



**STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



STATE OF CONNECTICUT)
)
 VS.)
)
 SIKORSKY AIRCRAFT CORPORATION)

ORDER NO. 8246

CONSENT ORDER

- A. The Commissioner of Environmental Protection ("Commissioner") finds the following:**
1. Sikorsky Aircraft Corporation, a wholly owned subsidiary of United Technologies Corporation ("Sikorsky"), is a Delaware corporation doing business at 6900 Main Street, Stratford, Connecticut ("facility").
 2. At the facility, Sikorsky owns and operates an aerospace manufacturing operation which coats miscellaneous metal parts with actual volatile organic compound ("VOC") emissions of greater than 15 pounds per day.
 3. Coatings used on miscellaneous metal parts are subject to the VOC emission limits of Section 22a-174-20(s) of the Regulations of Connecticut State Agencies ("Regulations") if the premise has actual VOC emissions of 15 lbs/day or more from the coating of miscellaneous metal parts. Sikorsky is thus subject to this Regulation. Coatings used only on non-metal objects or on the exterior surface of assembled aircraft are exempt from the requirements of Section 22a-174-20(s).
 4. Sikorsky also operates a surface temper etch inspection tank, referred to as "Nital-Etch." The original Nital-Etch solution was composed of 94-96% by volume denatured alcohol, a VOC. The Nital-Etch has been and is currently an unregulated source of VOC.
 5. The Commissioner issued State Order No. 8010 to Sikorsky on January 10, 1990. This Order was issued pursuant to Section 22a-174-20(ee) as a single source VOC reasonably available control technology ("RACT") determination. This Regulation required a source with potential VOC emissions of greater than 100 tons per year to implement RACT. Section 22a-174-20(s) of the Regulations was revised in December 1989, which resulted in the coating of interior aircraft parts and the unassembled exterior parts of aircraft being subject to Section 22a-174-20(s) at facilities with VOC emissions greater than 15 lbs/day from the coating of miscellaneous metal parts. Order 8010 required these operations at Sikorsky to comply with Section 20(s) coating limits. After the Order was issued, there were no coating operations at

the facility subject to VOC RACT (Section 22a-174-20(ee)).

Order 8010 covered the following equipment:

- a. Eight (8) solvent degreasers: SGD-1, SGD-2, D-VD, B-VD, Degreaser unit (Nital-Etch room), VD Paint Shop #2, VD-Zyglo, Anodize.
 - b. One (1) flow coater.
 - c. Twelve (12) surface coating operations: Paint Shop #1, Paint Booth #2, Paint Booth #2a, Gear Housings, Cell #1, Cell#2, Cell#3, Cell#4, Development Manufacturing Center Paint Booth, Small Parts Paint Booth, Special Prime Paint Booth, Dipping Pot.
6. The eight (8) degreasers described in Order 8010 have been removed from the facility. Thus all applicable requirements for the eight (8) degreasers have been fulfilled.
 7. The flow coater was permanently shut-down in March 2003 and is awaiting removal. Thus all the applicable requirements for the flow coater have been fulfilled.
 8. Addendum A to Order 8010 was issued on February 7, 1996, and Addendum B was issued on September 29, 1995. The U.S. Environmental Protection Agency ("EPA") approved the Order 8010 and the Addenda on February 9, 1998.
 9. Addendum A contained specific VOC limits for "specialty coatings," which were set forth in Attachment A of the Addendum for the twelve surface coating operations. Any VOC coating emissions in excess of the applicable requirements of Order 8010, Addendum A, or Section 22a-174-20(s) of the Regulations were to be offset pursuant to the VOC credits created in Addendum B.
 10. Order 8010 Addendum B provided for 101,600 lbs of annual VOC offset credits for non-compliant coatings until January 1, 2000. Sikorsky was using the offset credits since VOC coating emissions were in excess of the applicable requirements of Order 8010, Addendum A and Section 22a-174-20(s) of the Regulations.
 11. The VOC limits for specialty coatings in Addendum A only applied to the coating of non-metal parts or to the exterior surface of assembled aircraft. Sikorsky currently does not apply any of these coatings to non-metal parts or to the exterior surface of assembled aircraft, therefore Addendum A is not applicable to the affected operations.
 12. Pursuant to Section 22a-174-20(s)(10) of the Regulations, an owner or operator of a surface coating operation may use, in the aggregate, up to fifty-five (55) gallons of coatings during any twelve (12) consecutive months that exceed the emission limitations set forth in Section 22a-174-20(s)(3)(A) through (3)(E) of the Regulations.
 13. On April 9, 2001, staff of the Connecticut Department of Environmental Protection ("DEP")

conducted a compliance inspection. According to information supplied by Sikorsky, it was determined that 276 gallons of coatings were used during calendar year 2000 that were in excess of what was permitted by Section 20(s) of the Regulations.

14. By virtue of the above, Sikorsky has violated Section 22a-174-20(s)(3) of the Regulations.
15. On September 7, 2001, NOV # 14758 was issued to Sikorsky for the above violation.
16. Pursuant to Section 22a-174-20(cc)(1) of the Regulations, the owner or operator of a stationary source may propose an Alternative Emission Reduction Plan ("AERP") to achieve a net VOC emission reduction equivalent to the reduction which would be achieved by having the surface coating operations of miscellaneous metal parts comply with Section 22a-174-20(s)(3) of the Regulations.
17. On July 18, 2002, Sikorsky submitted to the Commissioner an AERP. The AERP described how Sikorsky would generate emission credits from two sources of VOC emissions at the facility. These credits would offset the excess emissions generated by the use of Section 22a-174-20(s) non-compliant coatings at the facility. On March 31, 2003, and on July 14, 2003, Sikorsky submitted amendments to the AERP. The AERP has been reviewed and the final plan, as amended, is incorporated herein by reference.
18. Requirements For Emission Credits. The EPA's Emission Trading Policy ("ETP") and its Economic Incentive Program Rules ("EIP", January 2001) state that certain criteria, including but not limited to the following criteria, must be met in order to create emission reduction credits ("ERCs"):
 - a. ALL REDUCTIONS MUST BE SURPLUS. Only emission reductions not required by current regulations in the State Implementation Plan ("SIP"), not relied on for SIP planning purposes, and not used by the facility to meet any other regulatory requirement can be considered surplus and substituted for required reductions as part of this Consent Order.
 - b. ALTERNATIVE EMISSION LIMITS MUST BE ENFORCEABLE. Each alternative emission reduction must be approved by the Commissioner and must be federally enforceable. Emission limits established in an alternative emission reduction plan must be incorporated in a compliance instrument, which is legally binding and practically enforceable, by the EPA.
 - c. ALL REDUCTIONS MUST BE PERMANENT. All emission increases included in an alternative emission reduction plan must be offset by emission reductions that are permanent and assured for the life of the corresponding increase.
 - d. ALL REDUCTIONS MUST BE QUANTIFIABLE. Before an emission reduction can be credited, it must be quantified by using a reliable basis to calculate the amount and rate of reduction and to describe its characteristics.

19. This Consent Order supercedes all terms and conditions of the above mentioned Order 8010 and the Addenda A and B whereas the provisions of the aforementioned are no longer applicable, as outlined in paragraphs A.6 through A.11 of this Order. The coating limits established by this Order are more stringent than Order 8010 and the Addenda A and B.

B. With the agreement of Sikorsky, the Commissioner, acting under Sections 22a-6, 22a-171, 22a-174, 22a-177, and 22a-178 of the Connecticut General Statutes, orders Sikorsky as follows:

1. Sikorsky's metal coating operations, other than the coating of the exterior surface of assembled aircraft, shall meet the following emission limits expressed in units of lbs of VOC per gallon of coating, excluding water and exempt compounds, as applied:

a. Clear coat ¹	4.3
b. Air-dried coating ¹	3.5
c. Extreme performance coating ¹	3.5
d. All other coatings, adhesives, fillers or sealants	3.0

¹ As defined in Section 22a-174-20(s)(1)

2. Sikorsky's non-metal coating operations, as well as the facility's coating of completely assembled aircraft, shall meet the following emission limits.
- Specialty coatings shall meet the limits specified in Attachment 1.
 - Primers and topcoats shall meet the VOC content limits stated in 40 CFR Sections 63.745(c)(2) and (c)(4) and chemical milling maskants (Type I/II) shall meet the VOC content limits stated in 40 CFR Section 63.747(c)(2). These requirements do not apply if the facility uses separate formulations of primers, topcoats and chemical milling maskants (Type I/II) in volumes of less than 50 gallons per year, subject to maximum exemption of 200 gallons total for such formulations applied annually.
3. Sikorsky shall achieve a net emission reduction from the coating operations which is equivalent to the reduction which would be achieved by having the metal coating operations comply with Section 22a-174-20(s)(3) of the Regulations by no later than December 31, 2003 and shall be in compliance with all other terms and conditions of this Order upon issuance. Sikorsky shall achieve the net reduction by implementing the AERP, described in paragraph A.17 of this Order. The following procedure will be followed in implementing the AERP:
- COATING CREDITS. These credits are created by the reformulation of coatings below the allowable levels that were established in the AERP. The AERP baseline emissions are the lower of the RACT limits established in Section 22a-174-20(s)(3) of the Regulations, the Aerospace Manufacturing and Rework CTG (EPA-453/R-97-004) or the

actual VOC content of the coating during the baseline years of 2000-2001. Coating credits shall be calculated monthly using the following formula:

$$\text{MONTHLY COATING CREDITS} = \text{MONTHLY ALLOWABLE EMISSIONS} - \text{MONTHLY ACTUAL EMISSIONS}$$

Where:

$$\text{MONTHLY ACTUAL EMISSIONS} = (\text{gallons coatings used per month}^1) \times (\text{actual VOC content of coating}^2)$$

$$\text{MONTHLY ALLOWABLE EMISSIONS} = (\text{gallons of coatings used per month}^1) \times (\text{AERP baseline limit}^2)$$

¹ determined on a gallons of solids applied basis

² determined on a lbs VOC per gallon solids applied basis

- b. EXCESS EMISSIONS. Excess emissions are generated by using coatings that contain VOCs in concentrations greater than the RACT limits established in paragraphs B.1 and B.2 of the Consent Order. The monthly determination of exempt coatings shall be made in accordance with the procedures outlined in paragraph B.3.f of the Consent Order prior to performing the calculation of excess emissions. Excess emissions shall be determined monthly by using the following formula:

$$\text{MONTHLY EXCESS EMISSIONS} = \text{MONTHLY ACTUAL EMISSIONS} - \text{MONTHLY ALLOWABLE EMISSIONS}$$

Where:

$$\text{MONTHLY ACTUAL EMISSIONS} = (\text{gallons coatings used per month}^1) \times (\text{actual VOC content of coating}^2)$$

$$\text{MONTHLY ALLOWABLE EMISSIONS} = (\text{gallons of coatings used per month}^1) \times (\text{RACT emissions limit}^2)$$

¹ determined on a gallons of solids applied basis

² determined on a lbs VOC per gallon solids applied basis

- c. NITAL-ETCH CREDITS. Average baseline VOC emissions for the calendar years 2000 and 2001 were 2.94 tons/ year (490 lbs per month). Sikorsky has reformulated the Nital-Etch solution and, as of July 2002, has reduced the alcohol content of the Nital-Etch solution to 50% by volume. Monthly Nital-Etch credits shall be generated by calculating the actual VOC emissions for the period and determining the VOC emissions reductions during the period according to the following formula:

$$\text{MONTHLY NITAL-ETCH CREDITS} = 490 \text{ lbs. VOC per month} - [(\text{Gallons of Alcohol added per month} \times \text{lbs VOC/gallon alcohol}^1) \times (1 - (\text{capture efficiency} \times \text{control efficiency}^2))]$$

- ¹ Determined by using the current VOC content of the Nital-Etch solution
- ² Control efficiency shall be determined by the emissions testing described in paragraph B.4 of this Order. In the absence of control equipment, or during periods of control equipment malfunction, this term shall equal zero.

These credits are to be generated only while the Nital-Etch operation is being used to inspect surface temper, as described in paragraph A.4 of this Order. These credits shall end when this operation is shut-down, substituted with any other procedure, moved from the facility or otherwise becomes inactive. Sikorsky shall submit a letter to the Commissioner, informing the Department of any such change in the operation of the Nital-Etch.

- d. DETERMINING COMPLIANCE. The sum of the MONTHLY COATING CREDITS plus the MONTHLY NITAL-ETCH CREDITS shall be greater than or equal to the MONTHLY EXCESS EMISSIONS generated. Compliance with Section 22a-174-20(s)(3) is determined using the following formula:

$$(.90^1) \times (\text{COATING CREDITS} + \text{NITAL-ETCH CREDITS}) \geq \text{EXCESS EMISSIONS}$$

- ¹ where a 10% discount of all emission reductions is the chosen method to comply with the environmental benefit principle of the EIP.

Compliance with this paragraph shall be determined using an averaging period of thirty (30) days. The definition of thirty (30) days shall be one calendar month ("the period"). Credits generated within the period can only be used during that period. No credits will be rolled over to subsequent periods.

- e. EMISSION LIMIT. Sikorsky shall not cause or permit emissions, from all affected coating operations addressed by this Order, to exceed an emission limit of 237 lbs. VOC per day.
- f. EXEMPT COATINGS. Pursuant to Section 22a-174-20(s)(10) of the Regulations, Sikorsky may use up to fifty-five (55) gallons, as applied, of any combination of non-compliant coatings during any twelve (12) consecutive month period ("exempt coatings"). Emissions from the exempt coatings shall not be included in the calculation of either the actual or allowable emissions totals. Usage of exempt coatings shall be recorded in accordance with Section 22a-174-20(aa) of the Regulations. The following steps are to be followed when determining the quantity of exempt coatings for the current month:
- i. Calculate the gallons of exempt coating used during the previous eleven (11) months.
 - ii. If this total is less than 55 gallons, then determine the amount of non-compliant

coatings to be considered exempt coatings for the current month, not to exceed 55 gallons for the total of the eleven months preceding this month plus the current month.

- iii. The gallons of exempt coatings allocated to the current month will be exempted from the calculation of actual or allowable emissions totals for that month.
- iv. The remaining quantity of non-compliant coatings must be included in the calculation of excess emissions in paragraph B.3.b of this Consent Order.

4. Emissions Testing and Monitoring. In order to claim credit for the benefits associated with the installation of a control device on the Nital-Etch operation as outlined in the equation in paragraph B.3.c of this Order, Sikorsky must follow the testing and monitoring procedures outlined below:

- a. Within sixty (60) days of the installation of a control device on the Nital-Etch operation, Sikorsky shall submit to the Commissioner for his review and written approval an Intent To Test ("ITT") protocol for such emissions testing. The ITT protocol shall include at least:
 - i. The Department's Bureau of Air Management Test Form No. 1, "Intent to Test";
 - ii. A detailed description of all aspects of facility operations and of any air pollutant control equipment in use which may affect emissions testing results, and how and when such facility operations and control equipment will be monitored;
 - iii. A detailed description of each emissions testing methodology to be utilized, provided that all such methodologies shall conform to those approved by the U.S. Environmental Protection Agency and the Commissioner; and
 - iv. A description of each discharge point at which emissions testing is to be conducted.
- b. Sikorsky shall provide to the Commissioner any information that the Commissioner deems necessary to review Sikorsky's ITT Test Protocol within five days of a request by the Commissioner, or within such shorter time as the Commissioner may require.
- c. Emissions testing shall be conducted in accordance with the ITT protocol approved by the Commissioner.
- d. Sikorsky shall schedule all emissions testing so as to allow the Commissioner to be present during such testing and to independently verify relevant facility operations, air pollution control equipment parameters, and testing procedures.
- e. Within 30 days of completing any emissions testing approved by the Commissioner,

Sikorsky shall submit to the Commissioner a written report providing the results of the testing allowed by this Order. Within 15 days of a notice from the Commissioner indicating any deficiencies in such report, Sikorsky shall submit a revised report to the Commissioner.

- f. Within 15 days of a written request from the Commissioner, Sikorsky shall submit any additional data from the tests allowed by this Order.
- g. Sikorsky shall install, calibrate, maintain and operate the control equipment, in accordance with the manufacturer's written recommendations and specifications. Sikorsky shall install and operate all necessary monitoring equipment to ensure that the tested control efficiency is being achieved at all times. Sikorsky shall maintain the following records for a period of not less than 5 years, to be made available to the Commissioner upon request:
 - i. Records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
 - ii. A log of operating time for the capture system, control device, monitoring equipment, and the Nital-Etch tank.
 - iii. A maintenance log for the capture system, control device, and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- h. Written reports of control equipment malfunctions and any other upset condition(s) shall be submitted to the Department in writing within 14 calendar days. Such reports shall contain an account of the measures taken to correct such equipment malfunctions as well as the degree of success in correcting the problem. Sikorsky shall also develop a written plan detailing process and control equipment startup and shutdown procedures as well as equipment maintenance procedures to be employed in the event of malfunction or upset of the control equipment.

5. Record Keeping Requirements.

- a. Sikorsky shall maintain daily records of all coatings and diluents used in accordance with Section 22a-174-20(aa) of the Regulations. Such records shall be kept for each individual coating operation and must contain the following information:
 - i. A description of the coating including the coating name and the coating density in pounds per gallon;
 - ii. Volatile organic compound content by weight;
 - iii. Water and exempt volatile organic compound content by weight;
 - iv. Amount of each coating used in gallons, quarts, etc.;
 - v. Total amount of diluent used for each coating in pounds and in gallons, quarts, etc.;

- vi. Total lbs of VOC emitted from all coating operations;
 - vii. Lbs of VOC per gallon of coating excluding water and exempt compound, as applied.
- b. On a Monthly Summary Sheet, Sikorsky shall record the following parameters for all subject coatings and the Nital-Etch:
- i. Pounds of actual and allowable VOCs emitted each month for the previous 12 month period;
 - ii. Total pounds of actual and allowable VOCs emitted during the previous 12 month period;
 - iii. Gallons (as applied) of exempt coatings used each month for the previous 12 month period;
 - iv. Total gallons (as applied) of exempt coatings used during the previous 12 month period.
 - v. Pounds of actual VOCs emitted from the Nital-Etch each month for the previous 12 month period.
 - vi. Total pounds of actual VOCs emitted from the Nital-Etch during the previous 12 month period.
- c. Sikorsky shall maintain the daily records and Monthly Summary Sheets for all coatings and the Nital-Etch process used in this Consent Order at the facility for not less than five (5) years from the date that the forms were completed.
- d. Sikorsky shall maintain a master list of all paints and diluents that is available on request by the Department. Any changes in the VOC content of the coatings shall be noted in the master list upon occurrence and reported to the Department annually.
- e. For coatings that are not waterborne (water-reducible), determine the VOC content of each formulation (less water and less exempt solvents) as applied using manufacturer's supplied data or Method 24 of 40 CFR Part 60, Appendix A. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis. For water-borne (water-reducible) coatings, manufacturer's supplied data alone can be used to determine the VOC content of each formulation. Water-borne (water-reducible) coatings are defined as coatings which contain more than 5 percent water by weight as applied in its volatile fraction.
- f. Sikorsky shall, on a monthly basis, determine compliance with the terms of this Order, including performing the calculation indicated in paragraph B.3.d and notify the Department within 2 days of discovering any instance of non-compliance.
6. Future VOC RACT. If any new VOC emitting operations are added to the facility, Sikorsky shall perform a New Source Review evaluation in accordance with Section 22a-174-3a, -3b, or -3c of the Regulations, and a Section 22a-174-32 VOC RACT applicability determination.

Notwithstanding the above, if Sikorsky applies coatings in any of the operations not subject to Section 22a-174-20(s), then the VOC contents shall not exceed the limits established by the Aerospace Manufacturing and Rework CTG (EPA-453/R-97-004). Should Sikorsky become subject to the VOC RACT requirements of Section 22a-174-32 of the Regulations, then Sikorsky shall submit a VOC RACT compliance plan.

7. Use of New Coatings. Sikorsky may add new coatings, as approved by the Commissioner, provided that the procedures below are followed:
 - a. For the case that Sikorsky replaces a coating currently used by Sikorsky with a new coating:
 - i. If the new coating is to generate credits, then the AERP baseline limit used to determine MONTHLY ALLOWABLE EMISSIONS, as defined in paragraph B.3.a, shall be the lower of the RACT limits specified in paragraphs B.1 and B.2 of the Order, or the actual VOC content of the replaced coating in the baseline year, whichever is lower.
 - ii. If the new coating has a VOC content in excess of the RACT emission limit specified in paragraphs B.1 and B.2 of the Order, then the emissions from this coating shall be included in the calculation of excess emissions outlined in paragraph B.3.b of the Order.
 - b. For the case of a new coating operation that does not replace a coating currently used by Sikorsky:
 - i. If the VOC content of the coating is higher than the RACT emission limit specified in paragraphs B.1 and B.2 of the Order, then the emissions from this coating shall be included in the calculation of excess emissions contained in paragraph B.3.b of the Order.
 - ii. If the VOC content of the new coating is lower than the RACT emission limit specified in paragraphs B.1 and B.2 of the Order, then the credits may not be generated from the use of this coating.
 - iii. If the VOC content of the new coating is later reformulated, then credits can be generated from the RACT emission limit specified in paragraphs B.1 and B.2 of the Order, or the original VOC content, whichever is lower.
 - c. Within thirty (30) days after the use of a new coating, Sikorsky must notify the Commissioner in writing that it has begun using the new coating and submit a VOC data sheet for the new coating.
8. Removal of Flow Coater. Sikorsky shall continue with the physical removal of the Flow Coater described in A.7. Any future installation and operation of a Flow Coater shall require a New Source Review or a VOC RACT determination according to Sections 22a-174-3a and 22a-174-32 of the Regulations.
9. Reporting Requirements. Sikorsky shall submit to the Commissioner, postmarked within thirty-one (31) days after the end of each calendar year, the Monthly Summary Sheets from the previous calendar year and a summary of the daily emissions for the affected coating

operations described in paragraph B.1 of this Order.

10. Full compliance. Respondent shall not be considered in full compliance with this Consent Order until all actions required by this Consent Order have been completed as approved and to the Commissioner's satisfaction.
11. Approvals. Respondent shall use best efforts to submit to the Commissioner all documents required by this Consent Order in a complete and approvable form. If the Commissioner notifies Respondent that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and Respondent shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within 30 days of the Commissioner's notice of deficiencies. In approving any document or other action under this Consent Order, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this Consent Order. Nothing in this paragraph shall excuse noncompliance or delay.
12. Definitions. As used in this Consent Order, "Commissioner" means the Commissioner or a representative of the Commissioner. 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.
13. Dates. 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.
14. Future Penalties. If Sikorsky "Respondent" fails to comply with any requirement of this Consent Order or of any document approved hereunder, or fails to comply on time with any such requirement, Respondent shall be liable to be assessed civil penalties up to the statutory limit of \$25,000 per day for any instance of non-compliance.
15. Certification of documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this Consent Order shall be signed by Respondent or, if Respondent is not an individual, by Respondent's chief executive officer or a duly authorized representative of such officer, as those terms are defined in §22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual(s) responsible for actually preparing such document, and Respondent or Respondent's chief executive officer and each such individual 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, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that 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 is punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."

16. Noncompliance. This Consent Order is a final order of the Commissioner with respect to the matters addressed herein, and is non-appealable and immediately enforceable. Failure to comply with this Consent Order may subject Sikorsky to an injunction and penalties.
17. False Statements. Any false statement in any information submitted pursuant to this Consent Order is punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law.
18. Notice of transfer; liability of Respondent. Until Respondent has fully complied with this Consent Order, Respondent shall notify the Commissioner in writing no later than 15 days after transferring all or any portion of the facility, the operations, the site or the business which is the subject of this Consent Order or after obtaining a new mailing or location address. Respondent's obligations under this Consent Order shall not be affected by the passage of title to any property to any other person or municipality.
19. Commissioner's powers. Nothing in this Consent 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, including but not limited to those described in this Consent Order. If at any time the Commissioner determines that the actions taken by Respondent pursuant to this Consent Order have not successfully corrected all violations, fully characterized the extent or degree of any pollution, or successfully abated or prevented any pollution, the Commissioner may institute any proceeding to require Respondent to undertake further investigation or further action to prevent or abate pollution.
20. Respondent's obligations under law. Nothing in this Consent Order shall relieve Respondent of other obligations under applicable federal, state and local law.
21. No assurance by Commissioner. No provision of this Consent Order and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by Respondent pursuant to this Consent Order will result in compliance.
22. Access to facility. Any representative of the CT DEP and the EPA may enter the facility without prior notice for the purposes of monitoring and enforcing the actions required or allowed by this Consent Order.

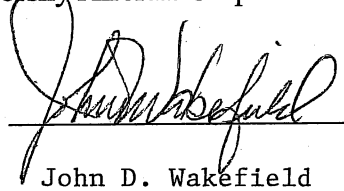
23. No effect on rights of other persons. This Consent Order neither creates nor affects any rights of persons that are not parties to this Consent Order.
24. Notice to Commissioner of changes. Within 15 days of the date Respondent becomes aware of a change in any information submitted to the Commissioner under this Consent Order, or that any such information was inaccurate or misleading or that any relevant information was omitted, Respondent shall submit the correct or omitted information to the Commissioner.
25. Notification of noncompliance. In the event that Respondent becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this Consent Order or of any document required hereunder, Respondent shall immediately notify by telephone the individual identified in the next paragraph 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. Within two (2) days of the initial notice, Respondent shall submit in writing the date, time, and duration of the noncompliance and 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 Respondent shall comply with any dates which may be approved in writing by the Commissioner. Notification by Respondent 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. Any written approval of noncompliance by the Commissioner pursuant to the terms of this Order shall operate solely as a matter of state law.
26. Submission of documents. Any document required to be submitted to the Commissioner under this Consent Order shall, unless otherwise specified in writing by the Commissioner, be directed to:

Supervisor
Department of Environmental Protection
BUREAU OF AIR MANAGEMENT
Compliance Analysis and Coordination Unit
79 Elm Street
Hartford, Connecticut 06106-5127

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

Sikorsky Aircraft Corporation

Signature: _____



Name: _____

John D. Wakefield

Title: _____

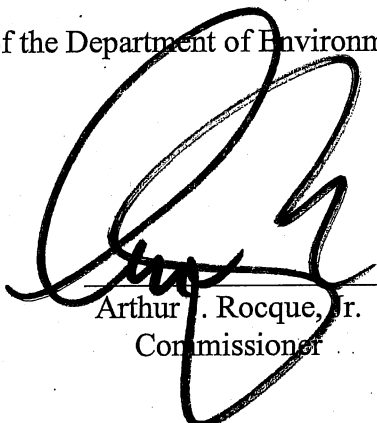
Vice President and Chief Safety Officer

Date: _____

10/16/2003

Issued as a final Order of the Commissioner of the Department of Environmental Protection on

October 31, 2003



Arthur J. Rocque, Jr.
Commissioner

TOWN OF STRATFORD LAND RECORD

MAILED CERTIFIED MAIL, RETURN RECEIPT REQUESTED

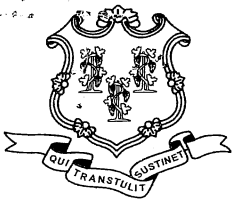
Certified Document No. _____

ATTACHMENT 1

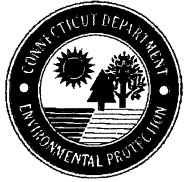
VOC CONTENT LIMITS FOR SPECIALTY COATINGS (g/L)^a

Coating type	Limit	Coating type	Limit
Ablative Coating	600	Flight-Test Coatings:	
Adhesion Promoter	890	Missile or Single Use Aircraft	420
Adhesive Bonding Primers:		All Other	840
Cured at 250°F or below	850	Fuel-Tank Coating	720
Cured above 250°F	1030	High-Temperature Coating	850
Adhesives:		Insulation Covering	740
Commercial Interior Adhesive	760	Intermediate Release Coating	750
Cyanoacrylate Adhesive	1,020	Lacquer	830
Fuel Tank Adhesive	620	Maskants:	
Nonstructural Adhesive	360	Bonding Maskant	1,230
Rocket Motor Bonding Adhesive	890	Critical Use and Line Sealer Maskant	1,020
Rubber-based Adhesive	850	Seal Coat Maskant	1,230
Structural Autoclavable Adhesive	60	Metallized Epoxy Coating	740
Structural Nonautoclavable Adhesive	850	Mold Release	780
Antichafe Coating	660	Optical Anti-Reflective Coating	750
Bearing Coating	620	Part Marking Coating	850
Caulking and Smoothing Compounds	850	Pretreatment Coating	780
Chemical Agent-Resistant Coating	550	Rain Erosion-Resistant Coating	850
Clear Coating	720	Rocket Motor Nozzle Coating	660
Commercial Exterior Aerodynamic		Scale Inhibitor	880
Structure Primer	650	Screen Print Ink	840
Compatible Substrate Primer	780	Sealants:	
Corrosion Prevention Compound	710	Extrudable/Rollable/Brushable Sealant	280
Cryogenic Flexible Primer	645	Sprayable Sealant	600
Dry Lubricative Material	880	Silicone Insulation Material	850
Cryoprotective Coating	600	Solid Film Lubricant	880
Electric or Radiation-Effect Coating	800	Specialized Function Coating	890
Electrostatic Discharge and Electromagnetic		Temporary Protective Coating	320
Interference (EMI) Coating	800	Thermal Control Coating	800
Elevated-Temperature Skydrol-Resistant		Wet Fastener Installation Coating	675
Commercial Primer	740	Wing Coating	850
Epoxy Polyamide Topcoat	660		
Fire-Resistant (interior) Coating	800		
Flexible Primer	640		

^a Coating limits expressed in terms of mass (grams) of VOC per volume (liters) of coating less water and less exempt solvent.



**STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



STATE OF CONNECTICUT

AND

CONSENT ORDER NO. 8246
MODIFICATION NO. 1

SIKORSKY AIRCRAFT CORPORATION

ORDER MODIFICATION

In the matter of a Consent Order between the Commissioner of Environmental Protection (“Commissioner”) and Sikorsky Aircraft Corporation. (“Sikorsky”):

WHEREAS, the Commissioner and Sikorsky, having agreed to the terms and conditions set forth in Consent Order No. 8246 issued on October 31, 2003, do now, by mutual agreement, modify said Consent Order as follows:

Insert the following after Paragraph A.19:

- a. Pursuant to Section 22a-174-20(cc)(3) of the Regulations, the Commissioner may accept an alternative RACT determination if it can be shown to the Commissioner’s satisfaction that the source cannot comply with the applicable subsection for reasons of technological feasibility.
- b. Sikorsky has shown satisfactory evidence that their usage of two coatings cannot comply with either the limits specified in Section 22a-174-20(s) of the Regulations or the AERP incorporated in this Consent Order No. 8246 for reasons of technological feasibility.

And insert the following after subparagraph B.3.f as a new subparagraph B.3.g:

- g. Notwithstanding the limits specified in paragraphs B.1 and B.2 of this Consent Order, the following coatings shall be subject to the below limits, based on the Aerospace Control Techniques Guideline Document, published by the EPA in April 1997, expressed in units of lbs of VOC per gallon of coating, excluding water and exempt compounds, as applied.

Turco Pretreat Coating	7.08
Blade Erosion Coating	7.42

The amount of these coatings used shall not be included in the net reduction calculations specified in subparagraphs B.3.a, B.3.b, and B.3.d of this Consent Order. However, the amount of these coatings shall be included in the calculation for the daily VOC limit specified in subparagraph B.3.e of this Consent Order.

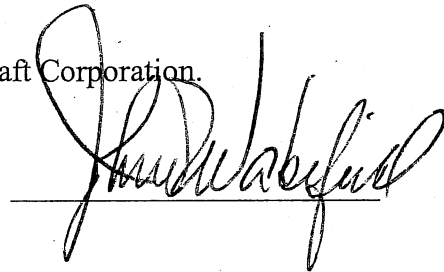
Sikorsky consents to the entry of this Order of the Commissioner pursuant and required by Section 22a-174-20(cc)(3) of the Regulations and agrees to adhere to the terms and conditions of the Alternative RACT defined by this document and further acknowledges required approval by the EPA as a revision to the Connecticut's SIP.

All other terms and conditions of Consent Order No. 8246 issued by the Commissioner acting under Chapter 446c, Sections 22a-6, 22a-171, 22a-174, 22a-176, and 22a-177 of the Connecticut General Statutes shall remain in effect.

Company hereby consents to the entry of this modification to the Consent Order without further notice. The undersigned certifies that he/she is fully authorized to enter this Consent Order and to legally bind Company to the terms and conditions of this Consent Order.

Sikorsky Aircraft Corporation.

Signature:



Type Name:

John D. Wakefield

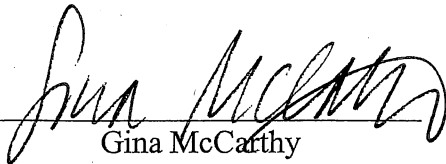
Type Title:

Vice President and
Chief Safety Officer

Date:

May 6, 2005

Issued as an order of the Commissioner of Environmental Protection.



Gina McCarthy
Commissioner

5/23/05

Date

BUREAU OF AIR MANAGEMENT
ORDER CLOSURE
Procedure and Routing Slip

Date: May 4, 2016
Order Number: Consent Order No. 8246
Case Manager: Robin Baena
Company Name: Sikorsky Aircraft Corporation
Premise Address: 6900 Main Street, Stratford
Regulation(s): Section 22a-174-20(cc)
Equipment: Aerospace Surface Coating Operations

Comments:

Sikorsky Aircraft Corporation (Sikorsky) manufactures, overhauls and repairs military and commercial helicopters at their 6900 Main Street facility in Stratford Connecticut. Sikorsky is a Title V source (Permit No. 178-0086-TV) located in a severe ozone non-attainment area as defined in RCSA §22a-174-1. At this facility, Sikorsky exceeds the major source threshold for nitrogen oxides (NOx), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

In a letter dated January 30, 2014, Sikorsky requested that Consent Order (CO) 8246, including Modification 1, be revoked because the conditions that necessitated the order were permanently eliminated by the incorporation of regulatory requirements for aircraft and aircraft parts coating into section 22a-174-20(s) of the Regulations of Connecticut State Agencies (RCSA).

The Department issued CO #8246 to Sikorsky on October 31, 2003 to provide a method of compliance with the aerospace specialty coatings VOC content limits through the creation of VOC emission reduction credits to offset excess emissions. CO #8246 was based on an Alternative Emission Reduction Plan that Sikorsky submitted on July 18, 2002 under RCSA section 22a-174-20(cc)(1). The order was modified and reissued on May 23, 2005. CO #8246 superseded Administrative Order #8010 which was issued on January 29, 1990 to determine reasonably available control technology (RACT) for the Stratford facility pursuant to RCSA section 22a-174-20(ee).

CO #8246 requires Sikorsky to limit their VOC emission rate from metal coating operations, other than the coating of the exterior surface of assembled aircraft, to the emissions rate limits specified in RCSA section 22a-174-20(s) as it was in effect prior to January 1, 2013 (Condition B.1 of CO #8246). At the time CO #8246 was issued, RCSA section 22a-174-20(s) did not regulate the coating of aircraft exteriors and non-metal parts. Coatings applied to non-metal parts and assembled aircraft are required to meet the specialty coatings limits specified in the aerospace control technology guidelines (CTG) (EPA-453/R-97-004, December 1997) or the aerospace NESHAP (40 CFR Part 63, Subpart GG), as applicable (Condition B.2 of CO #8246).

CO #8246 authorizes Sikorsky to achieve a net VOC emissions reduction from the coating operations equivalent to the reduction which would be achieved by complying with RCSA section 22a-174-20(s)(3) by reformulating coatings below the allowable levels and reformulating the Nital-Etch solution to create VOC emission reduction credits to offset any excess VOC emissions from coatings that contain VOCs in concentrations greater than the RACT limits specified in RCSA section 22a-174-20(s)(3). To demonstrate environmental benefit, the emission reduction credits are subject to a 10 percent reduction (Condition B.3 of CO #8246).

On October 31, 2012, DEEP finalized amendments to RCSA section 22a-174-20(s) in response to EPA's September 2008 publication of a CTG for miscellaneous metal and plastic parts coating operations (EPA-453/R-08-0373, October 7, 2008). The revised regulation also incorporated the aerospace NESHAP (40 CFR Part 63, Subpart GG) and aerospace CTG (EPA-453/R-97-004, December 1997) coating VOC content limits for coating of aerospace parts. EPA determined that the amendments to RCSA section 22a-174-20(s) were consistent with the recommendations of the miscellaneous metal and plastic parts coating CTG and that they provided at least a RACT level of control. EPA published their approval of these regulatory revisions into the Connecticut State Implementation Plan (SIP) in the June 9, 2014 Federal Register (79 FR 32873).

Attached to the January 30, 2014 letter requesting the closure of CO #8246, Sikorsky provided reports demonstrating that all coating used at the Stratford facility in 2012 and 2013 have met the RCSA section 22a-174-20(s) VOC content limits for aerospace coatings specified in Tables 20(s)-6a and 20(s)-6b of the regulation. These limits are federally enforceable and constitute RACT for aerospace coatings. Since Sikorsky can comply with the emission limits of RCSA section 22a-174-20(s), the creation of emissions reduction credits provided by CO #8246 are no longer needed for compliance.

Condition B.3.e of CO #8246 limits VOC emissions from all affected coating operations addressed by the order to no more than of 237 pounds per day. This limit was imposed to allow Sikorsky to average emissions over a 30 day period and was based on EPA's policy on emissions averaging over periods greater than 24 hours (Memoranda dated January 20, 1984, *Averaging Times for Compliance with VOC Emission Limits - SIP Revision Policy*). As Sikorsky is complying with RCSA section 22a-174-20(s)(3) emissions limits directly and is no longer using emissions averaging to comply, a daily emissions cap is no longer required.

Condition B.8 of CO #8246 requires Sikorsky to "continue with the physical removal of the Flow Coater described in A.7" of the order. Finding A.7 states that the flow coater was permanently shut down and that all applicable requirements have been fulfilled. Sikorsky provided a photograph of the former location of the equipment (attached).

The Nital etch solution was reformulated to be lower in VOCs to generate emission reduction credits. This process is not, however, subject to RCSA Section 22a-174-20. To maintain these reductions and ensure the federal enforceability of the allowable emissions from the Nital Etch tank, these limits were incorporated into NSR permits 178-0078, 178-0128 and 178-0035 as collateral conditions. The revised permits were issued on February 11, 2016 and incorporate the following language in Part VII.D of each permit:

Nital Etch tank (GN276) Requirements: COLLATERAL CONDITIONS

1. The Permittee shall not cause or allow the Nital Etch tank to exceed the emission limits stated herein at any time:

Pollutant	lb/month	TPY
VOC	490	2.94

2. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions. The consecutive 12 month VOC emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The restrictions for the Nital Etch tank (GN276) must remain in an active New Source Review permit for the life of the equipment. Failure to do so may subject the Permittee to enforcement action. At the time of these permit modifications (Application Nos. 201505529, 201507601 and 201507603) the collateral conditions are included in Part VII of Permit Nos. 178-0078, 178-0128 and 178-0035.

A public notice offering a hearing on the closure of this order and the removal of three other obsolete VOC RACT orders from the SIP was published on the CTDEEP's website on March 18, 2016. The public hearing was cancelled on April 27, 2016, because no one requested a hearing by April 26, 2016, the deadline for requesting a hearing as announced in the hearing notice. No comments were received on the proposed closure of this order or the proposed SIP revision.

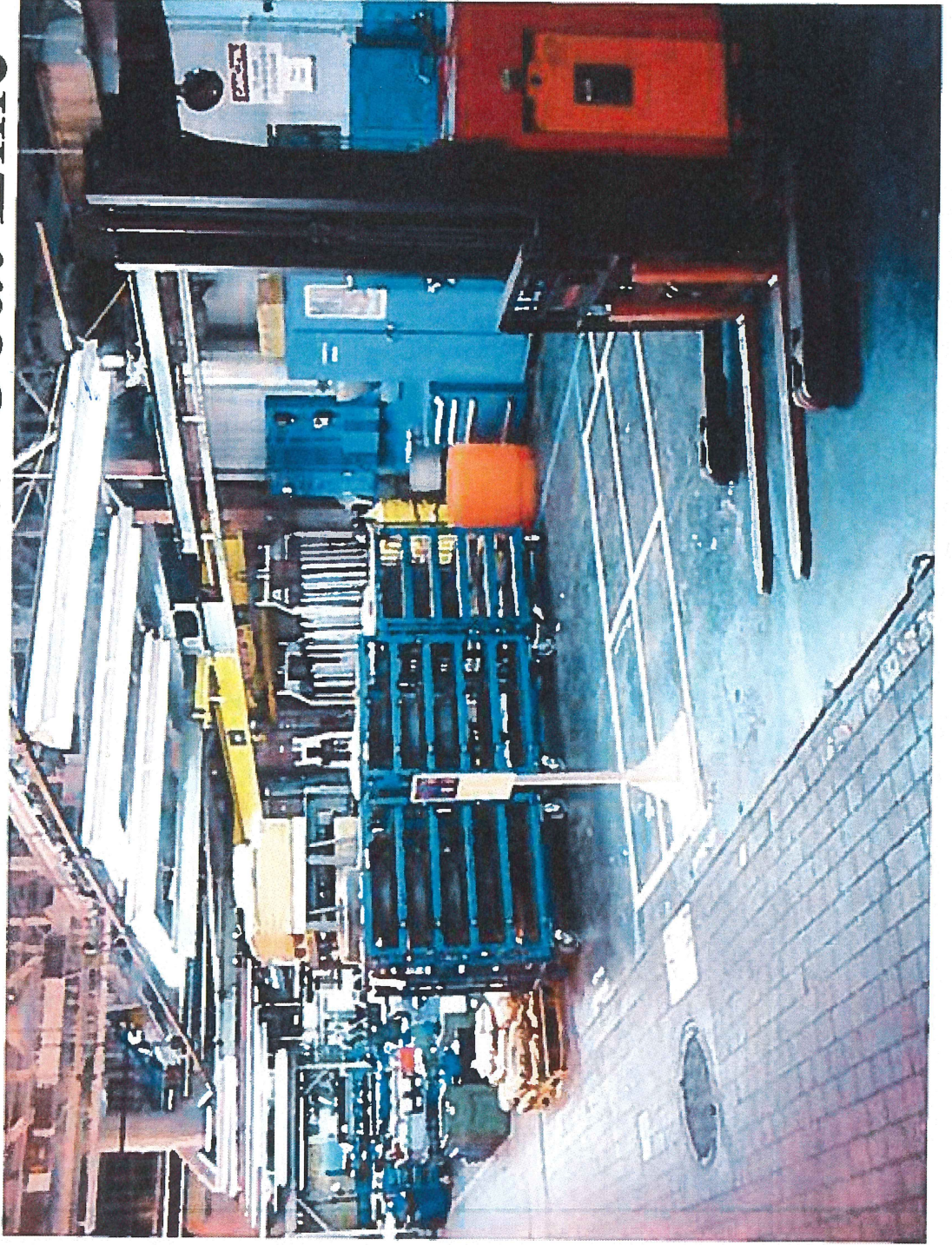
Staff recommends that Consent Order No. 8246 be closed with no new orders being issued.

Re-inspection Policy: The Department's *Formal Enforcement Re-Inspection Policy* requires that within three (3) years following the closure of a formal enforcement action, the program or programs within the Department responsible for bringing such action will re-inspect the facility to assure continued compliance with environmental requirements. (check box 1 or 2 below)

- 1) In accordance with the Formal Enforcement Re-Inspection Policy, this facility is due to be re-inspected by within 3 years of the date of approval of this closure recommendation.
- 2) In accordance with the Formal Enforcement Re-Inspection Policy, this facility does not need to be re-inspected for the following reason(s): (check appropriate box below)
- The facility is closed.
 - The order is not an enforcement action.

	Initials	Date		Initials	Date
AE Staff	RDB	5/4/16	Return to Staff		
AE Supervisor	RDB	5/6/2016	Enter Database	RDB	6/2/16
Assistant Director	AK	5/13/16	Program File		
Director	CJR	05-16-16			
Bureau Chief	AG	5/26/16			

Removal of Flow Coat Line





**CERTIFICATE OF COMPLIANCE WITH
BUREAU OF AIR MANAGEMENT ORDER**

John D. Conway
ESH Compliance Manager
Sikorsky Aircraft Corporation
6900 Main Street
Stratford, CT 06615-4891

Re: Order Number 8246

Dear Mr. Conway:

Pursuant to Section(s) 22a-6 and 22a-178(g) of the Connecticut General Statutes, the Commissioner of Energy and Environmental Protection hereby certifies that:

Sikorsky Aircraft Corporation located at 6900 Main Street in Stratford (which land is owned by Sikorsky Aircraft Corporation) is in compliance with Bureau of Air Management Order No. 8246 issued on October 31, 2003 in order to create enforceable operating conditions pursuant to Section(s) 22a-174-20(cc) of the Regulations of Connecticut State Agencies and is in compliance with Modification 1 of Order No. 8246, issued on May 23, 2005.

The Engineering and Enforcement Division of the Bureau of Air Management has reviewed the information submitted regarding Order Number 8246, including Modification 1. This certificate acknowledges that Sikorsky Aircraft Corporation at 6900 Main Street in Stratford, CT is in full compliance with the Order.

Nothing in this certificate shall affect the Department's authority to institute any proceeding, or take any action, to prevent or abate pollution, to recover costs and natural resource damages, and to impose penalties for violations of law. If at any time the Department determines that the actions taken pursuant to this (Consent) Order have not fully characterized the extent and degree of pollution or have not successfully abated or prevented pollution, the Department may institute any proceeding to require further investigation or further action to prevent or abate pollution.

In addition, nothing in this certificate shall relieve any person of his or her obligations under applicable federal, state or local law.

If you have any questions pertaining to this matter, please contact Robin Baena of my staff at (860) 424-3196.

Yours truly,

May 26, 2016
Date

Anne Gobin
Anne Gobin, Bureau Chief
Bureau of Air Management