



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



In the matter of )  
 )  
 The State of Connecticut and ) Trading Agreement  
 ) and Order No. 8176  
 )  
 Wisvest-Connecticut, LLC )

Whereas, the Commissioner of Environmental Protection ("Commissioner") and Wisvest-Connecticut, LLC ("Wisvest") agree that it is in the public interest that they work cooperatively to improve the air quality within the State of Connecticut and that the use of emission reduction trading will achieve this result in a timely and cost-effective manner:

- A. At the request and with the agreement of Wisvest, the Commissioner finds the following:
1. Wisvest is an exempt wholesale electric generating company with its principal place of business in Shelton, Connecticut. On April 16, 1999 Wisvest purchased from The United Illuminating Company and now owns and operates two fossil fuel-fired electric generating stations within the state.
  2. One of the two fossil fuel-fired electric generating stations within the state that Wisvest owns and operates is New Haven Harbor Station at 1 Waterfront Street in New Haven, Connecticut ("facility"). At the facility, Wisvest operates New Haven Harbor Station Unit 1, Connecticut Permit 117-0031, a tangentially-fired boiler, currently rated at 465 megawatts ("boiler"). The boiler has the dual capacity to operate on fuel oil (No. 6 or No. 2) and/or natural gas. No. 2 fuel oil is used primarily as a start-up fuel. A continuous emissions monitor ("CEM"), certified to 40 Code of Federal Regulations Part 75, measures nitrogen oxide ("NOx") emissions from the boiler.
  3. During the year 1990, prior to installation of the new system of 16 water-wall water lances, and based on CEM and Method 7-E stack test data, the average annual NOx

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emission rate for New Haven Harbor Station Unit 1 was 0.28 pounds per million British thermal units ("lbs/MMBtu") of heat input when operating on No. 6 fuel oil, 0.17 lbs/MMBtu of heat input when operating on No. 2 fuel oil and 0.20 lbs/MMBtu of heat input when operating on natural gas. On and after May 31, 1995, the Regulations of Connecticut State Agencies ("Regulations") require that New Haven Harbor Station Unit 1 emit NOx at a rate no greater than 0.25 lbs/MMBtu of heat input when operating on No. 6 fuel oil and 0.20 lbs/MMBtu of heat input when operating on No. 2 fuel oil or natural gas.

4. In December 1994, The United Illuminating Company, through its contractors, completed installation and began to test and make fully operational, a new system of 16 water-wall water lances at the facility, thereby reducing the boiler's NOx emission rates below its permitted, allowed and actual 1990 emission rates. Such control system enabled Wisvest's boiler to frequently meet and operate below the emission limitation specified in Section 22a-174-22(e) of the Regulations.
5. On and after April 16, 1999, Wisvest may obtain approval of actual reductions in NOx emissions, generated by operating the boiler at a rate which is below 0.25 lbs/MMBtu of heat input when operating on No. 6 fuel oil, 0.17 lbs/MMBtu of heat input when operating on No. 2 fuel oil and 0.20 lbs/MMBtu of heat input when operating on natural gas, for use as emission reduction credits ("ERCs"). If ERCs are created during the ozone season, Wisvest may obtain approval for such reductions for use as Budget emission reduction credits ("BERCs").
6. Pursuant to Section 22a-174-22(j) of the Regulations, Wisvest intends to acquire and generate approved ERCs until May 1, 2003 at the facility. Approved ERCs are defined for purposes of this Trading Agreement and Order as those for which the Commissioner has provided written authorization for use in compliance with Section 22a-174-22 of the Regulations. Wisvest will

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acquire approved ERCs monthly on an as-needed basis, as determined by actual NOx emissions in the event that the 24-hour average of actual NOx emissions exceeds the NOx emission limitations of Section 22a-174-22(e) of the Regulations.

7. When properly documented by Wisvest, and approved by the Commissioner, the reductions in NOx emissions identified above, and as computed in accordance with the terms of this Trading Agreement and Order, will conform to the requirements of Section 22a-174-22(j)(3) of the Regulations. Specifically, the reductions will be:

Real because they result in a reduction of actual emissions released into the air, net of any consequential increase in actual emissions resulting from shifting demand. The emission reductions are properly measured, recorded and reported.

Quantifiable because they are based on Continuous Emission Monitoring Data as applied in an appropriate reliable and replicable protocol, providing the rate and total mass amount of reduction.

Surplus because they are not required by any Connecticut statute or regulation mandated by a current State Implementation Plan ("SIP"), and are not currently relied upon in any applicable attainment plan, any reasonable further progress plan or milestone demonstration.

Permanent because the advanced control system is in place and operating, and an appropriate tracking system is in place to monitor all data required to verify and quantify the creation of ERCs.

Enforceable because the ERCs are approved by the Commissioner retrospectively after the submission by Wisvest of the quarterly or semi-annual report that will document their creation.

8. As documented in Attachment 1, attached to and

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incorporated by reference into this Trading Agreement and Order, 17 tons of non-ozone season NOx ERCs were generated by the boiler between April 16, 1999 and April 30, 1999.

9. Ten (10) percent of these ERCs (2) are retired and permanently removed from all calculations to assure a benefit to the environment, leaving 15 ERCs available for use.
- B.1. The Commissioner, in accordance with the provisions of this Trading Agreement and Order, pursuant to Section 22a-174-22(d)(4) of the Regulations, will allow Wisvest and approved sources within Connecticut to use 15 tons of non-ozone season NOx ERCs referenced in paragraph A.9. of this Trading Agreement and Order for purposes of compliance under Section 22a-174-22(j) of the Regulations to achieve a portion of the nitrogen oxide emission reductions required by Section 22a-174-22 and/or as emission offsets for new sources for compliance with the requirements of Section 22a-174-3(1)(5) of the Regulations.
  - B.2. Ozone season BERCS may be generated and used in accordance with this Trading Agreement and Order.
  - B.3. Upon sufficient documentation as prescribed below, the Commissioner may provide written approval of the generation of additional ERCs by Wisvest retrospectively. Approved ERCs and BERCS generated by Wisvest may be held by Wisvest or transferred to other persons in accordance with this Trading Agreement and Order.
- C. With the agreement of Wisvest, the Commissioner, acting under Sections 22a-6, 22a-171, 22a-174, 22a-176, and 22a-177 of the Connecticut General Statutes, orders Wisvest as follows:
    1. ERC generation.
      - a. For purposes of generating ERCs from the boiler at the facility, Wisvest shall use the appropriate baseline emission rate(s) of 0.25 lbs/MMBtu of heat input when operating on No. 6 fuel oil, 0.17 lbs/MMBtu of heat input when operating on No. 2 fuel oil and 0.20 lbs/MMBtu of heat input when operating on natural gas, or use the proportioned baseline emission rate set

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forth in footnote 2 of paragraph C.10. of this Trading Agreement and Order, when simultaneously operating on more than one fuel. Wisvest shall use the above referenced baseline emission rate(s) when calculating the proportioned baseline emission rate. When calculating ERCs, Wisvest shall use the lower of CEM-recorded NOx emission rate(s)\* or actual fuel usage data for the boiler in MMBtu/day, when determining heat input. The ten (10) percent uncertainty discount due to not having data from an official Method 7-E stack test or CEM data while operating on No. 2 fuel oil and/or natural gas shall be incorporated into the proportioned baseline emission rate whenever the boiler is operating on No. 2 fuel oil and/or natural gas as referenced in paragraph C.10. of this Trading Agreement and Order and shall be retired by the facility and permanently removed from all calculations on a daily or monthly basis. An additional ten (10) percent of all ERCs (tons) generated shall also be retired by the facility and permanently removed from all calculations on a daily or monthly basis to assure a benefit to the environment.

\*This rate shall be calculated pursuant to the methodology described in 40 Code of Federal Regulations Part 75.

- b. Non-ozone Season Restrictions. Non-ozone season NOx ERCs generated by Wisvest shall be created and approved in accordance with this Trading Agreement and Order, and shall remain valid until they are used or until May 1, 2003, whichever occurs first.
- c. Ozone Season Restrictions. The boiler is subject to Section 22a-174-22a of the Regulations ("NOx Budget Program") in 1999 and every year thereafter. The boiler may generate ozone season BERCs to comply with Section 22a-174-22 of the Regulations in accordance with paragraph C.1.a. and the following conditions and restrictions: 1) BERCs shall only be generated by the boiler from May 1 through September 30 of a given year, 2) BERCs shall only be used by other NOx Budget Program sources located in Connecticut, 3) BERCs shall only be used to offset ozone season excess emissions,

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and shall not be used for compliance during the non-ozone season; and 4) BERCs generated during a given year shall only be used during the following ozone season. For example, BERCs generated during the 1999 ozone season may only be used during the 2000 ozone season. BERCs may be generated until May 1, 2003. BERCs are subject to all ERC requirements set forth in this Trading Agreement and Order except for those requirements pertaining solely to non-ozone season ERCs and as otherwise may be provided.

2. ERC Use. Approved ERCs shall be acquired for compliance with the emission standards in Section 22a-174-22 of the Regulations for the period beginning April 16, 1999 and continuing until Wisvest achieves permanent compliance for the boiler with the emission standards in Section 22a-174-22(e) of the Regulations or until May 1, 2003, whichever occurs first. Wisvest shall acquire approved ERCs, and document and record the amounts of NOx emissions and ERCs used by the boiler each month, and shall maintain and provide such records in accordance with the following and Section 22a-174-4 of the Regulations, until May 1, 2003:
- a. Before the first day of each month, calculate the projected worst case ERCs required for that calendar month as follows:
- $$\text{ERCs (tons)} = \{[\text{estimated worst case NOx emission rate in lbs/MMBtu} - ((0.95) \times (\text{NOx RACT limit or proportioned emission rate calculated pursuant to Section 22a-174-22(f)(2)(A) of the Regulations in lbs/MMBtu}))] \times (\text{Estimated fuel use in MMBtu})\} \div 2000 \text{ pounds.}$$
- b. Acquire sufficient approved ERCs no later than the first day of each month to assure compliance with the emission standards in Section 22a-174-22(e) of the Regulations for, at a minimum, that calendar month. With the exception of BERCs, excess credits from previous months can be applied to subsequent months. BERCs are subject to the limitations set forth in paragraph C.1.c. At a minimum, ERCs

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required shall be adjusted upwards by 100% if ERCs are not in Wisvest's possession prior to the first day of each month.

- c. No later than the twentieth day of each month, calculate ERCs used in the preceding calendar month, as follows:
- (1) For the boiler on each day, determine whether the 24-hour average NOx emission rate is less than the baseline emission rate or greater than the NOx RACT limit.
  - (2) When the boiler has a daily NOx emission rate (24-hour average) exceeding the NOx RACT limit, calculate the amount of ERCs used, as follows:  
$$\text{ERCs (tons)} = \{[(\text{CEM-recorded NOx daily average emission rate in lbs/MMBtu}) - ((0.95) \times (\text{NOx RACT limit or proportioned emission rate calculated pursuant to Section 22a-174-22(f)(2)(A) of the Regulations in lbs/MMBtu}))] \times (\text{actual fuel use in MMBtu})\} \div 2000 \text{ pounds.}$$
- d. Maintain documentation to attest to the fact that ERCs used during the ozone season were generated during the ozone season. Generator certification of this fact shall be sufficient.
- e. After full program review, and if the Commissioner deems it appropriate, the Commissioner may allow the survival and use of approved ERCs beyond April 30, 2003, subject to the limitations set forth in paragraph C.1.c. of this Trading Agreement and Order.
- f. Pursuant to the intent of Section 22a-174-22a(f)(4) of the Regulations, Wisvest may use allowances acquired pursuant to the provisions of Section 22a-174-22a of the Regulations to comply with subsection (e) of Section 22a-174-22 of the Regulations pursuant to the provisions of subsection (j) of Section 22a-174-22 of the Regulations as long as

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Wisvest remains an owner or operator of a budget source, for purposes of this Trading Agreement and Order. Any allowance used for compliance with subsection (e) of Section 22a-174-22 of the Regulations shall be subject to all restrictions and/or requirements applicable to ERCs contained in this Trading Agreement and Order and/or Section 22a-174-22a of the Regulations.

3. Wisvest shall maintain records for the boiler showing daily NOx mass emissions, and actual NOx emission rates (24-hour average). Wisvest shall also maintain records showing a daily or monthly total of all ERCs generated net of the applicable uncertainty and environmental discounts.
4. In requesting approval of ERCs generated by the boiler, Wisvest shall provide documentation containing daily or monthly operating reports of actual fuel usage in MMBtu for each fuel type and actual heat input based upon CEM-recorded data, daily or monthly actual NOx mass emissions and NOx emission rates (24-hour average), number of operating hours per day, and ERCs generated using the baseline emission rate(s) or the proportioned baseline emission rate, referenced in paragraph C.1. of this Trading Agreement and Order, net of the applicable uncertainty and environmental discounts.
5. No later than March 1 of every year after issuance of this Trading Agreement and Order, Wisvest shall include with the Annual Emission Statement provided to the Commissioner, a record of each sale or other transfer, and use of any and all of the ERCs approved within and subsequent to issuance of this Trading Agreement and Order until all such ERCs have been used. Wisvest shall also include actual NOx emissions from the boiler, and the amount of all ERCs used (including approved ERCs generated and/or purchased from other facilities), generated and/or approved for the previous calendar year. These reports shall be on a form prescribed by the Commissioner. This reporting may cease if a central registry is approved by the Commissioner. Should Wisvest choose to discontinue the generation of ERCs, Wisvest shall notify the Commissioner in writing upon

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discontinuance.

6. In order to consider CEM-recorded NOx emission rates valid for ERC approval, all NOx and CO<sub>2</sub>/O<sub>2</sub> CEMs must comply with 40 Code of Federal Regulations Part 75.
7. Wisvest shall retain records and supporting documentation as described in this Trading Agreement and Order for a minimum of five years, commencing on the date such records were created. Wisvest shall provide the records specified above to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner.
8. Upon sufficient documentation, as determined by the Commissioner, that Wisvest has met the requirements of paragraphs C.1., C.2., C.3, C.4., and C.10., of this Trading Agreement and Order, the Commissioner may provide written approval of ERCs generated by Wisvest retrospectively, in addition to the 15 ERCs approved in paragraph B. of this Trading Agreement and Order. Requests for approval of all subsequent ERCs generated shall be submitted in writing to the Commissioner. Approved ERCs generated by Wisvest may be held or transferred to other persons.
9. Should Wisvest choose to generate additional ERCs, reports documenting these credits shall be submitted to the Commissioner on a quarterly or semi-annual basis. Such reports shall be compiled on a monthly basis.
10. When the boiler has daily or monthly NOx emissions below the applicable baseline emission rate(s) or the proportioned baseline emission rate, Wisvest shall calculate the amount of ERCs generated as follows:

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ERCs (tons) = {[Total heat input<sup>1</sup> of all fuels in MMBtu x ((proportioned baseline emission rate<sup>2</sup>) - (the CEM-recorded NOx emission rate<sup>3</sup>))] ÷ 2000 lbs/ton} x (0.90).<sup>4</sup>

<sup>1</sup> Heat input shall be calculated using the lower of CEM-recorded data or actual fuel usage data in MMBtu per unit of fuel combusted.

<sup>2</sup> This rate shall be calculated by 1) multiplying the heat input of each fuel combusted by the baseline emission rate(s) for such fuel; 2) summing those products; and 3) dividing the sum by the total heat input. If the boiler is operating exclusively on one fuel, Wisvest may replace the proportioned baseline emission rate with the applicable baseline emission rate, for that fuel. The ten (10) percent uncertainty discount due to not having data from an official Method 7-E stack test or CEM data while operating on No. 2 fuel oil and/or natural gas shall be incorporated into the proportioned baseline emission rate whenever the boiler is operating on No. 2 fuel oil and/or natural gas.

<sup>3</sup> This rate shall be calculated pursuant to the methodology described in 40 Code of Federal Regulations Part 75 and weighted pursuant to the Department of Environmental Protection's policy statements entitled "Guidance for Calculation of Emission Reduction Credits and Determination of Compliance with NOx RACT for Sources Subject to 40 CFR (Acid Rain Sources)" dated 12/18/98 which are attached to and incorporated by reference into this Trading Agreement and Order as part of Attachment 1.

<sup>4</sup> An additional ten (10) percent of all ERCs (tons) generated shall also be retired by the facility and permanently removed from all calculations on a daily or monthly basis to assure a benefit to the environment.

- 11. As used in this Trading Agreement and Order, "Commissioner" means the Commissioner of Environmental Protection or an agent of the Commissioner. "Ozone season" means the period from May 1 through September 30

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in any given calendar year.

12. Notification of noncompliance. In the event that Wisvest becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this Trading Agreement and Order or of any document required hereunder, Wisvest shall by telephone immediately notify the Bureau of Air Management and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. Wisvest shall also notify the Commissioner in writing within ten days of becoming aware of the noncompliance or potential noncompliance stating the date, time, and duration of the noncompliance, the reasons for the noncompliance or delay and all activities which Wisvest and its agents, employees and representatives took to avoid or repair the results of the noncompliance and prevent the noncompliance, and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved. Notification by Wisvest shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing. Nothing herein shall negate Wisvest's obligation to comply with Section 22a-174-7 of the Regulations. To the extent that the provisions of Section 22a-174-7 are inconsistent with the provisions of this Trading Agreement and Order, the more stringent of the provisions in the Trading Agreement and Order or Section 22a-174-7 shall control.
13. Certification of documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this Trading Agreement and Order shall be signed by the responsible corporate officer of Wisvest or a duly authorized representative of such officer, as those terms are defined in Section 22a-430-3(b)(2) of the Regulations, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining

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the information to determine that the information is true, accurate, and complete, and 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 or, in accordance with Section 22a-6 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

14. Final Agreement and Order. This Trading Agreement and Order is the final agreement and order by and between the Commissioner and Wisvest with respect to the matters addressed herein, and shall not be modified without the written agreement of both parties.
15. False statements. Any false statement in any information submitted pursuant to this Trading Agreement and Order may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes or, in accordance with Section 22a-6, under Section 53a-157b of the Connecticut General Statutes.
16. Notice of transfer; liability of Wisvest and others. Until Wisvest has fully complied with this Trading Agreement and Order, Wisvest shall notify the Commissioner in writing no later than fifteen (15) days after transferring all or any portion of the facility, the operations, the site or the business which are the subject of this Trading Agreement and Order, or obtaining a new mailing or location address. Any license transfer shall be conducted in accordance with Section 22a-60 of the Connecticut General Statutes. Wisvest's obligations under this Trading Agreement and Order shall not be affected by the passage of title to any property to any

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other person or municipality.

17. Commissioner's powers. Nothing in this Trading Agreement and Order 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 which are willful or criminally negligent or for which penalties have not been specifically provided in this Trading Agreement and Order, including but not limited to violations of any permit issued by the Commissioner. If at any time the Commissioner determines that the actions taken by Wisvest pursuant to this Trading Agreement and Order have not fully achieved compliance with Section 22a-174-22 of the Regulations, the Commissioner may institute any proceeding against Wisvest and/or require Wisvest to undertake further investigation or further action.
18. Wisvest's obligations under law. Nothing in this Trading Agreement and Order shall relieve Wisvest of other obligations under applicable federal, state and local law.
19. Access to records and facility. Any representative of the Department of Environmental Protection may enter and inspect the facility and inspect and copy records within normal business hours without prior notice for the purposes of monitoring and enforcing the actions required or allowed by this Trading Agreement and Order.
20. No effect on rights of other persons. This Trading Agreement and Order shall neither create nor affect any rights of persons who or municipalities which are not parties to this Trading Agreement and Order.
21. No Creation of Property Rights. This Trading Agreement and Order does not create any property rights with respect to these ERCs.
22. Notice to Commissioner of changes. Within fifteen (15) days of the date Wisvest becomes aware of a change in any information submitted to the Commissioner under this

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Trading Agreement and Order, or that any such information was inaccurate or misleading or that any relevant information was omitted, Wisvest shall submit the correct or omitted information to the Commissioner.

23. Submission of documents. Any document required to be submitted to the Commissioner under this Trading Agreement and Order shall, unless otherwise specified in writing by the Commissioner, be directed to:

Ms. Wendy Jacobs  
Department of Environmental Protection  
Bureau of Air Management  
Compliance and Field Operations Division  
Emissions and Credit Trading Section  
79 Elm Street  
Hartford, Connecticut 06106

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Wisvest-Connecticut, LLC

Trading Agreement  
and Order No. 8176

Wisvest consents to the issuance of this Trading Agreement and Order without further notice. The undersigned certifies that he/she is fully authorized to enter into this Trading Agreement and Order and to legally bind Wisvest to the terms and conditions of the Trading Agreement and Order.

Wisvest-Connecticut, LLC

Signature: Thomas D Kirk

Type Name: Thomas D. Kirk

Type Title: General Manager

Date: May 5, 2000

Issued as a final consent order of the Commissioner of  
Environmental Protection on May 31, 2000.

Arthur J. Rocque, Jr.  
Commissioner

CITY OF NEW HAVEN LAND RECORDS  
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