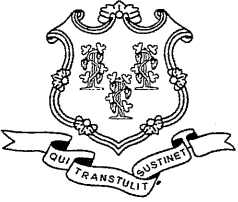


EXHIBIT D

Non-Minor Permit Modifications for AES Thames Units 1 and 2 and Public Participation Documents

1. Text of the final permits (nos. 107-0010 and 107-0011), as modified
2. Notice of tentative determination
3. A summary of written comments and responses



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



OCT 17 2007

Mr. Mark Boucher
Vice President
AES Thames, LLC
141 Depot Road
Uncasville, CT 06382

Dear Mr. Boucher,

Enclosed are certified copies of your original modified permits to construct and operate two (2) circulating fluidized bed boilers at the above location.

This letter does not relieve you of the responsibility to comply with the requirements of other appropriate Federal, State, and municipal agencies. The permits are not transferable from one permittee to another (without prior written notification), from one location to another (unless the subject equipment is a portable rock crusher or stripping facility), or from one piece of equipment to another. The permits must be posted for easy access at the site of operation.

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

Sincerely,

Gary S. Rose
Director

Engineering and Enforcement Division
Bureau of Air Management

GSR:jad
Enclosure



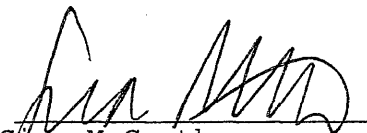
STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE
A STATIONARY SOURCE

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

Owner/Operator:	AES Thames, LLC
Address:	141 Depot Road, Uncasville, Connecticut 06382
Equipment Location:	141 Depot Road, Uncasville, Connecticut 06382
Equipment Description:	Combustion Engineering Circulating Fluidized Bed Boiler #2

Town-Permit Numbers:	107-0011
Premises Number:	0044
Original Permit Issue Date:	July 29, 1987
Revision Issue Date:	OCT 17 2007
Expiration Date:	


Gina McCarthy
Commissioner

10/17/07
Date

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

The conditions on all pages of this permit and attached appendices shall be verified at all times except those noted as design specifications. Design specifications need not be verified on a continuous basis; however, if requested by the commissioner, demonstration of compliance shall be shown.

PART A. ALLOWABLE FIRING RATE (for Boiler #2)

Maximum Firing Rate:

923 MMBtu/h (365 day rolling average)

To show compliance with the 923 MMBtu/h firing rate, AES will limit main steam flow to 700,000 lb/hour at 1005°F and 1980 psia on a 365-day rolling average.

1002 MMBtu/h (three (3) hour rolling average)

To show compliance with the 1002 MMBtu/h firing rate, AES will limit main steam flow to 760,000 lb/hour at 1005°F and 1980 psia on a 3-hour rolling average.

PART B. EQUIPMENT PARAMETERS (for Boiler #2)

1. Circulating Fluidized Bed Boiler

a. Equipment Description

- i. A Combustion Engineering circulating fluidized bed boiler with limestone injection. The bed material consists of coal ash, sulfur oxide removal reaction products, excess calcined limestone, and limestone inerts. The boiler is designed to operate continuously.

b. Operating Parameters

- i. The following operating parameters are for 100% coal* or a blend of coal and petroleum coke fired operation (for one boiler):

Maximum gross heat input rate:

923 MMBtu/h - 365 day rolling average

1002 MMBtu/h - three (3) hour rolling average

*- coal as defined in 40 CFR §60.41Da. Petroleum coke may be blended with coal and used as a supplemental fuel in compliance with the emission limitations and other requirements of this permit.

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART B. EQUIPMENT PARAMETERS (for Boiler #2), continued

Maximum Steam Production:

700,000 lb/h - 365 day rolling average
760,000 lb/h - three (3) hour rolling average

Minimum Exhaust Gas Flow Rate at Maximum Gross Heat Input:
262,300 ACFM at 280°F

Minimum Stack Exhaust Temperature: 280°F at the inlet to the stack

- ii. Maximum Auxiliary Fuel use per start-up: 27,240 gallons No. 2 fuel oil with maximum sulfur content of 0.3% by weight (dry basis) or 3.84×10^6 ft³ natural gas.

c. Design Parameters

- i. Stack - Height: 383 ft above grade
Diameter: 14.3 ft (one common stack)

2. Air Pollution Controls

a. Equipment Description

Flue gas desulfurization accomplished by in-bed injection of limestone into the boiler. Particulate removal (including flyash, SOx reaction products and unused limestone) accomplished by reverse gas fabric filter located downstream of the air heater.

b. Design Parameters for Baghouse/Fabric Filter (PM control systems)

The PM control system is a reverse gas fabric filter. The PM control system is sized based on the maximum design exhaust gas flow rate, and maximum values for gross and net cloth velocities (ACFM of flue gas per square foot of cloth area or ft/min). The maximum design exhaust gas flow rate is based on conservative margins of excess air (25 percent) and in leakage (5 percent) prior to the PM control system. Gross velocity is defined as the average gas velocity through the filter bags with all compartments operating at maximum load. Net cloth velocity is defined as the average gas velocity (at maximum rated steam load) through the filter bags with one compartment out-of-service for maintenance and one compartment out-of-service for reverse gas cleaning. Cloth velocities are based on the net cloth area available. Active cloth area is cloth area left after deductions for top and bottom cuffs, ring covers, and vertical seam.

FIRM NAME: AES Thames, LLC
EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART B. EQUIPMENT PARAMETERS (for Boiler #2), continued

In addition, the following requirements must be met:

Design gas flow entering baghouse: 294,000 ACFM at 280°F at maximum gross heat input per boiler

Maximum pressure drop across baghouse: 8" water gauge

Flyash leaving baghouse: 13.85 lb/hr at maximum steam load @ 0.015 lb/MMBtu gross heat input

Minimum bag filter area: 167,040 square ft., assuming 8 compartments

Minimum number of compartments in service: 6

Maximum gross cloth velocity: 1.9 ft/min

Maximum net cloth velocity: 2.2 ft/min, one compartment out for cleaning, one compartment out for maintenance.

PART C. EMISSION LIMITATIONS (for Boiler #2)

1. Particulate Matter (PM)

- a. Maximum emission limit 0.0144 lb/MMBtu gross heat input (14.4 lb/hr for one boiler at maximum steam load).
- b. Maximum opacity: 10 percent (six (6) minute block average)
- c. A separate operating permit has been issued to the owner/operator for the materials handling system (Permit No. 107-0015).

The owner/operator has developed and submitted to the Department a PM fugitive dust control (FDC) plan concerning the handling, storage and processing of coal, limestone and ash. The FDC plan includes, but is not limited to, such Best Available Control Technology (BACT) vacuum collection systems and filters, specialized loading procedures and transport techniques, or any other methods to assure compliance with Section 22a-174-18(c) of the Regulations of Connecticut State Agencies (hereinafter referred to as the Regulations). The approved FDC plan, as amended, will be incorporated into a revised permit to operate the material handling system (Permit No. 107-0015).

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART C. EMISSION LIMITATIONS (for Boiler #2), continued

2. Lead, Mercury, Beryllium, Fluorides, and Sulfuric Acid Mists

a. Lead (Pb)

Maximum emission limit 0.00015 lb/MMBtu (0.15 lb/hr for one boiler at maximum steam load) gross heat input.

b. Mercury (Hg)

Maximum emission limit 0.000062 lb/MMBtu (0.062 lb/hr for one boiler at maximum steam load) gross heat input.

On and after July 1, 2008, as required by Connecticut Public Act 03-72, codified at Connecticut General Statutes §22a-199, the maximum emission limit for mercury shall be equal to or less than 0.6 lb/T BTU gross heat input or a ninety percent reduction of mercury emissions as determined from the measured concentration of mercury input to the combustion source, based on representative fuel sampling and analysis, as determined by the Commissioner.

c. Beryllium (Be)

Maximum emission limit 0.0000096 lb/MMBtu (0.0097 lb/hr for one boiler at maximum steam load) gross heat input.

d. Fluorides (Fl)

Maximum emission limit 0.0068 lb/MMBtu (6.81 lb/hr for one boiler at maximum steam load) gross heat input.

e. Sulfuric Acid Mists (H₂SO₄)

Maximum emission limit 0.017 lb/MMBtu (17.04 lb/hr for one boiler at maximum steam load) gross heat input.

3. Total Non-Methane Hydrocarbons

Maximum emission limit 0.0095 lb/MMBtu gross heat input (9.5 lb/hr for one boiler at maximum steam load) (measured as methane CH₄), gross heat input. If any subsequent performance test demonstrates an emission rate up to 125% of that observed in the initial test, but below 0.02 lb/MMBtu gross heat input, the source may be operated in compliance with this permit, provided that the owner/operator, within thirty (30) days of such test, submits a report to the Department that identifies and commits to implement those good boiler operating practices that can be used to minimize emissions of total non-methane hydrocarbons consistent with achieving the other emission limits in this permit.

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART C. EMISSION LIMITATIONS (for Boiler #2), continued

4. Carbon Monoxide (CO)

Maximum emission limit 0.15 lb/MMBtu gross heat input (150.30 lb/hr for one boiler at maximum steam load).

5. Sulfur Oxides (SO_x (expressed as SO₂))

a. Maximum emission limit 0.32 lb/MMBtu gross heat input (320.64 lb/hr for one boiler at maximum steam load).

b. Minimum 75% control efficiency of SO_x emissions at all times of normal operation. The control efficiency of the limestone injection and baghouse control system shall be determined on a daily basis by using the inlet sulfur content (as determined by Paragraph 5 of Part D of this permit) and a 24-hour average of stack emissions (as determined by the SO₂ CEM described in Paragraph 1 of Part D of this permit).

c. Injection of limestone into the combustion bed material in quantities sufficient to achieve a minimum 75% control efficiency of SO_x emissions with a maximum emission rate of 0.32 lb/MMBtu gross heat input and 320.64 lb/hr for one boiler is considered BACT for this source.

6. Nitrogen Oxides (NO_x (expressed as nitrogen dioxide (NO₂)))

a. Maximum emission limit 0.15 lb/MMBtu gross heat input (150.30 lb/hr for one boiler) for boiler operations at 70% or more of maximum rated steam load.

b. For low-load coal-fired boiler operation (less than 70% of maximum rated steam load) the maximum NO_x is 332.28 lb/hr for one boiler, but not greater than 0.6 lb/MMBtu gross heat input for boiler loads between 50% and 70% of maximum rated steam capacity. Low-load operation of a boiler may occur either because the facility has been dispatched to a low-load by Connecticut Light & Power or because an unscheduled partial outage has limited the ability of the boiler to achieve a load of 70% or greater. Neither boiler shall operate more than three hundred (300) hours per calendar year at such low-load due to dispatching of the facility. The owner/operator will make all reasonable efforts to minimize unscheduled low-load operation by implementation of the operation, inspection, and maintenance (OI&M) plan described in Part E. of this permit.

FIRM NAME: AES Thames, LLC
EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF AIR MANAGEMENT

PART C. EMISSION LIMITATIONS (for Boiler #2), continued

7. Start-up, Shutdown, and Malfunction

Start-up shall be defined as that period of time from the initiation of combustion until the unit ceases to burn the auxiliary fuel and shutdown shall be defined as that period of time from the initial lowering of the boiler's output until the point at which the combustion process has stopped. The term malfunction shall have the meaning given in 40 CFR 60.2.

PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS

1. Continuous emission monitoring (CEM) and recording will be required for operating parameters, for the combustion equipment, and air pollution control equipment. CEM and recording will be required for, but not limited to, steam load, pressure drop across baghouse, exhaust gas flow rate (by indirect measurements that comply with ASME Power Test Code methods or such other methods as are determined acceptable by the Department), stack exhaust temperature, opacity, nitrogen oxides, expressed as nitrogen dioxide (NO₂), sulfur oxides, expressed as sulfur dioxide (SO₂) and either oxygen (O₂) or carbon dioxide (CO₂). Recorded data required by this permit shall be maintained at the site and made available upon request by Department representatives. Records shall be maintained on site for a period of five (5) years.

The continuous emissions monitoring system will measure the flue gas volumetric concentration (ppm) of nitrogen oxides (expressed as nitrogen dioxide), sulfur oxides (expressed as sulfur dioxide), and either oxygen or carbon dioxide.

2. Reporting requirements: The owner/operator is and will be required to review all recorded data daily and report to this Department within three (3) working days any exceedance (based on the averaging times set forth in this permit) of an allowable emission limit or apparent deviations from any conditions of this or any subsequent permit issuance.

Continuous monitors and recorders shall be installed, calibrated, tested and operated in compliance with the United States Environmental Protection Agency (U.S. EPA) performance and siting specifications (40 CFR, Part 60, Appendix B, as may be amended from time to time), or the Regulations, as may be amended from time to time, whichever may be more stringent.

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS, continued

3. Performance testing required by this, or any subsequent permit, shall be conducted to determine the rate of pollutant emissions, including but not limited to: Particulate Matter (PM), SO_x (expressed as SO₂), NO_x (expressed as NO₂), Total Non-Methane Hydrocarbons (measured as methane, CH₄), Carbon Monoxide (CO), Beryllium (Be), Fluorides (Fl), Mercury (Hg), Sulfuric Acid Mists (H₂SO₄), and Lead (Pb). Performance tests shall be an average of, at a minimum, three (3) test runs within a seventy-two (72) hour period and conducted in accordance with appropriate EPA test methods, including but not limited to: EPA Reference Method 1-4 and 17 or 5B (front catch only) for PM, EPA Reference Method 6C for SO_x (expressed as SO₂), EPA Reference Method 7E for NO_x (expressed as NO₂), EPA Reference Method 10 for CO, EPA Reference Method 13A or 13B for Fluorides, and EPA Reference Method 12 or 29 for Pb. The test methods (40 CFR, Part 60, Appendix A) and the test procedure shall be carried out in accordance with 40 CFR, Parts 60.8, 60.46 and 60.54, where applicable and the Regulations. Any reference in this permit to performance tests shall mean a performance test that complies with the provisions of this paragraph and the Reference Methods specified herein and in Part H of this permit.
4. Performance tests under this permit shall be based on representative performance of the source. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.
5. A weekly as-fired coal sample will be taken in approximate accordance with EPA Reference Method 19 (ASTM D2234-82) except that the lot size shall be defined as the amount of coal delivered by each barge, provided that at least one gross sample (consisting of the minimum weight and minimum number of increments specified in Reference Method 19) must be taken at least once a week. This coal sample will be analyzed to determine a weekly average inlet SO₂ value. The results of the most recent fuel sample analysis shall be used in order to calculate a total daily average percent SO₂ removal rate. Further, a proximate analysis of coal samples will be performed in accordance with ASTM test procedure D3172. If, at any time, the daily average percent SO₂ reduction requirement of 75% is not achieved, the owner/operator shall notify this Department within three (3) working days and immediately commence sampling operations in accordance with Reference Method 19, with the lot size defined as the amount of coal bunkered or consumed each day. The minimum control efficiency of SO_x emissions at all times of normal operation shall be 70% when defining a lot size as the amount of coal bunkered or consumed each day.
6. The owner/operator shall take immediate corrective action whenever an exceedance of any emission limitation occurs or is otherwise detected or monitored.

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS, continued

7. Except as explicitly altered elsewhere in this permit, any more stringent requirements of the New Source Performance Standards (NSPS) (40 CFR, Part 60) applicable to Electric Utility Steam Generating Units for which construction is commenced after September 19, 1978, shall be applicable to this source.

Specifically, the various notification, testing, monitoring, and record keeping provisions of 40 CFR, Part 60, Subpart A, are applicable to this source.

8. Use of CEM Data. For each specific period of excess emissions (i.e., "excess emissions" are emissions in excess of any applicable emission standard) as measured by the continuous emission monitors, the owner/operator shall identify the nature, extent and cause (if known) of such excess emissions and the corrective action taken or preventative measures adopted. For any excess emissions as shown by CEM data the Department may immediately notify the owner/operator that excess emissions have occurred.

If the owner/operator is unable to correct the excess emissions within twenty-four (24) hours, the Department may order the owner/operator to conduct a performance test for such pollutant(s), which test shall be conducted within two weeks of the Department's approval of the test protocol. The owner/operator shall submit a test protocol within five (5) working days. The results of such performance test shall be submitted to the Department in writing within four (4) weeks of the test.

Nothing in this section shall prevent the Department from immediately initiating administrative action in accordance with applicable laws and regulations if there is an immediate health threat from continuing operations of the source.

9. On and after July 1, 2008, any stack test used to demonstrate compliance with the mercury emission limits of this permit shall be based on the average of the stack tests conducted during the two most recent calendar quarters for an affected unit and shall be conducted on a calendar quarter basis in accordance with the Environmental Protection Agency's Method 29 for the determination of metal emissions from stationary sources, as set forth in 40 CFR 60, Appendix A, as amended from time to time, or any other alternative method approved by the Environmental Protection Agency or the Commissioner of Environmental Protection. Such stack tests shall be conducted while combusting coal or coal blends that are representative of the coal or coal blends combusted at such affected unit during the calendar quarter represented by such stack test. [CGS §22a-199(b)(3)(A)]

FIRM NAME: AES Thames, LLC
EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS, continued

- 10. The Permittee shall comply with all mercury monitoring, record keeping and reporting requirements in 40 CFR Part 75 and 40 CFR Part 60 Subpart HHHH. The Permittee must select a Hg Designated Representative for the premises and may select an alternative Hg Designated Representative, pursuant to the requirements for a Hg Designated Representative for Hg Budget Sources in 40 CFR Part 60 Subpart HHHH. In implementing the provisions of the Clean Air Mercury Rule in 40 CFR Part 60 Subpart HHHH, the terms used in that subpart shall have the meanings defined in 40 CFR Part 60 Subpart HHHH, the term permitting authority shall mean the CT Department of Environmental Protection (CT DEP), the term Hg Budget Trading Program shall mean 40 CFR Part 75 and 40 CFR 60.4170 through 60.4175, and the terms Hg Budget Source and Hg Budget Unit shall mean the facility and the unit covered by this permit. In implementing the provisions of 40 CFR Part 75 concerning the monitoring of mercury mass emissions, the terms used in that part shall have the meanings defined in 40 CFR part 72 and in 40 CFR 60.4170, and the term permitting authority shall mean the CT DEP.
- 11. Notwithstanding the mercury emission monitoring of Part D.9. of this permit, on and after January 1, 2010, any stack test used to demonstrate compliance with the annual mercury emission limit of this permit shall be based on the average of the stack tests conducted during the two most recent calendar quarters for an affected unit and shall be conducted on a calendar quarter basis in accordance with 40 CFR 75.22 as amended from time to time, or any other alternative method approved by the Environmental Protection Agency or the Commissioner of CT DEP. Such stack tests shall be conducted while combusting coal or coal blends that are representative of the coal or coal blends combusted at such affected unit during the calendar quarter represented by such stack test.
- 12. The owner/operator shall maintain records of the following:
 - a. the amount of auxiliary fuel used during start-up,
 - b. the beginning time of each start-up and shutdown event,
 - c. the ending time of each start-up and shutdown event,
 - d. the date of each start-up and shutdown event.

FIRM NAME: AES Thames, LLC

EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut

EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

PART E. OPERATION, INSPECTION AND MAINTENANCE

The owner/operator shall operate in accordance with an operation, inspection and maintenance (OI&M) plan acceptable to the Department as necessary. This plan shall apply to all equipment covered by this permit and shall include, but not be limited to, consideration of: spare parts inventories, preventative maintenance schedules, procedures and protocols for unscheduled outages, methodologies acceptable to the Department of demonstrating continuous compliance with applicable emissions limitations, provisions for control equipment in the event of any control equipment failure or shutdown, staffing, and training. The operation, inspection, and maintenance plan shall include a comprehensive training, education, and continuing performance evaluation program for all operation and maintenance personnel, with provisions for periodic reporting to the Bureau of Air Management of the Department of Environmental Protection during annual inspections on the content, progress and problems associated with such program.

PART F. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) AND NON-ATTAINMENT PERMIT

This permit is both the Connecticut Department of Environmental Protection New Source Review Permit and the PSD and major source non-attainment permit for this emission unit.

PART G. STATE ENFORCEABLE TERMS AND CONDITIONS

The requirements applicable to the emission unit pursuant to RCSA §22a-174-29 (Connecticut hazardous air pollutants), RCSA §22a-199 (Mercury Emissions Standards) and §22a-174-3a(n) (Mercury Emissions from Coal-Fired Electric Generating Units) are enforceable by the State of Connecticut and are not Federally enforceable.

NOTES:

"Owner/operator" of the subject stationary source is AES Thames, LLC.

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART H. ALLOWABLE EMISSION LIMITS (for Boiler #2)

The Permittee shall not exceed the emission limits stated herein at any time, except during periods of start-up, shutdown and malfunction, when only the lb/hr emission limits specified below shall apply.

Criteria Pollutants	lb/hr ⁽¹⁾	lb/MM Btu	MASC ⁽²⁾ ug/m ³	Reference Method (RM), Averaging Period	TPY ⁽³⁾
PM	14.4	0.0144		RM-1-4&17 or 5B	58.3
SO _x , expressed as SO ₂	320.64 641.28 ⁽⁸⁾	0.32		RM-6C, 24-hr rolling avg	1293.0
NO _x , expressed as NO ₂	150.3 332.28 ⁽⁹⁾	0.15		RM-7E, 24-hr rolling avg	606.4
HC	20.04	0.02		RM-25A	81.0
CO	150.3	0.15		RM-10	606.4
Pb	0.15	1.5x10 ⁻⁴		RM-12 or 29	0.61
Non-Criteria					
<u>Pollutants</u>					
H ₂ SO ₄	17.038	1.7x10 ⁻²	37574.34	RM-8 ⁽⁴⁾	68.75
Arsenic			93.94		
Benzene			281807.52		
Beryllium	0.0097	9.6x10 ⁻⁶	18.79	RM-29	0.0388
Chromium			4696.79		
Nickel			9393.58		
Polynuclear Aromatic Hydrocarbons (PAH)			187.87		
Fluorides	6.812	6.8x10 ⁻³	93935.84	RM-13A or 13B	27.49
Mercury ⁽⁶⁾	0.062	6.2x10 ⁻⁵	1878.72	RM-29 or 101A ⁽⁵⁾	0.271
Mercury ⁽⁶⁾⁽⁷⁾ (on and after 7.1.08)	0.0006	0.6 lb/TBtu	1878.72	RM-29 or 101A ⁽⁵⁾	0.0026

(1) - Values based on 1002 MMBtu/h

(2) - Maximum Allowable Stack Concentration (MASC) values. [RCSA §22a-174-29]

(3) - Annual total based on 923 MMBtu/h. Compliance demonstrated for each pollutant (except Mercury) by the following calculation:
lb/MMBtu (from either direct CEM measurement or stack test) x Total actual MMBtu heat input per rolling 365 day period / 2000 lb/ton = tons per year
The annual mercury emission limit shall be on a calendar basis pursuant to 40 CFR part 75

(4) - Or, NCASI Method 8A controlled condensate

(5) - Or, the Ontario Hydro method

(6) - All Mercury emission limits are state-enforceable only. The annual limit in TPY is determined on a calendar year basis pursuant to 40 CFR part 75 and 40 CFR 60.4170 through 60.4176.

(7) - As an alternative to these mercury emission limits, except TPY, the Permittee may comply with a ninety percent reduction of mercury emissions as determined from the measured concentration of mercury input to the combustion source, based on representative fuel sampling and analysis, as determined by the Commissioner.

(8) - The total SO₂ emission rate that shall apply during periods of start-up, shutdown and malfunction is 641.28 lb/hr for Boilers #1 and #2 combined.

(9) - The NO_x emission limit that shall apply during periods of start-up, shutdown and malfunction is 332.28 lb/hr for each boiler.

FIRM NAME: AES Thames, LLC
EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating
Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

PART I. STACK EMISSION TEST REQUIREMENTS (Applicable if -X- Checked)

Stack emission testing shall be required for the following pollutant(s):

None at this time

PM SO_x NO_x CO VOC Pb

Other (HAPs): _____, _____,

(See Appendix B for General Requirements)

PART J. APPLICABLE REGULATORY REFERENCES

RCSA §§22a-174-3a; 22a-174-18; 22a-174-19; 22a-174-29(b); 22a-174-22

These references are not intended to be all inclusive - other sections of the regulations may apply.

PART K. SPECIAL REQUIREMENTS

1. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
2. Noise, State Enforceable Only (for non-emergency use)

The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4.

3. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times. (Applicable if -X- checked)

40 CFR Part 60, Subpart: Da Db Dc GG A

None

4. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times. (Applicable if -X- checked)

40 CFR Part 63, Subpart: DDDDD A

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART L. ADDITIONAL TERMS AND CONDITIONS

1. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
2. Any representative of the DEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
3. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
4. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
5. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #2

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART L. ADDITIONAL TERMS AND CONDITIONS, continued:

6. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
7. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
8. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
9. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
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PERMIT FOR FUEL BURNING EQUIPMENT

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Appendices attached (Applicable if -X- checked):

- A Continuous Emission Monitoring Requirements
- B Stack Emission Test Requirements
- C New Source Performance Standards
- E Control Equipment Design Specifications

APPENDIX E
Control Equipment Design Specifications

Air Pollution Control Equipment (applicable if -X- checked).

The following specifications need not be verified on a continuous basis, however, if requested by the Bureau, demonstration shall be shown.

- None
 Scrubber

Make and Model: _____
Reagent: _____
Reagent Flow Rate: _____
Pressure Drop (in H₂O): _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
PH: _____
Design Outlet Grain Loading (gr/dscf): _____
Design Removal Efficiency (%): _____

- Electrostatic Precipitator (ESP)

Make and Model: _____
Number of Fields: _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
Design Outlet Grain Loading (gr/dscf): _____
Design Removal Efficiency (%): _____

- Cyclone Multicyclone

Make and Model: _____
Pressure Drop (in H₂O): _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____

- Selective Non-catalytic Reduction (SNCR)

- Urea Ammonia

Make and Model: _____
Injection Rate at Maximum Rated Capacity (lb/hr): _____
Operating Temperature Range (°F): _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
Design Removal Efficiency (%): _____

- Selective Catalytic Reduction (SCR)

Make and Model: _____
Catalyst Type: _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
Pressure Drop (in H₂O): _____
Ammonia Injection Rate at Maximum Rated Capacity (lb/hr): _____
Design Removal Efficiency (%): _____

APPENDIX E
Control, Equipment Design Specifications

Low NOx Burner

Make and Model: _____
Guaranteed NOx Emission Rate (lb/MMBtu): _____
Design Removal Efficiency (%): _____

Particulate Trap

Make and Model: _____
Design Removal Efficiency (%): _____

Reverse Gas Fabric Filter

Make and Model: ---
Number of Compartments in Use: 6 in use, 8 total
Bag Material: fiberglass or equivalent
Air/Cloth Ratio: ---
Net Cloth Area (ft²): 167,040 ft² assuming 8 compartments
Cleaning Method: reverse gas
Pressure Drop (in H₂O): 8" H₂O gauge
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): 294,000 acfm @ 280°F
Design Outlet Grain Loading (gr/dscf): ---
Design Removal Efficiency (%): ---

Other: Flue gas desulfurization by limestone injection



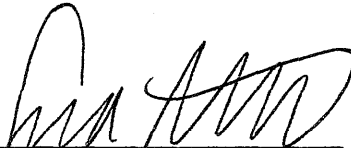
STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE
A STATIONARY SOURCE

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

Owner/Operator:	AES Thames, LLC
Address:	141 Depot Road, Uncasville, Connecticut 06382
Equipment Location:	141 Depot Road, Uncasville, Connecticut 06382
Equipment Description:	Combustion Engineering Circulating Fluidized Bed Boiler #1

Town-Permit Numbers:	107-0010
Premises Number:	0044
Original Permit Issue Date:	July 29, 1987
Revision Issue Date:	OCT 17 2007
Expiration Date:	


Gina McCarthy
Commissioner

10/17/07
Date

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

The conditions on all pages of this permit and attached appendices shall be verified at all times except those noted as design specifications. Design specifications need not be verified on a continuous basis; however, if requested by the commissioner, demonstration of compliance shall be shown.

PART A. ALLOWABLE FIRING RATE (for Boiler #1)

Maximum Firing Rate:

923 MMBtu/h (365 day rolling average)

To show compliance with the 923 MMBtu/h firing rate, AES will limit main steam flow to 700,000 lb/hour at 1005°F and 1980 psia on a 365-day rolling average.

1002 MMBtu/h (three (3) hour rolling average)

To show compliance with the 1002 MMBtu/h firing rate, AES will limit main steam flow to 760,000 lb/hour at 1005°F and 1980 psia on a 3-hour rolling average.

PART B. EQUIPMENT PARAMETERS (for Boiler #1)

1. Circulating Fluidized Bed Boiler

a. Equipment Description

- i. A Combustion Engineering circulating fluidized bed boiler with limestone injection. The bed material consists of coal ash, sulfur oxide removal reaction products, excess calcined limestone, and limestone inerts. The boiler is designed to operate continuously.

b. Operating Parameters

- i. The following operating parameters are for 100% coal* or a blend of coal and petroleum coke fired operation (for one boiler):

Maximum gross heat input rate:

923 MMBtu/h - 365 day rolling average

1002 MMBtu/h - three (3) hour rolling average

*- coal as defined in 40 CFR §60.41Da. Petroleum coke may be blended with coal and used as a supplemental fuel in compliance with the emission limitations and other requirements of this permit.

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PART B. EQUIPMENT PARAMETERS (for Boiler #1), continued

Maximum Steam Production:

700,000 lb/h - 365 day rolling average
760,000 lb/h - three (3) hour rolling average

Minimum Exhaust Gas Flow Rate at Maximum Gross Heat Input:
262,300 ACFM at 280°F

Minimum Stack Exhaust Temperature: 280°F at the inlet to the stack

ii. Maximum Auxiliary Fuel use per start-up: 27,240 gallons No. 2 fuel oil with maximum sulfur content of 0.3% by weight (dry basis) or 3.84×10^6 ft³ natural gas.

c. Design Parameters

i. Stack - Height: 383 ft above grade
Diameter: 14.3 ft (one common stack)

2. Air Pollution Controls

a. Equipment Description

Flue gas desulfurization accomplished by in-bed injection of limestone into the boiler. Particulate removal (including flyash, SOx reaction products and unused limestone) accomplished by reverse gas fabric filter located downstream of the air heater.

b. Design Parameters for Baghouse/Fabric Filter (PM control systems)

The PM control system is a reverse gas fabric filter. The PM control system is sized based on the maximum design exhaust gas flow rate, and maximum values for gross and net cloth velocities (ACFM of flue gas per square foot of cloth area or ft/min). The maximum design exhaust gas flow rate is based on conservative margins of excess air (25 percent) and in leakage (5 percent) prior to the PM control system. Gross velocity is defined as the average gas velocity through the filter bags with all compartments operating at maximum load. Net cloth velocity is defined as the average gas velocity (at maximum rated steam load) through the filter bags with one compartment out-of-service for maintenance and one compartment out-of-service for reverse gas cleaning. Cloth velocities are based on the net cloth area available. Active cloth area is cloth area left after deductions for top and bottom cuffs, ring covers, and vertical seam.

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
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PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF AIR MANAGEMENT

PART B. EQUIPMENT PARAMETERS (for Boiler #1), continued

In addition, the following requirements must be met:

Design gas flow entering baghouse: 294,000 ACFM at 280°F at maximum gross heat input per boiler

Maximum pressure drop across baghouse: 8" water gauge

Flyash leaving baghouse: 13.85 lb/hr at maximum steam load @ 0.015 lb/MMBtu gross heat input

Minimum bag filter area: 167,040 square ft., assuming 8 compartments

Minimum number of compartments in service: 6

Maximum gross cloth velocity: 1.9 ft/min

Maximum net cloth velocity: 2.2 ft/min, one compartment out for cleaning, one compartment out for maintenance.

PART C. EMISSION LIMITATIONS (for Boiler #1)

1. Particulate Matter (PM)

- a. Maximum emission limit 0.0144 lb/MMBtu gross heat input (14.4 lb/hr for one boiler at maximum steam load).
- b. Maximum opacity: 10 percent (six (6) minute block average)
- c. A separate operating permit has been issued to the owner/operator for the materials handling system (Permit No. 107-0015).

The owner/operator has developed and submitted to the Department a PM fugitive dust control (FDC) plan concerning the handling, storage and processing of coal, limestone and ash. The FDC plan includes, but is not limited to, such Best Available Control Technology (BACT) vacuum collection systems and filters, specialized loading procedures and transport techniques, or any other methods to assure compliance with Section 22a-174-18(c) of the Regulations of Connecticut State Agencies (hereinafter referred to as the Regulations). The approved FDC plan, as amended, will be incorporated into a revised permit to operate the material handling system (Permit No. 107-0015).

FIRM NAME:	AES Thames, LLC		
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut		
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #1		

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PART C. EMISSION LIMITATIONS (for Boiler #1), continued

2. Lead, Mercury, Beryllium, Fluorides, and Sulfuric Acid Mists

a. Lead (Pb)

Maximum emission limit 0.00015 lb/MMBtu (0.15 lb/hr for one boiler at maximum steam load) gross heat input.

b. Mercury (Hg)

Maximum emission limit 0.000062 lb/MMBtu (0.062 lb/hr for one boiler at maximum steam load) gross heat input.

On and after July 1, 2008, as required by Connecticut Public Act 03-72, codified at Connecticut General Statutes §22a-199, the maximum emission limit for mercury shall be equal to or less than 0.6 lb/T BTU gross heat input or a ninety percent reduction of mercury emissions as determined from the measured concentration of mercury input to the combustion source, based on representative fuel sampling and analysis, as determined by the Commissioner.

c. Beryllium (Be)

Maximum emission limit 0.0000096 lb/MMBtu (0.0097 lb/hr for one boiler at maximum steam load) gross heat input.

d. Fluorides (Fl)

Maximum emission limit 0.0068 lb/MMBtu (6.81 lb/hr for one boiler at maximum steam load) gross heat input.

e. Sulfuric Acid Mists (H₂SO₄)

Maximum emission limit 0.017 lb/MMBtu (17.04 lb/hr for one boiler at maximum steam load) gross heat input.

3. Total Non-Methane Hydrocarbons

Maximum emission limit 0.0095 lb/MMBtu gross heat input (9.5 lb/hr for one boiler at maximum steam load) (measured as methane CH₄), gross heat input. If any subsequent performance test demonstrates an emission rate up to 125% of that observed in the initial test, but below 0.02 lb/MMBtu gross heat input, the source may be operated in compliance with this permit, provided that the owner/operator, within thirty (30) days of such test, submits a report to the Department that identifies and commits to implement those good boiler operating practices that can be used to minimize emissions of total non-methane hydrocarbons consistent with achieving the other emission limits in this permit.

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PART C. EMISSION LIMITATIONS (for Boiler #1), continued

4. Carbon Monoxide (CO)

Maximum emission limit 0.15 lb/MMBtu gross heat input (150.30 lb/hr for one boiler at maximum steam load).

5. Sulfur Oxides (SO_x (expressed as SO₂))

a. Maximum emission limit 0.32 lb/MMBtu gross heat input (320.64 lb/hr for one boiler at maximum steam load).

b. Minimum 75% control efficiency of SO_x emissions at all times of normal operation. The control efficiency of the limestone injection and baghouse control system shall be determined on a daily basis by using the inlet sulfur content (as determined by Paragraph 5 of Part D of this permit) and a 24-hour average of stack emissions (as determined by the SO₂ CEM described in Paragraph 1 of Part D of this permit).

c. Injection of limestone into the combustion bed material in quantities sufficient to achieve a minimum 75% control efficiency of SO_x emissions with a maximum emission rate of 0.32 lb/MMBtu gross heat input and 320.64 lb/hr for one boiler is considered BACT for this source.

6. Nitrogen Oxides (NO_x (expressed as nitrogen dioxide (NO₂)))

a. Maximum emission limit 0.15 lb/MMBtu gross heat input (150.30 lb/hr for one boiler) for boiler operations at 70% or more of maximum rated steam load.

b. For low-load coal-fired boiler operation (less than 70% of maximum rated steam load) the maximum NO_x is 332.28 lb/hr for one boiler, but not greater than 0.6 lb/MMBtu gross heat input for boiler loads between 50% and 70% of maximum rated steam capacity. Low-load operation of a boiler may occur either because the facility has been dispatched to a low-load by Connecticut Light & Power or because an unscheduled partial outage has limited the ability of the boiler to achieve a load of 70% or greater. Neither boiler shall operate more than three hundred (300) hours per calendar year at such low-load due to dispatching of the facility. The owner/operator will make all reasonable efforts to minimize unscheduled low-load operation by implementation of the operation, inspection, and maintenance (OI&M) plan described in Part E. of this permit.

FIRM NAME: AES Thames, LLC
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PART C. EMISSION LIMITATIONS (for Boiler #1), continued

7. Start-up, Shutdown, and Malfunction

Start-up shall be defined as that period of time from the initiation of combustion until the unit ceases to burn the auxiliary fuel and shut-down shall be defined as that period of time from the initial lowering of the boiler's output until the point at which the combustion process has stopped. The term malfunction shall have the meaning given in 40 CFR 60.2.

PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS

- Continuous emission monitoring (CEM) and recording will be required for operating parameters, for the combustion equipment, and air pollution control equipment. CEM and recording will be required for, but not limited to, steam load, pressure drop across baghouse, exhaust gas flow rate (by indirect measurements that comply with ASME Power Test Code methods or such other methods as are determined acceptable by the Department), stack exhaust temperature, opacity, nitrogen oxides, expressed as nitrogen dioxide (NO₂), sulfur oxides, expressed as sulfur dioxide (SO₂) and either oxygen (O₂) or carbon dioxide (CO₂). Recorded data required by this permit shall be maintained at the site and made available upon request by Department representatives. Records shall be maintained on site for a period of five (5) years.

The continuous emissions monitoring system will measure the flue gas volumetric concentration (ppm) of nitrogen oxides (expressed as nitrogen dioxide), sulfur oxides (expressed as sulfur dioxide), and either oxygen or carbon dioxide.

- Reporting requirements: The owner/operator is and will be required to review all recorded data daily and report to this Department within three (3) working days any exceedance (based on the averaging times set forth in this permit) of an allowable emission limit or apparent deviations from any conditions of this or any subsequent permit issuance.

Continuous monitors and recorders shall be installed, calibrated, tested and operated in compliance with the United States Environmental Protection Agency (U.S. EPA) performance and siting specifications (40 CFR, Part 60, Appendix B, as may be amended from time to time), or the Regulations, as may be amended from time to time, whichever may be more stringent.

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PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS, continued

3. Performance testing required by this, or any subsequent permit, shall be conducted to determine the rate of pollutant emissions, including but not limited to: Particulate Matter (PM), SO_x (expressed as SO₂), NO_x (expressed as NO₂), Total Non-Methane Hydrocarbons (measured as methane, CH₄), Carbon Monoxide (CO), Beryllium (Be), Fluorides (Fl), Mercury (Hg), Sulfuric Acid Mists (H₂SO₄), and Lead (Pb). Performance tests shall be an average of, at a minimum, three (3) test runs within a seventy-two (72) hour period and conducted in accordance with appropriate EPA test methods, including but not limited to: EPA Reference Method 1-4 and 17 or 5B (front catch only) for PM, EPA Reference Method 6C for SO_x (expressed as SO₂), EPA Reference Method 7E for NO_x (expressed as NO₂), EPA Reference Method 10 for CO, EPA Reference Method 13A or 13B for Fluorides, and EPA Reference Method 12 or 29 for Pb. The test methods (40 CFR, Part 60, Appendix A) and the test procedure shall be carried out in accordance with 40 CFR, Parts 60.8, 60.46 and 60.54, where applicable and the Regulations. Any reference in this permit to performance tests shall mean a performance test that complies with the provisions of this paragraph and the Reference Methods specified herein and in Part H of this permit.
4. Performance tests under this permit shall be based on representative performance of the source. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.
5. A weekly as-fired coal sample will be taken in approximate accordance with EPA Reference Method 19 (ASTM D2234-82) except that the lot size shall be defined as the amount of coal delivered by each barge, provided that at least one gross sample (consisting of the minimum weight and minimum number of increments specified in Reference Method 19) must be taken at least once a week. This coal sample will be analyzed to determine a weekly average inlet SO₂ value. The results of the most recent fuel sample analysis shall be used in order to calculate a total daily average percent SO₂ removal rate. Further, a proximate analysis of coal samples will be performed in accordance with ASTM test procedure D3172. If, at any time, the daily average percent SO₂ reduction requirement of 75% is not achieved, the owner/operator shall notify this Department within three (3) working days and immediately commence sampling operations in accordance with Reference Method 19, with the lot size defined as the amount of coal bunkered or consumed each day. The minimum control efficiency of SO_x emissions at all times of normal operation shall be 70% when defining a lot size as the amount of coal bunkered or consumed each day.
6. The owner/operator shall take immediate corrective action whenever an exceedance of any emission limitation occurs or is otherwise detected or monitored.

FIRM NAME:	AES Thames, LLC
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ART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS, continued

7. Except as explicitly altered elsewhere in this permit, any more stringent requirements of the New Source Performance Standards (NSPS) (40 CFR, Part 60) applicable to Electric Utility Steam Generating Units for which construction is commenced after September 19, 1978, shall be applicable to this source.

Specifically, the various notification, testing, monitoring, and record keeping provisions of 40 CFR, Part 60, Subpart A, are applicable to this source.

8. Use of CEM Data. For each specific period of excess emissions (i.e., "excess emissions" are emissions in excess of any applicable emission standard) as measured by the continuous emission monitors, the owner/operator shall identify the nature, extent and cause (if known) of such excess emissions and the corrective action taken or preventative measures adopted. For any excess emissions as shown by CEM data the Department may immediately notify the owner/operator that excess emissions have occurred.

If the owner/operator is unable to correct the excess emissions within twenty-four (24) hours, the Department may order the owner/operator to conduct a performance test for such pollutant(s), which test shall be conducted within two weeks of the Department's approval of the test protocol. The owner/operator shall submit a test protocol within five (5) working days. The results of such performance test shall be submitted to the Department in writing within four (4) weeks of the test.

Nothing in this section shall prevent the Department from immediately initiating administrative action in accordance with applicable laws and regulations if there is an immediate health threat from continuing operations of the source.

9. On and after July 1, 2008, any stack test used to demonstrate compliance with the mercury emission limits of this permit, shall be based on the average of the stack tests conducted during the two most recent calendar quarters for an affected unit and shall be conducted on a calendar quarter basis in accordance with the Environmental Protection Agency's Method 29 for the determination of metal emissions from stationary sources, as set forth in 40 CFR 60, Appendix A, as amended from time to time, or any other alternative method approved by the Environmental Protection Agency or the Commissioner of Environmental Protection. Such stack tests shall be conducted while combusting coal or coal blends that are representative of the coal or coal blends combusted at such affected unit during the calendar quarter represented by such stack test. [CGS §22a-199(b)(3)(A)]

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 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
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PART D. MONITORING REQUIREMENTS/OPERATING PARAMETERS, continued

10. The Permittee shall comply with all mercury monitoring, record keeping and reporting requirements in 40 CFR Part 75 and 40 CFR Part 60 Subpart HHHH. The Permittee must select a Hg Designated Representative for the premises and may select an alternative Hg Designated Representative, pursuant to the requirements for a Hg Designated Representative for Hg Budget Sources in 40 CFR Part 60 Subpart HHHH. In implementing the provisions of the Clean Air Mercury Rule in 40 CFR Part 60 Subpart HHHH, the terms used in that subpart shall have the meanings defined in 40 CFR Part 60 Subpart HHHH, the term permitting authority shall mean the CT Department of Environmental Protection (CT DEP), the term Hg Budget Trading Program shall mean 40 CFR Part 75 and 40 CFR 60.4170 through 60.4175, and the terms Hg Budget Source and Hg Budget Unit shall mean the facility and the unit covered by this permit. In implementing the provisions of 40 CFR Part 75 concerning the monitoring of mercury mass emissions, the terms used in that part shall have the meanings defined in 40 CFR part 72 and in 40 CFR 60.4170, and the term permitting authority shall mean the CT DEP.
11. Notwithstanding the mercury emission monitoring of Part D.9. of this permit, on and after January 1, 2010, any stack test used to demonstrate compliance with the annual mercury emission limit of this permit shall be based on the average of the stack tests conducted during the two most recent calendar quarters for an affected unit and shall be conducted on a calendar quarter basis in accordance with 40 CFR 75.22 as amended from time to time, or any other alternative method approved by the Environmental Protection Agency or the Commissioner of CT DEP. Such stack tests shall be conducted while combusting coal or coal blends that are representative of the coal or coal blends combusted at such affected unit during the calendar quarter represented by such stack test.
12. The owner/operator shall maintain records of the following:
- a. the amount of auxiliary fuel used during start-up,
 - b. the beginning time of each start-up and shutdown event,
 - c. the ending time of each start-up and shutdown event,
 - d. the date of each start-up and shutdown event.

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PERMIT FOR FUEL BURNING EQUIPMENT

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BUREAU OF AIR MANAGEMENT

PART E. OPERATION, INSPECTION AND MAINTENANCE

The owner/operator shall operate in accordance with an operation, inspection and maintenance (OI&M) plan acceptable to the Department as necessary. This plan shall apply to all equipment covered by this permit and shall include, but not be limited to, consideration of: spare parts inventories, preventative maintenance schedules, procedures and protocols for unscheduled outages, methodologies acceptable to the Department of demonstrating continuous compliance with applicable emissions limitations, provisions for control equipment in the event of any control equipment failure or shutdown, staffing, and training. The operation, inspection, and maintenance plan shall include a comprehensive training, education, and continuing performance evaluation program for all operation and maintenance personnel, with provisions for periodic reporting to the Bureau of Air Management of the Department of Environmental Protection during annual inspections on the content, progress and problems associated with such program.

PART F. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) AND NON-ATTAINMENT PERMIT

This permit is both the Connecticut Department of Environmental Protection New Source Review Permit and the PSD and major source non-attainment permit for this emission unit.

PART G. STATE ENFORCEABLE TERMS AND CONDITIONS

The requirements applicable to the emission unit pursuant to RCSA §22a-174-29 (Connecticut hazardous air pollutants), RCSA §22a-199 (Mercury Emissions Standards) and §22a-174-3a(n) (Mercury Emissions from Coal-Fired Electric Generating Units) are enforceable by the State of Connecticut and are not Federally enforceable.

NOTES:

"Owner/operator" of the subject stationary source is AES Thames, LLC.

FIRM NAME:	AES Thames, LLC
EQUIPMENT LOCATION:	141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #):	Combustion Engineering Circulating Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART H. ALLOWABLE EMISSION LIMITS (for Boiler #1)

The Permittee shall not exceed the emission limits stated herein at any time, except during periods of start-up, shutdown and malfunction, when only the lb/hr emission limits specified below shall apply.

Criteria Pollutants	lb/hr ⁽¹⁾	lb/MM Btu	MASC ⁽²⁾ ug/m ³	Reference Method (RM), Averaging Period	TPY ⁽³⁾
PM	14.4	0.0144		RM-1-4&17 or 5B	58.3
SO _x , expressed as SO ₂	320.64 641.28 ⁽⁸⁾	0.32		RM-6C, 24-hr rolling avg	1293.0
NO _x , expressed as NO ₂	150.3 332.28 ⁽⁹⁾	0.15		RM-7E, 24-hr rolling avg	606.4
HC	20.04	0.02		RM-25A	81.0
CO	150.3	0.15		RM-10	606.4
Pb	0.15	1.5x10 ⁻⁴		RM-12 or 29	0.61
Non-Criteria					
<u>Pollutants</u>					
H ₂ SO ₄	17.038	1.7x10 ⁻²	37574.34	RM-8 ⁽⁴⁾	68.75
Arsenic			93.94		
Benzene			281807.52		
Beryllium	0.0097	9.6x10 ⁻⁶	18.79	RM-29	0.0388
Chromium			4696.79		
Nickel			9393.58		
Polynuclear Aromatic Hydrocarbons (PAH)			187.87		
Fluorides	6.812	6.8x10 ⁻³	93935.84	RM-13A or 13B	27.49
Mercury ⁽⁶⁾	0.062	6.2x10 ⁻⁵	1878.72	RM-29 or 101A ⁽⁵⁾	0.271
Mercury ⁽⁶⁾⁽⁷⁾ (on and after 7.1.08)	0.0006	0.6 lb/TBtu	1878.72	RM-29 or 101A ⁽⁵⁾	0.0026

(1) - Values based on 1002 MMBtu/h

(2) - Maximum Allowable Stack Concentration (MASC) values. [RCSA §22a-174-29]

(3) - Annual total based on 923 MMBtu/h. Compliance demonstrated for each pollutant (except Mercury) by the following calculation:

lb/MMBtu (from either direct CEM measurement or stack test) x Total actual MMBtu heat input per rolling 365 day period / 2000 lb/ton = tons per year

The annual mercury emission limit shall be on a calendar basis pursuant to 40 CFR part 75

(4) - Or, NCASI Method 8A controlled condensate

(5) - Or, the Ontario Hydro method

(6) - All Mercury emission limits are state-enforceable only. The annual limit in TPY is determined on a calendar year basis pursuant to 40 CFR part 75 and 40 CFR 60.4170 through 60.4176.

(7) - As an alternative to these mercury emission limits, except TPY, the Permittee may comply with a ninety percent reduction of mercury emissions as determined from the measured concentration of mercury input to the combustion source, based on representative fuel sampling and analysis, as determined by the Commissioner.

(8) - The total SO₂ emission rate that shall apply during periods of start-up, shutdown and malfunction is 641.28 lb/hr for Boilers #1 and #2 combined.

(9) - The NO_x emission limit that shall apply during periods of start-up, shutdown and malfunction is 332.28 lb/hr for each boiler.

FIRM NAME: AES Thames, LLC
EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating
Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART I. STACK EMISSION TEST REQUIREMENTS (Applicable if -X- Checked)

Stack emission testing shall be required for the following pollutant(s):

None at this time

PM SO_x NO_x CO VOC Pb

Other (HAPs): _____, _____,

(See Appendix B for General Requirements)

PART J. APPLICABLE REGULATORY REFERENCES

RCSA §§22a-174-3a; 22a-174-18; 22a-174-19; 22a-174-29(b); 22a-174-22

These references are not intended to be all inclusive - other sections of the regulations may apply.

PART K. SPECIAL REQUIREMENTS

- The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
- Noise, State Enforceable Only (for non-emergency use)

The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4.

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

40 CFR Part 60, Subpart: Da Db Dc GG A

None

- The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times. (Applicable if -X- checked)

40 CFR Part 63, Subpart: DDDDD A

FIRM NAME: AES Thames, LLC
EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

PART L. ADDITIONAL TERMS AND CONDITIONS

1. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
2. Any representative of the DEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
3. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
4. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
5. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating
 Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

PART L. ADDITIONAL TERMS AND CONDITIONS, continued:

6. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
7. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
8. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
9. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

FIRM NAME: AES Thames, LLC
 EQUIPMENT LOCATION: 141 Depot Road, Uncasville, Connecticut
 EQUIPMENT DESCRIPTION (MODEL, I.D. #): Combustion Engineering Circulating Fluidized Bed Boiler #1

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

Appendices attached (Applicable if -X- checked):

- A Continuous Emission Monitoring Requirements
- B Stack Emission Test Requirements
- C New Source Performance Standards
- E Control Equipment Design Specifications

Town No: 107

Premises No: 0044

Permit No: 0010

Stack No: 05

APPENDIX E
Control Equipment Design Specifications

Air Pollution Control Equipment (applicable if -X- checked).

The following specifications need not be verified on a continuous basis, however, if requested by the Bureau, demonstration shall be shown.

None

Scrubber

Make and Model: _____
Reagent: _____
Reagent Flow Rate: _____
Pressure Drop (in H₂O): _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
PH: _____
Design Outlet Grain Loading (gr/dscf): _____
Design Removal Efficiency (%): _____

Electrostatic Precipitator (ESP)

Make and Model: _____
Number of Fields: _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
Design Outlet Grain Loading (gr/dscf): _____
Design Removal Efficiency (%): _____

Cyclone Multicyclone

Make and Model: _____
Pressure Drop (in H₂O): _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____

Selective Non-catalytic Reduction (SNCR)

Urea Ammonia

Make and Model: _____
Injection Rate at Maximum Rated Capacity (lb/hr): _____
Operating Temperature Range (°F): _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
Design Removal Efficiency (%): _____

Selective Catalytic Reduction (SCR)

Make and Model: _____
Catalyst Type: _____
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): _____
Pressure Drop (in H₂O): _____
Ammonia Injection Rate at Maximum Rated Capacity (lb/hr): _____
Design Removal Efficiency (%): _____

APPENDIX E
Control Equipment Design Specifications

Low NOx Burner

Make and Model: _____
Guaranteed NOx Emission Rate (lb/MMBtu): _____
Design Removal Efficiency (%): _____

Particulate Trap

Make and Model: _____
Design Removal Efficiency (%): _____

Reverse Gas Fabric Filter

Make and Model: ---
Number of Compartments in Use: 6 in use, 8 total
Bag Material: fiberglass or equivalent
Air/Cloth Ratio: ---
Net Cloth Area (ft²): 167,040 ft² assuming 8 compartments
Cleaning Method: reverse gas
Pressure Drop (in H₂O): 8" H₂O gauge
Minimum Gas Flow Rate at Maximum Rated Capacity (acfm): 294,000 acfm @ 280°F
Design Outlet Grain Loading (gr/dscf): ---
Design Removal Efficiency (%): ---

Other: Flue gas desulfurization by limestone injection

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V

JUL 11 2007

Affidavit of Publication

State of Connecticut
County of Fairfield

I, Arleen Rogers, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemnly swear that on:

Date: 6/28/07

Ad title: AES THAMES, LLC

Appeared in: NEW LONDON DAY publication and the newspaper extracts hereto annexed were clipped from the above named issue of said newspaper.

Subscribed and sworn to this 5 day of July, 2007 before me.

Notary Public
Beth E. Stoller
Beth E. Stoller
Notary Public
State of Connecticut
My commission expires 12/31/07

Special Rates

Super Sellers:

\$20.00 4 Lines/3 Days

\$36.00 4 Lines/7 Days

\$50.00 4 Lines/14 Days

Private parties with merchandise for sale

Prepaid, no cancellations/refunds

Yard Sale:

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4 Lines for 3 Days

Get a **FREE** yard sale kit with payment of ad

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PLEASE CHECK YOUR AD - Our representatives will read your ad back for accuracy. The advertiser is responsible for checking each insertion and the duplication of any ads they may have placed. Our company shall not be liable for any loss of expense that results from inadvertent omission, whole or in part, of any advertisement or typographical error. Adjustments for errors will be made for the first day of insertion only.

DEADLINE
Monday
2 days
Sunday
Friday

Public Notices	Public Notices	Public Notices	Public Notices	Public Notices
<p>State of Connecticut AES THAMES, LLC UNCASVILLE, CT NOTICE OF TENTATIVE DETERMINATION REGARDING TWO (2) POINT SOURCE PERMITS</p> <p>The Department of Environmental Protection hereby gives notice it has made a tentative determination to approve an application submitted by AES Thames, LLC ("the applicant") under section 22a-174 of the Connecticut General Statutes for permit to construct, install, enlarge or establish an air contaminant source or to operate a source regulated under the Clean Air Act Amendments of 1990. Specifically, the applicant proposed to clarify permit conditions and fuel provision changes to existing equipment.</p> <p>The name and address of the permit applicant are: AES Thames, LLC, 141 Depot Road, Uncasville, CT. The proposed activities will take place at: 141 Depot Road, Uncasville, CT. The proposed activities will affect air resources. The applications have been assigned PAMS numbers 200600341 and 200600342 by the Department of Environmental Protection Bureau of Air Management. Interested persons may obtain copies of the applications and proposed permits from Mr. Bob Price, AES Thames, LLC, 141 Depot Road, Uncasville, CT; Tel. (860) 848-9223. The applications, engineering evaluation and proposed permits are available for inspection at the office of the Department of Environmental Protection Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, Connecticut, 06106-5127 from 8:30 - 4:30 Monday through Friday.</p> <p>Interested persons will have thirty (30) days from publication of such notice to submit comments in writing to the Department of Environmental Protection, Bureau of Air Management or request a public hearing concerning the Commissioner's tentative determination to approve the permit applications in accordance with section 22a-3a-3(b) and section 22a-174-2a(c) of the Regulations of Connecticut State Agencies. Comments should be directed to Mr. David LaRivers, Bureau of Air Management, Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127.</p>	<p>Town of Ledyard LEDYARD PLANNING COMMISSION NOTICE OF PUBLIC HEARING July 5, 2007</p> <p>The Ledyard Planning Commission will begin its public hearings at 7:30 P.M., Thursday, July 5, 2007 in the Council Chambers, 741 Colonel Ledyard Highway on the following applications:</p> <p>Application #488, Heaslip-Resubdivision; 2 lot resubdivision of 6.20 acres at 193 Iron Street, James Heaslip (applicant/owner), an R-60 zone.</p> <p>Application #489, Allyn Resubdivision, lot resubdivision of 56.7 acres at 610 Colonel Ledyard Highway, Fred Allyn III (applicant), Frederick Allyn Jr. & Jeanne Allyn (owner), an R-60 zone.</p> <p>Maps and related documents are available for review, beforehand, in the Planning Office, Ledyard Town Hall, 741 Colonel Ledyard Highway. These hearings provide an opportunity for interested parties to present oral and written comments to the Planning Commission.</p> <p>FOR THE COMMISSION:</p>	<p>Town of Groton</p> <p>*Noank Fire District Water Company PWSID #CT0590031 CCR Notice (Annual Drinking Water Quality Report for 2006)</p> <p>6/28/07 - NWC is pleased to announce the availability of this year's Annual Water Quality Report (CCR), for inspection by anyone interested. This is a yearly report is designed to inform customers about the water quality and services we deliver to you every day. Copies are available upon request.</p> <p>Our water is produced and purchased from the Groton Utilities Water Treatment Plant. The NWC system serves a population of 2,500 residents.</p> <p>If you have any questions about this report or concerning your water utility, please contact Superintendent Russell Fowler at 860-823-8910 (cell phone) during normal business hours.</p> <p>Noank Fire District Water Company</p>	<p>Court of Probate, District of East Lyme, Notice to Creditors, ESTATE OF IRWIN LAPOINTE (07-0124)</p> <p>The Hon. Jeffrey A. McNamara, Judge of the Court of Probate, District of East Lyme, by decree dated June 19, 2007, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim. Patricia A. Stratos, Clerk. The fiduciary is: Lionel Steiger, 671 Lordian's Drive, NE Atlanta, GA 30342. Jane Steiger, 30 Hickory Drive, Westport, CT 06880</p>	<p>Court of Probate, District of East Lyme, Notice to Creditors, ESTATE OF FERDINAND L. DRABIK (07-0129)</p> <p>The Hon. Jeffrey A. McNamara, Judge of the Court of Probate, District of East Lyme, by decree dated June 26, 2007, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim. Patricia A. Stratos, Clerk. The fiduciary is: Bertha M. Drabik, 23 Drabik Road, East Lyme, CT 06333</p>

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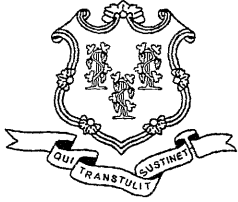
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STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

OCT 16 2007



Mr. Daniel J. Brown
Manager
Air Permits, Toxics and Indoor Programs
USEPA, Region 1
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Dear Mr. Brown,

Attached, please find the Connecticut Department of Environmental Protection (CT DEP) response to the comments received from USEPA concerning the proposed New Source Review Permits for AES Thames, LLC. Our response includes comments received from AES Thames, LLC.

The proposed permits have been amended in accordance with the attached document and will be submitted for internal review and final signature. If you have any questions concerning this matter, please contact Mr. David P. LaRiviere at (860) 424-3549.

Sincerely,

Gary S. Rose
Director
Engineering and Enforcement Division
Bureau of Air Management

GSR:dpl
Enclosure

cc: Richard A. Pirolli, Assistant Director ✓
Engineering & Enforcement Division

MEMORANDUM

TO: File

FROM: David P. LaRiviere, APCE III

SUBJECT: AES THAMES LLC – RESPONSE TO EPA COMMENTS ON MAJOR MODIFICATIONS TO BOILERS #1 AND #2 (PERMITS 107-0010 AND 107-0011)

10.04.07
Date Rec'd: 02.22.06
PAMS #'s: 200600341 and 200600342
EPE #'s: 22219 and 22220

INTRODUCTION

AES Thames LLC (AES) submitted applications for major modifications to existing Boilers #1 and #2 covered by permits 107-0010 and 107-0011 on February 22, 2006 with required modeling submitted December 8, 2006. There were no physical changes to the units. The applications included changes to allow operational flexibility, clarifications to existing permit language and deletion of obsolete permit requirements. A major modification was triggered due to a requested increase in CO emissions of greater than 100 tpy. This will allow AES flexibility in coal supply while still meeting reduced NO_x emission limits.

The CTDEP issued a tentative determination (TD) on the applications on June 22, 2007. Comments on the TD were received from USEPA on August 9, 2007. There were no comments received from the public. AES received a copy of the USEPA comments and submitted a response. Copies of both USEPA and AES comments are attached.

RESPONSES

1. USEPA suggested clarifications to the Part A. requirements for heat input rates based on steam flow to more clearly state that AES is relying on steam flow to demonstrate compliance with maximum heat input rates. AES accepted this comment with further clarification to state that main steam flow is measured.

Response

Part A. of each permit was amended as follows:

Maximum Firing Rate:

923 MMBtu/h (365 day rolling average)

To show compliance with the 923 MMBtu/h firing rate, AES will limit main steam flow to 700,000 lb/hour at 1005°F and 1980 psia on a 365-day rolling average.

1002 MMBtu/h (three (3) hour rolling average)

To show compliance with 1002 MMBtu/h firing rate, AES will limit main steam flow to 760,000 lb/hour at 1005°F and 1980 psia on a 3-hour rolling average.

2. USEPA requested that language below located in Part B.1.b.i. of the permits be removed. This language was part of the original permits.

The owner/operator may operate at a minimum exhaust gas flow rate at maximum gross heat input lower than that allowed above, provided that the owner/operator can demonstrate, to the Commissioner's satisfaction, that such operation will not violate any Prevention of Significant Deterioration (PSD) increments or National or State Ambient Air Quality Standards (AAQS).

Although AES fails to see the need to remove this language, as it has been a part of the permits since 1987, AES accepted this comment.

Response

The above language in Part B.1.b.i. of the permits has been removed.

3. In this comment, USEPA touches upon two parts of the permits: Parts C.7. and D.

First, Part C.7. from the original permits exempts start-up, shutdown and malfunctions from the permitted emission limits. USEPA recommended revising this to require AES to meet the permitted emission limits during these events or to develop separate emission rates for these events.

Second, USEPA suggested that the permits specifically define start-up as it applies to these units. Also, it was suggested that the recording of the amount of fuel used during start-up, beginning and ending time of each start-up and shutdown event, as well as the date of such, be required by Part D. of the permits.

The AES response to this comment is as follows. AES can meet the lb/h emission rates for all pollutants during start-up/shutdown/malfunction with the exception of NO_x and SO_x. Part C.6.b. of the permits allows for a higher lb/h emission rate of NO_x during low load operation. This higher rate of 332.28 lb/h was modeled and meets the NAAQS and PSD increment for NO₂. AES stated that they could meet this emission rate during start-up/shutdown/malfunction. With respect to SO_x, the NAAQS and PSD increments for SO₂ with were met with a combined emission rate of 641.28 lb/h SO_x for both boilers. AES stated that they could meet this emission rate during start-up/shutdown/malfunction.

AES also submitted definitions for start-up and shutdown. AES accepted the USEPA comments for the inclusion of recording requirements for the amount of fuel used during start-up and start-up/shutdown beginning/end times and dates.

Response

The permits will be amended to include the emission rates for NO_x and SO_x above that AES stated they could meet during start-up/shutdown/malfunction. Part H. Allowable Emission Limits in each permit was amended to include these new limits. This amended table is attached with the changes underlined.

Part C.7. in each permit was replaced with the following:

Start-up shall be defined as that period of time from the initiation of combustion until the unit ceases to burn the auxiliary fuel and shut-down shall be defined as that period of time from the initial lowering of the boiler's output until the point at which the combustion process has stopped. The term malfunction shall have the meaning given in 40 CFR 60.2.

Part D.12. was added to each permit to require the recording of the amount of fuel used during start-up and start-up/shutdown beginning/end time and dates.

The owner/operator shall maintain records of the following:

- a. the amount of auxiliary fuel used during start-up,
- b. the beginning time of each start-up and shutdown event,
- c. the ending time of each start-up and shutdown event,
- d. the date of each start-up and shutdown event.

4. USEPA recommended that Part D.8. of the permits be amended to remove the last sentence of the second paragraph. This language was in the original permits. AES accepted this comment.

Response

The following sentence was removed from Part D.8. of the permits.

If the performance test shows that the excess emissions have been corrected, no further enforcement action shall be taken.

5. USEPA suggested amending Part D.10. to include more specific citation of the Federal rules concerning mercury. AES accepted this comment.

Response

Part D.10. of each permit was amended as follows.

The Permittee shall comply with all mercury monitoring, record keeping and reporting requirements in 40 CFR Part 75 and 40 CFR Part 60 Subpart HHHH. The Permittee must select a Hg Designated Representative for the premises and may select an alternative Hg Designated Representative, pursuant to the requirements for a Hg Designated Representative for Hg Budget Sources in 40 CFR Part 60 Subpart HHHH. In implementing the provisions of the Clean Air Mercury Rule in 40 CFR Part 60 Subpart HHHH, the terms used in that subpart shall have the meanings defined in 40 CFR Part 60 Subpart HHHH, the term permitting authority shall mean the CT Department of Environmental Protection (CT DEP), the term Hg Budget Trading Program shall mean 40 CFR Part 75 and 40 CFR 60.4170 through 60.4175, and the terms Hg Budget Source and Hg Budget Unit shall mean the facility and the unit covered by this permit. In implementing the provisions of 40 CFR Part 75 concerning the monitoring of mercury mass emissions, the terms used in that part shall have the meanings defined in 40 CFR part 72 and in 40 CFR 60.4170, and the term permitting authority shall mean the CT DEP.

6. USEPA suggested that the requirements of §22a-199 and §22a-174-3a(n) be included in Part G State Enforceable Terms and Conditions. AES accepted this comment.

Response

Part G. of each permit was amended as follows.

The requirements applicable to the emission unit pursuant to RCSA §22a-174-29 (Connecticut hazardous air pollutants), RCSA §22a-199 (Mercury Emissions Standards) and §22a-174-3a(n) (Mercury Emissions from Coal-Fired Electric Generating Units) are enforceable by the State of Connecticut and are not Federally enforceable.

7. To be consistent with 6. above, USEPA suggested amending footnote 6 in Part H. AES accepted this comment.

Response

Footnote 6 in Part H. of each permit was amended as follows.

⁽⁶⁾- All Mercury emission limits are state-enforceable only. The annual limit in TPY is determined on a calendar year basis pursuant to 40 CFR part 75 and 40 CFR 60.4170 through 60.4176.

RECOMMENDATION

It is recommended that final permits to construct/operate be issued to AES Thames LLC for Boiler #1 and Boiler #2.