



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



STATE OF CONNECTICUT )
AND )
ALLIEDSIGNAL INC. AND )
U.S. ARMY TANK-AUTOMOTIVE )
AND ARMAMENTS COMMAND )

Trading Agreement and
Order NO. 8137

Whereas, the Commissioner of Environmental Protection
("Commissioner") and AlliedSignal, Inc. ("AS") and U.S. Army
Tank-Automotive and Armaments Command ("TACOM") ("AS and TACOM")
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 emissions averaging ("averaging")
and emission reduction credit ("ERC") trading will achieve this
result in a timely and cost-effective manner:

A. At the request and with the agreement of AS and TACOM, the
Commissioner finds the following:

- 1. AlliedSignal, Inc. is a corporation that operates an
Army tank engine and other turbine engine manufacturing
facility at 550 Main Street in Stratford, Connecticut
("facility") under contract to the U.S. Army Tank-
Automotive and Armaments Command (a Department of the
United States (U.S.) government).

On or before June 12, 1997, as required by the Base
Realignment and Closure Act ("BRAC"), operation of this
facility will transfer from AS to TACOM for cessation
of operations and shutdown of the facility.

- 2. At the facility, AS and TACOM operate fuel-burning
equipment consisting of three steam boilers #1, 2, and
3 ("boilers") capable of burning natural gas and #6
fuel oil, which are subject to the requirements of
§ 22a-174-22 of the Regulations of Connecticut State
Agencies ("Regulations") pertaining to the control of
Nitrogen Oxides (NOx).
3. Official U.S. Environmental Protection Agency Method 7
stack tests performed January 16, and 17, 1996; and
February 13 and 14, 1996, resulted in NOx emissions
rates as follows:

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UNIT	DEP Reg.#	Fuel	Heat Input MMBtu/hr	Stack test Rate lbs/MMBtu	RACT Rate lbs/MMBtu
Boiler #1	0061	No. 6 oil Natural Gas	51 51	0.287* 0.045	0.25 0.20
Boiler #2	0116	No. 6 oil Natural Gas	75 75	0.375* 0.108	0.25 0.20
Boiler #3	0001	No. 6 oil Natural Gas	89 89	0.327* 0.067	0.25 0.20

\* Indicates emission rates in excess of Section 22a-174-22, Table 22-2 of the Regulations emission limits.

4. For ERC program base year reference, in 1990, the boilers emitted a total of 19.0 tons of NO<sub>x</sub> emissions.
  5. At the facility, AS and TACOM propose to comply with § 22a-174-22 of the Regulations through emissions averaging and emission reduction trading in accordance with Section 22a-174-22(d)(4) and (j) of the Regulations.
  6. On May 21, 1996, pursuant to emission reduction trading § 22a-174-22 (j) of the Regulations, AS purchased 7 tons of approved ERCs.
  7. The use of emission reduction trading and emission averaging are forms of emission trading as defined in the United States Environmental Protection Agency Economic Incentive Plan rules, 40 C.F.R. § 51.493 et seq. AS and TACOM will use ERC trading in conjunction with its emission averaging plan to over comply (i.e., operate below allowable emission limits set forth in § 22a-174-22 of the Regulations) to provide a benefit to the environment as specified in paragraph A.8.
  8. AS and TACOM will over comply with the requirements of § 22a-174-22 of the Regulations by using discounts, a facility emission limitation or emissions cap and design margins specified in this order.
- B. The Commissioner, in accordance with the provisions of this trading agreement and order, and pursuant to §§ 22a-174-22(d), (e) and (j) of the Regulations hereby allows AS and TACOM to comply with § 22a-174-22 of the Regulations through

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use of averaging and ERC trading and applicable emission limitations at the facility as provided herein.

- C. With the agreement of AS and TACOM, the Commissioner, acting under the Connecticut General Statutes §§ 22a-6, 22a-171, 22-174, 22a-176, and 22a-177, orders AS and TACOM as follows:

Averaging and ERC trading:

1. After May 31, 1995, except as specified in Paragraph C.2.b., and until May 1, 1999, or termination of this Trading agreement and order, whichever is earlier, AS and TACOM shall acquire approved emission reduction credits (ERCs) and use averaging and ERC trading to comply with the NO<sub>x</sub> emission rate limitations, based on a monthly average, as follows:

Averaging set and requirements.

Averaging Set. The AS and TACOM averaging set is defined to be the following sources: boilers #1, 2, and 3 (see Table 1 and 2).

NO<sub>x</sub> emission rate limitations:

- RACT rate = 0.20 lbs/MMBtu when burning natural gas and 0.25 lbs/MMBtu when burning #6 fuel oil (based on § 22a-174-22, Table 22-2 of the Regulations)
- FLER = full load emission rate as shown in table 2 of this order
- Discount = includes 20% discount on RACT rate for credits, and a 10% discount and a 5% design margin on RACT rate for debits.

2. AS and TACOM shall:

- a. Acquire sufficient approved ERCs to assure that an adequate number of ERCs are available at least 24 hours prior to use for each monthly averaging period.
- b. For the months of June, 1995, through May, 1996, the purchase and retirement of approved ERCs must be completed no later than May 31, 1996. AS and TACOM shall purchase and retire an additional 35 (thirty-five)% of ERCs actually required from June

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1, 1995 through May 21, 1996, the date of acquisition of ERCs.

- c. No later than the tenth day of each month, beginning the month after issuance of this Trading agreement and order, AS and TACOM shall calculate ERCs used in the preceding calendar month, as follows:

(1) Calculate the Total monthly Averaging Credits available from the combustion of natural gas in the Averaging Set (as defined in Paragraph C.1.). The Total Monthly Averaging Credits shall be the sum of the Averaging Credits during that month calculated for each boiler in the Averaging Set as follows:

Monthly Averaging Credits (tons) = [fuel use in MMBtu x ((0.80\* x RACT lb/MMBtu) - FLER\*\* in lb/MMBtu)] ÷ 2000 pounds/ton.

\* includes 20% averaging credit discount

\*\* Full Load Emission rate ("FLER") (see par. D.1. Table 2)

(2) Calculate the Total Monthly Averaging Debits generated from the combustion of #6 fuel oil in the Averaging Set. The Total Monthly Averaging Debits shall be the sum of the Averaging Debits during that month calculated for each boiler in the Averaging Set as follows:

Monthly Averaging Debits (tons) = [#6 Oil use in MMBtu x ((.85\*\* x RACT lb/MMBtu) - FLER in lb/MMBtu)] ÷ 2000 pounds/ton.

\*\* includes a 10% averaging debit discount + 5% design margin

(3) Net Monthly Averaging Debit, if any, for each calendar month as follows:  
Net Monthly Averaging Debit (*negative number*) = the sum of the Total Monthly Averaging Debits plus the Total Monthly Averaging Credits. No approved ERCs shall be required for emissions in any month during which there are more Monthly Averaging Credits than Monthly Averaging Debits. Net Monthly Averaging Credits may not be carried forward to the next month.

(4) For each month with a Net Monthly Averaging Debit, the amount of ERCs required for such month

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shall equal the Net Monthly Averaging Debit. The total amount of approved ERCs used and permanently retired each month shall be equal to the sum of the ERCs required for each month.

- d. Perform the above calculations on forms prescribed by the Commissioner for each boiler using actual fuel consumption records.
- e. Document and record hours of operation, fuel consumption, heat input, and NO<sub>x</sub> emissions for each boiler in the averaging set on a monthly basis, and will maintain records of the amounts of fuel used by each boiler and the credits and debits generated for emission averaging purposes on a monthly basis. AS and TACOM shall maintain documentation regarding the number of ERCs in its possession and used each month, as well as information to attest to the fact that ERCs used during the ozone season were generated during the ozone season. All records shall be maintained in accordance with §§ 22a-174-4 and 22a-174-22 of the Regulations and will be provided to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner.

D. Boiler Restrictions and Annual Emissions Cap.

1. In addition to the averaging and ERC trading requirements for the averaging set contained in Section C.1. of this Trading agreement and order, each unit included in AS and TACOM's averaging set shall not exceed the FLERS and operating restrictions shown in Table 2:

Table 2 AS/TACOM -NOx EMISSION RATES & RACT LIMITS (lbs/MMBtu)						
UNIT	DEP Reg.#	Fuel	Heat Input MMBtu/hr	FLER	Stack test Rate	RACT Rate
Boiler #1	0061	No. 6 oil	51	0.300	0.287*	0.25
		Natural Gas	51	0.047	0.045	0.20
Boiler #2	0116	No. 6 oil	75	0.390	0.375*	0.25
		Natural Gas	75	0.110	0.108	0.20
Boiler #3	0001	No. 6 oil	89	0.340	0.327*	0.25
		Natural Gas	89	0.070	0.067	0.20

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2. To prevent exceeding the lower of historic actual or allowable (as listed in Table 22-1, Section 22a-174-22 of the Regulations) emission levels ("historic levels"), the total actual emissions shall not exceed historic levels as shown below:

AS and TACOM NO<sub>x</sub> emissions shall not exceed 19.65 tons per year, based on the 1994 historic level.

Approved ERCs may be used to offset emissions above the historic level; however, said ERCs shall be separate from ERCs and/or averaging credits used for meeting emission rate limits specified in Table 22-2, Section 22a-174-22 (e) of the Regulations. The quantity of ERCs required to offset excess emissions above the historic level shall equal the difference between the total emissions (in tons), based on approved stack tests, and the historic level (in tons).

For purposes of calculating total emissions, only emissions from sources in the averaging set shall be included; emissions used shall be for a calendar year, based on most recent official stack test results, beginning in calendar year 1996. Approved ERCs shall be in AS and TACOM's possession before the historic level is exceeded.

3. Fuel quantities for #6 oil will be determined by direct fuel meter reading for each boiler. Fuel quantities for natural gas will be determined by direct reading of the one main gas meter for the three boilers and proportioned based on direct readings of the steam production meters for each boiler.

E. Other Requirements.

1. Within 30 days after the execution of this order for the year 1995, and no later than March 1 of 1997, 1998, 1999, and 2000, AS and TACOM shall submit to the Commissioner an annual report on NO<sub>x</sub> emissions for each boiler in the averaging set and the quantity of fuel consumed, by type, for each boiler in the averaging set during the previous 12 month calendar year. This report shall include a demonstration that the averaging set has achieved compliance with conditions of this order for each month and with the annual emission limit in tons.

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2. AS and TACOM shall retain records and supporting documentation as described in this Trading agreement and order for a minimum of five years. AS and TACOM shall provide records specified above to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner.
3. On or before September 1, 1998, AS and TACOM shall submit a report indicating how this facility will comply with § 22a-174-22 of the Regulations after May 1, 1999.
4. Definitions. As used in this order,  
  
"Commissioner" means the Commissioner of Environmental Protection or an agent of the Commissioner.  
  
"Ozone season" means the period between May 1 and September 30 in any given calendar year.  
  
"Approved emission reduction credits" are those for which the Commissioner has provided written authorization for use in compliance with § 22a-174-22 of the Regulations.  
  
"Official Stack Test" is a NOx test procedure meeting all requirements of § 22a-174-5 and § 22a-174-22 of the Regulations and which has been reviewed and approved by the Commissioner.  
  
"Fuel-burning equipment" is defined in § 22a-174-1 of the Regulations.
5. Notification of noncompliance. In the event that AS and TACOM become aware that they 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, AS and TACOM shall immediately notify the Commissioner 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. In so notifying the Commissioner, AS and TACOM shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and AS and TACOM shall comply with any dates which may be approved in writing by the Commissioner. Notification by AS and TACOM shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates

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proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.

6. 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 a responsible corporate officer of AS and TACOM 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 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, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157 of the Connecticut General Statutes, and in accordance with any other applicable statute."

7. Dates. The date of submission to the Commissioner of any document required by this Trading Agreement and Order shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this trading agreement and order, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this trading agreement and order, the word "day" as used in this trading agreement and order means calendar day. Any document or action which is required by this trading agreement and 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 on or before the next day which is not a Saturday, Sunday or Connecticut or federal holiday.
8. Final Agreement and Order. This Trading agreement and order is the final agreement and order by and between

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the Commissioner and AS and TACOM with respect to the matters addressed herein, and shall not be modified without the written agreement of both parties.

9. 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-157 of the Connecticut General Statutes.
10. Notice of transfer; liability of AS and TACOM and others. Until May 1, 1999, and in accordance with Public Act 95-218, AS and TACOM shall notify the Commissioner in writing at least thirty (30) days prior to transferring any license held by AS and TACOM to any other party and shall notify the Commissioner in writing no later than fifteen (15) days after transferring all or any portion of the operations, the facility or the business which are the subject of this Trading agreement and order, or obtaining a new mailing or location address. AS and TACOM's obligations under this Trading agreement and order shall not be affected by the passage of title to any property to any other person or municipality. Any future owner of the facility may be subject to the issuance of an order from the Commissioner.
11. 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 AS and TACOM 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 independent proceeding to require AS and TACOM to undertake further investigation or further action.
12. AS and TACOM's obligations under law. Nothing in this Trading agreement and order shall relieve AS and TACOM

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of other obligations under applicable federal, state and local law.

13. Access to records and premise. Any representative of the Department of Environmental Protection may enter 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.
14. 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.
15. Notice to Commissioner of changes. Within fifteen (15) days of the date AS and TACOM become aware of a change in any information submitted to the Commissioner under this Trading agreement and order, or that any such information was inaccurate or misleading or that any relevant information was omitted, AS and TACOM shall submit the correct or omitted information to the Commissioner.
16. 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:

Mr. Roland L. Severance, Jr., P.E.  
Department of Environmental Protection  
Bureau of Air Management, Engineering and  
Enforcement  
79 Elm Street  
Hartford, Connecticut 06106

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AS and TACOM consent 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 AS and TACOM to the terms and conditions of the Trading agreement and order.

By ALLIEDSIGNAL INC. AND U.S. ARMY TANK-AUTOMOTIVE AND ARMAMENTS COMMAND

10-29-96 *S.J. Stafstrom*  
Date Steven Stafstrom,  
Dir. Facilities  
and Maintenance  
AlliedSignal, Inc.

*Woodrow W. Lacombe* 10/24/96  
Woodrow W. Lacombe,  
Director Installations  
and Services  
U.S. Army Tank-automotive  
and Armaments Command

Issued as a final consent order of the Commissioner of  
Environmental Protection on November 19, 1996.

*[Signature]*  
Sidney J. Holbrook  
Commissioner

CITY OF STRATFORD  
LAND RECORDS

MAILED CERTIFIED MAIL,  
RETURN RECEIPT REQUESTED

Certified Document

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