



STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION



STATE OF CONNECTICUT)
)
 AND) TRADING AGREEMENT AND ORDER NO. 8109
) MODIFICATION No. 2
 HAMILTON SUNDSTRAND CORPORATION)

In the matter of a Trading Agreement and Order between the Commissioner of Environmental Protection (“Commissioner”) and Hamilton Sundstrand Corporation (“HSC”).

WHEREAS, the Commissioner and HSC, having agreed to the terms and conditions set forth in Trading Agreement and Order No. 8109 signed by the Commissioner on April 29, 2003, and Order 8109 Modification 1 issued March 15, 2005 do now, by mutual agreement, modify said Trading Agreement and Order as follows:

- Delete paragraph A.3. and substitute the following therefor:

U.S. Environmental Protection Agency (“EPA”) Method 7E emission tests performed on the dates shown in Table 1 resulted in NOx emissions rates as follows:

Table 1 HSC – NOx EMISSION TEST RATES AND LIMITS (lbs/MMBtu)								
Boilers in Building # 1								
Boiler	Fuel	Heat input MMBtu/hr	Test rate 5/95	Test rate 5/99 (5/00)	Test rate 2/04	FLERs	NOx Limit Rate	Date Next Test Due
Boiler #1 (Riley)	#6 oil	61	0.38	0.25	0.294	0.33	0.25	2/26/09
	Nat. Gas		0.26	0.12	0.175	N/A	0.20	2/24/09
Boiler #2 (Riley)	#6 oil	61	0.36	0.24	0.263	0.29	0.25	2/25/09
	Nat. Gas		0.27	0.08	0.160	N/A	0.20	2/24/09
Boiler #3 (Riley)	#6 oil	61	0.40	0.25	0.294	0.33	0.25	2/26/09
	Nat. Gas		N/A	0.13	0.149	N/A	0.20	2/24/09
Boiler #4 (CE)	#6 oil	73	0.44	(0.374)	N/A	N/A	0.25	Shut down
Boilers in Building # 3								
Boiler	Fuel	Heat input MMBtu/hr	Test rate 5/95	Test rate 1/99 (5/00)	Test rate 12/03	FLER	NOx Limit Rate	Date Next Test Due
Boiler #1 (CB)	#4 oil	20.9	0.29	Ceased	N/A	0.29	0.25	N/A
	#2 Oil		N/A	0.171	0.192	N/A	0.20	1/9/09
	Nat. Gas		0.08	(0.111)	0.114	N/A	0.20	12/18/08
Boiler #2 (CB)	#4 oil	20.9	0.27	Ceased	N/A	0.27	0.25	N/A
	#2 Oil		N/A	0.189	0.174	N/A	0.20	1/9/09
	Nat. Gas		0.07	(0.102)	0.099	N/A	0.20	12/18/08

2. Delete paragraph A.7. and substitute the following therefor:
 - a. DEP witnessed emissions testing conducted April 1999 and May 2000, as indicated in Table 1 of this Trading Agreement and Order, showed that the NOx emissions rates from the boilers were reduced below the allowable NOx emission limits set forth in Section 22a-174-22 (e) of the Regulations.
 - b. DEP witnessed emissions testing conducted February 2004, as indicated in Table 1 of this Trading Agreement and Order, showed that the NOx emissions rates from the boilers exceeded the allowable NOx emission limits set forth in Section 22a-174-22 (e) of the Regulations.
 - c. On June 30, 2004 HSC retired 22 DERCs to offset excess emissions from the boilers during the time period of April 1999 through February 2004. Included in the amount retired is an additional 100% (11 DERCs).

3. Change the term boiler 4 in paragraph A.8. to: the boilers.

4. Delete paragraph A.9. and substitute the following therefor:

HSC proposes to use the full load emission rates ("FLERs") in Table 1, when burning No. 6 fuel oil, for the purposes of calculating DERCs required for the boilers.

5. Attachment 2 of Trading Agreement and Order 8109 is deleted in its entirety and the appended Attachment 2 is substituted in lieu therefor.

6. Delete paragraph A.12. and substitute the following therefor:

As documented in Attachment 2, incorporated herein by reference in this Trading Agreement and Order, and shown in Table 3, since the installation of low NOx burners in the boilers, HSC has generated 16.5 tons of NOx DERCs (7.6 ozone and 8.9 non-ozone). Twenty percent of these DERCs (1.5 tons ozone and 1.8 non-ozone) have been permanently retired to benefit the environment. The total DERCs available for use after the environmental discount and rounding down to the nearest whole ton for annual serial number assignment is 8 tons (3 ozone and 5 non-ozone season).

7. Delete paragraph A.13. and substitute the following therefor.

Reserved

8. Delete Table 3 and substitute the following therefor:

Table 3 Approved DERCs Generated from 1999 through 2003 (After rounding down to the nearest whole ton)					
Year of generation	Ozone season	Tons	Non-ozone season	Tons	Expiration Date
1999	CT99/8109(DC)NO _x oz(1)	1	CT99/8109(DC)NO _x noz(1)	1	12/31/04
2000	CT00/8109(DC)NO _x oz(1)	1	CT00/8109(DC)NO _x noz(1-2)	2	12/31/05
2002	CT02/8109(DC)NO _x oz(1)	1	CT02/8109(DC)NO _x noz(1)	1	12/31/07
2003			CT03/8109(DC)NO _x noz(1)	1	12/31/08

9. Delete paragraph A.14. and substitute the following therefor:

HSC shall cease operation of Boiler 4 in building 1 upon issuance of this Trading Agreement and Order Modification.

10. Change the amount of DERCs specified in paragraph B.1. from 17 tons (8 tons ozone, 9 tons non-ozone) to 8 tons (3 tons ozone, 5 tons non-ozone).

11. Delete paragraph B.2. and substitute the following therefor:

The Commissioner, in accordance with the provisions of this Trading Agreement and Order, pursuant to Section 22a-174-22(j) of the Regulations, hereby allows HSC to comply with Section 22a-174-22(d) of the Regulations through use of DERC trading to achieve the nitrogen oxide emission reduction required by Subdivision 22a-174-22(d)(1) of the Regulations.

12. Change the date specified in paragraphs A.8., C.1., C.2., and C.13. from April 30, 2007 to May 1, 2009.

13. Delete paragraph C.2.c. and substitute the following therefor:

HSC shall comply during the operation of the boilers with FLERs shown in Table 1 in accordance with this Trading Agreement and Order.

14. Delete paragraphs C.3., C.4. and C.5., and substitute the following for each therefor:

Reserved.

15. Delete paragraph C.6. and substitute the following therefor.

DERC Use. Until May 1, 2009, before the first day of each month HSC shall have in its possession sufficient approved DERCS for such month for the boilers in building 1 based on the following calculation:

- a. Before the first day of each month, HSC shall estimate DERCS required for such calendar month for the boilers in building 1 when burning No. 6 fuel oil as follows:

$$\text{Estimated DERCS (tons) use} = \{(\text{Estimated fuel use in MMBtu}) \times ((\text{FLER}) - (0.95 \times \text{NOx allowable emission limit}))\} \div 2000 \text{ lbs/ton.}$$

Where:

- Allowable limit = allowable limit rate in lbs/MMBtu shown in Table 1 of this Trading Agreement and Order.
 - Full load emission rate (FLER) as shown in Table 1 of this Trading Agreement and Order.
 - Discount (0.95) = 5% design margin applied to the allowable limit rate.
 - Fuel heating value = 152,000 Btu/gal for No. 6 fuel oil.
- b. No later than the twentieth day of each month, calculate and permanently retire actual DERCS used in the preceding calendar month for the boilers in building 1 when burning #6 fuel oil using the FLER as follows:

$$\text{Actual DERCS (tons) used} = \{(\text{actual fuel use in MMBtu}) \times ((\text{FLER}) - (0.95 \times \text{NOx allowable emission limit}))\} \div 2000 \text{ lbs/ton}$$

16. Delete paragraphs C.7. and C.8. and substitute the following therefor:

Reserved.

17. Delete paragraph C.9. and substitute the following therefore:

Upon issuance of this Trading Agreement and Order, if HSC has reason to believe it may be exceeding the FLERs for the boilers, HSC shall conduct NOx emissions testing of the corresponding boiler on or before sixty (60) days after the exceedance of the above limits in accordance with the following:

- i. HSC shall submit, for the Commissioner's review and written approval, an Intent-To-Test ("ITT") protocol not less than thirty (30) days prior to the emissions testing required pursuant to this paragraph and paragraph C.18 of this Trading Agreement and Order. The ITT protocol shall include at least:
 - ii The Department's Bureau of Air Management Test Form No. 1, "Intent to Test".

- iii. System operating parameters indicative of the highest operating rate since the last previous stack test or the most recent Department witnessed emission test which ever is more recent, including, but not limited to: steam output rate, temperature and pressure, fuel firing rate, and NOx emissions rate.
- iv. The ITT protocol shall provide that HSC shall perform testing as specified in Sections 22a-174-5 and 22a-174-22 of the Regulations.
- v. HSC shall perform all testing required by this Trading Agreement and Order in accordance with the approved ITT protocol.
- vi. In conducting and performing the testing required by this Trading Agreement and Order, and analyzing the results of such testing, HSC shall adhere to methods specified in Sections 22a-174-5 and 22a-174-22 of the Regulations and as approved by the EPA and the Commissioner.
- vii. HSC shall schedule all emissions testing so as to allow the Commissioner to be present during such testing and to independently verify facility operations, air pollution control equipment parameters, and testing procedures.
- viii. Within 30 days after completing any emissions testing required by this Trading Agreement and Order, HSC shall submit to the Commissioner a written report providing the results of such testing; within 15 days of a notice from the Commissioner indicating any deficiencies in such report, HSC shall submit a revised report.

18. Delete paragraph C.12. and substitute the following therefor:

Annual Emission Statement. No later than March 1, of every year after issuance of this Trading Agreement and Order, HSC shall include with the Annual Emission Statement provided to the Commissioner, a record of each sale or other transfer, of DERCs for the previous calendar year. HSC shall also include actual NOx emissions from each boiler using DERCs, and the amount of all DERCs used including serial number (if assigned), and approved DERCs purchased from other facilities. These reports shall be on a form prescribed by the Commissioner and shall be in monthly increments, and by ozone and non-ozone seasons.

19. Delete paragraph C.14. and substitute the following therefor:

DERC Shortfall. At a minimum, DERCs required shall be adjusted upwards by 100% if DERCs are not in HSC's possession for use prior to the first day of each month or applicable season. However, nothing in this Trading Agreement and Order shall affect the Commissioner's authority to institute any proceeding or take any other action to require additional upward adjustment, based on the gravity of any alleged noncompliance or violation of law. HSC shall permanently retire the quantity of DERCs equivalent to the excess emissions plus a 100% premium within sixty (60) days of HSC's discovery of the DERC shortfall. HSC shall certify and report any such DERC retirement to the Commissioner in accordance with paragraph C.36 of this Trading Agreement and Order.

20. Delete paragraph C.16. and substitute the following therefor:

FLER Exceedance. Noncompliance with an established FLER shall subject HSC to make restitution by matching the quantity of emissions ("true up") caused by the exceedance plus a 100% premium. The true up in tons of DERCs shall be equal to the FLER exceedance in lbs/MMBtu, multiplied by the total heat input during the period of noncompliance divided by 2000 lbs/ton. If the period of noncompliance is not known, the time period from the completion of the last/previous Commissioner witnessed emission test through the date the FLER compliance is achieved as approved by the Commissioner shall be used. However, nothing in this Trading Agreement and Order shall affect the Commissioner's authority to institute any proceeding or take any other action to require additional upward adjustment, based on the gravity of any alleged noncompliance or violation of law. HSC shall permanently retire DERCs calculated in accordance with the above, plus a 100% premium, within sixty (60) days of HSC's discovery of the FLER exceedance. HSC shall report any FLER exceedance to the Commissioner in accordance with paragraph C.36 of this Trading Agreement and Order.

21. Delete paragraph C.19. and substitute the following therefor:

Extension. No later than May 1, 2009, with respect to the boilers, HSC shall comply with the requirements of Section 22a-174-22(d)(1) of the Regulations. There is no assurance that after full program review of this and other Trading Agreements and Orders that the Commissioner will grant a written extension of this Trading Agreement and Order.

22. Delete paragraph C.20. and substitute the following therefor:

Future Compliance Report. On or before September 1, 2008, HSC shall submit a report in writing to the Commissioner, as directed in paragraph C.37. of this Trading Agreement and Order, indicating how the facility shall comply with Section 22a-174-22 of the Regulations with respect to the boilers on and after May 1, 2009.

23. Delete paragraph C.23. and substitute the following therefor:

Definitions. As used in this Trading Agreement and Order, "the boilers" means boilers 1, 2, and 3 in building 1; "Approved DERCs" are those for which the Commissioner has provided written authorization for use in compliance with Section 22a-174-22 of the Regulations; "Commissioner" means the Commissioner or a representative of the Commissioner; "Non-Ozone season" means the period from October 1 through April 30 in any given calendar year. "Ozone season" means the period from May 1 through September 30 in any given calendar year.

24. Delete paragraph C.24. and substitute the following therefor:

Dates. The date of "issuance" of this consent order is the date the consent order is deposited in the U.S. mail or personally delivered, whichever is earlier. The date of submission to the Commissioner of any document required by this consent order shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this consent order, including but

not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is deposited in the U.S. mail or is personally delivered, whichever is earlier. Except as otherwise specified in this consent order, the word "day" as used in this consent order means calendar day. Any document or action which is required by this consent order to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed by the next day which is not a Saturday, Sunday or Connecticut or federal holiday.

- 25. Delete the word "individual" and substitute therefore the word "section" in paragraph C.36.
- 26. Delete the name "Mr. Roland L. Severance Jr., PE" in paragraph C.37.

All other terms and conditions of Trading Agreement and Order No. 8109 issued by the Commissioner acting under Chapter 446c, Sections 22a-6, 22a-171, 22a-174, 22a-176, 22a-177 and 22a-178 of the Connecticut General Statutes shall remain in effect.

The Hamilton Sundstrand Corporation hereby consents to the entry of this modification to the Trading Agreement and Order without further notice.

HAMILTON SUNDSTRAND CORPORATION

Signature: *Jorge S. Laires*

Name: *Jorge S. Laires*

Title: *Director, Mechanical Operations*

Date: *October 5, 2006*

Issued as a modification of an Order of the Commissioner of Environmental Protection

Gina McCarthy
Gina McCarthy
Commissioner

10/26/06
Date

TOWN OF WINDSOR LOCKS LAND RECORDS
MAILED CERTIFIED MAIL,
RETURN RECEIPT REQUESTED
Certified Document No. 7005 3110 0001 2315 1130



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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50 Church Street
Windsor Locks, Connecticut 06096

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**SUBJECT: FILING NOTICE OF BUREAU OF AIR MANAGEMENT ORDER
ON LAND RECORDS**

Pursuant to Section 22a-178(g) of the Connecticut General Statutes, attached please find a NOTICE OF BUREAU OF AIR MANAGEMENT ORDER to be filed in your Land Records. Would you please see to it that this notice is duly filed and registered on your Grantor/Grantee indexes. All pertinent information for filing and indexing is contained within the notice itself.

Please stamp this original notice with the volume and page number as filed on your land records. Also, please indicate on this original notice the appropriate fee. Then, please send the original copy of this notice to the Assistant Director, Compliance and Field Operations Division, Bureau of Air Management, Department of Environmental Protection, 79 Elm Street, 5th Floor, Hartford, CT 06106-5127. Once the original notice is returned as requested, an invoice for payment will be processed. Failure to return the original notice as requested will result in the Department's inability to process an invoice for payment. Should you have any questions concerning this request, please contact this office at (860) 424-3028.

Anne Gobin

Anne Gobin, Acting Chief
Bureau of Air Management

NOTICE OF BUREAU OF AIR MANAGEMENT ORDER

Pursuant to Section 22a-178(g) of the Connecticut General Statutes, Notice is hereby given that on April 29, 2003 the Commissioner of Environmental Protection has issued Bureau of Air Management Order No. 8109

RECEIVED FOR RECORD MAY 8 2003
AT 1:09 P.M. AND RECORDED BY M

TO: Hamilton Sunstrand Corporation
AT: One Hamilton Rd

Which land is owned by: Hamilton Sunstrand Corporation

[Signature]
TOWN CLERK, WINDSOR LOCKS, CT

to create enforceable operating conditions pursuant to Section(s) 22a-174-22 of the Regulations of Connecticut State Agencies.

Unless a **NOTICE OF COMPLIANCE WITH BUREAU OF AIR MANAGEMENT ORDER** appears in these Land Records said order is in full force and effect.

Details of the State Order and related documents are available at the Office of the Director, Compliance and Field Operations, Bureau of Air Management, Department of Environmental Protection, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127. Notice issued by authority of: Arthur J. Rocque, Jr., Commissioner, Department of Environmental Protection.

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