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# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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January 21, 2011

TO: Parties and Intervenors

FROM: Linda Roberts, Executive Director *LR*

RE: **DOCKET NO. 225D** - Kleen Energy Systems, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a Electric Generating Facility and Switchyard on River Road, Middletown, Connecticut. Reopening of this docket pursuant to Connecticut General Statutes § 4-181a(b) limited to Council consideration of changed conditions and of the attachment of conditions to the certificate consistent with the findings and recommendations in the Executive Report issued by the Thomas Commission.

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As stated at the hearing in Hartford on December 7, 2010, after the Council issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties and Intervenors may file written comments with the Connecticut Siting Council on the Draft Findings of Fact issued on this docket by February 2, 2011.

LR/RDM/laf

Enclosure

**DOCKET NO. 225D** - Kleen Energy Systems, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a Electric Generating Facility and Switchyard on River Road, Middletown, Connecticut. Reopening of this docket pursuant to Connecticut General Statutes § 4-181a(b) limited to Council consideration of changed conditions and of the attachment of conditions to the certificate consistent with the findings and recommendations in the Executive Report issued by the Thomas Commission.

Connecticut  
Siting  
Council  
January 14, 2011

## **DRAFT Findings of Fact**

### **Introduction**

1. On November 21, 2002, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) to Kleen Energy Systems, LLC (Kleen) for the construction of a 620-megawatt natural-gas fired combined cycle electric generating facility off of River Road in Middletown. (Council Administrative Notice Item 49)
2. On February 7, 2010, during construction of the facility, there was an explosion caused by the release and combustion of natural gas that was being used to clean natural gas piping at the site, a procedure otherwise known as a “gas blow”. (Council Administrative Notice Item 49)
3. After the explosion, Governor M. Jodi Rell established a commission, the Kleen Energy Plant Investigation Review Panel (Nevas Commission) to identify the cause and origin of the explosion. (Council Administrative Notice Item 38)
4. The Nevas Commission issued a Final Report on June 3, 2010 that included findings and recommendations regarding pipe cleaning procedures used at the facility. In addition, the report included an analysis of existing regulations concerning such activities and recommended changes to regulatory criteria to prevent such an event in the future. (Council Administrative Notice Item 38)
5. The Council incorporated the findings of the Nevas Commission into Kleen’s Certificate on October 7, 2010. (Council Administrative Notice Item 49)
6. A second, separate commission established by Governor Rell, the Thomas Commission, reviewed the Nevas Commission findings to determine if specific legislative or regulatory changes were necessary to prevent such an event from occurring again. (Council Administrative Notice Item 40)
7. On September 21, 2010, the Thomas Commission issued an Executive Report that included recommendations for regulatory changes that could be accomplished by executive order, state legislation and/or the adoption of regulations. (Council Administrative Notice Item 40)
8. On September 22, 2010, Governor Rell issued Executive Order No. 45, banning the use of flammable gas for “gas blows” in Connecticut. (Council Administrative Notice Item 48)

9. On October 7, 2010, in response to the Thomas Commission Executive Report, the Council initiated its own motion to reopen Docket 225 based on changed conditions under C.G.S. §4-181a(b) and to hold a hearing specifically limited to Council consideration of changed conditions and of the attachment of conditions to the Certificate consistent with the findings and recommendations contained in the Thomas Commission Executive Report. (Council E/T meeting minutes, October 7, 2010).
10. Pursuant to General Statutes § 16-50m, the Council, after giving due notice thereof, held a public hearing on December 7, 2010, beginning at 10:15 a.m. at the Legislative Office Building, 300 Capitol Avenue, Hartford, Connecticut. (Council's Hearing Notice dated October 28, 2010; Transcript 1, 12/07/10, 10:10 a.m. [Tr. 1], p. 4)
11. Parties to the proceeding are Kleen and the Town of Portland. Intervenors to the proceeding are NRG Middletown Power LLC, The Connecticut Light and Power Company, the City of Middletown, the Connecticut River Watershed Council, State Senator Eileen Daily, State Representative James O'Rourke, and Earle Roberts. (Tr. 1, pp. 2-3)
12. Public notice of the hearing was published in the Middletown Press, Hartford Courant, Meriden-Record Journal and the New Britain Herald. (Council correspondence dated October 28, 2010)

#### **Thomas Commission Findings**

13. At the meeting of the Thomas Commission held on August 10, 2010, Kevin M. DelGobbo, Chairman of the Department of Public Utility Control (DPUC) stated that the Nevas Commission made the following three determinations:
  - a. The February 7, 2010 explosion was the product of a process to clean a natural gas pipeline using large quantities of natural gas that came into contact with an ignition source known in the industry as a "gas blow" ;
  - b. Although the Kleen construction project was heavily regulated by a variety of agencies, no agency regulated the process used – or any process that might be used such as gas purging – to clean the natural gas pipeline that was the source of the explosion;
  - c. Recommendations to the Thomas Panel that there are significant regulatory steps that should be taken to ensure that the events of February 7, 2010 are not repeated.(Council Administrative Notice Item 40)
14. At the meeting of the Thomas Commission held on August 24, 2010, Manuel R. Gomez, Director of Recommendations from the U.S. Chemical Safety Board testified that there are no standards and limited guidance regarding safely cleaning fuel gas piping. (Council Administrative Notice Item 40)
15. At the meeting of the Thomas Commission held on September 14, 2010, Council Member James J. Murphy, testified that the Council has the authority, on its own motion, to modify the certificates of power plant facilities at any time on a finding of changed conditions pursuant to Connecticut General Statute §4-181a(b). Mr. Murphy also recommended statutory changes to include the Department of Emergency Management and Homeland Security (DEMHS), Department of Public Safety (DPS), Department of Labor (DOL), Department of Consumer Protection (DCP), and Department of Public Works (DPW) as additional agencies with which the Council must consult and solicit comments from when an application for an electric generating facility is received by the Council. (Council Administrative Notice Item 40)

16. Also at the Thomas Commission meeting of September 14, 2010, the DPS Division of Fire, Emergency and Building Services testified to specific recommendations for adoption of the 2010 Edition of the National Fire Protection Association (NFPA) 37, adoption of the 2009 Edition of NFPA 54 including Temporary Interim Amendment (TIA) 09-3, adoption of American Society of Mechanical Engineers (ASME) B31 including a requirement that the Connecticut Siting Council to require the owner to hire a special inspector for the inspection of piping installed in accordance with ASME B31, amendments to the Fire Prevention Code, C.G.S. §29-291a and adoption of the 2010 edition of NFPA 850. (Council Administrative Notice Item 40)
  
17. The Executive Report issued by the Thomas Commission contains the following Final Recommendations:
  - a. Use of flammable gases to conduct “gas blows” should be banned in Connecticut; at least until such time as there are accepted national standards published and in place;
  - b. Requirement of special inspectors, development of safety plans and payment of cost by power plant applicant;
  - c. Assembly of a “Coordinating Council” for future power plant applications;
  - d. Attachment of conditions to certificates issued by the Siting Council that include a ban on flammable gas blows and compliance with code recommendations;
  - e. Review of existing power plants by the Siting Council to modify final decisions of power plants within its jurisdiction to determine whether such plants warrant further attention;
  - f. Adoption of the following codes and regulations by the DPS:
    - i. Amend the Flammable & Combustible Liquids Code, C.G.S. §29-320 to adopt the 2010 Edition of NFPA 37, “Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines”;
    - ii. Amend the Gas Equipment and Piping Code, C.G.S. §29-329 to adopt the 2009 Edition of NFPA 54, “National Fuel Gas Code” including Temporary Interim Amendment 09-3 (August 25, 2010) and by Connecticut amendment remove the exception regarding fuel gas piping at electric utility power plants and to adopt ASME Standard B31, “Code for Pressure Piping” including mandatory compliance with Appendices IV and V of ASME B31.1 for newly constructed electric utility power plants;
    - iii. Amend the Connecticut Fire Prevention Code adopted pursuant to C.G.S. §29-291a to add new sections in the Hazardous Materials Chapter regarding “Gas Piping Cleaning Operations”;
    - iv. Amend the Fire Prevention Code adopted pursuant to C.G.S. §29-291a to delete and revise sections 29-291a-2(a) and (b) regarding “Relationship to State Fire Safety and Building Codes” and to adopt the requirements of the 2010 Edition of NFPA 850 “Fire Protection for Electric Generating Plants and High Voltage Current Converter Stations”;
  - g. Adoption of legislation to provide for payment into a code training fund by any power plant applicant who is required to obtain Siting Council approval.  
(Council Administrative Notice Item 40)

### **State Agency Comment**

18. Pursuant to General Statutes § 16-50j(h), on October 28 and December 8, 2010, the following state agencies were solicited to submit written comments regarding potential modifications of the Certificate: DPUC, DMHS, Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), Department of Agriculture (DOAg), and the Department of Transportation (DOT). (Council Correspondence of October 28 and December 8, 2010)
19. On November 17, 2010, the DPH provided written comment to the Council recommending that the Council consider the following recommendations for any current or future gas-fired power plant applications for both the initial construction phase and any future construction or maintenance activities; be attached to any extension of the Kleen Certificate for any future construction or maintenance activities;
  - a. Prohibit the use of flammable gas for the cleaning fuel gas piping and the identification of a safer alternative prior to the commencement of further pipe cleaning;
  - b. Prohibit the venting of flammable gas indoors or outdoors where it could pose a hazard;
  - c. Prohibit any work activity where the concentration of flammable gas would exceed 10% of the lower explosive limit for that gas with continuous monitoring to ensure compliance;
  - d. Require adherence to the code requirements of the Natural Fuel Gas Code (NFPA 54) even when gas is used at a pressure less than what the code specifies;
  - e. Require compliance with the Occupational Safety and Health Administration Standard 29 CFR § 1910.119;
  - f. Require an independent Site Safety Manager and support staff to be on-site during construction of the facility to coordinate and ensure site safety;
  - g. Require the inclusion of flammable gas safety procedures that involve contractors, workers, and their representatives in the project development and decision-making process; and
  - h. Prohibit or attach conditions to the inclusion of early completion construction contracts. One such condition could be any financial incentives received by the contractors be contingent on a "zero injury rate" achieved during construction.(DPH comments received November 17, 2010)
20. No other state agencies submitted comment regarding the re-opened proceeding. (Record)

### **Municipal Comment**

21. The City of Middletown did not participate in the Council's hearing and did not submit comments prior to the hearing. (Record)
22. The Town of Portland, through First Selectwoman Susan Bransfield, submitted comment that endorses all of the recommendations made by the Thomas Commission. (Portland 1)
23. The Town of Portland requests a community notification procedure to serve local residents for facility operations that could cause public alarm as well as for facility emergencies. (Tr. 1, pp. 39-45, 160-161)

24. The Town of Portland utilizes the Connecticut Alert Emergency Notification System through the Middletown Dispatch Center. This system provides emergency notification through a database which access traditional home telephones. Residents who want notification on a different device could register those devices in the database. (Town of Portland late file of December 28, 2010)

**Kleen's Response to Thomas Commission Recommendations**

25. Kleen does not object to any of the applicable Thomas Commission recommendations except for the imposition of Temporary Interim Amendment 09-3 (August 25, 2010). A portion of this standard, Section 8.3.2.1(5) states that the piping shall be purged by the gas supplier in accordance with written procedures. Kleen believes this would be problematic because the gas supplier does not own the gas distribution system at the facility and the gas supplier may not want the responsibility or liability for a system they did not design or install. (Kleen 1, Q, 4; Tr. 1, pp. 122-126)
26. Kleen needs to clean debris from approximately 800 linear feet of gas fuel piping at the facility. (Kleen 5; Tr. 1, p. 23)
27. Kleen will use nitrogen to clean the affected portion of the fuel gas piping. Kleen submitted a Fuel Gas Pipe Cleaning document to the Council on December 1, 2010, as required by the Council's Docket 225 C Decision and Order issued on October 7, 2010. (Kleen 5; Tr. 1, p. 23)
28. Kleen investigated the possibility of replacing existing carbon steel piping with stainless steel to facilitate cleaning operations but ultimately determined that replacement would not be necessary. (Tr. 1, pp. 23-24)
29. The pipe cleaning operation will take two days. (Tr. 1, p. 24)
30. Nitrogen will be trucked to the site and injected into the pipeline at a pressure of 600 pounds per square inch. (Tr. 1, pp. 24-25)
31. The nitrogen will be vented to the atmosphere 85 feet above ground level. It will not present any hazard once vented to the atmosphere. (Tr. 1, pp. 24-25, 82-83)
32. As required by the Docket 225C Decision and Order, Kleen submitted copies of the Fuel Gas Pipe Cleaning document to the following state agencies: DEP, DPH, CEQ, DPUC, OPM, DOAg, DMHS, DOT, DCP, DOL, DPS, DPW, and DECD. (Kleen 5)
33. Copies of the cleaning procedure were also sent to the U.S. Chemical Safety and Hazard Board, Occupational Safety and Health Administration, the City of Middletown, and the South District Fire Department. (Kleen 5)
34. None of the entities that were provided copies of the Fuel Gas Pipe Cleaning document commented on the procedure. (Tr. 1, pp. 28-29)
35. The South District Fire Department was involved in a review of the procedure before it was submitted to the Council. A representative from the South District Fire Department will be in attendance during the pipe cleaning event. (Tr. 1, pp. 28-29, 32)

36. In response to the explosion, Kleen implemented changes to their emergency response procedures including improved notification to local emergency responders, revised evacuation procedures that were tested during a mock drill with local emergency responders, and the installation of a warning siren at the site. (Tr. 1, pp. 39-40)
  
37. Kleen would examine the possibility of establishing a community notification system to notify residents in close proximity to the site of planned construction events that could cause alarm. (Tr. 1, pp. 39-44)

**LIST OF PARTIES AND INTERVENORS**  
**SERVICE LIST**

<b>Status Granted</b>	<b>Status Holder (name, address &amp; phone number)</b>	<b>Representative (name, address &amp; phone number)</b>
<b>Applicant</b>	Kleen Energy Systems, LLC	<p>Mr. William C. Corvo President Kleen Energy Systems, LLC P.O. Box 2696 Middletown, Connecticut 06457 (860) 632-1044 <a href="mailto:Biagio6539@aol.com">Biagio6539@aol.com</a></p> <p>Lee D. Hoffman, Esq. Pullman &amp; Comley, LLC 90 State House Square Hartford, Connecticut 06103-3702 (860) 424-4315 (860) 424-4370 – fax <a href="mailto:lhoffman@pullcom.com">lhoffman@pullcom.com</a> (email only)</p>
<b>Intervenor</b>	NRG Middletown Power LLC	<p>Alfred E. Smith, Jr. Murtha Cullina LLP Two Whitney Avenue P.O. Box 704 New Haven, CT 06503 (203) 772-7722 (203) 772-7723 – fax <a href="mailto:asmith@murthalaw.com">asmith@murthalaw.com</a></p>
<b>Intervenor</b>	The Connecticut Light and Power Company	<p>Duncan R. Mackay, Esq. Vincent P. Pace, Esq. The Connecticut Light &amp; Power Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5000 (860) 665-5504 – fax <a href="mailto:mackadr@nu.com">mackadr@nu.com</a> <a href="mailto:pacevp@nu.com">pacevp@nu.com</a></p> <p>John R. Morissette Manager-Transmission Siting and Permitting The Connecticut Light &amp; Power Company P.O. Box 270 Hartford, CT 06141-0270 (860) 655-2036 (860) 665-2611 – fax <a href="mailto:morisjr@nu.com">morisjr@nu.com</a></p>



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<b>Intervenor</b>	The Connecticut Light and Power Company	Christopher R. Bernard Manager-Regulatory Policy (Transmission) The Connecticut Light & Power Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5967 (860) 665-3314 – fax <a href="mailto:bernacr@nu.com">bernacr@nu.com</a>
<b>Intervenor</b>	City of Middletown	Timothy P. Lynch Deputy City Attorney City Attorney's Office City of Middletown 245 deKoven, P.O. Box 1300 Middletown, CT 06457-1300 (860) 344-3422 (860) 344-3499 - fax <a href="mailto:Tim.lynch@cityofmiddletown.com">Tim.lynch@cityofmiddletown.com</a>
<b>Intervenor</b>	Earle Roberts	Earle Roberts 785 Bow Lane Middletown, CT 06457-4810 (860) 346-0068 (860) 344-9327 – fax <a href="mailto:eroberts4675@sbcglobal.net">eroberts4675@sbcglobal.net</a>
<b>Intervenor</b>	Connecticut River Watershed Council, Inc.	Jacqueline Talbot Connecticut River Watershed Council, Inc. DeKoven House Community Center 27 Washington Street Middletown, CT 06457 (860) 704-0057 (860) 704-0057- fax <a href="mailto:jtalbot@ctriver.org">jtalbot@ctriver.org</a>

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<p style="text-align: center;"><b>Party (granted on July 29, 2010)</b></p>	<p>Town of Portland</p>	<p>Jean M. D'Aquila D'Aquila Law Offices, LLC 100 Riverview Center, Suite 205 Middletown, CT 06457 (860) 704-0290 (860) 704-0545 <a href="mailto:jmd@daquilalaw.com">jmd@daquilalaw.com</a></p> <p>Susan S. Bransfield, First Selectwoman Town of Portland 33 East Main Street P.O. Box 71 Portland, CT 06480 (860) 342-6715 (860) 342-6714 <a href="mailto:sbransfield@portlandct.org">sbransfield@portlandct.org</a></p>
<p style="text-align: center;"><b>Intervenor (granted on July 29, 2010)</b></p>	<p>The Honorable Eileen M. Daily State Senator - 33<sup>rd</sup> District 103 Cold Spring Drive Westbrook, CT 06498 (860) 240-0462 (860) 240-0036 fax <a href="mailto:daily@senatedems.ct.gov">daily@senatedems.ct.gov</a></p>	
<p style="text-align: center;"><b>Intervenor (granted on July 29, 2010)</b></p>	<p>The Honorable James A. O'Rourke State Representative – 32<sup>nd</sup> District Legislative Office Building, Room 4108 Hartford, CT 06106-1591 (860) 635-2992 (860) 240-8585 (860) 240-0206 fax <a href="mailto:Reporourke@att.net">Reporourke@att.net</a></p>	

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