



Attachment D - 1
Site Locus Map

ATTACHMENT E

**SUPPLEMENTAL APPLICATION FORMS
(FUEL BURNING EQUIPMENT AND UNIT EMISSIONS)**

Supplemental Application Form Fuel Burning Equipment

Applicant Name: **Waterside Power, LLC**
(As indicated on the *Permit Application Transmittal Form*)

Please complete a separate form for *each* fuel burning unit.
(You may reproduce this form as necessary.)
Unit #: **U1**

DEP USE ONLY	
App. No.:	
EPE No.:	

Is this unit subject to Title 40 CFR Part 60, NSPS? ☒ Yes or ☐ No

If yes, indicate the subpart(s): **GG**

Is this unit subject to Title 40 CFR Part 63, MACT? ☐ Yes or ☒ No

If yes, indicate the subpart(s):

Section I: General

1. Type of Unit (make, model, serial no.): **General Electric, TM2500, 601178-6**
2. Burner (make, model, serial no.): **Not Applicable**
3. Construction Date: / /
4. Unit Rated Capacity - Input (BTU/hr): **247,000,000**
5. Burner Rated Capacity - Input (if different) (BTU/hr): **Not Applicable**
6. Engine Brake Horsepower (for internal combustion engines): **Not Applicable**
7. Equipment is: ☐ Emergency ☒ Non-emergency
8. Maximum Operating Schedule for this Unit: **24** hours/day **718** hours/year
9. Percentage of Use in Each Category:
Space Heat: **0** % Process Heat: **0** % Power: **100** %

Section II: Fuel

1. Type of Primary Fuel (*check one*):
☐ Fuel Oil Grade (*check one*) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6
☐ Coal ☐ Natural Gas ☐ Propane ☐ Butane ☐ Wood ☐ Landfill Gas
☒ Other (*specify*): **ULSD**
a. Maximum Fuel Firing Rate (specify units): **1,800 gal/hr**
2. List Secondary Fuel(s): **Natural Gas**
a. Maximum Fuel Firing Rate for each secondary fuel listed (specify units): **251,000 scf/h**

Section II: Fuel (continued)

3. Fuel Characteristics

Type	Percent Ash (a)	Percent Sulfur (b)	Percent Nitrogen (c)	Heating Value (d)	Annual Usage (e)
Primary	0.001	0.0015	0.001	137000Btu/gal	2249100 gal
Secondary	0	0.003	1	1020Btu/scf	540905E3 scf
Secondary					
Secondary					

4. Percent of Annual Fuel Use by Quarter:

1st: 25 % 2nd: 25 % 3rd: 25 % 4th: 25 %

Section III: Equipment

1. Oil-Fired/Gas-Fired Unit

- ☐ Tangentially Fired ☐ Horizontally Opposed (normal) Fired
☒ Other (specify): **Combustion Gas Turbine**

2. Coal Fired Units

☐ Pulverized Coal Fired:

- ☐ Dry Bottom ☐ Wet Bottom ☐ Wall Fired ☐ Tangentially Fired

☐ Stoker:

- ☐ Overfeed ☐ Underfeed ☐ Spreader ☐ Hand Fed

☐ Other (specify):

☐ Fluidized Bed Combuster:

- ☐ Circulating Bed ☐ Bubbling Bed ☐ Cyclone Furnace

3. Wood-Fired Unit

- ☐ Dutch Oven/Fuel Cell Oven ☐ Stoker
☐ Suspension Firing ☐ Fluidized Bed Combustion (FBC)

Section IV: Combustion Controls

1. ☐ Fly Ash Reinjection 2. ☐ Flue Gas Recirculation 3. ☐ Low NOx Burners

4. ☒ Advanced Combustion Controls:

- ☐ Selective Catalytic Reduction ☐ Coal Reburn ☐ Gas Reburn ☒ Other

If other, please specify: **Water Injection**

- ☐ Check here if a *Stationary Reciprocating Internal Combustion Engine – Compliance Assurance Form* (DEP-AIR-COMP-001) is attached.

Supplemental Application Form Fuel Burning Equipment

Applicant Name: **Waterside Power, LLC**
(As indicated on the *Permit Application Transmittal Form*)

Please complete a separate form for *each* fuel burning unit.
(You may reproduce this form as necessary.)
Unit #: **U2**

DEP USE ONLY	
App. No.:	
EPE No.:	

Is this unit subject to Title 40 CFR Part 60, NSPS? ☒ Yes or ☐ No

If yes, indicate the subpart(s): **GG**

Is this unit subject to Title 40 CFR Part 63, MACT? ☐ Yes or ☒ No

If yes, indicate the subpart(s):

Section I: General

1. Type of Unit (make, model, serial no.): **General Electric, TM2500, 601178-9**
2. Burner (make, model, serial no.): **Not Applicable**
3. Construction Date: / /
4. Unit Rated Capacity - Input (BTU/hr): **247,000,000**
5. Burner Rated Capacity - Input (if different) (BTU/hr): **Not Applicable**
6. Engine Brake Horsepower (for internal combustion engines): **Not Applicable**
7. Equipment is: ☐ Emergency ☒ Non-emergency
8. Maximum Operating Schedule for this Unit: **24** hours/day **718** hours/year
9. Percentage of Use in Each Category:
Space Heat: **0** % Process Heat: **0** % Power: **100** %

Section II: Fuel

1. Type of Primary Fuel (*check one*):
☐ Fuel Oil Grade (*check one*) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6
☐ Coal ☐ Natural Gas ☐ Propane ☐ Butane ☐ Wood ☐ Landfill Gas
☒ Other (*specify*): **ULSD**
a. Maximum Fuel Firing Rate (specify units): **1,800 gal/hr**
2. List Secondary Fuel(s): **Natural Gas**
a. Maximum Fuel Firing Rate for each secondary fuel listed (specify units): **251,000 scf/h**

Section II: Fuel (continued)

3. Fuel Characteristics

Type	Percent Ash (a)	Percent Sulfur (b)	Percent Nitrogen (c)	Heating Value (d)	Annual Usage (e)
Primary	0.001	0.0015	0.001	137000Btu/gal	2249100 gal
Secondary	0	0.003	1	1020Btu/scf	540905E3 scf
Secondary					
Secondary					

4. Percent of Annual Fuel Use by Quarter:

1st: 25 % 2nd: 25 % 3rd: 25 % 4th: 25 %

Section III: Equipment

1. Oil-Fired/Gas-Fired Unit

- ☐ Tangentially Fired ☐ Horizontally Opposed (normal) Fired
☒ Other (specify): **Combustion Gas Turbine**

2. Coal Fired Units

☐ Pulverized Coal Fired:

- ☐ Dry Bottom ☐ Wet Bottom ☐ Wall Fired ☐ Tangentially Fired

☐ Stoker:

- ☐ Overfeed ☐ Underfeed ☐ Spreader ☐ Hand Fed

☐ Other (specify):

☐ Fluidized Bed Combuster:

- ☐ Circulating Bed ☐ Bubbling Bed ☐ Cyclone Furnace

3. Wood-Fired Unit

- ☐ Dutch Oven/Fuel Cell Oven ☐ Stoker
☐ Suspension Firing ☐ Fluidized Bed Combustion (FBC)

Section IV: Combustion Controls

1. ☐ Fly Ash Reinjection 2. ☐ Flue Gas Recirculation 3. ☐ Low NOx Burners

4. ☒ Advanced Combustion Controls:

- ☐ Selective Catalytic Reduction ☐ Coal Reburn ☐ Gas Reburn ☒ Other

If other, please specify: **Water Injection**

- ☐ Check here if a *Stationary Reciprocating Internal Combustion Engine – Compliance Assurance Form (DEP-AIR-COMP-001)* is attached.

Supplemental Application Form Fuel Burning Equipment

Applicant Name: **Waterside Power, LLC**
(As indicated on the *Permit Application Transmittal Form*)

Please complete a separate form for *each* fuel burning unit.
(You may reproduce this form as necessary.)
Unit #: **U3**

DEP USE ONLY	
App No:	
EPE No:	

Is this unit subject to Title 40 CFR Part 60, NSPS? ☒ Yes or ☐ No

If yes, indicate the subpart(s): **GG**

Is this unit subject to Title 40 CFR Part 63, MACT? ☐ Yes or ☒ No

If yes, indicate the subpart(s):

Section I: General

1. Type of Unit (make, model, serial no.): **General Electric, TM2500, 601178-10**
2. Burner (make, model, serial no.): **Not Applicable**
3. Construction Date: / /
4. Unit Rated Capacity - Input (BTU/hr): **247,000,000**
5. Burner Rated Capacity - Input (if different) (BTU/hr): **Not Applicable**
6. Engine Brake Horsepower (for internal combustion engines): **Not Applicable**
7. Equipment is: ☐ Emergency ☒ Non-emergency
8. Maximum Operating Schedule for this Unit: **24** hours/day **718** hours/year
9. Percentage of Use in Each Category:
Space Heat: **0** % Process Heat: **0** % Power: **100** %

Section II: Fuel

1. Type of Primary Fuel (check one):
☐ Fuel Oil Grade (check one) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6
☐ Coal ☐ Natural Gas ☐ Propane ☐ Butane ☐ Wood ☐ Landfill Gas
☒ Other (specify): **ULSD**
a. Maximum Fuel Firing Rate (specify units): **1,800 gal/hr**
2. List Secondary Fuel(s): **Natural Gas**
a. Maximum Fuel Firing Rate for each secondary fuel listed (specify units): **251,000 scf/h**

Section II: Fuel (continued)

3. Fuel Characteristics

Type	Percent Ash (a)	Percent Sulfur (b)	Percent Nitrogen (c)	Heating Value (d)	Annual Usage (e)
Primary	0.001	0.0015	0.001	137000Btu/gal	2249100 gal
Secondary	0	0.003	1	1020Btu/scf	540905E3 scf
Secondary					
Secondary					

4. Percent of Annual Fuel Use by Quarter:

1st: 25 % 2nd: 25 % 3rd: 25 % 4th: 25 %

Section III: Equipment

1. Oil-Fired/Gas-Fired Unit

- ☐ Tangentially Fired ☐ Horizontally Opposed (normal) Fired
☒ Other (specify): **Combustion Gas Turbine**

2. Coal Fired Units

☐ Pulverized Coal Fired:

- ☐ Dry Bottom ☐ Wet Bottom ☐ Wall Fired ☐ Tangentially Fired

☐ Stoker:

- ☐ Overfeed ☐ Underfeed ☐ Spreader ☐ Hand Fed

☐ Other (specify):

☐ Fluidized Bed Combuster:

- ☐ Circulating Bed ☐ Bubbling Bed ☐ Cyclone Furnace

3. Wood-Fired Unit

- ☐ Dutch Oven/Fuel Cell Oven ☐ Stoker
☐ Suspension Firing ☐ Fluidized Bed Combustion (FBC)

Section IV: Combustion Controls

1. ☐ Fly Ash Reinjection 2. ☐ Flue Gas Recirculation 3. ☐ Low NOx Burners

4. ☒ Advanced Combustion Controls:

- ☐ Selective Catalytic Reduction ☐ Coal Return ☐ Gas Return ☒ Other

If other, please specify: **Water Injection**

- ☐ Check here if a *Stationary Reciprocating Internal Combustion Engine* – Compliance Assurance Form (DEP-AIR-COMP-001) is attached.

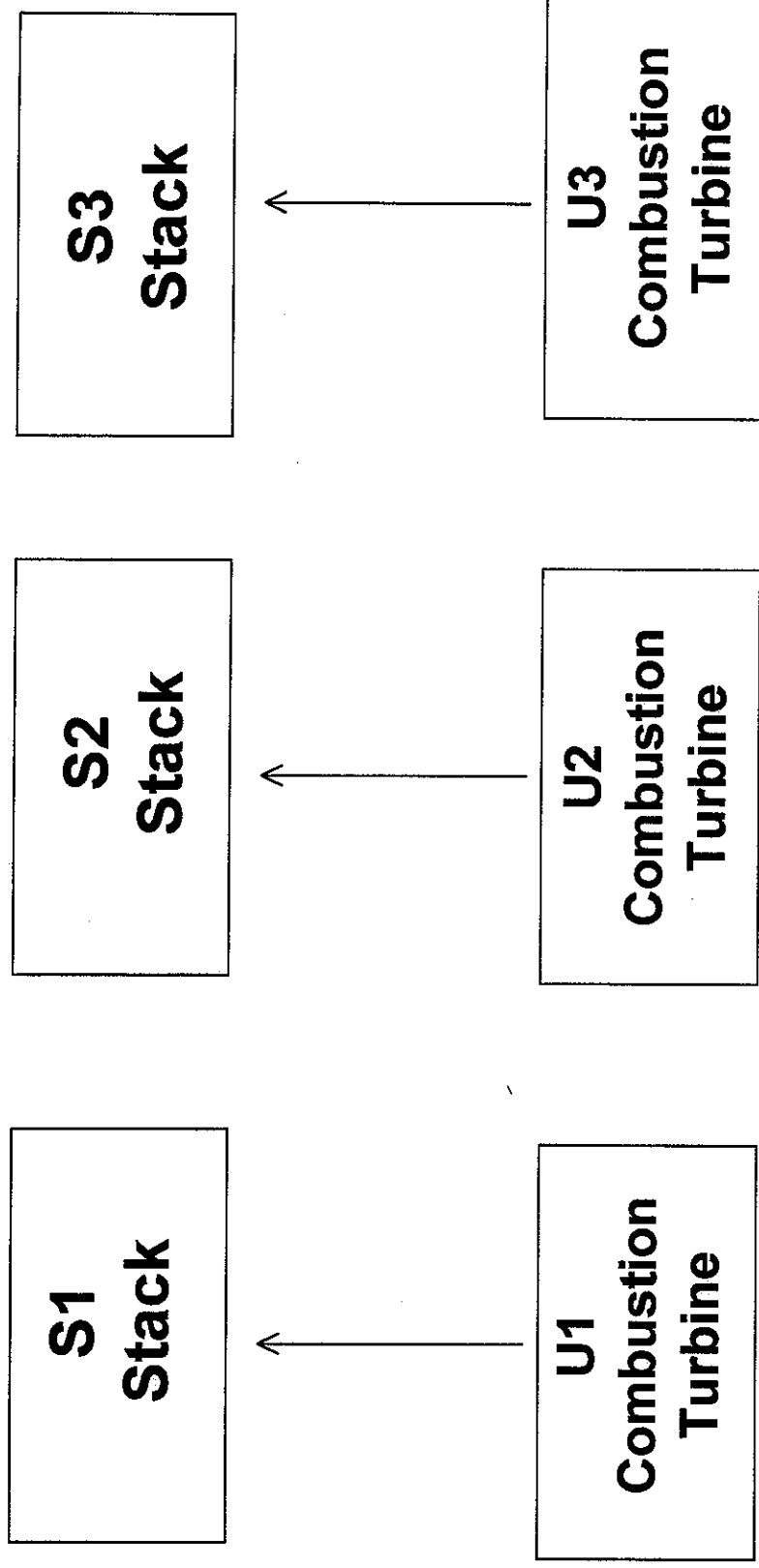
Supplemental Application Form Stack Parameters

Applicant Name: **Waterside Power, LLC**
(As indicated on *Permit Application Transmittal Form*)

DEP USE ONLY	
App. No.:	
EPE No.:	

Section I. Stack Parameters (Make additional copies, if necessary)

Stack No. (1)	Unit No.(s) (2)	Control Equipment No.(s) (3)	Height ft. (4)	Diameter ft. (5)	Temp °F (6)	Flow ACFM (7)	Exit Dir. H or V (8)	Rain Hat Y or N (9)	Stack Lining (10)	Distance to Property Line ft. (11)
S1	U1	N/A	29.8	8.2sq	960	341,800	H	N	Metal	131
S2	U2	N/A	29.8	8.2sq	960	341,800	H	N	Metal	117
S3	U3	N/A	29.8	8.2sq	960	341,800	H	N	Metal	113



Process Flow Diagram

Supplemental Application Form Unit Emissions

Applicant Name: **Waterside Power, LLC**
(As indicated on the *Permit Application Transmittal Form*)

DEP USE ONLY	
App. No.:	
EPE No.:	

Section I: General Information

Please complete a separate form for each unit. You may reproduce this form as necessary.

1. Unit Number: U1
2. Stack Number: S1
3. Control Equipment Number(s): N/A

Section II: Stack Emission Information for Listed Pollutants (Exclude Fugitive Emission Information)

Pollutant		(1) Stack Emission Rate (@ Rated Capacity)			
		Pounds Per Hour (lb/hr)	Tons Per Year (TPY)	Other (Units)	Basis
		(a)	(b)	(c)	(d)
Carbon Monoxide (CO)	Uncontrolled potential	30.0	131.40		Vendor
	proposed actual	30.0	10.78		Vendor
Volatile Organic Compounds (VOC)	uncontrolled potential	2.9	12.70		AP 42
	proposed actual	2.9	1.04		AP 42
Hydrocarbons	uncontrolled potential	3.9	17.08		AP 42
	proposed actual	3.9	1.39		AP 42
Nitrogen Oxides (NOx)	uncontrolled potential	40.0	175.20		Vendor
	proposed actual	40.0	8.33		Vendor
Sulfur Oxides (SOx)	uncontrolled potential	0.5	2.06		Mass Balance
	proposed actual	0.5	0.19		Mass Balance
Particulate Matter (TSP)	uncontrolled potential	2.8	12.26		AP-42
	proposed actual	2.8	0.58		AP-42
Particulate Matter < - 10 Micrometers (PM ₁₀)	uncontrolled potential	2.8	12.26		AP-42, assume all PM as PM ₁₀
	proposed actual	2.8	0.58		AP-42, assume all PM as PM ₁₀
Lead (Pb)	uncontrolled potential	0.003	0.01		AP-42
	proposed actual	0.003	0.0006		AP-42

Section III: Stack Emission Information for Hazardous Air Pollutants
(Exclude Fugitive Emission Information)

Hazardous Air Pollutants (List Separately) (1)		Stack Emission Rate (@ Rated Capacity) (2)				
		Pounds Per Hour (lb/hr) (a)	Tons per year (TPY) (b)	Concentration Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$) (c)	Other (Units) (d)	Basis (e)
Formaldehyde	uncontrolled potential	2.11E-2	9.24E-2			AP-42
	proposed actual	2.11E-2	7.58E-3	17.99		AP-42
	maximum allowable			47		RCSA 22a- 174-29
1,3 Butadiene	uncontrolled potential	3.70E-3	1.62E-2			AP-42
	proposed actual	3.70E-3	7.70E-4	3.08		AP-42
	maximum allowable			86,948		RCSA 22a- 174-29
Acetaldehyde	uncontrolled potential	9.25E-3	4.05E-2			AP-42
	proposed actual	9.25E-3	3.32E-3	7.91		AP-42
	maximum allowable			14,141		RCSA 22a- 174-29
Benzene	uncontrolled potential	1.27E-2	5.56E-2			AP-42
	proposed actual	1.27E-2	2.65E-3	10.60		AP-42
	maximum allowable			593		RCSA 22a- 174-29
Ethylbenzene	uncontrolled potential	7.40E-3	3.24E-2			AP-42
	proposed actual	7.40E-3	2.66E-3	6.32		AP-42
	maximum allowable			34,173		RCSA 22a- 174-29

Hazardous Air Pollutants (List Separately) (1)		Stack Emission Rate (@ Rated Capacity) (2)				
		Pounds Per Hour (lb/hr) (a)	Tons per year (TPY) (b)	Concentration Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$) (c)	Other (Units) (d)	Basis (e)
Napthalene	uncontrolled potential	8.09E-3	3.54E-2			AP-42
	proposed actual	8.09E-3	1.68E-3	6.74		AP-42
	maximum allowable			3,952		RCSA 22a- 174-29
PAH (soluble Benzene)	uncontrolled potential	1.20E-4	5.26E-4			AP-42
	proposed actual	1.20E-4	2.50E-5	0.10		AP-42
	maximum allowable			0.4		RCSA 22a- 174-29
Coal Tar Pitch Volalites	uncontrolled potential	1.20E-4	5.26E-4			AP-42
	proposed actual	1.20E-4	2.50E-5	0.10		AP-42
	maximum allowable			4		RCSA 22a- 174-29
Propylene Oxide	uncontrolled potential	6.71E-3	2.94E-2			AP-42
	proposed actual	6.71E-3	2.41E-3	5.73		AP-42
	maximum allowable			3,928		RCSA 22a- 174-29
Toluene	uncontrolled potential	3.01E-2	1.32E-1			AP-42
	proposed actual	3.01E-2	1.08E-2	25.69		AP-42
	maximum allowable			29,460		RCSA 22a- 174-29

Hazardous Air Pollutants (List Separately) (1)		Stack Emission Rate (@ Rated Capacity) (2)				
		Pounds Per Hour (lb/hr) (a)	Tons per year (TPY) (b)	Concentration Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$) (c)	Other (Units) (d)	Basis (e)
Xylenes	uncontrolled potential	1.48E-2	6.48E-2			Fuel Analysis
	proposed actual	1.48E-2	5.32E-3	12.65		Fuel Analysis
	maximum allowable			34,095		RCSA 22a- 174-29
Arsenic	uncontrolled potential	9.24E-5	4.05E-4			Fuel Analysis
	proposed actual	9.24E-5	1.93E-5	0.08		Fuel Analysis
	maximum allowable			0.2		RCSA 22a- 174-29
Beryllium	uncontrolled potential	1.85E-5	8.10E-5			Fuel Analysis
	proposed actual	1.85E-5	3.85E-6	0.02		Fuel Analysis
	maximum allowable			0.04		RCSA 22a- 174-29
Cadmium	uncontrolled potential	7.40E-4	3.24E-3			Fuel Analysis
	proposed actual	7.40E-4	1.54E-4	0.62		Fuel Analysis
	maximum allowable			2		RCSA 22a- 174-29
Chromium	uncontrolled potential	2.54E-3	1.11E-2			Fuel Analysis
	proposed actual	2.54E-3	5.29E-4	2.12		Fuel Analysis
	maximum allowable			10		RCSA 22a- 174-29

Hazardous Air Pollutants (List Separately) (1)		Stack Emission Rate (@ Rated Capacity) (2)				
		Pounds Per Hour (lb/hr) (a)	Tons per year (TPY) (b)	Concentration Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$) (c)	Other (Units) (d)	Basis (e)
Lead	uncontrolled potential	3.24E-3	1.42E-2			Fuel Analysis
	proposed actual	3.24E-3	6.74E-4	2.70		Fuel Analysis
	maximum allowable			12		RCSA 22a- 174-29
Manganese	uncontrolled potential	3.70E-2	1.62E-1			Fuel Analysis
	proposed actual	3.70E-2	7.70E-3	30.83		Fuel Analysis
	maximum allowable			79		RCSA 22a- 174-29
Mercury	uncontrolled potential	2.77E-4	1.21E-3			Fuel Analysis
	proposed actual	2.77E-4	5.78E-5	0.23		Fuel Analysis
	maximum allowable			4		RCSA 22a- 174-29
Nickel	uncontrolled potential	1.06E-3	4.64E-3			Fuel Analysis
	proposed actual	1.06E-3	2.21E-4	0.89		Fuel Analysis
	maximum allowable			20		RCSA 22a- 174-29
Selenium	uncontrolled potential	5.78E-3	2.53E-2			Fuel Analysis
	proposed actual	5.78E-3	1.20E-3	4.82		Fuel Analysis
	maximum allowable			16		RCSA 22a- 174-29

Hazardous Air Pollutants (List Separately) (1)		Stack Emission Rate (@ Rated Capacity) (2)				
		Pounds Per Hour (lb/hr) (a)	Tons per year (TPY) (b)	Concentration Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$) (c)	Other (Units) (d)	Basis (e)
Sulfuric Acid	uncontrolled potential	3.97E-2	1.74E-1			Fuel Analysis
	proposed actual	3.97E-2	1.43E-2	33.99		Fuel Analysis
	maximum allowable			79		RCSA 22a- 174-29
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					

Section IV: Fugitive Emission Information for Listed Pollutants

Pollutant		Emission Rate (@ <i>Rated Capacity</i>) (1)			
		Pounds Per Hour (lb/hr) (a)	Tons Per Year (TPY) (b)	Other (Units) (c)	Basis (d)
Carbon Monoxide (CO)	uncontrolled potential				
	proposed actual				
Volatile Organic Compounds (VOC)	uncontrolled potential				
	proposed actual				
Exempted Volatile Organic Compounds	uncontrolled potential				
	proposed actual				
Hydrocarbons	uncontrolled potential				
	proposed actual				
Nitrogen Oxides (NOx)	uncontrolled potential				
	proposed actual				
Sulfur Oxides (SOx)	uncontrolled potential				
	proposed actual				
Particulate Matter (TSP)	uncontrolled potential				
	proposed actual				
Particulate Matter <- 10 Micrometers (PM ₁₀)	uncontrolled potential				
	proposed actual				
Lead (Pb)	uncontrolled potential				
	proposed actual				
1e. Assumptions:					

Section V: Fugitive Emission Information for Hazardous Air Pollutants

Hazardous Air Pollutants (List Separately) (1)		Emission Rate (@ Rated Capacity) (2)				
		Pounds Per Hour (lb/hr) (a)	Tons per year (TPY) (b)	Concentration Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$) (c)	Other (Units) (d)	Basis (e)
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					
	uncontrolled potential					
	proposed actual					
	maximum allowable					

Supplemental Application Form Unit Emissions

Applicant Name: **Waterside Power, LLC**
(As indicated on the *Permit Application Transmittal Form*)

DEP USE ONLY	
App. No.:	
EPE No.:	

Section I: General Information

Please complete a separate form for each unit. You may reproduce this form as necessary.

1. Unit Number: **U2**
2. Stack Number: **S2**
3. Control Equipment Number(s): **N/A**

Section II: Stack Emission Information for Listed Pollutants (Exclude Fugitive Emission Information)

Pollutant		(1) Stack Emission Rate (@ Rated Capacity)			
		Pounds Per Hour (lb/hr)	Tons Per Year (TPY)	Other (Units)	Basis
		(a)	(b)	(c)	(d)
Carbon Monoxide (CO)	uncontrolled potential	30.0	131.40		Vendor
	proposed actual	30.0	10.78		Vendor
Volatile Organic Compounds (VOC)	uncontrolled potential	2.9	12.70		AP 42
	proposed actual	2.9	1.04		AP 42
Hydrocarbons	uncontrolled potential	3.9	17.08		AP 42
	proposed actual	3.9	1.39		AP 42
Nitrogen Oxides (NOx)	uncontrolled potential	40.0	175.20		Vendor
	proposed actual	40.0	8.33		Vendor
Sulfur Oxides (SOx)	uncontrolled potential	0.5	2.06		Mass Balance
	proposed actual	0.5	0.19		Mass Balance
Particulate Matter (TSP)	uncontrolled potential	2.8	12.26		AP-42
	proposed actual	2.8	0.58		AP-42
Particulate Matter < - 10 Micrometers (PM ₁₀)	uncontrolled potential	2.8	12.26		AP-42, assume all PM as PM ₁₀
	proposed actual	2.8	0.58		AP-42, assume all PM as PM ₁₀
Lead (Pb)	uncontrolled potential	0.003	0.01		AP-42
	proposed actual	0.003	0.0006		AP-42