



**CSW Energy, Inc.**

A Central and South West Company  
**Orange Cogeneration Facility**  
1901 Clear Springs Road  
Post Office Box 782  
Bartow, Florida 33831-0782

Telephone (863) 534-1141  
Facsimile (863) 533-4152

Tom  
**RECEIVED**

SEP 06 2002

BUREAU OF AIR REGULATION

August 26, 2002

Mr. Scott M. Sheplak, P.E.  
Administrator – Title V Section  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
Tallahassee, Florida 32399-2400

**Re:** Orange Cogeneration Facility  
Facility ID: **1050231**; ORIS Code: **54365**  
DEP's Request for Additional Information (RAI), July 24, 2002

Dear Mr. Sheplak:

In response to the above RAI, our engineer has prepared the calculations addressing the increases in emissions associated with the requested minor modification. Our engineer's certification and calculations are enclosed as Attachment 1 to this letter. In addition, we are not requesting any changes to the Designated Representative at this time.

As you may be aware, the Orange Cogeneration Facility's combustion turbines (CTs) were subject to a BACT determination that included a phased-in BACT emission limitation on oxides of nitrogen (NO<sub>x</sub>) that required several extensions of the compliance deadline. In 2001 we achieved compliance with the 15 ppmvd NO<sub>x</sub> limitation, and in 2002, during routine mapping of the CTs, we noted that our maximum heat input rate was slightly (<3%) higher than the permitted level. We recognize that this was a short-term maximum achieved during the winter season and that on an annual average we could not operate at this maximum rate.

In reviewing the requested calculations, our engineer noted several PSD issues that need to be addressed and discussed with the Department. These include the following:

- The facility has operated less than 2 years since achieving compliance with the phased-in BACT limitation;
- The increase, in whole or part, appears to be associated with the emission reduction efforts in achieving the phased-in BACT limitations;

Mr. Scott M. Sheplak, P.E.  
Florida Department of  
Environmental Protection  
August 26, 2002  
Page Two

- As a power generating facility, does WEPCO applicability apply, meaning a current actual to future actual emissions evaluation; and
- Use of a short-term maximum heat input for a CT when an annual average is more appropriate.

These issues have been discussed with the Department's NSR Section for initial guidance and we recognize that additional discussions may be necessary. Based on our engineer's calculations, increases associated with current actual to future actual emissions would not result in a significant net increase. Current actual to future allowable emissions indicate significant increases in most of the regulated PSD pollutants as would be expected.

It is requested that the modification be processed as a minor modification as addressed in the renewal application based on the PSD issues noted above. Should there be any additional questions please feel free to contact Ms. Gwynne Johnson at 863-534-1141, ext. 28 or our engineer, Mr. Darrel J. Graziani, P.E. at 772-781-3413.

Sincerely,

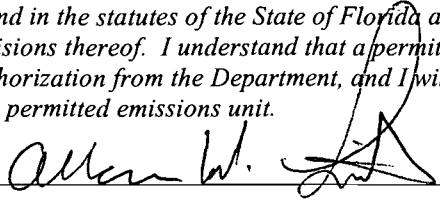


Don Walters  
Plant Manager  
Designated Representative

DW/kc  
cc: Wade Smith, OCLP

Enclosure: Six (6) copies of Owners & Engineers  
Certification and Calculations

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Allan Wade Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Orange Cogeneration L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ X ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>   Signature _____ Date <u>8/29/02</u>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Darrel James Graziani</b> Registration Number: <b>44685</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Foster Wheeler Environmental Corporation</b> Street Address: <b>749 South Federal Highway, Suite 100</b> City: <b>Stuart</b> State: <b>FL</b> Zip Code: <b>34994-2936</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(772) 781 - 3413</b> Fax: <b>(772) 781 - 3411</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ X ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

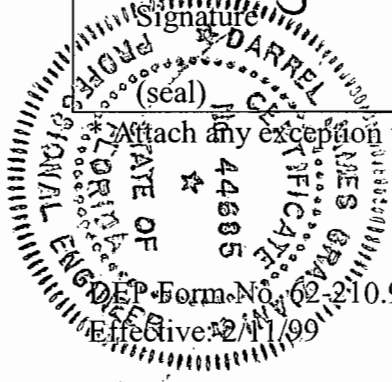
*Darrel Gray*

Signature

8-20-2002

Date

Attach any exception to certification statement.



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Summary Table

**Estimated Emissions (TPY)**

<b>Pollutant</b>	<b>PSD Permit</b>	<b>Current Actuals</b>	<b>Future Actuals</b>	<b>Adjusted Allowables</b>	<b>Maximum Allowables</b>
<b>Nitrogen Oxides</b>	194.00	97.65	107.15	178.28	182.50
<b>Carbon Monoxide</b>	254.00	53.90	59.31	216.57	221.69
<b>Particulate Matter</b>	43.80	2.88	3.15	43.80	43.80
<b>PM10</b>	21.02	1.38	1.51	21.02	21.02
<b>Volatile Organic Compounds</b>	34.80	4.22	5.01	41.25	42.23
<b>Sulfur Dioxide</b>	9.74	1.66	1.82	3.18	3.26
<b>Sulfuric Acid Mist</b>	0.74	0.12	0.13	0.22	0.23

Permit (PA) - Currently Permitted Allowable Emissions.

Current Actuals (CA) - Calendar Years 2000 and 2001 Averages. For NOx and CO emissions include startup,

Future Actuals (FA) - Based on CY 2000 & CY 2001 Averages

Adjusted Allowables (AA) - Based on an annual average operation at 368.3 mmBu and 8760 hrs/yr.

Maximum Allowables (MA) - Based on operation at 377 mmBtu/hr and 8,760 hrs/yr

**Estimated Emission Increases (TPY)**

<b>Pollutant</b>	<b>CA-FA Increases</b>	<b>CA-MA Increases</b>	<b>PA-AA Increases</b>	<b>PA-MA Increases</b>
<b>Nitrogen Oxides</b>	9.50	84.85	(15.72)	(11.50)
<b>Carbon Monoxide</b>	5.41	167.79	(37.43)	(32.31)
<b>Particulate Matter</b>	0.27	40.92	0.00	0.00
<b>PM10</b>	0.13	19.64	0.00	0.00
<b>Volatile Organic Compounds</b>	0.79	38.00	6.45	7.43
<b>Sulfur Dioxide</b>	0.16	1.60	(6.56)	(6.48)
<b>Sulfuric Acid Mist</b>	0.01	0.11	(0.52)	(0.51)

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** PSD Permit Limitations

**Operating Restrictions**

**Maximum Heat Input:** 368.3 mmBtu/hr

Ref.: December 28, 1999 Permit Modification, DEP File No. 1050:

**Hours of Operation:** 8760 hrs/yr

Ref: Permit No. AC53-233851B (PSD-FL-206B)

**Fuels:** Natural Gas  
Biogas

**Emission Limitations (per CT)**

<b>Nitrogen Oxides</b>	15 ppmvd@ 15% Ref: BACT, corrected to ISO Conditions 22.1 lbs/hr 97 TPY	
<b>Carbon Monoxide</b>	30 ppmvd 27.8 lbs/hr 127 TPY	BACT
<b>Particulate Matter</b>	5 Lb/hr 21.9 TPY	BACT
<b>Volatile Organic Compounds</b>	10 ppmvd 3.98 lbs/hr 17.4 TPY	BACT
<b>Sulfur Dioxide</b>	1.11 Lb/hr 4.87 TPY	Baseline
<b>Sulfuric Acid Mist</b>	0.085 Lb/hr 0.37 TPY	Baseline

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

Client: CSW Energy Operations, Inc.  
Project: Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.  
Subject: Calendar Year 200 & 2001 Actual Emissions

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	SCF/Btu	8710	8710	8710	SCF/Btu

Emissions Data Parameter	EAOR Data - CT #1			EAOR Data - CT #2		
	TPY	TPY	Average	TPY	TPY	Average
Nitrogen Oxides	41.5	52.7	47.1	47	54.1	50.55
Carbon Monoxide	18.8	35.4	27.1	28	25.6	26.8
Particulate Matter	1.48	1.37	1.43	1.458	1.443	1.451
PM10	0.71	0.66	0.685	0.70	0.69	0.696
Volatile Organic Compounds	1.67	1.55	1.61	2.63	2.60	2.61
Sulfur Dioxide	0.87	0.79	0.83	0.84	0.82	0.83
Sulfuric Acid Mist	0.06	0.06	0.06	0.06	0.06	0.06

Emissions Totals Parameter	EAOR Data CTs
Nitrogen Oxides	97.65
Carbon Monoxide	53.90
Particulate Matter	2.88
PM10	1.38
Volatile Organic Compounds	4.22
Sulfur Dioxide	1.66
Sulfuric Acid Mist	0.12

**QA/QC'ed Emissions Data**

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
Heat Input:	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	DSCF/mmBtu	8710	8710	8710	DSCF/mmBtu
Stack Flow	1.062E+07	1.082E+07	1.072E+07	DSCF/hr @15% O2	1.040E+07	1.067E+07	1.053E+07	DSCF/hr @15% O2

Pollutant	EAOR Data - CT #1			EAOR Data - CT #2		
	CY 2000	CY 2001	Average	CY 2000	CY 2001	Average
Nitrogen Oxides	16.53	22.65	19.59	19.01	22.12	20.57
	13.04	17.53	15.28	15.32	17.37	16.34
Carbon Monoxide	7.49	15.21	11.35	11.33	10.47	10.90
	9.72	19.39	14.56	15.02	13.53	14.28
Particulate Matter	0.59	0.59	0.59	0.59	0.59	0.59
	0.0017	0.0017	0.0017	0.0018	0.0017	0.0017
PM10	0.28	0.28	0.28	0.28	0.28	0.28
	0.00082	0.00081	0.0008	0.00084	0.00082	0.0008
Volatile Organic Compounds	0.666	0.666	0.6660	1.063	1.063	1.0630
	0.482	0.482	0.4820	1.508	1.508	1.5080
Sulfur Dioxide	0.35	0.34	0.34	0.34	0.33	0.34
	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Sulfuric Acid Mist	0.024	0.024	0.0240	0.024	0.023	0.0236

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Actual Emissions

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	4837	hrs/yr	4918	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	1776	mmSCF/yr	1774.45	mmSCF/yr
	0.37	mmSCF/hr	0.36	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	DSCF/mmBtu	8710	DSCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr @15% O2	1.163E+07	DSCF/hr @15% O2

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	51.34	55.81	TPY
	21.23	22.70	lb/hr
	15.28	16.34	ppmvd
<b>Carbon Monoxide</b>	29.70	29.61	TPY
	12.28	12.04	lb/hr
	14.56	14.28	ppmvd
<b>Particulate Matter</b>	1.55	1.60	TPY
	0.64	0.65	lb/hr
	0.0017	0.0017	lb/mmBtu
<b>PM10</b>	0.74	0.77	TPY
	0.31	0.31	lb/hr
	0.00082	0.00083	lb/mmBtu
<b>Volatile Organic Compounds</b>	1.55	3.46	TPY
	0.64	1.41	lb/hr
	0.48	1.063	ppmvd
<b>Sulfur Dioxide</b>	0.90	0.92	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.06	0.06	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	107.15
<b>Carbon Monoxide</b>	59.31
<b>Particulate Matter</b>	3.15
<b>PM10</b>	1.51
<b>Volatile Organic Compounds</b>	5.01
<b>Sulfur Dioxide</b>	1.82
<b>Sulfuric Acid Mist</b>	0.1270518



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Allowable Emissions

<b>Operating Data</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Parameter</b>				
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3558.75	mmSCF/yr	3558.75	mmSCF/yr
	0.41	mmSCF/hr	0.41	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr	1.163E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	91.25	91.25	TPY
	20.83	20.83	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	110.84	110.84	TPY
	25.31	25.31	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01326	0.01326	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00637	0.00637	lb/mmBtu
<b>Volatile Organic Compounds</b>	21.11	21.11	TPY
	4.82	4.82	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.63	1.63	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	182.50
<b>Carbon Monoxide</b>	221.69
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	42.225775
<b>Sulfur Dioxide</b>	3.26
<b>Sulfuric Acid Mist</b>	0.2281852

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

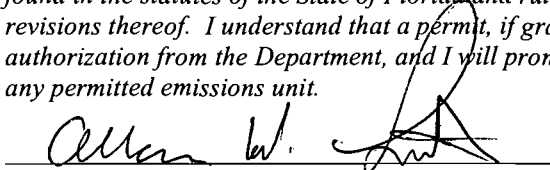
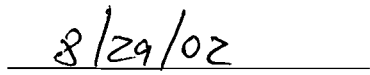
**Subject:** Future Allowable Emissions - Holding Gas Usage Constant

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3476.625	mmSCF/yr	3476.625	mmSCF/yr
	0.40	mmSCF/hr	0.40	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	368	mmBtu/hr	368	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.136E+07	DSCF/hr	1.136E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	89.14	89.14	TPY
	20.35	20.35	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	108.28	108.28	TPY
	24.72	24.72	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01358	0.01358	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00652	0.00652	lb/mmBtu
<b>Volatile Organic Compounds</b>	20.63	20.63	TPY
	4.71	4.71	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.59	1.59	TPY
	0.36	0.36	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	178.28
<b>Carbon Monoxide</b>	216.57
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	41.251334
<b>Sulfur Dioxide</b>	3.18
<b>Sulfuric Acid Mist</b>	0.2229194

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Allan Wade Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Orange Cogeneration L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ X ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>   Signature   Date

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Darrel James Graziani</b> Registration Number: <b>44685</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Foster Wheeler Environmental Corporation</b> Street Address: <b>749 South Federal Highway, Suite 100</b> City: <b>Stuart</b> State: <b>FL</b> Zip Code: <b>34994-2936</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(772) 781 - 3413</b> Fax: <b>(772) 781 - 3411</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ X ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

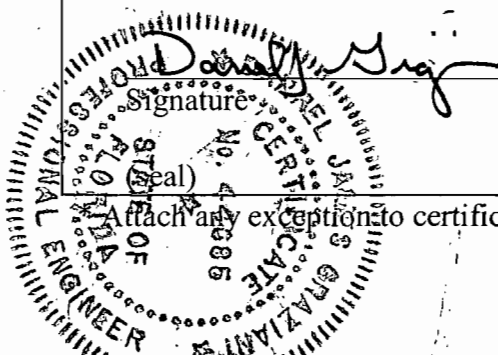
*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature \_\_\_\_\_

Date

8-20-2002

Attach any exceptions to certification statement.



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Summary Table

**Estimated Emissions (TPY)**

<b>Pollutant</b>	<b>PSD Permit</b>	<b>Current Actuals</b>	<b>Future Actuals</b>	<b>Adjusted Allowables</b>	<b>Maximum Allowables</b>
<b>Nitrogen Oxides</b>	194.00	97.65	107.15	178.28	182.50
<b>Carbon Monoxide</b>	254.00	53.90	59.31	216.57	221.69
<b>Particulate Matter</b>	43.80	2.88	3.15	43.80	43.80
<b>PM10</b>	21.02	1.38	1.51	21.02	21.02
<b>Volatile Organic Compounds</b>	34.80	4.22	5.01	41.25	42.23
<b>Sulfur Dioxide</b>	9.74	1.66	1.82	3.18	3.26
<b>Sulfuric Acid Mist</b>	0.74	0.12	0.13	0.22	0.23

Permit (PA) - Currently Permitted Allowable Emissions.

Current Actuals (CA) - Calendar Years 2000 and 2001 Averages. For NOx and CO emissions include startup, Future Actuals (FA) - Based on CY 2000 & CY 2001 Averages

Adjusted Allowables (AA) - Based on an annual average operation at 368.3 mmBu and 8760 hrs/yr.

Maximum Allowables (MA) - Based on operation at 377 mmBtu/hr and 8,760 hrs/yr

**Estimated Emission Increases (TPY)**

<b>Pollutant</b>	<b>CA-FA Increases</b>	<b>CA-MA Increases</b>	<b>PA-AA Increases</b>	<b>PA-MA Increases</b>
<b>Nitrogen Oxides</b>	9.50	84.85	(15.72)	(11.50)
<b>Carbon Monoxide</b>	5.41	167.79	(37.43)	(32.31)
<b>Particulate Matter</b>	0.27	40.92	0.00	0.00
<b>PM10</b>	0.13	19.64	0.00	0.00
<b>Volatile Organic Compounds</b>	0.79	38.00	6.45	7.43
<b>Sulfur Dioxide</b>	0.16	1.60	(6.56)	(6.48)
<b>Sulfuric Acid Mist</b>	0.01	0.11	(0.52)	(0.51)

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** PSD Permit Limitations

**Operating Restrictions**

**Maximum Heat Input:** 368.3 mmBtu/hr

Ref.: December 28, 1999 Permit Modification, DEP File No. 1050:

**Hours of Operation:** 8760 hrs/yr

Ref: Permit No. AC53-233851B (PSD-FL-206B)

**Fuels:** Natural Gas  
Biogas

**Emission Limitations (per CT)**

<b>Nitrogen Oxides</b>	15 ppmvd@ 15° Ref: BACT, corrected to ISO Conditions	
	22.1 lbs/hr	
	97 TPY	
<b>Carbon Monoxide</b>	30 ppmvd	BACT
	27.8 lbs/hr	
	127 TPY	
<b>Particulate Matter</b>	5 Lb/hr	BACT
	21.9 TPY	
	10 ppmvd	BACT
<b>Volatile Organic Compounds</b>	3.98 lbs/hr	
	17.4 TPY	
	1.11 Lb/hr	Baseline
<b>Sulfur Dioxide</b>	4.87 TPY	
	0.085 Lb/hr	Baseline
	0.37 TPY	

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

Client: CSW Energy Operations, Inc.  
Project: Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.  
Subject: Calendar Year 200 & 2001 Actual Emissions

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	SCF/Btu	8710	8710	8710	SCF/Btu

Emissions Data	EAOR Data - CT #1			EAOR Data - CT #2		
	TPY	TPY	Average	TPY	TPY	Average
Nitrogen Oxides	41.5	52.7	47.1	47	54.1	50.55
Carbon Monoxide	18.8	35.4	27.1	28	25.6	26.8
Particulate Matter	1.48	1.37	1.43	1.458	1.443	1.451
PM10	0.71	0.66	0.685	0.70	0.69	0.696
Volatile Organic Compounds	1.67	1.55	1.61	2.63	2.60	2.61
Sulfur Dioxide	0.87	0.79	0.83	0.84	0.82	0.83
Sulfuric Acid Mist	0.06	0.06	0.06	0.06	0.06	0.06

Emissions Totals	EAOR Data CTs
Nitrogen Oxides	97.65
Carbon Monoxide	53.90
Particulate Matter	2.88
PM10	1.38
Volatile Organic Compounds	4.22
Sulfur Dioxide	1.66
Sulfuric Acid Mist	0.12

**QA/QC'ed Emissions Data**

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
Heat Input:	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	DSCF/mmBtu	8710	8710	8710	DSCF/mmBtu
Stack Flow	1.062E+07	1.082E+07	1.072E+07	DSCF/hr @15% O2	1.040E+07	1.067E+07	1.053E+07	DSCF/hr @15% O2

Pollutant	EAOR Data - CT #1			EAOR Data - CT #2		
	CY 2000	CY 2001	Average	CY 2000	CY 2001	Average
Nitrogen Oxides	16.53	22.65	19.59	19.01	22.12	20.57
	13.04	17.53	15.28	15.32	17.37	16.34
Carbon Monoxide	7.49	15.21	11.35	11.33	10.47	10.90
	9.72	19.39	14.56	15.02	13.53	14.28
Particulate Matter	0.59	0.59	0.59	0.59	0.59	0.59
	0.0017	0.0017	0.0017	0.0018	0.0017	0.0017
PM10	0.28	0.28	0.28	0.28	0.28	0.28
	0.00082	0.00081	0.0008	0.00084	0.00082	0.0008
Volatile Organic Compounds	0.666	0.666	0.6660	1.063	1.063	1.0630
	0.482	0.482	0.4820	1.508	1.508	1.5080
Sulfur Dioxide	0.35	0.34	0.34	0.34	0.33	0.34
	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Sulfuric Acid Mist	0.024	0.024	0.0240	0.024	0.023	0.0236

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Actual Emissions

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	4837	hrs/yr	4918	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	1776	mmSCF/yr	1774.45	mmSCF/yr
	0.37	mmSCF/hr	0.36	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	DSCF/mmBtu	8710	DSCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr @15% O2	1.163E+07	DSCF/hr @15% O2

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	51.34	55.81	TPY
	21.23	22.70	lb/hr
	15.28	16.34	ppmvd
<b>Carbon Monoxide</b>	29.70	29.61	TPY
	12.28	12.04	lb/hr
	14.56	14.28	ppmvd
<b>Particulate Matter</b>	1.55	1.60	TPY
	0.64	0.65	lb/hr
	0.0017	0.0017	lb/mmBtu
<b>PM10</b>	0.74	0.77	TPY
	0.31	0.31	lb/hr
	0.00082	0.00083	lb/mmBtu
<b>Volatile Organic Compounds</b>	1.55	3.46	TPY
	0.64	1.41	lb/hr
	0.48	1.063	ppmvd
<b>Sulfur Dioxide</b>	0.90	0.92	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.06	0.06	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	107.15
<b>Carbon Monoxide</b>	59.31
<b>Particulate Matter</b>	3.15
<b>PM10</b>	1.51
<b>Volatile Organic Compounds</b>	5.01
<b>Sulfur Dioxide</b>	1.82
<b>Sulfuric Acid Mist</b>	0.1270518



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Allowable Emissions

<b>Operating Data</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Parameter</b>				
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3558.75	mmSCF/yr	3558.75	mmSCF/yr
	0.41	mmSCF/hr	0.41	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr	1.163E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	91.25	91.25	TPY
	20.83	20.83	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	110.84	110.84	TPY
	25.31	25.31	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01326	0.01326	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00637	0.00637	lb/mmBtu
<b>Volatile Organic Compounds</b>	21.11	21.11	TPY
	4.82	4.82	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.63	1.63	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	182.50
<b>Carbon Monoxide</b>	221.69
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	42.225775
<b>Sulfur Dioxide</b>	3.26
<b>Sulfuric Acid Mist</b>	0.2281852

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

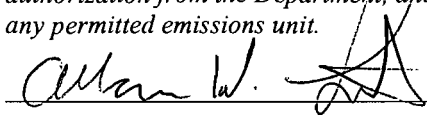
**Subject:** Future Allowable Emissions - Holding Gas Usage Constant

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3476.625	mmSCF/yr	3476.625	mmSCF/yr
	0.40	mmSCF/hr	0.40	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	368	mmBtu/hr	368	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.136E+07	DSCF/hr	1.136E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	89.14	89.14	TPY
	20.35	20.35	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	108.28	108.28	TPY
	24.72	24.72	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01358	0.01358	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00652	0.00652	lb/mmBtu
<b>Volatile Organic Compounds</b>	20.63	20.63	TPY
	4.71	4.71	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.59	1.59	TPY
	0.36	0.36	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	178.28
<b>Carbon Monoxide</b>	216.57
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	41.251334
<b>Sulfur Dioxide</b>	3.18
<b>Sulfuric Acid Mist</b>	0.2229194

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Allan Wade Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Orange Cogeneration L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ X ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>   Signature _____ Date <u>8/29/02</u>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Darrel James Graziani</b> Registration Number: <b>44685</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Foster Wheeler Environmental Corporation</b> Street Address: <b>749 South Federal Highway, Suite 100</b> City: <b>Stuart</b> State: <b>FL</b> Zip Code: <b>34994-2936</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(772) 781 - 3413</b> Fax: <b>(772) 781 - 3411</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ X ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

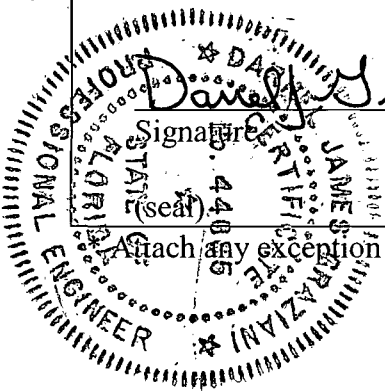
*Daniel J. ...*

Signature

8-20-2002

Date

Attach any exception to certification statement.



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Summary Table

**Estimated Emissions (TPY)**

<b>Pollutant</b>	<b>PSD Permit</b>	<b>Current Actuals</b>	<b>Future Actuals</b>	<b>Adjusted Allowables</b>	<b>Maximum Allowables</b>
<b>Nitrogen Oxides</b>	194.00	97.65	107.15	178.28	182.50
<b>Carbon Monoxide</b>	254.00	53.90	59.31	216.57	221.69
<b>Particulate Matter</b>	43.80	2.88	3.15	43.80	43.80
<b>PM10</b>	21.02	1.38	1.51	21.02	21.02
<b>Volatile Organic Compounds</b>	34.80	4.22	5.01	41.25	42.23
<b>Sulfur Dioxide</b>	9.74	1.66	1.82	3.18	3.26
<b>Sulfuric Acid Mist</b>	0.74	0.12	0.13	0.22	0.23

Permit (PA) - Currently Permitted Allowable Emissions.

Current Actuals (CA) - Calendar Years 2000 and 2001 Averages. For NOx and CO emissions include startup,

Future Actuals (FA) - Based on CY 2000 & CY 2001 Averages

Adjusted Allowables (AA) - Based on an annual average operation at 368.3 mmBu and 8760 hrs/yr.

Maximum Allowables (MA) - Based on operation at 377 mmBtu/hr and 8,760 hrs/yr

**Estimated Emission Increases (TPY)**

<b>Pollutant</b>	<b>CA-FA Increases</b>	<b>CA-MA Increases</b>	<b>PA-AA Increases</b>	<b>PA-MA Increases</b>
<b>Nitrogen Oxides</b>	9.50	84.85	(15.72)	(11.50)
<b>Carbon Monoxide</b>	5.41	167.79	(37.43)	(32.31)
<b>Particulate Matter</b>	0.27	40.92	0.00	0.00
<b>PM10</b>	0.13	19.64	0.00	0.00
<b>Volatile Organic Compounds</b>	0.79	38.00	6.45	7.43
<b>Sulfur Dioxide</b>	0.16	1.60	(6.56)	(6.48)
<b>Sulfuric Acid Mist</b>	0.01	0.11	(0.52)	(0.51)

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** PSD Permit Limitations

**Operating Restrictions**

**Maximum Heat Input:** 368.3 mmBtu/hr

Ref.: December 28, 1999 Permit Modification, DEP File No. 1050:

**Hours of Operation:** 8760 hrs/yr

Ref: Permit No. AC53-233851B (PSD-FL-206B)

**Fuels:** Natural Gas  
Biogas

**Emission Limitations (per CT)**

<b>Nitrogen Oxides</b>	15 ppmvd@ 15% Ref: BACT, corrected to ISO Conditions 22.1 lbs/hr 97 TPY	
<b>Carbon Monoxide</b>	30 ppmvd 27.8 lbs/hr 127 TPY	BACT
<b>Particulate Matter</b>	5 Lb/hr 21.9 TPY	BACT
<b>Volatile Organic Compounds</b>	10 ppmvd 3.98 lbs/hr 17.4 TPY	BACT
<b>Sulfur Dioxide</b>	1.11 Lb/hr 4.87 TPY	Baseline
<b>Sulfuric Acid Mist</b>	0.085 Lb/hr 0.37 TPY	Baseline

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

Client: CSW Energy Operations, Inc.  
Project: Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.  
Subject: Calendar Year 200 & 2001 Actual Emissions

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	SCF/Btu	8710	8710	8710	SCF/Btu

Emissions Data Parameter	EAOR Data - CT #1			EAOR Data - CT #2		
	TPY	TPY	Average	TPY	TPY	Average
Nitrogen Oxides	41.5	52.7	47.1	47	54.1	50.55
Carbon Monoxide	18.8	35.4	27.1	28	25.6	26.8
Particulate Matter	1.48	1.37	1.43	1.458	1.443	1.451
PM10	0.71	0.66	0.685	0.70	0.69	0.696
Volatile Organic Compounds	1.67	1.55	1.61	2.63	2.60	2.61
Sulfur Dioxide	0.87	0.79	0.83	0.84	0.82	0.83
Sulfuric Acid Mist	0.06	0.06	0.06	0.06	0.06	0.06

Emissions Totals Parameter	EAOR Data CTs
Nitrogen Oxides	97.65
Carbon Monoxide	53.90
Particulate Matter	2.88
PM10	1.38
Volatile Organic Compounds	4.22
Sulfur Dioxide	1.66
Sulfuric Acid Mist	0.12

**QA/QC'ed Emissions Data**

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
Heat Input:	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	DSCF/mmBtu	8710	8710	8710	DSCF/mmBtu
Stack Flow	1.062E+07	1.082E+07	1.072E+07	DSCF/hr @15% O2	1.040E+07	1.067E+07	1.053E+07	DSCF/hr @15% O2

Pollutant	EAOR Data - CT #1			EAOR Data - CT #2		
	CY 2000	CY 2001	Average	CY 2000	CY 2001	Average
Nitrogen Oxides	16.53	22.65	19.59	19.01	22.12	20.57
	13.04	17.53	15.28	15.32	17.37	16.34
Carbon Monoxide	7.49	15.21	11.35	11.33	10.47	10.90
	9.72	19.39	14.56	15.02	13.53	14.28
Particulate Matter	0.59	0.59	0.59	0.59	0.59	0.59
	0.0017	0.0017	0.0017	0.0018	0.0017	0.0017
PM10	0.28	0.28	0.28	0.28	0.28	0.28
	0.00082	0.00081	0.0008	0.00084	0.00082	0.0008
Volatile Organic Compounds	0.666	0.666	0.6660	1.063	1.063	1.0630
	0.482	0.482	0.4820	1.508	1.508	1.5080
Sulfur Dioxide	0.35	0.34	0.34	0.34	0.33	0.34
	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Sulfuric Acid Mist	0.024	0.024	0.0240	0.024	0.023	0.0236

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Actual Emissions

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	4837	hrs/yr	4918	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	1776	mmSCF/yr	1774.45	mmSCF/yr
	0.37	mmSCF/hr	0.36	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	DSCF/mmBtu	8710	DSCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr @15% O2	1.163E+07	DSCF/hr @15% O2

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	51.34	55.81	TPY
	21.23	22.70	lb/hr
	15.28	16.34	ppmvd
<b>Carbon Monoxide</b>	29.70	29.61	TPY
	12.28	12.04	lb/hr
	14.56	14.28	ppmvd
<b>Particulate Matter</b>	1.55	1.60	TPY
	0.64	0.65	lb/hr
	0.0017	0.0017	lb/mmBtu
<b>PM10</b>	0.74	0.77	TPY
	0.31	0.31	lb/hr
	0.00082	0.00083	lb/mmBtu
<b>Volatile Organic Compounds</b>	1.55	3.46	TPY
	0.64	1.41	lb/hr
	0.48	1.063	ppmvd
<b>Sulfur Dioxide</b>	0.90	0.92	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.06	0.06	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	107.15
<b>Carbon Monoxide</b>	59.31
<b>Particulate Matter</b>	3.15
<b>PM10</b>	1.51
<b>Volatile Organic Compounds</b>	5.01
<b>Sulfur Dioxide</b>	1.82
<b>Sulfuric Acid Mist</b>	0.1270518



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Allowable Emissions

<b>Operating Data</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Parameter</b>				
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3558.75	mmSCF/yr	3558.75	mmSCF/yr
	0.41	mmSCF/hr	0.41	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr	1.163E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	91.25	91.25	TPY
	20.83	20.83	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	110.84	110.84	TPY
	25.31	25.31	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01326	0.01326	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00637	0.00637	lb/mmBtu
<b>Volatile Organic Compounds</b>	21.11	21.11	TPY
	4.82	4.82	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.63	1.63	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	182.50
<b>Carbon Monoxide</b>	221.69
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	42.225775
<b>Sulfur Dioxide</b>	3.26
<b>Sulfuric Acid Mist</b>	0.2281852

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

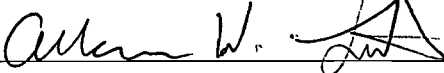
**Subject:** Future Allowable Emissions - Holding Gas Usage Constant

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3476.625	mmSCF/yr	3476.625	mmSCF/yr
	0.40	mmSCF/hr	0.40	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	368	mmBtu/hr	368	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.136E+07	DSCF/hr	1.136E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	89.14	89.14	TPY
	20.35	20.35	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	108.28	108.28	TPY
	24.72	24.72	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01358	0.01358	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00652	0.00652	lb/mmBtu
<b>Volatile Organic Compounds</b>	20.63	20.63	TPY
	4.71	4.71	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.59	1.59	TPY
	0.36	0.36	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	178.28
<b>Carbon Monoxide</b>	216.57
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	41.251334
<b>Sulfur Dioxide</b>	3.18
<b>Sulfuric Acid Mist</b>	0.2229194

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Allan Wade Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Orange Cogeneration L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ X ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>   Signature _____ Date <u>8/29/02</u>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Darrel James Graziani</b> Registration Number: <b>44685</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Foster Wheeler Environmental Corporation</b> Street Address: <b>749 South Federal Highway, Suite 100</b> City: <b>Stuart</b> State: <b>FL</b> Zip Code: <b>34994-2936</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(772) 781 - 3413</b> Fax: <b>(772) 781 - 3411</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ X ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

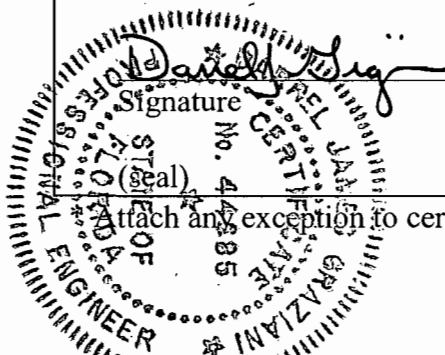
*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

*David A. Dugan*  
Signature

8-20-2002  
Date

Attach any exception to certification statement.



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Summary Table

**Estimated Emissions (TPY)**

Pollutant	PSD Permit	Current Actuals	Future Actuals	Adjusted Allowables	Maximum Allowables
Nitrogen Oxides	194.00	97.65	107.15	178.28	182.50
Carbon Monoxide	254.00	53.90	59.31	216.57	221.69
Particulate Matter	43.80	2.88	3.15	43.80	43.80
PM10	21.02	1.38	1.51	21.02	21.02
Volatile Organic Compounds	34.80	4.22	5.01	41.25	42.23
Sulfur Dioxide	9.74	1.66	1.82	3.18	3.26
Sulfuric Acid Mist	0.74	0.12	0.13	0.22	0.23

Permit (PA) - Currently Permitted Allowable Emissions.

Current Actuals (CA) - Calendar Years 2000 and 2001 Averages. For NOx and CO emissions include startup,

Future Actuals (FA) - Based on CY 2000 & CY 2001 Averages

Adjusted Allowables (AA) - Based on an annual average operation at 368.3 mmBu and 8760 hrs/yr.

Maximum Allowables (MA) - Based on operation at 377 mmBtu/hr and 8,760 hrs/yr

**Estimated Emission Increases (TPY)**

Pollutant	CA-FA Increases	CA-MA Increases	PA-AA Increases	PA-MA Increases
Nitrogen Oxides	9.50	84.85	(15.72)	(11.50)
Carbon Monoxide	5.41	167.79	(37.43)	(32.31)
Particulate Matter	0.27	40.92	0.00	0.00
PM10	0.13	19.64	0.00	0.00
Volatile Organic Compounds	0.79	38.00	6.45	7.43
Sulfur Dioxide	0.16	1.60	(6.56)	(6.48)
Sulfuric Acid Mist	0.01	0.11	(0.52)	(0.51)

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** PSD Permit Limitations

**Operating Restrictions**

**Maximum Heat Input:** 368.3 mmBtu/hr

Ref.: December 28, 1999 Permit Modification, DEP File No. 1050;

**Hours of Operation:** 8760 hrs/yr

Ref: Permit No. AC53-233851B (PSD-FL-206B)

**Fuels:** Natural Gas  
Biogas

**Emission Limitations (per CT)**

<b>Nitrogen Oxides</b>	15 ppmvd@ 15% Ref: BACT, corrected to ISO Conditions	
	22.1 lbs/hr	
	97 TPY	
<b>Carbon Monoxide</b>	30 ppmvd	BACT
	27.8 lbs/hr	
	127 TPY	
<b>Particulate Matter</b>	5 Lb/hr	BACT
	21.9 TPY	
	10 ppmvd	BACT
<b>Volatile Organic Compounds</b>	3.98 lbs/hr	
	17.4 TPY	
	1.11 Lb/hr	Baseline
<b>Sulfur Dioxide</b>	4.87 TPY	
	0.085 Lb/hr	Baseline
	0.37 TPY	

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

Client: CSW Energy Operations, Inc.  
Project: Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.  
Subject: Calendar Year 200 & 2001 Actual Emissions

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	SCF/Btu	8710	8710	8710	SCF/Btu

Emissions Data Parameter	EAOR Data - CT #1			EAOR Data - CT #2		
	TPY	TPY	Average	TPY	TPY	Average
Nitrogen Oxides	41.5	52.7	47.1	47	54.1	50.55
Carbon Monoxide	18.8	35.4	27.1	28	25.6	26.8
Particulate Matter	1.48	1.37	1.43	1.458	1.443	1.451
PM10	0.71	0.66	0.685	0.70	0.69	0.696
Volatile Organic Compounds	1.67	1.55	1.61	2.63	2.60	2.61
Sulfur Dioxide	0.87	0.79	0.83	0.84	0.82	0.83
Sulfuric Acid Mist	0.06	0.06	0.06	0.06	0.06	0.06

Emissions Totals Parameter	EAOR Data CTs
Nitrogen Oxides	97.65
Carbon Monoxide	53.90
Particulate Matter	2.88
PM10	1.38
Volatile Organic Compounds	4.22
Sulfur Dioxide	1.66
Sulfuric Acid Mist	0.12

**QA/QC'ed Emissions Data**

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
Heat Input:	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	DSCF/mmBtu	8710	8710	8710	DSCF/mmBtu
Stack Flow	1.062E+07	1.082E+07	1.072E+07	DSCF/hr @15% O2	1.040E+07	1.067E+07	1.053E+07	DSCF/hr @15% O2

Pollutant Parameter	EAOR Data - CT #1			EAOR Data - CT #2		
	CY 2000	CY 2001	Average	CY 2000	CY 2001	Average
Nitrogen Oxides	16.53	22.65	19.59	19.01	22.12	20.57
	13.04	17.53	15.28	15.32	17.37	16.34
Carbon Monoxide	7.49	15.21	11.35	11.33	10.47	10.90
	9.72	19.39	14.56	15.02	13.53	14.28
Particulate Matter	0.59	0.59	0.59	0.59	0.59	0.59
	0.0017	0.0017	0.0017	0.0018	0.0017	0.0017
PM10	0.28	0.28	0.28	0.28	0.28	0.28
	0.00082	0.00081	0.0008	0.00084	0.00082	0.0008
Volatile Organic Compounds	0.666	0.666	0.6660	1.063	1.063	1.0630
	0.482	0.482	0.4820	1.508	1.508	1.5080
Sulfur Dioxide	0.35	0.34	0.34	0.34	0.33	0.34
	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Sulfuric Acid Mist	0.024	0.024	0.0240	0.024	0.023	0.0236

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Actual Emissions

<b>Operating Data</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Parameter</b>				
<b>Hours of Operation:</b>	4837	hrs/yr	4918	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	1776	mmSCF/yr	1774.45	mmSCF/yr
	0.37	mmSCF/hr	0.36	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	DSCF/mmBtu	8710	DSCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr @15% O2	1.163E+07	DSCF/hr @15% O2

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	51.34	55.81	TPY
	21.23	22.70	lb/hr
	15.28	16.34	ppmvd
<b>Carbon Monoxide</b>	29.70	29.61	TPY
	12.28	12.04	lb/hr
	14.56	14.28	ppmvd
<b>Particulate Matter</b>	1.55	1.60	TPY
	0.64	0.65	lb/hr
	0.0017	0.0017	lb/mmBtu
<b>PM10</b>	0.74	0.77	TPY
	0.31	0.31	lb/hr
	0.00082	0.00083	lb/mmBtu
<b>Volatile Organic Compounds</b>	1.55	3.46	TPY
	0.64	1.41	lb/hr
	0.48	1.063	ppmvd
<b>Sulfur Dioxide</b>	0.90	0.92	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.06	0.06	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	107.15
<b>Carbon Monoxide</b>	59.31
<b>Particulate Matter</b>	3.15
<b>PM10</b>	1.51
<b>Volatile Organic Compounds</b>	5.01
<b>Sulfur Dioxide</b>	1.82
<b>Sulfuric Acid Mist</b>	0.1270518



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Allowable Emissions

<b>Operating Data</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Parameter</b>				
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3558.75	mmSCF/yr	3558.75	mmSCF/yr
	0.41	mmSCF/hr	0.41	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr	1.163E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	91.25	91.25	TPY
	20.83	20.83	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	110.84	110.84	TPY
	25.31	25.31	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01326	0.01326	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00637	0.00637	lb/mmBtu
<b>Volatile Organic Compounds</b>	21.11	21.11	TPY
	4.82	4.82	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.63	1.63	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	<b>TPY</b>
<b>Pollutant</b>	
<b>Nitrogen Oxides</b>	182.50
<b>Carbon Monoxide</b>	221.69
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	42.225775
<b>Sulfur Dioxide</b>	3.26
<b>Sulfuric Acid Mist</b>	0.2281852

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

Client: CSW Energy Operations, Inc.

Project: Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

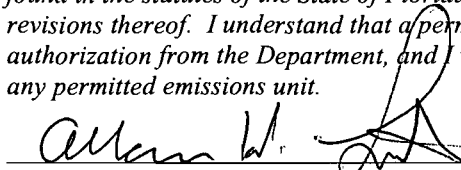
Subject: Future Allowable Emissions - Holding Gas Usage Constant

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
Hours of Operation:	8760	hrs/yr	8760	hrs/yr
Fuels:	NG		NG	
Usage:	3476.625	mmSCF/yr	3476.625	mmSCF/yr
	0.40	mmSCF/hr	0.40	mmSCF/hr
Heat Content:	928	Btu/SCF	928	Btu/SCF
Heat Input:	368	mmBtu/hr	368	mmBtu/hr
F-Factor:	8710	SCF/mmBtu	8710	SCF/mmBtu
Stack Flow	1.136E+07	DSCF/hr	1.136E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	89.14	89.14	TPY
	20.35	20.35	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	108.28	108.28	TPY
	24.72	24.72	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01358	0.01358	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00652	0.00652	lb/mmBtu
<b>Volatile Organic Compounds</b>	20.63	20.63	TPY
	4.71	4.71	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.59	1.59	TPY
	0.36	0.36	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
Nitrogen Oxides	178.28
Carbon Monoxide	216.57
Particulate Matter	43.80
PM10	21.02
Volatile Organic Compounds	41.251334
Sulfur Dioxide	3.18
Sulfuric Acid Mist	0.2229194

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Allan Wade Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Orange Cogeneration L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ X ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature: <u></u> Date: <u>8/29/02</u>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Darrel James Graziani</b> Registration Number: <b>44685</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Foster Wheeler Environmental Corporation</b> Street Address: <b>749 South Federal Highway, Suite 100</b> City: <b>Stuart</b> State: <b>FL</b> Zip Code: <b>34994-2936</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(772) 781 - 3413</b> Fax: <b>(772) 781 - 3411</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ X ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

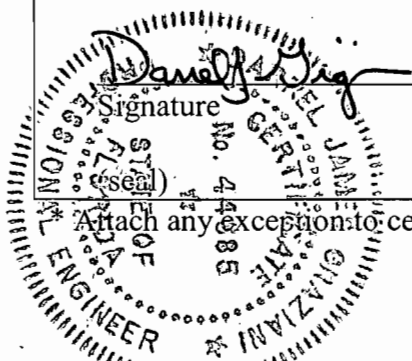
*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

*Daniel J. ...*  
Signature

8-20-2002  
Date

Attach any exception to certification statement.



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Summary Table

**Estimated Emissions (TPY)**

<b>Pollutant</b>	<b>PSD Permit</b>	<b>Current Actuals</b>	<b>Future Actuals</b>	<b>Adjusted Allowables</b>	<b>Maximum Allowables</b>
<b>Nitrogen Oxides</b>	194.00	97.65	107.15	178.28	182.50
<b>Carbon Monoxide</b>	254.00	53.90	59.31	216.57	221.69
<b>Particulate Matter</b>	43.80	2.88	3.15	43.80	43.80
<b>PM10</b>	21.02	1.38	1.51	21.02	21.02
<b>Volatile Organic Compounds</b>	34.80	4.22	5.01	41.25	42.23
<b>Sulfur Dioxide</b>	9.74	1.66	1.82	3.18	3.26
<b>Sulfuric Acid Mist</b>	0.74	0.12	0.13	0.22	0.23

Permit (PA) - Currently Permitted Allowable Emissions.

Current Actuals (CA) - Calendar Years 2000 and 2001 Averages. For NOx and CO emissions include startup, Future Actuals (FA) - Based on CY 2000 & CY 2001 Averages

Adjusted Allowables (AA) - Based on an annual average operation at 368.3 mmBu and 8760 hrs/yr.

Maximum Allowables (MA) - Based on operation at 377 mmBtu/hr and 8,760 hrs/yr

**Estimated Emission Increases (TPY)**

<b>Pollutant</b>	<b>CA-FA Increases</b>	<b>CA-MA Increases</b>	<b>PA-AA Increases</b>	<b>PA-MA Increases</b>
<b>Nitrogen Oxides</b>	9.50	84.85	(15.72)	(11.50)
<b>Carbon Monoxide</b>	5.41	167.79	(37.43)	(32.31)
<b>Particulate Matter</b>	0.27	40.92	0.00	0.00
<b>PM10</b>	0.13	19.64	0.00	0.00
<b>Volatile Organic Compounds</b>	0.79	38.00	6.45	7.43
<b>Sulfur Dioxide</b>	0.16	1.60	(6.56)	(6.48)
<b>Sulfuric Acid Mist</b>	0.01	0.11	(0.52)	(0.51)

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** PSD Permit Limitations

**Operating Restrictions**

**Maximum Heat Input:** 368.3 mmBtu/hr

Ref.: December 28, 1999 Permit Modification, DEP File No. 1050:

**Hours of Operation:** 8760 hrs/yr

Ref: Permit No. AC53-233851B (PSD-FL-206B)

**Fuels:** Natural Gas  
Biogas

**Emission Limitations (per CT)**

<b>Nitrogen Oxides</b>	15 ppmvd@ 15% Ref: BACT, corrected to ISO Conditions	
	22.1 lbs/hr	
	97 TPY	
<b>Carbon Monoxide</b>	30 ppmvd	BACT
	27.8 lbs/hr	
	127 TPY	
<b>Particulate Matter</b>	5 Lb/hr	BACT
	21.9 TPY	
<b>Volatile Organic Compounds</b>	10 ppmvd	BACT
	3.98 lbs/hr	
	17.4 TPY	
<b>Sulfur Dioxide</b>	1.11 Lb/hr	Baseline
	4.87 TPY	
<b>Sulfuric Acid Mist</b>	0.085 Lb/hr	Baseline
	0.37 TPY	

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

Client: CSW Energy Operations, Inc.  
Project: Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.  
Subject: Calendar Year 200 & 2001 Actual Emissions

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	SCF/Btu	8710	8710	8710	SCF/Btu

Emissions Data Parameter	EAOR Data - CT #1			EAOR Data - CT #2		
	TPY	TPY	Average	TPY	TPY	Average
Nitrogen Oxides	41.5	52.7	47.1	47	54.1	50.55
Carbon Monoxide	18.8	35.4	27.1	28	25.6	26.8
Particulate Matter	1.48	1.37	1.43	1.458	1.443	1.451
PM10	0.71	0.66	0.685	0.70	0.69	0.696
Volatile Organic Compounds	1.67	1.55	1.61	2.63	2.60	2.61
Sulfur Dioxide	0.87	0.79	0.83	0.84	0.82	0.83
Sulfuric Acid Mist	0.06	0.06	0.06	0.06	0.06	0.06

Emissions Totals Parameter	EAOR Data CTs
Nitrogen Oxides	97.65
Carbon Monoxide	53.90
Particulate Matter	2.88
PM10	1.38
Volatile Organic Compounds	4.22
Sulfur Dioxide	1.66
Sulfuric Acid Mist	0.12

**QA/QC'ed Emissions Data**

Operating Data Parameter	EAOR Data - CT #1				EAOR Data - CT #2			
	CY 2000	CY 2001	Average	hrs/yr	CY 2000	CY 2001	Average	hrs/yr
Hours of Operation:	5020	4654	4837	hrs/yr	4944	4892	4918	hrs/yr
Fuels:	NG	NG			NG	NG		
Usage:	1826.9	1725.1	1776	mmSCF/yr	1761.1	1787.8	1774.45	mmSCF/yr
	0.36	0.37	0.37	mmSCF/hr	0.36	0.37	0.36	mmSCF/hr
Heat Content:	946	946	946	Btu/SCF	946	946	946	Btu/SCF
Heat Input:	344	351	347	mmBtu/hr	337	346	341	mmBtu/hr
F-Factor:	8710	8710	8710	DSCF/mmBtu	8710	8710	8710	DSCF/mmBtu
Stack Flow	1.062E+07	1.082E+07	1.072E+07	DSCF/hr @15% O2	1.040E+07	1.067E+07	1.053E+07	DSCF/hr @15% O2

Pollutant Parameter	EAOR Data - CT #1			EAOR Data - CT #2		
	CY 2000	CY 2001	Average	CY 2000	CY 2001	Average
Nitrogen Oxides	16.53	22.65	19.59	19.01	22.12	20.57
	13.04	17.53	15.28	15.32	17.37	16.34
Carbon Monoxide	7.49	15.21	11.35	11.33	10.47	10.90
	9.72	19.39	14.56	15.02	13.53	14.28
Particulate Matter	0.59	0.59	0.59	0.59	0.59	0.59
	0.0017	0.0017	0.0017	0.0018	0.0017	0.0017
PM10	0.28	0.28	0.28	0.28	0.28	0.28
	0.00082	0.00081	0.0008	0.00084	0.00082	0.0008
Volatile Organic Compounds	0.666	0.666	0.6660	1.063	1.063	1.0630
	0.482	0.482	0.4820	1.508	1.508	1.5080
Sulfur Dioxide	0.35	0.34	0.34	0.34	0.33	0.34
	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Sulfuric Acid Mist	0.024	0.024	0.0240	0.024	0.023	0.0236

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Actual Emissions

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	4837	hrs/yr	4918	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	1776	mmSCF/yr	1774.45	mmSCF/yr
	0.37	mmSCF/hr	0.36	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	DSCF/mmBtu	8710	DSCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr @15% O2	1.163E+07	DSCF/hr @15% O2

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	51.34	55.81	TPY
	21.23	22.70	lb/hr
	15.28	16.34	ppmvd
<b>Carbon Monoxide</b>	29.70	29.61	TPY
	12.28	12.04	lb/hr
	14.56	14.28	ppmvd
<b>Particulate Matter</b>	1.55	1.60	TPY
	0.64	0.65	lb/hr
	0.0017	0.0017	lb/mmBtu
<b>PM10</b>	0.74	0.77	TPY
	0.31	0.31	lb/hr
	0.00082	0.00083	lb/mmBtu
<b>Volatile Organic Compounds</b>	1.55	3.46	TPY
	0.64	1.41	lb/hr
	0.48	1.063	ppmvd
<b>Sulfur Dioxide</b>	0.90	0.92	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.06	0.06	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	
<b>Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	107.15
<b>Carbon Monoxide</b>	59.31
<b>Particulate Matter</b>	3.15
<b>PM10</b>	1.51
<b>Volatile Organic Compounds</b>	5.01
<b>Sulfur Dioxide</b>	1.82
<b>Sulfuric Acid Mist</b>	0.1270518



**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Allowable Emissions

<b>Operating Data</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Parameter</b>				
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3558.75	mmSCF/yr	3558.75	mmSCF/yr
	0.41	mmSCF/hr	0.41	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	377	mmBtu/hr	377	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.163E+07	DSCF/hr	1.163E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	91.25	91.25	TPY
	20.83	20.83	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	110.84	110.84	TPY
	25.31	25.31	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01326	0.01326	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00637	0.00637	lb/mmBtu
<b>Volatile Organic Compounds</b>	21.11	21.11	TPY
	4.82	4.82	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.63	1.63	TPY
	0.37	0.37	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals</b>	<b>TPY</b>
<b>Pollutant</b>	
<b>Nitrogen Oxides</b>	182.50
<b>Carbon Monoxide</b>	221.69
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	42.225775
<b>Sulfur Dioxide</b>	3.26
<b>Sulfuric Acid Mist</b>	0.2281852

**Foster Wheeler Environmental Corporation  
Excel Calculation Sheet**

**Client:** CSW Energy Operations, Inc.

**Project:** Orange Cogeneration Facility - Title V Renewal Application/Minor Modification.

**Subject:** Future Allowable Emissions - Holding Gas Usage Constant

<b>Operating Data Parameter</b>	<b>EAOR Data - CT #1</b>		<b>EAOR Data - CT #2</b>	
<b>Hours of Operation:</b>	8760	hrs/yr	8760	hrs/yr
<b>Fuels:</b>	NG		NG	
<b>Usage:</b>	3476.625	mmSCF/yr	3476.625	mmSCF/yr
	0.40	mmSCF/hr	0.40	mmSCF/hr
<b>Heat Content:</b>	928	Btu/SCF	928	Btu/SCF
<b>Heat Input:</b>	368	mmBtu/hr	368	mmBtu/hr
<b>F-Factor:</b>	8710	SCF/mmBtu	8710	SCF/mmBtu
<b>Stack Flow</b>	1.136E+07	DSCF/hr	1.136E+07	DSCF/hr

<b>Pollutant</b>	<b>CT #1</b>	<b>CT #2</b>	
<b>Nitrogen Oxides</b>	89.14	89.14	TPY
	20.35	20.35	lb/hr
	15.00	15.00	ppmvd
<b>Carbon Monoxide</b>	108.28	108.28	TPY
	24.72	24.72	lb/hr
	30.00	30.00	ppmvd
<b>Particulate Matter</b>	21.90	21.90	TPY
	5.00	5.00	lb/hr
	0.01358	0.01358	lb/mmBtu
<b>PM10</b>	10.51	10.51	TPY
	2.40	2.40	lb/hr
	0.00652	0.00652	lb/mmBtu
<b>Volatile Organic Compounds</b>	20.63	20.63	TPY
	4.71	4.71	lb/hr
	10	10	ppmvd
<b>Sulfur Dioxide</b>	1.59	1.59	TPY
	0.36	0.36	lb/hr
	0.0010	0.0010	lb/mmBtu
<b>Sulfuric Acid Mist</b>	0.11	0.11	TPY
	0.03	0.03	lb/hr
	0	0	lb/mmBtu

<b>Future Totals Pollutant</b>	<b>TPY</b>
<b>Nitrogen Oxides</b>	178.28
<b>Carbon Monoxide</b>	216.57
<b>Particulate Matter</b>	43.80
<b>PM10</b>	21.02
<b>Volatile Organic Compounds</b>	41.251334
<b>Sulfur Dioxide</b>	3.18
<b>Sulfuric Acid Mist</b>	0.2229194