD SENT STORED ON COMPUTER

DATE BY

EMERGENCY STANDBY PLANS

PLAN REQUIRED YES NO

DATE PLAN - MANUAL SENT TO APPLICANT BY

DATE FORM RETURNED BY

DATE PLAN APPROVED

0-100-0
0-100-0
0-100-0

M E M O R A N D U M

DATE: May 23, 2023

TO: Tracy Babbidge, Acting Deputy Commissioner
Paul Farrell, Acting Bureau Chief

FROM: Christina Kielczewska, APCE
Lakiesha S. Christopher, Supervising APCE
Jaimeson Sinclair, Director

SUBJECT: Modification of Registration No(s). 070-0057-R and 070-0074-R for two boilers located at Electric Boat Corporation in Groton

DISCUSSION:

Electric Boat Corporation (EBC) submitted a request to modify Registration No(s). 070-0057-R for a 200 BHP Superior Fire Tube Boiler (North Yard Boiler #1, EU-19) and 070-0074-R for a 250 BHP Superior fire tube boiler (South Yard Boiler #2, EU-23) in a letter dated February 15, 2022. The changes requested, which occurred in or around 1995 and involved conversions from No.4 fuel oil to natural gas for North Yard Boiler #1 and to natural gas and No. 2 fuel oil for South Yard Boiler #2, are exempt from permitting under the provisions of RCSA Sections 22a-174-3a(a)(2)(A)(iii) and (iv):

Registration No. 070-0057-R, 200 BHP Superior Fire Tube Boiler (North Yard Boiler #1)

	Current	Modified
Fuel	No. 4 Fuel	Natural Gas
Annual Usage	170,000 gal	428,000 ccf
Maximum Firing Rate/Heat Input	55 gal/hr 7.99 MMBtu/hr	8400 cf/hr 8.7 MMBtu/hr
Type of Oil Burner	Rotary Cup	N/A
Burner Manufacturer	Superior Combustion Industries	Superior Combustion, Inc.
Burner Model No.	BRgH-6	AB-LN-200-GAA4
Breaching Gas Temperature	480°F	350°F
Fuel Supplier	Hess Oil Co.	Eversource
Burner Equipment: Oil Heaters	Present	N/A
Oil Temperature Before Injection	110 °F	N/A
Stack Height	40 ft	50 ft

Registration No. 070-0074-R, 250 BHP Superior Fire Tube Boiler (South Yard Boiler #2)

	Current	Modified
Fuel	No. 4 Fuel	Natural Gas, No. 2 Fuel Oil
Annual Usage	460,000 gal	Natural Gas: 535,000 ccf No. 2 Fuel Oil: 383,000 gal
Maximum Firing Rate	71 gal/hr	Natural Gas: 10500 cf/hr

		No. 2 Fuel Oil: 75.2 gal/hr
Maximum Heat Input	10.5 MMBtu/hr	Natural Gas: 10.9 MMBtu/hr
		No. 2 Fuel Oil: 10.4 MMBtu/hr
Type of Oil Burner	Rotary Cup	No.2 Fuel Oil: Air Atomizer
Burner Manufacturer	Superior Combustion Industries, Inc.	Superior Combustion, Inc.
Burner Model No.	BRgH-6	AB-LN-250-GAA4
Breaching Gas Temperature	480°F	350°F
Fuel Oil Sulfur Content	0.48%	0.015%
Fuel Oil Ash Content	0.03%	0%
Seasonal Use	Jan-Jan	Sept-May
Fuel Supplier	Hess Oil Co.	No.2 Fuel Oil: Saveway Petroleum Natural Gas: Eversource
Burner Equipment: Oil Heaters	Present	None
Oil Temperature Before Injection	110-190 °F	N/A
Operating Hours	Not Specified	5760 hours

Note:

- ft³/hr ratings were calculated using 1040 Btu/ft³
- gal/hr ratings were calculated using 138,300 Btu/gal

Neither the fuel conversions, the updated burners, nor any other updated operating parameters or equipment specifications for each boiler in the table above increase actual emissions of any individual air pollutant by fifteen (15) tons or more per year. Additionally, neither boiler as modified has potential emissions greater than 15 tons per year of any regulated air pollutant.

The most recent stack testing for NO_x for the two units, conducted March 15-17th, 2022 and accepted by the Source Emissions Monitoring Group, included the use of the updated fuels and maximum rated heat capacities. Field enforcement was contacted and deemed an inspection of the source is not necessary for these registration modifications at this time.

Modifications of registrations issued pursuant to the former RCSA §22a-174-2 have been done in the past (US Army Stratford Army Engine, 2008; Sikorsky Aircraft Corporation, 2012 and 2017; Allnex USA Inc., 2016) pursuant to the Rules of Practice and a process derived from discussions between the Engineering and Enforcement Sections and the Attorney General's office.

The compliance record was reviewed in accordance with the Environmental Compliance History Policy. Agency records, including the SIMS Enforcement database, were reviewed for information to evaluate the applicant's compliance history and the relevance of such history to the revocation being sought. Additionally, a review of air program compliance was requested from the Enforcement Section and that response forms a part of this record.

RECOMMENDATION:

Based on the information submitted by the applicant, this engineering evaluation and the compliance history review, it is recommended that Registration No(s). 070-0057-R and 070-0074-R be modified as requested.

/s/Christina Kielczewska
Christina Kielczewska, APCE II

06/27/2023
Date

REVIEW:

Lakiesha Christopher
Lakiesha S. Christopher, Supervising APCE

6/28/2023
Date


Jaimeson Sinclair, Director

07/05/2023
Date



Mr. Michael Sinko
 Sr. Manager, Environmental Resources
 Electric Boat Corporation
 75 Eastern Point Road
 Groton, CT 06340
msinko@gdeb.com

RE: Modification of Registration No(s). 070-0057-R and 070-0074-R for two boilers located at Electric Boat Corporation in Groton

Dear Mr. Sinko:

The Commissioner of the Department of Energy and Environmental Protection (DEEP) may modify any license at the request of the licensee in accordance with Section 22a-3a-5(d) of the Regulations of Connecticut State Agencies (RCSA), and any other applicable law. Any modification at the request of the licensee shall comply with the requirements of RCSA Section 22a-3a-5(a).

As requested and supported in your letter dated February 15, 2022, the DEEP Bureau of Air Management Registration(s) for the above mentioned equipment are hereby modified unless within 30 days of issuance of this notice a request for hearing is filed. Such request shall conform with the provisions of RCSA Section 22a-3a-6(i). The registration(s) have been modified as follows:

Registration No. 070-0057-R, 200 BHP Superior Fire Tube Boiler (North Yard Boiler #1)

	Current	Modified
Fuel	No. 4 Fuel	Natural Gas
Annual Usage	170,000 gal	428,000 ccf
Maximum Firing Rate/Heat Input	55 gal/hr 7.99 MMBtu/hr	8400 cf/hr 8.7 MMBtu/hr
Type of Oil Burner	Rotary Cup	N/A
Burner Manufacturer	Superior Combustion Industries	Superior Combustion, Inc.
Burner Model No.	BRgH-6	AB-LN-200-GAA4
Breaching Gas Temperature	480°F	350°F
Fuel Supplier	Hess Oil Co.	Eversource
Burner Equipment: Oil Heaters	Present	N/A
Oil Temperature Before Injection	110 °F	N/A
Stack Height	40 ft	50 ft

Registration No. 070-0074-R, 250 BHP Superior Fire Tube Boiler (South Yard Boiler #2)

	Current	Modified
Fuel	No. 4 Fuel	Natural Gas, No. 2 Fuel Oil
Annual Usage	460,000 gal	Natural Gas: 535,000 ccf

		No. 2 Fuel Oil: 383,000 gal
Maximum Firing Rate	71 gal/hr	Natural Gas: 10500 cf/hr
		No. 2 Fuel Oil: 75.2 gal/hr
Maximum Heat Input	10.5 MMBtu/hr	Natural Gas: 10.9 MMBtu/hr
		No. 2 Fuel Oil: 10.4 MMBtu/hr
Type of Oil Burner	Rotary Cup	No.2 Fuel Oil: Air Atomizer
Burner Manufacturer	Superior Combustion Industries, Inc.	Superior Combustion, Inc.
Burner Model No.	BRgH-6	AB-LN-250-GAA4
Breaching Gas Temperature	480°F	350°F
Fuel Oil Sulfur Content	0.48%	0.015%
Fuel Oil Ash Content	0.03%	0%
Seasonal Use	Jan-Jan	Sept-May
Fuel Supplier	Hess Oil Co.	No.2 Fuel Oil: Saveway Petroleum Natural Gas: Eversource
Burner Equipment: Oil Heaters	Present	None
Oil Temperature Before Injection	110-190 °F	N/A
Operating Hours	Not Specified	5760 hours

Note:

- ft³/hr ratings were calculated using 1040 Btu/ft³
- gal/hr ratings were calculated using 138,300 Btu/gal


The DEEP will update its emissions inventory to reflect these modifications.

This letter in no way grants immunity from legal action resulting from the failure of these sources to remain in compliance with existing air pollution regulations, nor does it provide an exemption from compliance with future Federal, State or local laws.

If you have any questions concerning this notice, please contact Ms. Christina Kielczewska of my staff at Christina.Kielczewska@ct.gov or 860-424-3923.

August 8, 2023

Date


Tracy R. Babbidge, Esq.
Acting Deputy Commissioner

cc: Richard Rodrigue, Air Engineering
Keith Hill, Air Enforcement
David Kurtz, Electric Boat Corporation; dkurtz@gdeb.com

Sent Via Electronic Mail