

SITE-SPECIFIC REVISION TO THE  
STATE IMPLEMENTATION PLAN

LOCKHEED CORPORATION

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION  
P.O. BOX 13087  
AUSTIN, TEXAS 78711-3087

JUNE 18, 1993

# Texas Air Control Board

Austin

MEMORANDUM

Texas

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To: Lane Hartsock, Deputy Director, Air Quality Planning

From: Jeffrey P. Greif, Director, Engineering Services Division

Date: March 30, 1993

Subject: Request for an Alternate Reasonably Available Control Technology (ARACT) from the Texas Air Control Board (TACB) Regulation V, Rule §115.423(a)(4), by Lockheed Corporation, Acting Through Its Fort Worth Company

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The Engineering Services Division (ESD) staff has finished reviewing a request by Lockheed to be granted an ARACT for its facility covered by TACB Account Number TA0156K. This ARACT would contain volatile organic compound (VOC) limitations for coatings different from those contained in TACB Regulation V, Rule §115.421(a)(9), as may be allowed under Rule §115.423(a)(4). As will be discussed in more detail below, we believe that Lockheed's proposal meets the criteria envisioned in the development of Rule §115.423(a)(4). Also, U. S. Environmental Protection Agency (EPA), Region 6, has been extensively involved in negotiation of the technical and administrative aspects of this ARACT and has indicated to ESD that the proposal, as it currently exists, is approvable as a site specific state implementation plan (SIP) revision. The ESD, therefore, recommends a site specific SIP revision public hearing regarding the proposed ARACT be scheduled as soon as possible. Attached is a copy of provisions governing the ARACT, as negotiated by Lockheed, ESD, and EPA Region 6.

Lockheed recently purchased this site from General Dynamics (GD). While under the control of GD, TACB had previously approved a bubble under General Rule §101.23. However, EPA did not find the provisions agreed to by the TACB and GD in the bubble as acceptable for a site specific SIP revision and successfully sued GD to invalidate the bubble. It was, therefore, necessary to renegotiate GD's proposal. This time, GD elected to pursue an ARACT rather than a bubble, due in part to EPA's influence. Further reductions from the original proposal were negotiated, as well as provisions to ensure enforceability of the agreements.

Lockheed coats aircraft components for the United States Air Force (USAF). When applying for an ARACT under Rule §115.423(a)(4), the applicant must show that the

emission rate at the facility is the lowest that is economically reasonable and technically feasible. In this demonstration, the applicant must also show that the coatings being used have the lowest VOC content possible. The USAF, acting through the Aeronautical Systems Center of its Material Command, stipulates the coatings and other materials which Lockheed may use during construction of the aircraft components. It is, therefore, difficult to implement the use of coatings with lower VOC contents. However, it appears Lockheed has, and continues to, reduce coating VOC content when possible and when allowed by the USAF. The VOC limitation on each individual coating is governed by Provision 10 and Table II. Since this ARACT must be reviewed every two years (see Provision 3), the TACB may, at that time, request information on any new, lower VOC coatings that may have been developed during the interim.

Lockheed has submitted cost summaries to the ESD for a number of add-on control options for its painting operations. The least expensive option for an individual painting area had an estimated annualized cost exceeding \$20,000 per ton of VOC emissions reduced. Per negotiations with EPA, Lockheed will be installing controls on the booth which was indicated as being the most reasonable to control, and on one booth that was evaluated as part of the second-most-reasonable control option (see Provisions 17 through 19).

Lockheed will also be implementing several process controls to reduce emissions as far as possible without add-on controls. As part of the bubble that the TACB previously approved, GD was required to eliminate VOC emissions by switching to a non-VOC wipe solvent. However, the new solvent contained ozone depleting compounds which, as mandated by the Montreal Protocol and the 1990 Clean Air Act Amendments, had to be eliminated. In converting back to a VOC solvent, Lockheed has implemented a new system for handling wipe solvent that, based on testing, must control emissions from those operations by 50% (see Provisions 25 through 33). Because the wipe solvent is used in a variety of operations, some of which are not covered by Regulation V, and because Lockheed is using this system for all wipe solvent use, emission reductions are being realized that would not have been accomplished through Regulation V.

In other areas affected by proposed process controls, air atomization is being eliminated as an application method except for operations where use of more efficient application equipment is not technically feasible (see Provision 16 and Table III). Also, Lockheed has committed to discontinuing use of maskant that exceeds TACB Regulation V limits by January of 1994 (see Provisions 34 through 37). Finally, Lockheed has discontinued the use of two degreasers that utilized VOC (see Provision 38).

Provisions were also added to the ARACT which allow Lockheed a limited amount of flexibility which would not require amendment of the ARACT. First, Lockheed may choose to use add-on control equipment rather than comply with the categorical VOC

limitations placed by Provision 3 and Table II (see Provision 11). Second, Lockheed may add coatings and categories not currently in this proposal, but which comply with Regulation V through either actual VOC content or add-on controls that meet the requirement of Regulation V and Provision 11 (see Provision 12). TACB must be notified prior to these additions and, although express approval is not necessary, the TACB may curtail use of coatings added through Provision 12 (see Provision 13.) The third type of flexibility involves addition of a limited amount (one ton of VOC emissions) of coatings that do not comply with Regulation V and that are not currently approved by this proposal. However, express approval by the TACB must be received before use of these coatings is allowed (see Provision 14).

The ESD believes Lockheed has provided documentation that coatings are not available which allow them to comply completely with Regulation V limitations, and that add-on controls are economically unreasonable for the entire facility. However, Lockheed has committed to some degree of add-on control in areas using non-compliant coatings and has made substantial changes in process controls. We, therefore, recommend that Regulation Development proceed with the necessary steps, including a public hearing, to have the company's request for an ARACT under Rule §115.423(a)(4) be approved by the TACB and submitted through appropriate channels to the EPA as a site specific SIP revision. We believe approval by the Executive Director will constitute appropriate and legal TACB approval, though we will confirm this with the Legal Division before attempting to gain final approval. We also recommend the attached provisions be incorporated into the site specific SIP revision through reference in the final approval to ensure enforceability of the ARACT. Because of the vast amount of negotiation involved in this ARACT, which included changes within the last month, the information submitted by Lockheed comprises a submittal which would not be practical to include with this memo. However, ESD will gladly provide access to any information needed.

If you have any questions regarding this memo, please contact Paula Amnott-Tanguma of my staff.

#### Attachments

cc: Mr. Bill Campbell, Executive Director  
Mr. Melvin Lewis, Regional Director, Fort Worth

bcc: JGreif/db, Board, File  
Mr. Scott Mgebhoff, Deputy Director, Technical Operations  
Mr. Barry Irwin, Mobile Source Division  
Mr. Eddie Mack, Regulation Development Division  
Ms. Susan Owen, Legal Division  
Ms. Victoria Hsu, Permits Program  
Ms. Paula Amnott-Tanguma, Engineering Services Division

## ALTERNATE REASONABLY AVAILABLE CONTROL TECHNOLOGY

This Alternate Reasonably Available Control Technology (ARACT) shall apply to the plant site designated as U.S. Air Force Plant No. 4, a federal enclave in Fort Worth and White Settlement, Texas. This ARACT shall be proposed by the Texas Air Control Board (TACB) as a site-specific revision to the Texas State Implementation Plan and shall govern the activities at the plant site by the parties who have submitted the ARACT, the United States Air Force, acting through the Aeronautical Systems Center of its Material Command, and Lockheed Corporation, acting through its Fort Worth Company, an Air Force facilities contractor for U.S. Air Force Plant No. 4 (said parties being collectively referred to as "AFP4"). This ARACT shall govern operations at U.S. Air Force Plant No. 4 without regard to the identity of the parties from time to time acting as owners or operators of the plant site. Any parties acting as such shall be responsible for violations of this ARACT to the same extent as for other violations of TACB Regulation V. Facilities at Air Force Plant No. 4 are accounted for by the TACB under TACB account #TA0156K.

### DEFINITIONS

1. Adhesive is a coating that is used to bond one surface to another by attachment.

Adhesive Prime is a coating that (i) inhibits corrosion and serves as a Primer applied to fastener heads or bare steel surfaces or as a Primer applied prior to adhesive application or (ii) is applied to surfaces that can be expected to contain fuel. These coatings are low solids primers with a high solvent content and a high surface wetting capacity to coat the adherent surface. Any Fuel Tank Coating is excluded from this category.

Aerospace Component is the fabricated part, assembly of parts, or completed unit of any aircraft or any unit typically sold with and in support of contractual or military specifications required for the aircraft. Aerospace Components are either individually sold or become part of a larger assembly that is sold. Aerospace Components include ground support equipment, trainers, and electronics, which are fabricated in conjunction with and in support of an ongoing aircraft manufacturing operation and subsequent support of in-service aircraft.

Aircraft is any machine designed to travel through the earth's atmosphere or beyond the earth's atmosphere and into space. This group of machines includes, but is not limited to: airplanes, balloons, dirigibles, drones, helicopters, missiles, rockets, satellites, space vehicles, and associated self-propelled, mobile, launch/transport equipment. Boosters for aircraft and spacecraft are also included within this group.

Antichafe Coating is a coating that meets needed abrasion and wear requirements such as at the interface of the aft fuselage and horizontal stabilizers of the F-16. Antichafe coatings

are applied to areas of moving aerospace components that may rub during normal operation.

Compatible Epoxy Primer is a Primer that is compatible with the Filled Elastomeric Coating and is epoxy based.

Conductive Coating is a coating used for the highly specific function of providing a conductive surface with low resistivity.

Enamel is a coating that is specified for use as a finish coat on electrical equipment and cabinets for the U.S. Navy and Air Force.

Epoxy Polyamide is a coating used where harder films are required or in some areas where engraving is accomplished in camouflage colors.

Filled Elastomeric Coating is a flexible coating with functions that include, but are not limited to, protecting Aerospace Components, such as aircraft landing gear, landing gear compartment, and other surfaces subject to impact from runway debris.

Flexible Primer is a coating that is compatible with the Rain Erosion-Resistant Coatings or that meets flexibility requirements such as those needed for FMS-1058 primed fastener heads.

Fuel Tank Coating is a coating compatible with polysulfide sealant applied to the interior surfaces of fuel tanks.

Full Scale Development is the systematic use of scientific and technical knowledge in the design, development, testing or evaluation of the ability of a potential new material, product, process, or service to meet specific performance requirements or objectives. FSD includes design engineering, prototype construction and engineering testing. This definition specifically excludes subcontracted technical efforts that are for the sole purpose of developing an additional source for an existing product.

Ground Support Coating is a coating required to be used on ground support equipment. Ink is a category of coatings that contains a suspension of finely divided pigment in a drying oil or solvent carrier.

Insulation Covering is a material that is applied to foam insulation to protect the insulation from mechanical or environmental damage. Insulation Covering is not a Production Coating.

Lacquer is a coating consisting of lacquers including acrylic, acrylic-nitrocellulose gloss, cellulose nitrate gloss, or cellulose nitrate semigloss lacquers.

Maskant is a coating applied directly to an Aerospace Component as a part of the pretreatment processing to protect surface areas from damage (including mechanical and environmental) during chemical milling.

Optical Antireflection Coating is a coating with a low reflectance in the infrared and visible wavelength range and is used for antireflection on or near optical and laser hardware.

P607 Epoxy is a coating consisting of any of the gray special air-dried epoxies that are used on Hewlett-Packard electronic gear to match the original paint.

Polyurethane Topcoat is a coating that meets the flexibility and environment resistance requirements needed for an exterior topcoat.

Pretreatment Coating is a coating that contains a small quantity of acid to provide surface etching and is applied directly to metal and nonmetal surfaces to provide corrosion resistance, adhesion, and ease of stripping.

Primer is a surface coating applied directly to an Aerospace Component for purposes of adhesion of subsequent coatings, corrosion prevention, functional fluid resistance, and protection from the environment. Coatings that are specifically formulated to function as primers are considered as primers in all instances of application, including when a primer is applied as an initial and final coating without subsequent application of a topcoat. Primer excludes all coatings used for the purpose of appearance only.

Production Coating is a coating applied in the production of an Aerospace Component. This definition specifically excludes coatings applied in Research and Development, Full-Scale Development, maintenance operations, or application to tools provided the tools are not sold.

Rain Erosion-Resistant Coating is a coating that protects leading edges, flaps, stabilizers, and engine inlet lips against erosion caused by rain impact during flight.

Research and Development is the application of basic science principles and experimental procedures in testing the fundamental properties of a material, product, or process under controlled conditions. This includes experiments and tests designed to generate sufficient data to lead to future activity relating to prototypes and system designs. This definition specifically excludes subcontracted technical efforts that are for the sole purpose of developing an additional source for an existing product.

Sealant is a coating that fills voids to seal out water, fuel, and other liquids and solids, and in some cases air movement.

Solid Film Lubricant is a lubricant consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum disulfide, graphite, polytetrafluoroethylene, lauric acid, cetyl alcohol, waxes, or other solids that act as a dry lubricant

between faying surfaces. Solid film lubricants are regulated under the Specialized Coating limit.

Specialized Coating is a coating consisting of certain sealants, and solid film lubricants with a high VOC content. This category is limited to the following coatings: small character ink jet printer inks, Fed. Std. A-A-208 (metal substrate) marking inks, maskant line sealer, and lubricants. Any coating listed in this category is excluded from all other categories.

Spectrally Selective Coating is a highly specific, classified coating category.

Temporary Protective Material is a coating applied to an Aerospace Component to protect it from damage during manufacturing, transport, or storage. This material is removed prior to end use of the product. Maskant is specifically excluded from this category.

Touch-up is the application of a Production Coating to an Aerospace Component that has been previously coated, but must have small-scale corrections either because of imperfections in the original coating process, or because of damage that occurred during assembly or handling before delivery to the customer. Touch-up is accomplished using aerosol spray cans, swabs, small brushes or air-brushes.

Topcoat is a coating applied over a primer for purposes such as appearance, identification, or corrosion protection and shall include coatings applied during component assembly. Also included are coatings applied as final paint to the outer surface (such as landing gear and bare metal) of aircraft. A coating that is not formulated as a primer, and that is applied directly to an Aerospace Component as both an initial and final coat, is regulated as topcoat. The topcoat definition excludes all coatings that are specifically formulated for use as primer.

Waterborne Primer is a category of primers reduced with water. Coatings in this category meet all MIL-P-85582 specifications.

Wipe Solvent is a liquid solution for general purpose cleaning of dirt, grease, particles, foreign objects or the like from the surfaces of metal Aerospace Components in connection with production operations (which shall not include Research and Development, Full Scale Development, maintenance operations or application to tools provided the tools are not sold) by application to sponges, cloths, rags or other cleaning devices for manual use in wiping the surface. Wipe Solvent is not a Production Coating.

Zinc Containing Primer is a coating containing either zinc or zinc chromate. Zinc metal-filled primers are needed for low-alloy steel components. Zinc chromate inhibited-alkyd primer is used in cavities where bushings or bearings are installed on aircraft.

## GENERAL PROVISIONS AND STIPULATIONS

2. This ARACT addresses only issues associated with TACB Regulation V, Rule §115.421(a)-(9) and shall apply in lieu thereof. Compliance with this ARACT does not ensure compliance with all TACB or Federal Rules and Regulations.
3. In accordance with TACB Regulation V, Rule §115.423(a)(4), AFP4 will submit the ARACT plan for review by TACB staff every two years.
4. A copy of these ARACT Provisions will be kept at the plant site and made available at the request of personnel from the TACB or any air pollution control agency with appropriate jurisdiction.
5. Material Safety Data Sheets for all materials that have the potential of emitting VOC currently in use and those in use for the two previous years will be kept at the plant site.
6. If any provision of this ARACT is more stringent than any new regulation governing this site or than a permit governing new or existing sources affected by this ARACT, then for the purposes of complying with this ARACT, the ARACT condition will govern and be the standard by which compliance will be demonstrated.
7. If any provision of this ARACT is equivalent to those that may be introduced by any new regulation or new permit governing new or existing sources affected by this ARACT, and differs only in terms of units of measure, then the new provision may be used without modifying this ARACT.
8. AFP4 will physically identify and mark in a conspicuous location all production equipment listed in the attached Table I as follows:
  - A. The facility identification numbers (FIN) as listed in the attached Table I, and
  - B. The emission point numbers (EPN) listed in the attached Table I.

AFP4 may add additional equipment with associated identifying references to (or delete the same from) Table I without amending this ARACT after AFP4 has assured that a copy of the proposed Table I modification has been received by TACB Fort Worth regional office, Engineering Services at the TACB Austin office, EPA Region 6 office in Dallas, and the City of Fort Worth local air pollution control program. Nothing in this provision shall limit any permit requirements that may become applicable to the production equipment listed in Table I.

9. Commencement of any record keeping required by this ARACT that may be additional to current requirements of TACB Regulation V, effective board orders, or permits, will not occur until the effective date of this ARACT. Any additional records required by this ARACT to be maintained for a 12-month period shall be required to be maintained only for the months commencing after the effective date of this ARACT.

#### PRODUCTION COATING OPERATING RESTRICTIONS

10. The VOC content, as applied, of all Production Coatings used at AFP4 shall comply with the categorical limitations set forth in the attached Table II (which may be supplemented per Provision 12), or the attached Table IV (into which Production Coatings and categorical limitations may be added pursuant to Provision 14), except with respect to the following:
  - A. Production Coatings applied as Touch-up.
  - B. Production Coatings applied with swabs, aerosol spray cans, squeeze tubes, caulking guns, hand stamps (using a stamp pad), tapes, or small brushes.
  - C. Production Coatings controlled by an add-on control system that complies with Provision 11.
11. AFP-4 may use add-on control equipment to reduce emissions from Production Coatings whose VOC content exceeds the applicable categorical limitations established in Table II in lieu of complying with those limitations. If add-on control equipment is used, the capture and abatement system shall be capable of achieving and maintaining emissions reductions equivalent to an emission standard equal to the lower of 3.5 pounds of VOC per gallon of coating applied (less water and exempt solvent), or the otherwise applicable Table II limit, and shall have an overall control efficiency of at least 80% of the VOC emissions from those coatings applied. All capture and destruction efficiency testing will be performed in accordance with the requirements of TACB Regulation V, Rule §115.425. Nothing in this provision shall limit any permit requirements that may become applicable for the add-on control equipment.
12. AFP4 may add the following to Table II without amending this ARACT, after AFP4 provides such notification as is required by Provision 13:
  - A. New Production Coating categories with an associated VOC content limit not exceeding 3.5 pounds per gallon of coating, as applied.
  - B. New Production Coating categories whose VOC content exceeds 3.5 pounds per gallon of coating, provided all coatings in that category which exceed 3.5 pounds of VOC per gallon are applied and controlled in a manner that complies with Provision 11.
  - C. New Production Coatings into categories provided those coatings' VOC content complies with the categorical limits.
  - D. New Production Coatings whose VOC content exceed categorical limits, provided those coatings are applied and controlled in a manner that complies with Provision 11.

New Production Coating categories and new Production Coatings added to Table II pursuant to paragraphs b or d of this provision shall be identified in Table II as subject to compliance with Provision 11. AFP4 shall include with the next submittal required by Provision 3 appropriate justification that the VOC content limitation for any new Production Coating is the lowest technically feasible and economically reasonable limitation.

13. Prior to supplementing Table II by the addition of a new Production Coating as provided for in Provision 12 and use of such coating, AFP4 shall have assured that a copy of the following has been received by TACB Fort Worth regional office, Engineering Services

at the TACB Austin office, EPA Region 6 office in Dallas, and the City of Fort Worth local air pollution control program:

- A. Material safety data sheet for each new Production Coatings.
- B. Specifications affecting the choice of the new Production Coating.
- C. Design of any add-on control system required to be utilized in complying with Provision 11.

If TACB determines that the information furnished is deficient, TACB may direct AFP4 to curtail use of the affected new Production Coating until the deficiency is resolved. TACB recognizes that the furnishing of information, such as specifications, is subject to any Department of Defense security classification and may be limited except to individuals possessing appropriate clearances to receive the information.

14. AFP4 may petition the Executive Director of the TACB to allow the use of new Production Coating categories, and Production Coatings in those categories, which will have applicable categorical limitations greater than 3.5 pounds of VOC per gallon of coating as applied, but which will not have additional control requirements. Approval of such a petition will not constitute an amendment of this ARACT provided the following requirements are met:
  - A. Use of all Production Coatings added through this provision and which have not been available for public comment is limited to an aggregate of 1 ton of VOC during any consecutive 12-month period.
  - B. Prior to using Production Coatings affected by this provision, AFP4 must receive express written notice from the TACB that the Executive Director has approved the petition for the addition of those Production Coatings.
  - C. AFP4 must send a copy of a petition affected by this provision to the TACB Fort Worth regional office, Engineering Services at the TACB Austin office, EPA Region 6 office in Dallas, and the City of Fort Worth local air pollution control program.
  - D. A petition for a new Production Coating category and Production Coatings for such categories added per this provision must include justification that the requested VOC limit is the lowest possible, taking into account technical feasibility and economic reasonableness. Such justification will, at a minimum, include verification that no low-solvent coating alternatives exist, and that no add-on control options exist that are technically feasible and economically reasonable. The petition must also include a listing of specific Production Coatings in a proposed new Production Coating category.

It will be the discretion of the Executive Director of the TACB to either approve or disapprove a petition made per this provision, and adherence to the requirements detailed above will not guarantee approval. Although approval of such a petition by the EPA is not necessary, denial of a petition may be based on comments received from EPA or any other air pollution program having jurisdiction. Production Coating categories and Production Coatings affected by this provision will be listed on Table IV. A Production Coating category may be removed from the 1 ton aggregate limitation, and subsequently moved

from Table IV to Table II, by amending this ARACT, which will require public hearing and approval by EPA Region 6.

15. The TACB will formally notify EPA Region 6 of any Production Coating categories added per Provision 12 or approved per Provision 14.
16. Production Coating operations shall not use air atomized application equipment except in applications or categories identified in the attached Table III.
17. Permanent total enclosures (PTEs) will be erected around the Adhesive Prime (FIN 10066588) and Number 4 Detail (FIN RPBF408) booths, and the flashoff areas and curing ovens associated with each booth. The determination that the enclosures are PTEs will be established in accordance with 40 CFR Subpart 52.741, Subpart O, Appendix B, Procedure T (Criteria for and Verification of a Permanent or Temporary Total Enclosure).
18. Emissions captured by the PTEs described in Provision 17 will be controlled by an incinerator. The incinerator will have a design parameter of 97% destruction of the VOC in its inlet stream.
19. The combined PTEs/incinerator system will provide a minimum overall control of 90% of VOC contained in coatings sprayed or used in the booths.
20. The records required in Provision 21 will constitute the method of demonstrating continuous compliance with the limits specified in Provision 10 and 14(a).
21. The following records will be maintained at the plant site on a two-year rolling retention basis and be made immediately available at the request of personnel of the TACB or any air pollution control agency with jurisdiction. These records may, at the discretion of any air pollution control program having jurisdiction, be used to determine violations of the limitations in Provision 10 and 14(a). Nothing in this paragraph shall limit any permit requirements that may become applicable.
  - A. Daily Production Coatings and the VOC content, as applied, thereof will be tracked for each mixing area.
  - B. The data recorded in Provision 21(A) will be reduced monthly and a report produced monthly that represents Production Coating emissions on a daily basis and tons emitted for the previous 12-month period. The monthly report will also include an explicit, separate tally of daily VOC usage and VOC usage for the previous 12-month period for any Production Coatings listed on Table IV.
  - C. Records of the incinerator operating times and temperatures will be tracked.
  - D. The daily, monthly and annual records required in Provisions 21(A),(B) and (C) will be kept in a central location with examples of the method of data reduction including units, conversion factors, assumptions and the basis of the assumptions.

22. All waste paint and solvents from Production Coating operations will be stored in closed containers until removed from the site by a licensed disposal service.
23. All spills of Production Coatings will be cleaned up immediately and the waste materials, rags and other absorbent materials will be stored in closed containers until removed from the site in accordance with applicable law or recycled in a manner that minimizes air emissions.
24. All paint gun cleanup from Production Coating operations will be performed in systems located near the paint booths that totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures, except when cleaning large centrally located paint pots and transfer lines and in the event of equipment failure or temporary unavailability of equipment. In these cases, cleaning solvent will be directed into closed containers using procedures that reduce fugitive emissions. Failed equipment shall be repaired or replaced within 14 calendar days of failure.

#### WIPE SOLVENT OPERATIONS RESTRICTIONS

25. Emissions of VOC from the Wipe Solvent operations will not exceed 44.9 tons for any consecutive 12-month period. The cloth management system required by Provisions 27 through 30 will provide for a minimum recovery of 50% of the gross Wipe Solvent used, except as provided in Provision 31(A) for testing.
26. The Wipe Solvent must have a vapor pressure less than 20 mmHg @ 25°C (approximately 0.39 psia @ 77°F).
27. Sponges, cloths, or other cleaning devices containing Wipe Solvent will be stored in vapor proof containers immediately after use and until final disposal. A vapor proof container will be one whose material is of equal or greater impermeability to solvent vapors than the aluminized bag represented in the submittals in connection with this ARACT.
28. Any spill of Wipe Solvent will be cleaned immediately, with the cleaning medium and other absorbent materials handled as specified in Provision 27 above.
29. Cloth management procedures will be posted in conspicuous, appropriate locations throughout the facility for reference by Wipe Solvent users.
30. A training program to educate Wipe Solvent users on appropriate cloth handling and the environmental importance of the cloth management system will be developed by the company. New employees will be trained when initially beginning work in an area using Wipe Solvent, and veteran employees will be retrained once a year.
31. AFP4 will perform all necessary testing to establish the actual pattern and quantities of VOC being emitted into the atmosphere from Wipe Solvent associated with normal operations and to show compliance with Provision 25. Except as provided in Provision 31(C),

the testing will be performed on an annual basis during the summer months (June, July, or August) to account for maximum effect of temperature and humidity on solvent evaporation. AFP4 is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at its expense.

- A. For the purposes of the compliance testing required by this provision only, used cleaning cloths may be removed from the vapor proof containers for determination of the amount of Wipe Solvent captured by the cloth management system required by Provisions 27 through 30. The cloth management system shall be in use at all other times.
- B. The TACB Fort Worth regional office will be contacted as soon as testing is scheduled but not less than 45 days prior to testing to schedule a pretest meeting.

The notice will include:

- 1. Date for pretest meeting.
- 2. Date testing will occur.
- 3. Name of firm conducting testing.
- 4. Type of testing equipment to be used.
- 5. Method or procedure to be used in testing.

The purpose of the pretest meeting is to review the necessary testing and testing procedures, to provide the proper data forms for recording pertinent data and to review the format procedures for submitting the test reports. A written test protocol covering all pertinent issues discussed in the pretest meeting will be submitted to the regional office prior to testing being conducted. If any comments were made by TACB staff during the review of a previous year's testing report that are pertinent to the testing procedure or record keeping, the test will be modified the following year to incorporate those changes.

- C. Initial compliance testing for the Wipe Solvent operations will be performed by December 31, 1992.
- D. If gross Wipe Solvent use in the twelve months immediately previous to scheduled testing and projected gross Wipe Solvent use in the twelve months that would immediately follow the projected testing are each less than 44.9 TPY, then the company may notify the TACB regional office that testing will not occur that year provided appropriate documentation on solvent use is provided with the notification.
- E. Four copies of the final testing report will be forwarded to the appropriate offices within 30 days after testing is completed. Testing reports will comply with the attached provisions of Chapter 14 of the TACB Sampling Procedures Manual, dated July, 1985. A copy of the report will be distributed to each of the following:
  - TACB, Fort Worth regional office.
  - Engineering Services, TACB, Austin office.
  - EPA Region 6 office in Dallas.
  - Fort Worth local air pollution control program.

32. The records required in Provision 33 and the results of compliance testing required in Provision 31 will constitute the method of demonstrating continuous compliance with the limits specified in Provision 25.
33. The following records will be maintained at the plant site on a two-year rolling retention basis and be made immediately available at the request of personnel of the TACB or any air pollution control agency with jurisdiction. These records may, at the discretion of any air pollution control agency with jurisdiction, be used to determine violations of the VOC emission limitations in Provision 25. The weight of VOC emissions from Wipe Solvent production operations at the site will be considered to be that portion of the Wipe Solvent issued that is estimated to have not been captured based on the compliance testing required in Provision 31.
  - A. Daily Wipe Solvent issues will be tracked.
  - B. The data recorded in Provision 33(A) will be reduced monthly and a report produced by the 15th of each month that represents the facility emissions on a daily basis for the previous month and tons emitted for the previous 12-month period.
  - C. The daily and monthly records required in Provisions 33(A) and (B) will be kept in a central location with examples of the method of data reduction including units, conversion factors, assumptions and the basis of the assumptions.

#### MASKANT OPERATION RESTRICTIONS

34. Prior to January 9, 1994, Maskant VOC emissions will not exceed 148 tons for any consecutive 12 month period.
35. After January 9, 1994, all Maskant emissions using a maskant with a VOC content, as applied, exceeding 3.5 pounds per gallon of coating will be eliminated and the Maskant VOC content limit set forth in Table II shall be reduced to 3.5 pounds per gallon of coating applied.
36. The following records will be maintained at the plant site until maskant use is eliminated and be made immediately available at the request of personnel of the TACB or any air pollution control agency with jurisdiction. These records may, at the discretion of any air pollution control agency with jurisdiction, be used to determine violations of the emission limitations in Provision 34.
  - A. Daily (thinned) maskant tank additions will be tracked.
  - B. The data recorded in Provision 36(A) will be reduced monthly and a report produced by the 15th of each month of maskant emissions on a daily basis for the previous month and tons emitted for the previous 12-month period.
  - C. The daily and monthly records required in Provisions 36(A) and (B) will be kept in a central location with examples of the method of data reduction including units, conversion factors, assumptions and the basis of the assumptions.

37. The records required in Provision 36 will constitute the method of demonstrating continuous compliance with the limits specified in Provision 34.

#### DEGREASING OPERATIONS RESTRICTIONS

38. The degreasers designated as the source of emissions for Emission Point Numbers T534 and T544 in the 1988 Emissions Inventory have been shut down and removed from the facility.

#### ATTACHMENTS

39. The following tables attached hereto are a part of this ARACT:

Table I ARACT EMISSION POINT NUMBERS AND FACILITY IDENTIFICATION NUMBERS

Table II VOC LIMITS OF PRODUCTION COATINGS

Table III OPERATIONS USING AIR ATOMIZED APPLICATION EQUIPMENT

Table IV VOC LIMITS OF ADDITIONAL PRODUCTION COATINGS EXCEEDING 3.5 POUNDS OF VOC PER GALLON OF COATING

TABLE I  
**ARACT EMISSION POINT NUMBERS & FACILITY IDENTIFICATION NUMBERS**  
**US Air Force Plant No. 4**  
**(TACB Acct No. TA-0156-K)**

<u>Ref No.</u>	<u>EPN</u>	<u>FIN</u>	<u>Production Equipment Description</u>
1	RTO	10066588 RPBF408	Adh Prime Regen. Thermal Oxidizer Detail Paint Booth No. 4
2	5V144	10077422B	Component Paint Shop Spray Booth
72	5V9E	10066594	Adh Prime Touchup Spray Booth
86	176VU01	176PB01E	Aircraft Paint Bldg Spray Booth
87	176VU02	176PB01E	Aircraft Paint Bldg Spray Booth
88	176VU03	176PB01E	Aircraft Paint Bldg Spray Booth
89	176VU04	176PB01E	Aircraft Paint Bldg Spray Booth
90	176VU05	176PB01E	Aircraft Paint Bldg Spray Booth
91	176VU06	176PB01E	Aircraft Paint Bldg Spray Booth
92	176VU07	176PB02E	Aircraft Paint Bldg Spray Booth
93	176VU08	176PB02E	Aircraft Paint Bldg Spray Booth
94	176VU09	176PB02E	Aircraft Paint Bldg Spray Booth
95	176VU10	176PB02E	Aircraft Paint Bldg Spray Booth
96	175VU11	176PB02E	Aircraft Paint Bldg Spray Booth
97	176VU12	176PB02E	Aircraft Paint Bldg Spray Booth
98	176VU13	176PB05E	Aircraft Paint Bldg Spray Booth
99	176VU14	176PB05E	Aircraft Paint Bldg Spray Booth
100	176VU15	176PB05E	Aircraft Paint Bldg Spray Booth
101	176VU16	176PB05E	Aircraft Paint Bldg Spray Booth
102	176VU17	176PB05E	Aircraft Paint Bldg Spray Booth
103	176VU18	176PB07E	Aircraft Paint Bldg Spray Booth
104	176VU19	176PB07E	Aircraft Paint Bldg Spray Booth
105	176VU20	176PB07E	Aircraft Paint Bldg Spray Booth
106	176VU21	176PB07E	Aircraft Paint Bldg Spray Booth
107	176VU22	176PB07E	Aircraft Paint Bldg Spray Booth
108	176VU23	176PB09E	Aircraft Paint Bldg Spray Booth
109	176VU24	176PB09E	Aircraft Paint Bldg Spray Booth
110	176VU25	176PB09E	Aircraft Paint Bldg Spray Booth
111	176VU26	176PB09E	Aircraft Paint Bldg Spray Booth

TABLE I -Continued  
**ARACT EMISSION POINT NUMBERS & FACILITY IDENTIFICATION NUMBERS**  
**US Air Force Plant No. 4**  
**(TACB Acct No. TA-0156-K)**

<u>Ref No</u>	<u>EPN</u>	<u>FIN</u>	<u>Production Equipment Description</u>
112	175VU27	176PB09E	Aircraft Paint Bldg Spray Booth
113	176VU28	176PB09E	Aircraft Paint Bldg Spray Booth
114	176VU29	176PB10E	Aircraft Paint Bldg Spray Booth
115	176VU30	176PB10E	Aircraft Paint Bldg Spray Booth
116	176VU31	176PB10E	Aircraft Paint Bldg Spray Booth
117	176VU32	176PB10E	Aircraft Paint Bldg Spray Booth
118	176VU33	176PB10E	Aircraft Paint Bldg Spray Booth
61	4VU30	10049795	Bonded Structures Spray Booth
30	181-17	TANK 541 TANK 542	Chem Milling Maskant Chem Milling Maskant
31	181-18	TANK 541 TANK 542	Chem Milling Maskant Chem Milling Maskant
32	181-20	TANK 541 TANK 542	Chem Milling Maskant Chem Milling Maskant
2	5V144	10077422A	Component Paint Shop Spray Booth
19	5V174	10077422C	Component Paint Shop Spray Booth
18	5V3	RPBF409	Detail Paint Booth No. 3
3	5V2	RPBF410	Detail Paint Booth No. 2
17	5V2A	RPBF411	Detail Paint Booth No. 1
9	5V101B	10049576	Detail Paint Touchup Spray Booth
6	5V78	10078508	Dry Film Lube Spray Booth
62	5V26B	10050744	Electrical Component Spray Booth
63	5V26A	10050744	Electrical Component Spray Booth
154	4VU133A	BALLISTIC	Engine Inlet Spray Facility
43	5V129	10036306	Green Room Spray Booth

TABLE I - Continued  
**ARACT EMISSION POINT NUMBERS 7 FACILITY IDENTIFICATION NUMBERS**  
**US Air Force Plant No. 4**  
**(TACB Acct No. TA-0156-K)**

<u>Ref</u>	<u>EPN</u>	<u>FIN</u>	<u>Production Equipment Description</u>
25	T-13	T-13	Maskant Diluent Storage Tank
85	5VU63A	10120913	Robotics Spray Facility
45	5V172	10081101	Tooling Spray Booth
46	5V172A	10081101	Tooling Spray Booth
55	4V165	10038141	Touchup Spray Booth, 32A
56	4V149	10049016	Touchup Spray Booth, 47A
57	5V78C	10049670	Tube & Duct Spray Booth
58	5V78B	10049670	Tube & Duct Spray Booth
59	5V78G	10049671	Tube & Duct Spray Booth
60	5V78F	10049671	Tube & Duct Spray Booth
155	F-1	Multiple	Fugitive Zone, Bldg 5, Grd Flr
156	F-2	Multiple	Fugitive Zone, Bldg 5, Mezz
157	F-3	Multiple	Fugitive Zone, Bldg 4, Mch Shp
158	F-4	Multiple	Fugitive Zone, Bldg 4, SubAsmbly
159	F-5	Multiple	Fugitive Zone, Bldg 4, Fnl Asmbly
160	FLIGHT	Multiple	Flight Line

TABLE II  
VOC LIMITS OF PRODUCTION COATINGS

<u>COATING CATEGORY</u>	<u>COATINGS</u>	<u>VOC CONTENT LIMITS</u>
Adhesive	FMS-3014(Form III), FMS-1015, Perm-A-Bond No. 115, P6001, P6074-1 P6076-2, P6076-3	5.7
Adhesive Prime	FMS-1058, FMS-3014 (Form II), FMS-3018, EC-776	6.6
Antichafe	FMS-1027	5.5
Compatible Epoxy Primer	MIL-P-23377, 60-S-20A	6.0
Conductive	FMS-4009, P-6126	5.9
Enamel	MIL-E-15090	6.4
Epoxy Polyamide	MIL-C-22750	5.5
Filled Elastomeric	FMS-3049	4.0
Flexible Primer	FMS-3035	5.3
Fuel Tank	MIL-C-27725	5.2
Ground Support	TT-E-489 (enamel, alkyd, gloss) TT-E-527 (enamel, alkyd, lstrless) TT-E-529 (enamel, alkyd, semigls) TT-L-20 & 26 (lacquers)	5.9
Ink	See Definition	3.4
Lacquer	MIL-L-81352, 19537, 52043, TT-L-32	6.8
Maskant	AC-828-77	7.9 <sub>a</sub> 3.5 <sub>b</sub>
Optical Antireflection	P6096-2	5.4
P607 Epoxy	See Definition	2.2

TABLE II - Continued  
VOC LIMITS OF PRODUCTION COATINGS

<u>COATING CATEGORY</u>	<u>COATINGS</u>	<u>VOC CONTENT LIMITS</u>
Polyurethane Topcoats	MIL-C-83286 & -85285	3.6
Pretreatment	MIL-C-8514	6.5
Rain Erosion Resistant	P5438, P6173, MIL-C-83231	7.0
Sealant	FMS-1044, FMS-3055, P6154-1 MIL-S-81733, P-1172-1, Pipe Joint Compound	3.1
Specialized	See Definition	6.8
Spectrally Selective	DoD Classified	7.0
Temporary Protective Material	MIL-C-16173	4.4
Waterborne	MIL-P-85582	2.9
Zinc Containing	MIL-P-26915, TT-P-1757	6.2

a - Limit prior to January 9, 1994

b - Limit effective January 9, 1994

TABLE III  
OPERATIONS USING AIR ATOMIZED APPLICATION EQUIPMENT

Filled Elastomeric Coating Category (FMS-3049)

Adhesive Prime Category Coatings

Insulation Covering

Solid Film Lubricants

Flight Line Touchup

Corner Coating of Components

TABLE IV  
VOC LIMITS OF ADDITIONAL PRODUCTION COATINGS EXCEEDING  
3.5 POUNDS OF VOC PER GALLON OF COATING

<u>COATING CATEGORY</u>	<u>COATINGS</u>	<u>VOC CONTENT LIMITS</u>
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EXCEPT AS OTHERWISE PROVIDED IN AN AMENDMENT TO THIS ARACT, THE AGGREGATE VOC EMISSIONS FROM PRODUCTION COATINGS IN THE CATEGORIES SET FORTH IN THIS TABLE SHALL NOT EXCEED ONE (1) TON DURING ANY CONSECUTIVE 12-MONTH PERIOD.