

# STATE OF CONNECTICUT

#### CONNECTICUT SITING COUNCIL

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March 4, 2011

TO:

Parties and Intervenors

FROM:

Linda Roberts, Executive Director

RE:

DOCKET NO. 190A — Meriden Gas Turbines, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 530 MW combined cycle generating plant in Meriden, 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 Final Report issued by the Kleen Energy Plant Investigation Review Panel (Nevas Commission) and the findings and recommendations in the Executive Report issued by the Thomas Commission.

By its Decision and Order dated March 3, 2011, the Connecticut Siting Council (Council) approved modifications to the April 27, 1999 Decision and Order for Docket No. 190 to include the attachment of conditions to the Certificate consistent with the findings and recommendations of the Kleen Energy Plant Investigation Review Panel (Nevas Commission) Final Report of June 3, 2010 and the Thomas Commission Executive Report of September 21, 2010.

Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

LR/CMW/laf

Enclosures (3)

c: State Documents Librarian



STATE OF CONNECTICUT	)
ss. New Britain, Connecticut	:
COUNTY OF HARTFORD	)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

#### ATTEST:

Linda Roberts
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 190A has been forwarded by Certified First Class Return Receipt Requested mail, on March 4, 2011, to all parties and intervenors of record as listed on the attached service list, dated March 2, 2011.

ATTEST:

Lisa Fontaine
Fiscal Administrative Officer
Connecticut Siting Council

# LIST OF PARTIES AND INTERVENORS $\underline{SERVICE\ LIST}$

	Status Holder	Representative
Status Granted	(name, address & phone number)	(name, address & phone number)
Applicant	(name, address & phone number)  Meriden Gas Turbines, LLC	Andrew W. Lord, Esq. Murtha Cullina LLP CityPlace I, 185 Asylum Street Hartford, CT 06103-3469 (860) 240-6180 (860) 240-5723 – fax alord@murthalaw.com  Raymond G. Long Director, Government Affair NRG Energy, Inc. Middletown Station P.O. Box 1001 1866 River Road Middletown, CT 06457  Jonathan Milley Vice President, NE Region NRG Energy, Inc. 211 Carnegie Center Princeton, NJ 08540 (609) 524-4680 (609) 524-5160 fax Jonathan.milley@nrgenergy.com  NRG Energy, Inc. c/o Julie L. Friedberg, Senior Counsel – NE 211 Carnegie Center Princeton, NJ 08540 (609) 524-5232 (609) 240-1160 cell (609) 524-4941 fax
Intervenor	The Connecticut Light and Power	Julie.friedberg@nrgenergy.com  Stephen Gibelli, Esq.
	Company	Associate General Counsel The Connecticut Light & Power Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5513 (860) 665-5504 fax Gibels@nu.com

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Intervenor	The Connecticut Light and Power Company	John R. Morissette Manager-Transmission Siting and Permitting The Connecticut Light & Power Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-2036 (860) 665-2611 fax morisjr@nu.com  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 bernacr@nu.com
Intervenor	Rivers Alliance of Connecticut Farmington River Watershed Association	Eric Hammerling, President Rivers Alliance of Connecticut P.O. Box 1797 Litchfield, CT 06759  Kevin Case Farmington River Watershed Association 749 Hopmeadow Street Simsbury, CT 06070
Party	Quinnipiac River Watershed Association	Mary Mushinsky Executive Director Quinnipiac River Watershed Association P.O. Box 2825 Meriden, CT 06450 (203) 237-2237 (phone and fax) grwa@sbcglobal.net

DOCKET NO. 190A – Meriden Gas Turbines, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 530 MW combined cycle generating plant in Meriden, 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 Final Report issued by the Kleen Energy Plant Investigation Review Panel (Nevas Commission) and the findings and recommendations in the Executive Report issued by the Thomas Commission.

}	Connecticut
}	Siting
}	Council
,	March 3, 2011

#### **Findings of Fact**

#### Introduction

- On April 27, 1999, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) to PDC-El Paso Meriden LLC for the construction, operation and maintenance of a 530-megawatt (MW) combined-cycle electric generating facility in Meriden, Connecticut. In 2001, NRG Energy, Inc. (NRG) through Meriden Gas Turbines (MGT) became the owner of the Meriden Facility. (NRG 1, p. 1; record)
- 2. Condition (7) of the Council's Decision and Order (D&O) in this docket stated that the D&O would be void if the project construction were not completed within four years of the date of the D&O or within four years of the resolution of all associated appeals. The original deadline for construction of the project was April 27, 2003. The Council has since granted NRG two extensions of the construction deadline with a current construction deadline of April 27, 2011. (NRG 1, p. 1)
- 3. On July 7, 2010, the Council received a request from NRG seeking a five-year extension of the construction deadline to April 27, 2016 to allow NRG to obtain funding for the project and complete construction. (NRG 1, pp. 1, 2)
- 4. On July 15, 2010, the Council voted to reopen the proceeding on changed conditions under Connecticut General Statutes (C.G.S.) § 4-181a(b) specifically limited to consideration of changed conditions and to the attachment of conditions to MGT's Certificate consistent with the findings and recommendations contained in the Final Report issued by the Kleen Energy Plant Investigation Review Panel. (record)
- 5. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on August 24, 2010, beginning at 2:05 p.m. at the Council's office, 10 Franklin Square, New Britain, Connecticut. (Council's Hearing Notice dated July 23, 2010; Transcript 1, 08/24/10, 2:05 p.m. [Tr. 1], p. 3)
- 6. 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)
- 7. 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)
- 8. On October 7, 2010, the Council reopened the evidentiary portion of this hearing to include the recommendations contained in the Executive Report issued by the Thomas Commission. (Council E/T meeting minutes, October 7, 2010).

- 9. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held an additional public hearing on December 7, 2010, beginning at 3:40 p.m. at the Legislative Office Building, 300 Capitol Avenue, Hartford, Connecticut. (Transcript 2, 12/07/10, 3:40 p.m. [Tr. 1], pp. 3, 4)
- 10. The party to this proceeding is NRG and Quinnipiac River Watershed Association. Intervenors to this proceeding are The Connecticut Light and Power Company, and Rivers Alliance of Connecticut/Farmington River Watershed Association. (Tr. 1, pp. 6, 7)
- 11. Public notice of the hearings was published in the <u>Hartford Courant</u>, <u>Record Journal</u> and <u>The Herald</u>. (Council correspondence dated July 23, 2010; Record)

#### **State Agency Comments**

- 12. Pursuant to CGS § 16-50j(h), on July 23, 2010 and August 25, 2010, the following state agencies were solicited to submit written comments regarding potential modifications of the Certificate: Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), Department of Agriculture (DOAg), Department of Emergency Management and Homeland Security (DEMHS), and the Department of Transportation (DOT). (Record)
- 13. Pursuant to CGS § 16-50j(h), on December 8, 2010, the following state agencies were solicited to submit written comments regarding potential modifications to the Certificate: DEP, DPH, CEQ, DPUC, OPM, DECD, DOAg, DEMHS, Department of Public Safety (DPS), Department of Labor (DOL), Department of Consumer Protection (DCP), and Department of Public Works (DPW). (Record)
- 14. On August 13, 2010 and November 10, 2010, DPH submitted comments on the reopened proceeding. Both letters stated the same comments. DPH recommended attaching conditions to all gas-fueled power plants in Connecticut. The conditions are:
  - a) Prohibit the use of flammable gas for cleaning of fuel gas piping at power plants. Require applicants to specify what method of gas pipe cleaning would be used as an alternative to flammable gas.
  - b) Prohibit venting of flammable gas indoors and outdoors where it is in the vicinity of workers and/or ignition sources.
  - c) Prohibit work activity from occurring in areas where the concentration of flammable gas exceeds ten percent of the lower explosive limit (LEL) for that gas. Require continuous monitoring of gas levels where a build-up of gas is possible and sound alarms when concentration approaches ten percent of the LEL.
  - d) Require adherence to code requirements in the most current version of the *National Fuel Gas Code*, as outlined in the National Fire Protection Association Standard 54 (NFPA 54).
  - e) Require adherence to Occupational Safety and Health Administration (OSHA) Standards for *Process Safety Management of Highly Hazardous Chemicals*.
  - f) Require an independent Site Safety Manager for the construction phase of the project.
  - g) Require applicants to provide the Council with flammable gas safety procedures and training activities specific to contractors, workers and their representatives in development and decision making. (DPH comments dated August 12, 2010, pp. 1, 2)
- 15. Other comments in the DPH letter include a request that the Council specifically prohibit the inclusion of financial incentives for early completion in construction contracts on gas-fueled power plants and other facilities under Council jurisdiction. (DPH comments dated August 12, 2010, pp. 2, 3)

- 16. NRG would agree to comply with DPH recommendations, with the exception of recommendation (d) regarding NFPA 54 and recommendation (e) regarding OSHA standards because these standards are not written for power generation and adopting them into construction procedures could be problematic. (DPH comments dated August 12, 2010, p. 2; Tr. 1, p. 18)
- 17. The following state agencies did not file written comment on the reopened proceeding: DOT, DEP, CEQ, DPUC, OPM, DECD, DOAg, DEMHS, DPS, DOL, DCP, DPW. (Record)

# Kleen Energy Plant Investigation Review Panel (Nevas Commission)

- 18. On February 7, 2010, there was an explosion at the Kleen Energy Systems, LLC facility (Kleen facility) in Middletown, Connecticut. The explosion was due to the release and ignition of natural gas from a process used to clean the natural gas pipeline using high quantities of natural gas, a procedure known as a "gas blow." (Council Admin. Notice 38, pp. 1, 2)
- 19. After the explosion, Governor M. Jodi Rell established a commission, the Kleen Energy Plant Investigation Review Panel, chaired by Judge Alan Nevas (the "Nevas Commission"), that included representatives of the DEP, DOL, Connecticut State Police (including the State Fire Marshal and the Office of the State Building Inspector), DCP, and the DPUC, to identify the cause and origin of the explosion. (Council Administrative Notice Item 38)
- 20. The findings of the Nevas Commission were to be applied by a second, separate commission established by the Governor, the Thomas Commission, whose charge was to recommend any necessary specific legislative or regulatory changes to prevent such an event from occurring again. (Council Administrative Notice Item 37; Council Administrative Notice Item 40)
- 21. On June 3, 2010, the Nevas Commission issued a Final Report titled "Governor's Commission Re: Kleen Energy Explosion Final Report." The Final Report included findings and recommendations regarding pipe cleaning procedures used at the Kleen facility and recommended that the Council review all gas-fired baseload power plants within its jurisdiction, including those that have already been permitted. 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 Admin. Notice 38)
- 22. The United States Chemical Safety and Hazard Investigation Board (USCSB), an independent federal agency, also investigated the cause of the explosion and developed its own set of recommendations to prevent similar accidents. The USCSB issued its final report on June 28, 2010. One of the recommendations of the USCSB is to ban the use of flammable gas that is released into the atmosphere as a pipe cleaning procedure at power plants. (Council Admin. Notice 39)

#### **Nevas Commission Findings**

- 23. The Nevas Commission findings are:
  - a. "The Commission finds that the February 7, 2010 explosion was the product of a process used to clean a natural gas pipeline using large quantities of natural gas that came into contact with an ignition source known as a gas blow";
  - b. "The Commission finds that, although the Kleen Energy 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"; and
  - c. "The Commission finds, and recommends 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 38)

- 24. The Nevas Commission Final Report suggested that the Thomas Commission should examine the following areas pertaining to natural gas blows:
  - a. "Determine whether any other state or federal agency has developed regulatory structure applicable to natural gas pipeline cleaning";
  - b. "Consult with industry experts to determine which methods of gas blowing are used and/or recommended, and identify the advantages and disadvantages of each method";
  - c. "Identify the agency, or agencies, best suited to regulate the gas blow process";
  - d. "Recommend the level of training and expertise necessary for that agency to effectively establish and enforce necessary cleaning regulations";
  - e. "Consider recommending that the Connecticut Siting Council impose safety conditions upon any entity constructing a power plant that will employ the gas blow cleaning process";
  - f. "Consider recommending that the Connecticut Department of Consumer Protection and/or the Connecticut Department of Labor identify, if appropriate, special licensing, credentials, and/or training for those assigned to effect power plant gas blows in Connecticut. Further, consider recommending that the latter agencies address whether work schedule limitations are appropriate for those assigned to perform power plant gas blows in Connecticut"; and
  - g. consider the establishment of regulations concerning natural gas blow procedures.

(Council Administrative Notice Item 38)

- 25. The Nevas Commission Final Report contained a statement by Judge Nevas to the Council urging that the Council attach conditions to Kleen's Certificate that a) address the findings of the Nevas Commission; and b) incorporate any more specific recommendations made by the Thomas Panel. (Council Administrative Notice Item 38)
- 26. Additionally, Judge Nevas suggested the following:
  - a. "...a coordination council consisting of pertinent state agencies be assembled to share information during the course of construction of a large power facility. The Siting Council might serve as the coordinating entity using its 'changed conditions' authority if concerns arise that there is a pattern of violations during construction";
  - b. "The Siting Council should review this report and ultimately the Thomas Commission report to determine whether its 'changed conditions' authority would enable it to review all power plants within its jurisdiction to determine whether such plants warrant further attention"; and
  - c. "...the Thomas Commission solicit comments and input from the Siting Council as to how the Siting Council might address concerns relative to gas-fired baseload power plant facilities that have been permitted in the past and the records which are now closed."

(Council Administrative Notice Item 38)

#### **Thomas Commission Findings**

- 27. The Thomas Commission was chaired by Commissioner James M. Thomas of the DPS and included the following members: Edward Badamo, Fire Chief of the Middletown South Fire District; Karl Baker, designee for Chairman Kevin M. DelGobbo of the DPUC and Supervisor of the Gas Pipeline Safety Unit; Dr. Vishnu Khade, design engineer of the DPW; John Olsen, President of the AFL/CIO; John Parker, Chief Building Inspector of Middletown; Robert Ross, Director of the Division of Fire, Emergency and Building Services; and Bruce J. Spiewak of the American Institute of Architects. (Council Administrative Notice Item 40)
- 28. At the meeting of the Thomas Commission held on August 10, 2010, Kevin M. DelGobbo, Chairman of the DPUC stated that the Nevas Commission made the following three determinations:
  - a. "The February 7, 2010 explosion was the product of a process used 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)
- 29. At the meeting of the Thomas Commission held on August 24, 2010, Manuel R. Gomez, Director of Recommendations from the USCSB, testified that there are no standards and limited guidance regarding safely cleaning fuel gas piping. (Council Administrative Notice Item 40)
- 30. At the meeting of the Thomas Commission held on September 14, 2010, James J. Murphy, member of the Council, 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 C.G.S. §4-181a(b). Mr. Murphy also recommended statutory changes to include the DEMHS, DPS, DOL, DCP, and 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)
- 31. 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 Council 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)

- 32. The Executive Report issued by the Thomas Commission contains the following Final Recommendations:
  - a. "The 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 certain 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 reopening for consideration of the Nevas and Thomas Commission recommendations;
  - 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 and, by Connecticut amendment, remove the exception regarding fuel gas piping at electric utility power plants; and 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 adopt the requirements of the 2010 Edition of NFPA 850 "Fire Protection for Electric Generating Plants and High Voltage Current Converter Stations"; and
  - g. Adopt 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)

#### Meriden Plant - Gas Pipeline System

- 33. NRG would use an external compressed air system to clean the natural gas pipeline at its Meriden facility. The "air blow" process involves using equipment to blow out the pipeline multiple times until a target placed at the outlet indicates minimal debris is left in the line, within the specifications of the gas turbine manufacturer. Equipment will be temporarily brought to the site, including an air-compressor, air receiver tank, and a quick-opening valve at the end of the line. (NRG 2, R. 1)
- 34. The air blow process would be performed by an air blow contractor, who would be under the supervision of the NRG/MGT Commissioning Manager and other members of the project team. (NRG 2, R. 2)
- 35. NRG would typically insert a cleaning device in the line as a first step to remove large debris from the pipe. Air blow of the line would still be required to clean the pipe up to standards. (Tr. 1, p. 29)

- 36. Safety measures established during pipe cleaning would follow a Job Hazard Analysis plan. All on-site personnel would be notified of the activity. The area around the pipe exit would be framed in plywood and personnel would be cleared from the area to avoid injury and equipment damage from the cleaning process. Also, all personnel would have to use hearing protection due to expected high noise levels during the air blow process. (NRG 2, R. 3)
- 37. The cost of the air blow method versus the cost of the gas blow method is a function of the initial cleanliness of the pipe. Costs associated with the air blow include the rental of the equipment and the time it takes to do the work, whereas costs associated with a gas blow process include the cost of the natural gas to be used for cleaning and the supervision. Therefore, the more cleaning a pipeline requires the more expensive the gas blow method would be. (Tr. 1, p. 13)
- 38. The air blow cleaning process typically requires 150 to 250 pounds per square inch. (Tr. 1, p. 15)
- 39. Once the gas pipeline is cleaned and in place, there would be no need to clean that pipeline again. Additional pipeline cleaning would only be needed in any new or replaced section of the pipeline. (Tr. 1, p. 15)
- 40. NRG would be required to clean the entire one-mile length of gas pipeline between the tie-in with the interstate gas pipeline and the isolation point of the Meriden Plant. (Tr. 1, p. 17)
- 41. During construction of previous power generation projects, NRG met with the fire marshal of the municipality and explained the process for cleaning the pipelines using air. The fire marshal notified all nearby landowners of the upcoming pipe cleaning event with an automated telephone message. (Tr. 1, pp. 41, 42)
- 42. The Meriden NRG Facility is completely fenced-in, with security patrolling the property. A log is kept of people entering and exiting the facility. Once the Facility is operational, it will be a fully manned plant. (Tr. 2, pp. 13, 14, 25)
- 43. NRG would hire a safety manager to be present on-site. The safety manager would have the authority to shut down construction at the site if there were an unsafe condition. (Tr. 1, p. 58)
- 44. NRG currently does not have an emergency response or safety plan for the Meriden Plant. NRG would submit such a plan to the Council if so ordered. (Tr. 2, pp. 12, 13)
- 45. NRG would be willing to set up a reverse 911 type system to alert people in the surrounding area of activities at the Facility. (Tr. p. 14)

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conditions to the certificate consistent with the findings and
recommendations in the Final Report issued by the Kleen Energy
Plant Investigation Review Panel (Nevas Commission) and the
findings and recommendations in the Executive Report issued by the
Thomas Commission.

# **Opinion**

On April 29, 1999, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) to PDC-El Paso Meriden LLC for the construction, operation and maintenance of a 530-megawatt (MW) combined-cycle electric generating facility in Meriden, Connecticut. In 2001, NRG Energy, Inc. (NRG) through Meriden Gas Turbines (MGT) became the owner of the facility.

On July 15, 2010, the Council voted to reopen the proceeding on changed conditions under Connecticut General Statutes (C.G.S.) § 4-181a(b) specifically limited to consideration of changed conditions and the attachment of conditions to MGT's Certificate consistent with the findings and recommendations contained in the Final Report issued by the Kleen Energy Plant Investigation Review Panel Final Report issued on June 3, 2010. On September 21, 2010, the Thomas Commission issued an Executive Report, which was included in the reopening of this proceeding.

Kleen Energy Plant Investigation Review Panel (Nevas Commission) and the Thomas Commission

On February 7, 2010, there was an explosion at the Kleen Energy Systems, LLC power plant facility in Middletown, Connecticut caused by the release and combustion of natural gas that was being used to clean natural gas piping at the facility, a procedure known as a "gas blow."

After the explosion, Governor M. Jodi Rell established a commission, the Kleen Energy Plant Investigation Review Panel, chaired by Judge Alan Nevas (the "Nevas Commission"), to identify the cause and origin of the explosion and to provide information necessary for a second panel, the Thomas Commission, to provide recommendations for legislative and regulatory changes. On June 3, 2010, the Nevas Commission issued its Final Report, which included an analysis of existing regulations concerning the "cleaning" or "blowing" of natural gas pipelines and recommended changes to regulatory criteria for consideration by the Thomas Commission to prevent the recurrence of such an explosion.

The specific findings of the Nevas Commission are as follows:

- a. "The Commission finds that the February 7, 2010 explosion was the product of a process used to clean a natural gas pipeline using large quantities of natural gas that came into contact with an ignition source known as a gas blow";
- b. "The Commission finds that, although the Kleen Energy 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"; and
- c. "The Commission finds, and recommends 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."

Docket No. 190A Opinion Pg. 2

On September 21, 2010, the Thomas Commission issued an Executive Report that included recommendations for regulatory changes that can be accomplished by executive order, state legislation or adoption of regulations.

The Executive Report issued by the Thomas Commission contains the following Final Recommendations:

- a. "The 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 certain 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 reopening for consideration of the Nevas and Thomas Commission recommendations;
- f. Adoption of the following codes and regulations by the Connecticut Department of Public Safety:
  - 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 and, by Connecticut amendment, remove the exception regarding fuel gas piping at electric utility power plants; and 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 adopt the requirements of the 2010 Edition of NFPA 850 "Fire Protection for Electric Generating Plants and High Voltage Current Converter Stations"; and
- g. Adopt legislation to provide for payment into a code training fund by any power plant applicant who is required to obtain Siting Council approval.

In its review of the Nevas Commission and Thomas Commission findings and recommendations, the Council must consider the limits of its jurisdiction. Jurisdiction over electric generating facilities is conferred upon the Council pursuant to the Public Utility Environmental Standards Act (PUESA). PUESA does not charge the Council with any authority to impose or enforce occupational safety and hazard standards and regulations. The Council recognizes that the tragic accident that occurred at the Kleen facility is an isolated incident with unique circumstances. In the event of a future incident, the Council will consider the adoption of any specific findings and recommendations of any Commissions that may be appointed by the Governor in response to such an incident.

Notwithstanding its statutory jurisdictional limitations, the Council has considered changed conditions in this docket. Upon review of the Nevas Commission findings and recommendations concerning gas blows; the Thomas Commission recommendations regarding banning gas blows, assembly of a "Coordinating Council" for future power plant applications, and adoption of certain fire codes; and a recommendation by the United States Chemical Safety Board to prohibit natural gas blows during power plant construction, the Council finds changed conditions in industry practices specifically pertaining to the gas pipe cleaning process.

Docket No. 190A Opinion Pg. 3

Based on the changed conditions in this proceeding, the Council will attach conditions to the Docket 190 Decision and Order in accordance with the Nevas Commission and Thomas Commission recommendations.

DOCKET NO. 190A – Meriden Gas Turbines, LLC Certificate of }

Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 530 MW combined cycle generating } plant in Meriden, Connecticut. Reopening of this docket pursuant to Connecticut General Statutes § 4-181a(b) limited to Council } Council consideration of changed conditions and of the attachment of conditions to the certificate consistent with the findings and recommendations in the Final Report issued by the Kleen Energy Plant Investigation Review Panel (Nevas Commission) and the findings and recommendations in the Executive Report issued by the Thomas Commission.

#### **Decision and Order**

In response to recommendations contained within the Kleen Energy Plant Investigation Review Panel (Nevas Commission) Final Report of June 3, 2010 and the Thomas Commission Executive Report of September 21, 2010, the Connecticut Siting Council (Council) hereby modifies its Docket No. 190 Decision and Order of April 27, 1999, to include the following additional conditions:

- 8. The use of natural gas as a fuel pipeline/system cleaning media for any future facility modification shall be prohibited.
- 9. The Certificate Holder shall submit the following information to the Council 15-days prior to any future fuel pipeline/system cleaning operations related to any future facility modification:
  - a. Identification of the cleaning media to be used;
  - b. Identification of any known hazards through use of the cleaning media;
  - c. Description of how known hazards will be mitigated, including identification of any applicable state or federal regulations concerning hazard mitigation measures for such media;
  - d. Identification and description of accepted industry practices or relevant regulations concerning the proper use of such media;
  - e. Detailed specifications (narratives/drawings) indicating the location and procedures to be used during the pipe cleaning process, including any necessary worker safety exclusion zones;
  - f. Identification of the contractor or personnel performing the work, including a description of past project experience and the level of training and qualifications necessary for performance of the work;
  - g. Contact information for a special inspector hired by the Certificate Holder who is a Connecticut Registered Engineer with specific knowledge and experience regarding electric generating facilities or a National Board of Boiler and Pressure Vessel Inspector and written approval of such special inspector by the local fire marshal and building inspector; and
  - h. Certification of notice regarding pipe cleaning operations to all state agencies listed in General Statutes § 16-50j(h) and to the Department of Consumer Protection, Department of Labor, Department of Public Safety, Department of Public Works, and the Department of Emergency Management and Homeland Security.

- 10. The Certificate Holder shall submit a copy of an Emergency Response/Safety Plan within 90 days of the date of this decision that identifies any revisions since the initial filing of the Development and Management Plan, if applicable, and that includes, but is not limited to the following:
  - a. A description of the results of any simulated emergency response activities with any state and/or local emergency response officials;
  - b. Details of the current construction site access system that accounts for all personnel entering and leaving facility; and
  - c. Establishment of an emergency responder/local community notification system for on-site emergencies and planned construction-related activities that could cause community alarm. The system shall include notification to the following: local emergency responders, city or town officials, state legislators, and local residents who wish to participate.
- 11. The Certificate Holder shall comply with the following codes and standards, as adopted and amended by the Department of Public Safety and/or the Authority Having Jurisdiction, for any future fuel pipeline/system cleaning operations related to any future facility modification:
  - a. NFPA 37 (2010 edition);
  - b. NFPA 54 (2009 edition);
  - c. NFPA 54 Temporary Interim Amendment 09-3 (August 25, 2010);
  - d. NFPA 850 (2010 edition);
  - e. NFPA 850 Temporary Interim Amendment 10-2 (November 9, 2010);
  - f. ASME B31 (2007); and
  - g. ASME B31.1 Appendices IV and V (2007).
- 12. The Certificate Holder or facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.
- 13. The Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.
- 14. Not less than 30 days in advance, the Certificate Holder or facility owner/operator shall provide the Council with written notice that the facility plans to cease operation.
- 15. If the Certificate Holder is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.

We hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance published in <u>The Hartford Courant</u>, <u>New Britain Herald</u>, and the <u>Record-Journal</u>.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

Docket No. 190A Decision and Order Page 3

The parties and intervenors to this proceeding are:

#### **Applicant**

Meriden Gas Turbines, LLC

#### **Its Representatives**

Andrew W. Lord, Esq. Murtha Cullina LLP CityPlace I, 185 Asylum Street Hartford, CT 06103-3469

Raymond G. Long
Director, Government Affair
NRG Energy, Inc.
Middletown Station
P.O. Box 1001
1866 River Road
Middletown, CT 06457

Jonathan Milley Vice President, NE Region NRG Energy, Inc. 211 Carnegie Center Princeton, NJ 08540

NRG Energy, Inc. c/o Julie L. Friedberg, Senior Counsel – NE 211 Carnegie Center Princeton, NJ 08540

# **Intervenor**

The Connecticut Light and Power Company

#### Its Representative

Stephen Gibelli, Esq. Associate General Counsel The Connecticut Light & Power Company P.O. Box 270 Hartford, CT 06141-0270

John R. Morissette, Manager Manager - Transmission Siting and Permitting The Connecticut Light & Power Company P.O. Box 270 Hartford, CT 06141-0270

Christopher R. Bernard Manager, Regulatory Policy (Transmission) The Connecticut Light & Power Company P.O. Box 270 Hartford, CT 06141-0270 Docket No. 190A Decision and Order Page 4

# **Intervenor**

Rivers Alliance of Connecticut/ Farmington River Watershed Association

# **Its Representative**

Eric Hammerling, President Rivers Alliance of Connecticut P.O. Box 1797 Litchfield, CT 06759

Kevin Case Farmington River Watershed Association 749 Hopmeadow Street Simsbury, CT 06070

#### **Party**

Quinnipiac River Watershed Association

# **Its Representative**

Mary Mushinsky Executive Director Quinnipiac River Watershed Association P.O. Box 2825 Meriden, CT 06450

#### **CERTIFICATION**

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 190A** — Meriden Gas Turbines, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 530 MW combined cycle generating plant in Meriden, 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 Final Report issued by the Kleen Energy Plant Investigation Review Panel (Nevas Commission) and the findings and recommendations in the Executive Report issued by the Thomas Commission., and voted as follows to modify its Docket No. 190 Decision and Order of April 27, 1999, to include the additional conditions in response to the Nevas and Thomas Commission Recommendations:

Council Members	Vote Cast
Daniel F/Caruso, Chairman	Yes
Colin C. Tait, Vice Chairman	Yes
Commissioner Kevin M. DelGobbo Designee: Larry P. Levesque	Yes
Br Holewbeewsth  Acting Commissioner Susan Frechette	Yes
Designee: Brian Golembiewski  Charley  Philip T. Ashton	Yes
Daniel P. Lynch, Jr.	Yes
James J. Murphy, Jr.	Yes
Burbara Currier Bell Dr. Barbara Currier Bell	Yes
Edward S. Wilensky	Yes
D. J. L. N. Dukala Canacakina Manala 2	2011

# Daniel F. Caruso Chairman

# STATE OF CONNECTICUT

#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

March 4, 2011

TO:

Classified/Legal Supervisor

190A20100824

The Hartford Courant 285 Broad Street Hartford, CT 06115

Classified/Legal Supervisor

190A20100824

Meriden Record Journal

11 Crown Street Meriden, CT 06450

Classified/Legal Supervisor

190A20100824

The Herald

One Herald Square New Britain, CT 06050

FROM:

Lisa A. Fontaine, Fiscal Administrative Officer

RE:

**DOCKET NO. 190A** – Meriden Gas Turbines, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 530 MW combined cycle generating plant in Meriden, 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 Final Report issued by the Kleen Energy Plant Investigation Review Panel (Nevas Commission) and the findings and recommendations in the Executive Report issued by the Thomas Commission.

Please publish the attached notice as soon as possible, but not on Saturday, Sunday, or a holiday.

Please send an affidavit of publication and invoice to my attention.

Thank you.

LAF



# STATE OF CONNECTICUT



CONNECTICUT SITING COUNCIL Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov Internet: ct.gov/csc

#### **NOTICE**

Pursuant to General Statutes § 16-50p (e), the Connecticut Siting Council (Council) announces that, on March 3, 2011, the Council issued Findings of Fact, an Opinion, and a Decision and Order modifying its April 27, 1999 Decision and Order in **DOCKET NO. 190** – Meriden Gas Turbines, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of the Meriden Power Project located in the City of Meriden and the Town of Berlin, Connecticut to include recommendations of the Kleen Energy Plant Investigation Review Panel (Nevas Commission) Final Report of June 3, 2010 and the Thomas Commission Executive Report of September 21, 2010. The record in this matter, designated as Docket No. 190A, is available for public inspection in the Council's office, Ten Franklin Square, New Britain, Connecticut