



DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor

Jeanne R. Nielson, Ph.D.
Executive Director

Russell A. Roberts
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

DAQE-163-96

February 9, 1996

James R. Van Orman
Hill Air Force Base
Headquarters
Ogden Logistics Center (AFMC)
Hill Air Force Base, Utah 84056

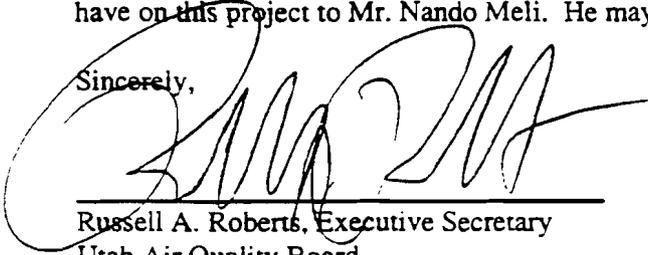
Dear Mr. Van Orman:

Re: Approval Order for Medium Pressure Water & Chemical Paint Stripping of Aircraft
Davis County, CDS-A1, Non-Attainment, Title V

The attached document is an Approval Order for the above referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,



Russell A. Roberts, Executive Secretary
Utah Air Quality Board

RAR:NM:aj

cc: Davis County Health Department
28 East State Street
POB 618
Farmington, UT 84025-618



STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**APPROVAL ORDER FOR MEDIUM PRESSURE WATER &
CHEMICAL PAINT STRIPPING OF AIRCRAFT**

**Prepared By: Nando Meli, Engineer
801-536-4052**

APPROVAL NUMBER

DAQE-163-96

Date: February 9, 1996

Source

**Hill Air Force Base
James R. Van Orman
801-777-2050**

**Russell A. Roberts
Executive Secretary
Utah Air Quality Board**

Abstract

Hill Air Force Base (HAFB) is requesting approval to use a Medium Pressure Water (MPW) stripping system to strip paint off of aircraft. In the past a chemical paint stripping method using methylene chloride was used to strip paint off an aircraft. The VOC and Hazardous Air Pollutants will be less when the MPW system is utilized. The VOC emissions in building 206 from the Medium Pressure Water and Chemical Paint Stripping operations shall be 5.41 tons per 12-month period.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Air Conservation Rules (UACR) and the Utah Air Conservation Act. A 30-day public comment period was held and all comments received were evaluated. The conditions of this AO reflect any changes to the proposed conditions which resulted from the evaluation of the comments received. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order:

General Conditions:

1. This AO applies to the following company:

Facility Location

Department of the Air Force
Headquarters Ogden Logistics Center (AFMC)
Hill Air Force Base, Utah

PHONE NUMBER (801) 777-0359
FAX NUMBER (801) 777-6742

The equipment listed below in this AO shall be operated at the following location:

PLANT LOCATION:

East of Exit 336 on Interstate 15

Universal Transverse Mercator (UTM) Coordinate System:
4,551 kilometers Northing; 418 kilometers Easting; Zone 12

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the UACR, Utah Administrative Codes (UAC), and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence unless specifically defined otherwise herein.
3. Hill Air Force Base (AFB) shall install and operate the Medium Pressure Water & Chemical Paint Stripping of Aircraft in Building 206 according to the terms and conditions of this AO as requested in the Notice of Intent dated November 27, 1995, and additional information submitted to the Executive Secretary dated December 7, 1995.

4. A copy of this AO shall be posted on site. The AO shall be available to the employees who operate the air emission producing equipment. These employees shall receive instruction as to their responsibilities in operating the equipment according to all of the relevant conditions listed below.
5. The approved installations shall consist of the following equipment or equivalent:
 - A. Aqua Miser Medium Pressure Water Paint Strippers
 - B. Air Operated Drum Pumps and Spray Wands with non-atomizing tips

* Equivalency shall be determined by the Executive Secretary.

Limitations and Tests Procedures

6. Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.
7. The following production limits shall not be exceeded without prior approval in accordance with R307-1-3.1, UAC:
 - A. 3300 gallons of Paint Stripper per rolling 12-month period
 - B. 150,000 lbs of Sodium Bicarbonate per rolling 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total based on the first day of each month using data from the previous 12 months. This total shall be calculated by the tenth day of the following month. Records of consumption shall be kept for all periods when the plant is in operation. Records of consumption, including rolling 12-month totals shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. Consumption shall be determined by purchase records and operations log. The records shall be kept on a daily basis.

Fugitive Dust

8. The moisture content of the material used containing sodium bicarbonate shall be maintained at a minimum of 80.0% by weight as the material is blasted from the Aqua Miser. All of the sodium bicarbonate shall be periodically swept or sprayed clean from all surface areas as dry conditions warrant or as determined necessary by the Executive Secretary. The moisture content shall be tested if directed by the Executive Secretary using the appropriate American Society of Testing and Methods (ASTM) method.

Volatile Organic Compound (VOC) Limitations

9. The facility shall abide by all applicable requirements of UAC R307-14 for volatile organic compound (VOC) sources located in an ozone Nonattainment area. At a minimum, RACT control measures are required and BACT will be no less stringent than RACT. These requirements include but are not limited to:

"14-5.A.(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment."

The full text of UAC R307-14 is included as Appendix A. However, to be in compliance, this facility must operate in accordance with the most current version of R307-14 or the applicable section(s), if renumbered.

10. The emissions of VOCs in building 206 from the Medium Pressure Water and Chemical Paint Stripping operations, etc. and associated operations shall not exceed:

5.41 tons per rolling 12-month period for VOCs

This value shall not be exceeded without prior approval in accordance with R307-1-3.1, UAC. Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using data from the previous 12 months.

The emissions of VOCs emitted to the atmosphere from Building 206 shall be determined by maintaining a record of volatile organic compound potential contained in materials used each month. The record shall include the following data for each item used:

- A. Name of the VOC emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, isocyanates, etc.
- B. The weight and use location of the volatile organic compound potential and hazardous air pollutant potential of the material(s) listed in A in pounds per gallon.
- C. Percent by weight of all volatile organic compound potential and hazardous air pollutant potential for each individual material listed in A. The percent by weight of the volatile and hazardous air pollutant potentials can be obtained from the manufacturers' MSDSs. The owner/operator can obtain MSDS data from the manufacturers of the materials and retain the information on-site.
- D. Amount and location of materials containing VOCs used on a monthly basis and summed for every location and for the entire plant each month.
- E. To calculate the above potentials contained in the material listed in D use the following procedure:

$$\text{VOC} = \frac{(\% \text{ Volatile by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times \frac{(\text{Gal Consumed})}{(2,000 \text{ lb})} \times (1 \text{ ton})$$

- F. The amount of volatile organic content potential (potential air emissions) and hazardous air pollutant potential (potential air emissions) in pounds contained in materials deposited as solid or hazardous waste for the month shall be quantified, and can be subtracted from the quantities calculated above. This is done to allow quantification by the source of the total VOCs emissions. (The assumption is that all the two above potentials of the materials applied to a product evaporate and are therefore considered emissions).
- G. Records of consumption of VOCs shall be kept for all periods when the plant is in operation. Records of consumption shall be made available to the Executive Secretary upon request, and shall include a period of two years ending with the date of the request.
11. This source is a major Title V source needing an Operating Permit. It is required to pay an annual emission fee upon start-up, or if an existing facility, upon issuance of this AO. The fee will be based on calculated annual emissions listed at the end of this AO. This fee is valid until inventory data for one year are available for the source. The owner or operator of this source will be billed upon start-up for all emissions that are considered "chargeable" as of that date.

Records & Miscellaneous

12. All installations and facilities authorized by this AO shall be adequately and properly maintained. All pollution control vendor recommended equipment shall be installed, maintained, and operated. Instructions from the vendor or established maintenance practices that maximize pollution control shall be used. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, etc., shall be installed and operated properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request.
13. The owner/operator shall comply with R307-1-3.5, UAC. This rule addresses emission inventory reporting requirements.
14. The owner/operator shall comply with R307-1-4.7, UAC. This rule addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. All excess emissions shall immediately be reported to the Executive Secretary. The total of excess emissions shall be reported to the executive secretary as directed for each calendar year.

15. All records referenced in this AO which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. All records shall be kept for a period of two years. Examples of records to be kept at this source shall include the following as applicable:

- A. Production rate (Condition number 7)
- B. VOC consumption records (Condition number 10)
- C. Maintenance records (Condition number 12)
- D. Upset, breakdown episodes (Condition number 14)

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the UACR.

Annual emissions from the Medium Pressure Water & Chemical Paint Stripping of Aircraft in Building 206 are currently calculated at the following values:

<u>Pollutant</u>	<u>Tons/yr</u>
PM ₁₀	0.65
VOC	5.41

These calculations are for the purposes of determining the applicability of Prevention of Significant Deterioration and nonattainment area major source requirements of the UACR. Except for VOC's they are not to be used for purposes of determining compliance.

In accordance with the requirements of Title V of the 1990 Clean Air Act, the following pollutants may be subject to an operating permit fee. Emissions of the following pollutants from all sources, including pre-November 19, 1969 sources, may be subject to the operating permit fee. Both the fees rate and the class of pollutants are subject to change by State, the federal agencies, or both.

<u>Pollutant</u>	<u>Tons/yr</u>
PM ₁₀	0.65
VOC	5.41

Approved By: 

Russell A. Roberts, Executive Secretary
Utah Air Quality Board



Full copy

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Russell A. Roberts
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

DAQE-014-96

January 5, 1996

Newspaper Agency
Legal Advertising Department
157 Regent Street
Salt Lake City, UT 84111

This letter will confirm the authorization to publish the attached NOTICE in the Newspaper Agency on January 9, 1996.

Please mail the invoice and affidavit of publication to the Utah State Department of Environmental Quality, Division of Air Quality, P.O. Box 144820, Salt Lake City, Utah 84114-4820.

Sincerely,

A handwritten signature in cursive script, appearing to read "Amelia Jaramillo".

Amelia Jaramillo
Office Technician
Utah Division of Air Quality

Enclosure



NOTICE

The following notice of intent to construct, submitted in accordance with Section 3.1, Utah Air Conservation Rules, has been received for consideration by the Executive Secretary, Utah Air Quality Board:

1. John Vidik

Hill Air Force Base

00-ALC/EM

7274 Wardleigh Road

Hill Air Force Base, UT 84056-5137

Medium Pressure Water & Chemical Paint Stripping of Aircraft

The Net Increase in Approved Emissions will be (A negative sign indicates a decrease in emission rates.):

TSP	0.65 tons/year
PM ₁₀	0.65 tons/year
VOC	5.41 tons/year

The engineering evaluation and air quality impact analysis have been completed and no adverse air quality impacts are expected. It is the intent of the Executive Secretary to approve the construction project.

The construction proposal and estimates of the effect on local air quality are available for public inspection and comment at the Division of Air Quality, Utah State Department of Environmental Quality, 1950 West North Temple, Salt Lake City, Utah 84114-4820. Written comments received by the Division, at the same

address on or before February 8, 1996, will be considered in making the final decision on the approval/disapproval of the proposed construction.

If anyone so requests to the Executive Secretary in writing, within 15 days of publication of the Notice, a hearing will be held to explain the project and technical rationale for proposed action. A hearing will be scheduled as close as practicable to the proposed project location. Comments obtained during a hearing will be evaluated and considered by the Executive Secretary before making a final decision on the approval/disapproval of the project.

Date of Notice: January 9, 1996

TURCO 6813 (US PATENT #5387363)

PAGE 4 OF 4

MIXING:

Use care to avoid splashing. Use appropriate protective equipment.

REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT:

Relieve any pressure. Cover openings to avoid spurting. Clean exterior and interior by flushing with water. Collect flushings for disposal. Use protective equipment for eyes, skin and inhalation.

CHECKED BY: John F. Grainger, Director Tech. Serv.

APPROVED BY: John F. Grainger, Director Tech. Serv.

DATE PREPARED: 06/14/95 DATE PRINTED: 06/16/95 FILE NO: 6813.005/

TURCO 6813 (US PATENT #5387363)

PAGE 3 OF 4

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition may produce carbon monoxide, dioxide and other toxic volatile organic compounds

SECTION VII - SPILL, LEAK AND DISPOSAL PROCEDURE:

SPILL OR RELEASE PROCEDURE: CONCENTRATE

Contain spillage. Stop leak at source if this can be done safely. Ventilate area. Nonessential personnel should leave the area until cleanup is completed. Pump liquid into DOT-approved drums for disposal. Absorb remaining liquid onto inert absorbent and place in DOT-approved drums for disposal. Wash area with water. Collect washings and place in DOT-approved drums for disposal. Keep concentrate and wash water from entering sewers or waterways.

USE SOLUTION:

As for concentrate, if applicable.

DISPOSAL INFORMATION: CONCENTRATE:

- (1) Transfer to reclaiming center for recycling or reuse, if possible.
- (2) Transfer to licensed waste treatment or disposal site for disposition under applicable local, state and regional regulations.

SPENT SOLUTION AND RINSES:

Dispose per (1) or (2) above, or spent solution and rinses can be neutralized, and floatable soil and separated solvent skimmed off. Residual organic matter may be removed by oxidation and/or carbon treatment. Clarified water may be released to sewer if local regulations permit.

SECTION VIII - SPECIAL PROTECTION INFORMATION:

RESPIRATORY PROTECTION:

If TLV is exceeded, a NIOSH-approved self-contained breathing apparatus, positive pressure hose mask or an air line mask is advised. These should have a full face piece and be operated in a positive pressure mode. For limited exposure time, in areas of good ventilation, a full face mask with cartridge or canister rated for ammonia or amines may be used. These must not be used in any areas where a danger of oxygen deficiency exists, such as partly enclosed or low lying areas, including sumps or tanks. If respirators are used, a formal training and screening program must be initiated. See 29 CFR 1910-134.

VENTILATION:

Maintain sufficient mechanical ventilation to keep concentration below TLV.

PROTECTIVE EQUIPMENT:

Protective equipment: Face shield or goggles, gloves, boots and apron made of solvent resistant material (e.g. neoprene, viton, etc.). Protective suit not normally required.

RECOMMENDED PERSONAL HYGIENE

Wash hands and face with soap and water before smoking or eating. Immediately remove all contaminated clothing. Launder separately before reuse. Discard shoes that become contaminated on the interior.

SECTION IX - OTHER INFORMATION:

SPECIAL PRECAUTIONS - STORAGE AND HANDLING:

Store in dry protected area away from strong oxidizing agents.

TURCO 6913 (US PATENT #5387363)

PAGE 2 OF 4

SECTION IV - FIRE AND EXPLOSION HAZARDS:

FLASH POINT AND METHOD USED: None to boil (TCC)

EXTINGUISHING MEDIA:

Foam, carbon dioxide, dry chemical

SPECIAL FIRE FIGHTING PROCEDURE AND PRECAUTIONS:

Use self-contained respiratory protection.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

SECTION V - HEALTH AND EMERGENCY INFORMATION:

EFFECTS OF OVER-EXPOSURE: EYES:

Contact with eyes may cause moderate to severe irritation.

SKIN:

Contact with skin may cause moderate to severe irritation, drying, defatting.

INHALATION:

Vapors: Moderate irritation, dizziness, headaches. Mists: Severe respiratory irritation, nausea.

INGESTION:

Moderate to severe irritation of gastrointestinal tract, nausea.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:

No known chronic effects that differ from acute effects.

SECTION VA - FIRST AID INFORMATION:

FIRST AID: EYES:

Flush eyes with large volumes of water for at least 15 minutes. If irritation persists, obtain medical attention.

SKIN:

Flush affected area with large volumes of water. Wash with soap and water. Rinse thoroughly. If irritation is evident or blistering occurs, obtain medical attention.

INHALATION:

Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, apply artificial respiration. Obtain medical attention.

INGESTION:

Do not induce vomiting except on advice of competent medical personnel. If vomiting occurs spontaneously, keep head below hip level to reduce possibility of aspiration pneumonitis. If victim is conscious, dilute by giving large volumes of milk or water. Obtain immediate medical attention. Never attempt to induce vomiting or give anything by mouth to an unconscious person.

PRIMARY ROUTES OF ENTRY ARE INHALATION AND SKIN CONTACT.

SECTION VI - REACTIVITY DATA:

STABILITY: STABLE

CONDITIONS TO AVOID:

Contact with strong oxidizing materials

JUL-11-1995 09:27

TURCO ACIATION ATL GA USA

+1 404 496 5830 P.02

TURCO MATERIAL SAFETY DATA SHEET

Date: 06/16/95

TURCO 6813 (US PATENT #5387363)

CS No.: 03580 Page 1 of 4

SECTION I MANUFACTURER'S NAME AND ADDRESS

Manufacturer's Name: TURCO PRODUCTS, INC. DIVISION OF ELF ATOCHEM NORTH AMERICA
Address: 7320 BOLSA AVENUE WESTMINSTER, CA 92684
Emergency telephone: (202) 483-7616 (800) 424-9300
For information: (714) 890-3600

VOC
393 g/L
3.28 Lbs/gal

SECTION II HAZARD INFORMATION

THE FOLLOWING INGREDIENTS ARE DEFINED TO BE HAZARDOUS PER 29CFR 1910-1200:

Table with 5 columns: NAME (CAS), CERCLA RQ, RCRA NO, SARA REPORTABLE, %. Rows include BENZYL ALCOHOL (100-51-6) and LINEAR ALKYLATED ARYL HYDROCARBON (68648-87-3).

THE FOLLOWING INGREDIENTS ARE NOT REQUIRED TO BE LISTED BY 29CFR 1910-1200, BUT ARE LISTED IN CONFORMANCE WITH THE 'RIGHT-TO-KNOW' LAWS OF CERTAIN STATES, INCLUDING PENNSYLVANIA AND NEW JERSEY:

WATER (7732-18-5), AMMONIUM HYDROXIDE (AMMONIA) (1336-21-6), HEXYNOL (105-31-7)

CARCINOGENS: NONE (AS DEFINED IN 29CFR 1910-1200, APPENDIX A(1))

DOT INFORMATION

PROPER SHIPPING NAME: NOT REGULATED BY DOT IN NORMAL GROUND TRANSPORTATION IN CONTAINERS OF 110 GALLONS OR LESS

SECTION III PHYSICAL PROPERTIES (TYPICAL)

Boiling point: Approx. 212 deg. F. Specific gravity: 1.01
SCAQMD VOC composite vapor pressure: <0.1mm Hg (calc. by Raoult's Law)
SCAQMD VOC: 393 g/l. (calculated from nominal composition)
Vapor density: >1 (air=1) Evaporation rate: <1 (BuAc=1)
Total vapor pressure (including water): Approx. 15mmHg
Total volatile (including water), % by volume: Approx. 97%
Solubility in water: Appreciable pH: As is 12.0
Appearance and odor: Light blue emulsion, ammoniacal odor

Historically, HAFB has processed approximately 50 aircraft per year, however, not all aircraft were fully stripped and painted. The projected chemical usage is worst case and assumes that all aircraft will require paint removal.

A formal test report will be forwarded as soon as it is available. Please contact David Budak, at (801) 777-1449, for additional information.


JAMES R. VAN ORMAN
Director of Environmental Management

Attachment:
MSDS

cc:
EMP
LAOPE (ATTN: John Vidic)



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFMC)
HILL AIR FORCE BASE, UTAH

RECEIVED

NOV 27 1995

Air Quality

Mr. James R. Van Orman
OO-ALC/EM
7274 Wardleigh Road
Hill AFB UT 84056-5137

Mr. Russell A. Roberts
Executive Secretary
Division of Air Quality
1950 West North Temple
PO Box 144820
Salt Lake City, UT 84114-4820

RE: Notice of Intent for Medium Pressure Water and Chemical Paint Stripping of C-130 Aircraft at Hill Air Force Base (DAQE-1000-95 , 2 Nov 95)

Dear Mr. Roberts

The Experimental Approval Order (DAQE-1000-95 , 2 Nov 95) authorized Hill Air Force Base (HAFB) to determine if a lower VOC emission paint removal process could be developed. Experimental testing for paint stripping of C-130 aircraft has proceeded in accordance with the referenced approval order and actual test data supports this request for a permit.

HAFB requests approval to strip paint from a maximum of 50 C-130 aircraft per year utilizing the Medium Pressure Water (MPW) paint strip process augmented by chemical stripping. The following are the estimated operating parameters:

- a. Process description: Selected aircraft parts are masked, chemical stripper is applied to soft skinned areas of the aircraft, medium pressure water at 15,000 psi (3.2 gallon/minute) with sodium bicarbonate (2.5 ounce/gallon) is blasted at the paint surface, paint solids entrained in the blast water are captured in the industrial drain system.
- b. Chemical paint stripper usage: 105,000 pounds/year of Benzyl Alcohol (see attached MSDS)
- c. Sodium Bicarbonate usage: 750,000 pounds/year.
- d. Projected air emissions: 105,000 lbs of VOC's
- e. Proposed method to track air emissions: Log chemical use, hours of operation, and number of aircraft stripped.
- f. Tentative schedule to start operations: 30 January 1996.

$$\frac{60 \text{ Drums}}{\text{year}} \frac{55 \text{ gallons}}{\text{drum}} = 3300 \text{ gallons/year}$$

$$3300 \text{ gallons} \times \frac{3.28 \text{ } \mu\text{VOC}}{\text{gal}} = 10,824 \text{ } \mu\text{VOC}$$

$$= 5.41 \frac{\text{tons VOC}}{\text{year}}$$

Sodium Bicarbonate

$$2.5 \frac{\text{oz}}{\text{gal}} \frac{\text{lb}}{16 \text{ oz}} \times 3300 \text{ gallons} = 515.63 \text{ lb Sodium Bicarb}$$

Water

$$8.3 \frac{\text{lb}}{\text{gal}} \frac{16 \text{ oz}}{\text{lb}} = 132.8 \frac{\text{oz}}{\text{gal}}$$

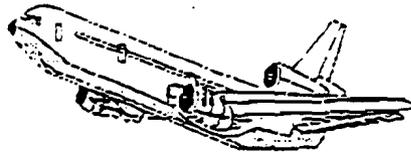
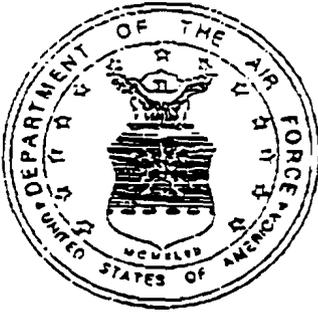
$$2.5 \frac{\text{oz}}{\text{gal}}$$

$$\frac{2.5}{132.8} = 0.019 = 1.9\%$$

16

The paint softener shall be applied with a stainless steel application gun (car wash type) with a non-atomizing tip, and / or hand applied with a brush.

RECEIVED
DEC 8 1995
Air Quality
D. O. W.



HILL AIR FORCE BASE
GOALC/
BLDG. 225
HILL AFB, UT 84056
PHONE:
FAX:

AIRCRAFT OPERATIONS

TELEFAX COVER SHEET

FAX:

DATE: / /

DELIVER TO: Nando Meli

FROM: John Vidric

NUMBER/PAGES 1 OF 2

MESSAGE:

Nando,
The description of our application
method follows:

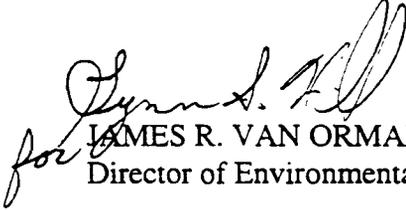
If you have any questions please
give me a call

Thxs
John Vidric 777-2050

f. Tentative schedule to start operations: 30 January 1996.

Historically, HAFB has processed approximately 50 aircraft per year, however, not all aircraft were fully stripped and painted. For our request of 27 November, the process engineers assumed worse case conditions. However they now believe this revision is closer to the actual requirements.

A formal test report will be forwarded prior to 4 February, 1996. Please contact David Budak, at (801) 777-1449, for additional information.


for
JAMES R. VAN ORMAN
Director of Environmental Management

cc:
EMP
LAOPE (ATTN: John Vidic)



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFMC)
HILL AIR FORCE BASE, UTAH

December 7, 1995

Mr. James R. Van Orman
OO-ALC/EM
7274 Wardleigh Road
Hill AFB UT 84056-5137

Mr. Russell A. Roberts
Executive Secretary
Division of Air Quality
1950 West North Temple
PO Box 144820
Salt Lake City, UT 84114-4820

RE: Notice of Intent for Medium Pressure Water and Chemical Paint Stripping of C-130 Aircraft at Hill Air Force Base

Dear Mr. Roberts

The Experimental Approval Order (DAQE-1000-95 , 2 Nov 95) authorized Hill Air Force Base (HAFB) to determine if a lower VOC emission paint removal process could be developed. Experimental testing for paint stripping of C-130 aircraft proceeded in accordance with the referenced approval order and actual test data supports this request for a permit. On 27 November 1995, HAFB requested approval to strip up to fifty aircraft per year for a total maximum annual release of 105,000 pounds VOC's. However, further analysis of the test data indicate only 10,800 lbs of VOC will be required per year.

Based upon the results of the test, HAFB requests approval to strip paint from aircraft utilizing the Medium Pressure Water (MPW) paint strip process augmented by chemical stripping. The following are the estimated operating parameters:

- a. Process description: Selected aircraft parts are masked, chemical stripper is applied to soft skinned areas of the aircraft, medium pressure water at 15,000 psi (3.2 gallon/minute) with sodium bicarbonate (2.5 ounce/gallon) is blasted at the paint surface, paint solids entrained in the blast water are captured in the industrial drain system.
- b. Chemical paint stripper usage: 10,800 pounds/year of Benzyl Alcohol
- c. Sodium Bicarbonate usage: 150,000 pounds/year.
- d. Projected air emissions: 10,800 lbs of VOC's
- e. Proposed method to track air emissions: Log chemical use and hours of operation.

PROOF OF PUBLICATION

COPY

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	
UT ST DEPT OF ENVR QULTY DIV OF AIR QUALITY P.O. BOX 144820 SALT LAKE CITY, UT 84114	U5364000L-07	01/09/96

ACCOUNT NAME	
UT ST DEPT OF ENVR QULTY	
TELEPHONE	INVOICE NUMBER
801-536-4000	TL158201261
SCHEDULE	
START 01/09/96	END 01/09/96

NOTICE
The following notice of intent to construct, submitted in accordance with Section 3.1, Utah Air Conservation Rules, has been received for consideration by the Executive Secretary, Utah Air Quality Board:

1. John Vidik
Hill Air Force Base-00-ALC/EM,
7274 Wardsleigh Road, Hill Air
Force Base, UT 84056-5137.
Medium Pressure Water and
Chemical Paint Stripping of Air-
craft.

The Net Increase in Approval Emissions will be (A negative sign indicates a decrease in emission rates):

TSP: 0.65 tons/year
PM10: 0.65 tons/year
VOC: 5.41 tons/year

The engineering evaluation and/or quality impact analysis have been completed and no adverse air quality impacts are expected. It is the intent of the Executive Secretary to approve the construction project.

The construction proposal and estimates of the effect on local air quality are available for public inspection and comment at the Division of Air Quality, Utah State Department of Environmental Quality, 150 North 84114-4820. Written comments received by the Division of the same address on or before February 8, 1996, will be considered in making the final decision on the approval of the proposed construction.

If anyone so requests, the Executive Secretary will hold a hearing within 15 days of publication of the notice. A hearing will be held to explain the project and technical rationale for proposed action. A hearing will be scheduled as close as practicable to the proposed project location. Comments obtained during a hearing will be evaluated and considered by the Executive Secretary before making a final decision on the approval/disapproval of the project.

Date of Notice: Jan 9, 1996
45820120

DATE 01/09/96

2320 6131 2XXX 2NSRP 206

CUST. REF. NO.	
HILL AIR CAPTION	
NOTICETHE FOLLOWING NOTICE OF SIZE	
70 LINES	1.00 COLUMN
TIMES	RATE
1	1.64
MISC. CHARGES	AD CHARGES
.00	114.80
TOTAL COST	
114.80	

RECEIVED
JAN 16 1996
Air Quality

AFFIDAVIT OF PUBLICATION

NEWSPAPER AGENCY CORPORATION LEGAL BOOKKEEPER, I CERTIFY THAT THE ATTACHED STATEMENT OF NOTICE OF INTENT TO CONSTRUCT FOR THE UT ST DEPT OF ENVR QULTY WAS PUBLISHED BY THE NEWSPAPER AGENCY CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH.

ON START 01/09/96 END 01/09/96

Joanne Mooney
DATE 01/09/96

NOTARY PUBLIC
JOANNE MOONEY
2626 Hartford St.
Salt Lake City, UT 84108
My Commission Expires
March 31, 1996
STATE OF UTAH

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"
PLEASE PAY FROM BILLING STATEMENT.

These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request.

13. The owner/operator shall comply with R307-1-3.5, UAC. This rule addresses emission inventory reporting requirements.
14. The owner/operator shall comply with R307-1-4.7, UAC. This rule addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. All excess emissions shall immediately be reported to the executive secretary. The total of excess emissions shall be reported to the executive secretary as directed for each calendar year.
15. All records referenced in this AO which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. All records shall be kept for a period of two years. Examples of records to be kept at this source shall include the following as applicable:
 - A. Production rate (Condition number 7)
 - B. VOC consumption records (Condition number 10)
 - C. Maintenance records (Condition number 12)
 - D. Upset, breakdown episodes (Condition number 14)

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions from the Medium Pressure Water & Chemical Paint Stripping of Aircraft in Building 206 are currently calculated at the following values:

<u>Pollutant</u>	<u>Tons/vr</u>
PM ₁₀	0.65
VOC	5.41

These calculations are for the purposes of determining the applicability of Prevention of Significant Deterioration and nonattainment area major source requirements of the UACR. Except for VOC's they are not to be used for purposes of determining compliance.

In accordance with the requirements of Title V of the 1990 Clean Air Act, the following pollutants may be subject to an operating permit fee. Emissions of the following pollutants from all sources, including pre-November 19, 1969 sources, may be subject to the operating permit fee. Both the fees rate and the class of pollutants are subject to change by State, the federal agencies, or both.

<u>Pollutant</u>	<u>Tons/vr</u>
PM ₁₀	0.65
VOC	5.41

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- A. Name of the VOC emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, isocyanates, etc.
- B. The weight and use location of the volatile organic compound potential and hazardous air pollutant potential of the material(s) listed in A in pounds per gallon.
- C. Percent by weight of all volatile organic compound potential and hazardous air pollutant potential for each individual material listed in A. The percent by weight of the volatile and hazardous air pollutant potentials can be obtained from the manufacturers' MSDSs. The owner/operator can obtain MSDS data from the manufacturers of the materials and retain the information on-site.
- D. Amount and location of materials containing VOCs used on a monthly basis and summed for every location and for the entire plant each month.
- E. To calculate the above potentials contained in the material listed in D use the following procedure:

$$\text{VOC} = \frac{(\% \text{ Volatile by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times \frac{(\text{Gal Consumed})}{(2,000 \text{ lb})} \times (1 \text{ ton})$$
- F. The amount of volatile organic content potential (potential air emissions) and hazardous air pollutant potential (potential air emissions) in pounds contained in materials deposited as solid or hazardous waste for the month shall be quantified and subtracted from the quantities calculated above. This is done to allow quantification by the source of the total VOCs emissions. (The assumption is that all the two above potentials of the materials applied to a product evaporate and are therefore considered emissions).
- G. Records of consumption of VOCs shall be kept for all periods when the plant is in operation. Records of consumption shall be made available to the executive secretary upon request, and shall include a period of two years ending with the date of the request.

- 11. This source is a major Title V source needing an Operating Permit. It is required to pay an annual emission fee upon start-up, or if an existing facility, upon issuance of this AO. The fee will be based on calculated annual emissions listed at the end of this AO. This fee is valid until inventory data for one year are available for the source. The owner or operator of this source will be billed upon start-up for all emissions that are considered "chargeable" as of that date.

Records & Miscellaneous

- 12. All installations and facilities authorized by this AO shall be adequately and properly maintained. All pollution control vendor recommended equipment shall be installed, maintained, and operated. Instructions from the vendor or established maintenance practices that maximize pollution control shall be used. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, etc., shall be installed and operated properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site.

7. The following production limits shall not be exceeded without prior approval in accordance with R307-1-3.1. UAC:
 - A. 3300 gallons of Paint Stripper per rolling 12-month period
 - B. 150,000 lbs of Sodium Bicarbonate per rolling 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total based on the first day of each month using data from the previous 12 months. Records of consumption shall be kept for all periods when the plant is in operation. Records of consumption, including rolling 12-month totals shall be made available to the executive secretary or his representative upon request and shall include a period of two years ending with the date of the request. Consumption shall be determined by purchase records and operations log. The records shall be kept on a daily basis.

Fugitive Dust

8. The moisture content of the material used containing sodium bicarbonate shall be maintained at a minimum of 80.0% by weight. All of the sodium bicarbonate shall be periodically swept or sprayed clean from all surface areas as dry conditions warrant or as determined necessary by the Executive Secretary. The moisture content shall be tested if directed by the Executive Secretary using the appropriate American Society of Testing and Methods (ASTM) method.

Volatile Organic Compound (VOC) Limitations

9. The facility shall abide by all applicable requirements of UAC R307-14 for volatile organic compound (VOC) sources located in an ozone Nonattainment area. At a minimum, RACT control measures are required and BACT will be no less stringent than RACT. These requirements include but are not limited to:

"14-5.A.(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment."

The full text of UAC R307-14 is included as Appendix A. However, to be in compliance, this facility must operate in accordance with the most current version of R307-14 or the applicable section(s), if renumbered.

10. The emissions of VOCs in building 206 from the Medium Pressure Water and Chemical Paint Stripping operations, etc. and associated operations shall not exceed:

5.41 tons per rolling 12-month period for VOCs

This value shall not be exceeded without prior approval in accordance with R307-1-3.1, UAC. Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using data from the previous 12 months.

The emissions of VOCs emitted to the atmosphere from Building 206 shall be determined by maintaining a record of volatile organic compound potential contained in materials used each month. The record shall include the following data for each item used:

V. RECOMMENDED APPROVAL ORDER CONDITIONS

General Conditions:

1. This Approval Order (AO) applies to the following company:

Facility Location

Department of the Air Force
Headquarters Ogden Logistics Center (AFMC)
Hill Air Force Base, Utah

PHONE NUMBER (801) 777-0359
FAX NUMBER (801) 777-6742

The equipment listed below in this AO shall be operated at the following location:

PLANT LOCATION:

East of Exit 336 on Interstate 15

Universal Transverse Mercator (UTM) Coordinate System:
4.551 kilometers Northing; 418 kilometers Easting; Zone 12

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the Utah Air Conservation Rules (UACR), Utah Administrative Codes (UAC), and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence unless specifically defined otherwise herein.
3. Hill Air Force Base (AFB) shall install and operate the Medium Pressure Water & Chemical Paint Stripping of Aircraft in Building 206 according to the terms and conditions of this AO as requested in the Notice of Intent dated November 27, 1995 and additional information submitted to the Executive Secretary dated December 7, 1995.
4. A copy of this AO shall be posted on site. The AO shall be available to the employees who operate the air emission producing equipment. These employees shall receive instruction as to their responsibilities in operating the equipment according to all of the relevant conditions listed below.
5. The approved installations shall consist of the following equipment or equivalent:
 - A. Aqua Miser Medium Pressure Water Paint Stripper
 - B. Air Operated Drum Pump and Spray Wand with non-atomizing tip

* Equivalency shall be determined by the Executive Secretary.

Limitations and Tests Procedures

6. Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

- B. Use of an alternative fuel or raw material by reason of an order under Sections 2a and 2b of the ESECA of 1974 or by reason of a natural gas curtailment plan pursuant to the Federal Power Act
- C. Use of an alternative fuel by reason of an order under Section 125 of the CAA
- D. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste
- E. Use of an alternative fuel or raw material by a source:
 - 1) which the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any enforceable permit condition
 - 2) which the source is otherwise approved to use
- F. An increase in the hours of operation or the production rate unless such change would be prohibited under any enforceable permit condition
- G. Any change in ownership at a source

This Notice of Intent is not a major modification.

For VOC emissions, there is no model that can predict an ozone impact directly from VOC emissions. However, since VOCs are precursors to ozone formation, this new source will contribute to the existing exceedances of the ozone standard in Davis County. The amount of that contribution has not been decided. The ozone Nonattainment area of Davis and Salt Lake Counties must show reasonable further progress toward attainment of the standard. This source, along with all other VOC sources having emissions above ten tons per year, may have to apply more controls to lower the VOC emissions. This would be a SIP change action.

29. 40 CFR 60.14, Definition of Modification - Any physical or operational change to an existing facility that results in an increase in the emission rate to the atmosphere of any pollutant to which an NSPS standard applies. The following are not by themselves considered modifications:

- A. Maintenance, repair, and replacement
- B. An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility
- C. An increase in the hours of operation
- D. Use of an alternate fuel or raw material if, before the date any standard under this part becomes applicable to that source type, as provided by 60.1, the existing facility was designed to accommodate that alternative use
- E. The addition or use of any system or device whose primary function is the reduction of air pollutants
- F. Relocation or change in ownership

Also see R307-1-1 (Modification), which is the State's definition. This Notice of Intent is a modification.

30. 40 CFR 60.15, Definition of Reconstruction - the replacement of components of an existing facility to such an extent that:

- A. The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility and
- B. It is technologically and economically feasible to meet the applicable standards set forth in this part

This Notice of Intent is a reconstruction.

31. R307-1-1, Definition of Major Modification - It means any physical change in or changes in the method of operation of a major source that would result in a significant net emission increase of any pollutant. A net emissions increase that is significant for VOC shall be considered significant for ozone. A physical change or change in the method of operation shall not include:

- A. Routine maintenance, repair, or replacement

- 9) Bulk Gasoline Plants
- 10) Storage of Petroleum Liquids in Fixed Roof Tanks
- 11) Wastewater Separators and process unit turnarounds
- 12) Use of Cutback Asphalt
- 13) Tank Truck Gasoline Loading Terminals
- 14) Stage I Vapor Control Systems - Gasoline Service Stations
- 15) Leaks from Petroleum refinery Equipment
- 16) Manufacture of Vegetable Oils
- 17) Petroleum Liquid Storage in External Floating Roof Tanks
- 18) Perchloroethylene Dry Cleaning Systems
- 19) Leaks from Gasoline Tank Trucks and Vapor Collection Systems
- 20) Large Petroleum Dry Cleaners
- 21) Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment
- 22) Leaks from Natural Gas/Gasoline Processing Plants
- 23) Solvent Metal Cleaning
- 24) Synthesized Pharmaceutical Products
- 25) Pneumatic Rubber Tires
- 26) Stationary Sources
- 27) Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry
- 28) High-Density Polyethylene, Polypropylene, and Polystyrene Resins
- 29) Fugitive Emission Sources of Organic Compounds
- 30) Synthetic Organic Chemical Manufacturing Industry - Reactor and Distillation Operations Processes
- 31) Measurement of Volatile Organic Compounds

For ozone attainment areas the requirements of UACR 3.1.1 (BACT) apply. However, BACT for these sources should be evaluated in light of the RACT requirements that have been established by UACR 14. BACT in an attainment area may be determined to be less stringent than the RACT requirements established in rule 14 or a published Control Techniques Guidance document (which apply to a Nonattainment area) however, a detailed BACT analysis should be conducted by the source to justify a less stringent control measure in an attainment area. This source is located in Davis County. Therefore, this rule applies to this source.

26. 40 CFR, Part 60 - New Source Performance Standards (NSPS) - There is no NSPS for this industrial process. There is a NSPS for this industrial process.
27. 40 CFR, Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAP) - There is no NESHAP for this industrial process. There is a NESHAP for this industrial process.
28. 40 CFR, Part 50 - National Ambient Air Quality Standards (NAAQS) - This source is located in Davis County, which is a Nonattainment area for ozone.

The Division of Air Quality guidelines do not call for this source to be modeled for any pollutant. The Division has found through experience that a source or emission point of this small size is very unlikely to cause a new violation of the NAAQS. This is because of the small quantity of emissions involved and the conservative predictions made by modeling. However, it will make a small contribution to the existing violation for ozone of the NAAQS.

- 4.B Wastewater separators
 - 4.C Process unit turnaround
 - 4.D Catalytic cracking units
 - 4.E Safety pressure relief valves
 - 4.F Leaks from petroleum refinery equipment
- E. Section 14-5 - Degreasing and solvent cleaning operations
- 1) Cold cleaning facilities
 - 2) Open top vapor degreasers
 - 3) Conveyorized degreasers
- F. Section 14-6 - Cutback asphalt
- G. Section 14-7 - Surface Coating Processes
- 1) Section 7.A - General Provisions
 - 2) Section 7.B - Paper Coating
 - 3) Section 7.C - Fabric and Vinyl Coating
 - 4) Section 7.D - Metal Furniture Coating VOC Emissions
 - 5) Section 7.E - Large Appliance Surface Coating VOC Emissions
 - 6) Section 7.F - Magnet Wire Coating VOC Emissions
 - 7) Section 7.G - Flat Wood Coating
 - 8) Section 7.H - Miscellaneous Metal Parts and Products VOC Emissions
 - 9) Section 7.I - Graphic Arts
 - 10) Section 7.J - Exemptions
 - 11) Section 7.K - Capture Systems
 - 12) Section 7.L - Testing and Monitoring
- H. Section 14-8 - Perchloroethylene Dry Cleaning Plants
- I. Section 14-9 - Compliance Schedule
- J. Section 14-10 - Stage II Vapor Recovery Systems

For painting operations this rule specifies specific limits on the VOC content in paints and coatings used. In addition there is a provision for allowing use of coatings with higher VOC content if, because of emission control measures, "equivalent" emissions will result. Therefore, sources proposing to use coatings that do not meet the VOC contents specified in rule 14, must submit an analysis of their control measure that demonstrates equivalency with the VOC limitations of rule 14.

The published CTGs as of April 1, 1995 include:

- 1) Control Methods for Surface Coating Operations
- 2) Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks
- 3) Surface Coating of Metal Furniture
- 4) Surface Coating of Insulation of Magnet Wire
- 5) Surface Coating of Large appliances
- 6) Surface Coating of Miscellaneous Metal Parts and Products
- 7) Surface Coating of Flat Wood Paneling
- 8) Graphic Arts - Rotogravure and Flexography

represent a new major source or a major modification under UACR rules. Therefore, this rule does not apply.

21. R307-1-4.1.2. UAC - 20% opacity limitation at all emission points. Unless a more stringent limitation is required by New Source Performance Standards (NSPS) or BACT or National Emission Standards for Hazardous Air Pollutants (NESHAPS). In this case, an opacity limitation of 10% is recommended as BACT.
22. R307-1-4.1.9. UAC - EPA Method 9 shall be used for visible emission observations. This rule applies.
23. R307-1-4.7. UAC - Unavoidable breakdown reporting requirements. This rule applies. Section 4.7.1 discusses reporting requirements. A breakdown for any period longer than two hours must be reported to the executive secretary within three hours of the beginning of the breakdown, if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. A written report is required within seven calendar days. The report shall include the estimated quantity of pollutants (total and excess). R307-1-4.7.2 discusses penalties.
24. R307-1-5. UAC - Emergency episode requirements. This rule requires the executive secretary to determine the stage and extent of an air pollution episode based on pollution levels and meteorological conditions. Under Section 40 of the Code of Federal Regulations, Part 51, Subpart H (51.150 to 153), it is required that sources plan emergency measures based upon the severity of the Nonattainment area in which they operate. In Utah, these rules require that CO sources in CO Nonattainment areas and sources of ozone precursors in ozone Nonattainment areas, who emit at least 25 tons per year (SIP, Section VII.B.) of either pollutant, submit an Emergency Episode Plan which provides for additional pollution reductions in the event of an Air Pollution Alert, Warning or Emergency Episode. These plans can include total shut-down of the process. (Some sources are required to submit an emergency episode plan according to Section VII.B. of the SIP). This rule applies.
25. R307-14. UAC - Review requirements for volatile organic compound (VOC) sources located in an ozone Nonattainment area. For sources located in ozone Nonattainment areas (Salt Lake and Davis Counties) this rule specifies the minimum (RACT) control measures promulgated by the Utah Air Quality Board. In addition, UACR 3.1.1 requires application of BACT for all new or modified sources in the state. However, within an ozone Nonattainment area BACT can not be less stringent than RACT. Therefore, for ozone Nonattainment areas the more stringent requirement is applicable (i.e., BACT as required by UACR 3.1.1 or RACT as defined by rule 14 or as defined in a published Control Techniques Guidance document).

This 14 rule covers the following processes:

- A. Section 14-1 - General
- B. Section 14-2 - Petroleum liquid storage
- C. Section 14-3 - Gasoline transfer/storage
- D. Section 14-4 - Control of hydrocarbon emissions in refineries
 - 4.A. Vacuum producing systems

Class I Area	25	5	2
Class II Area	512	91	20

NO_x (µg/m³)

Class I Area	N/A	N/A	2.5
Class II Area	N/A	N/A	25

There are also Class III increments, which do not apply in Utah. The above increments apply at all locations, unless the area is already Nonattainment. The entire increment may not be available at all locations due to previously permitted sources consuming increment.

16. R307-1-3.6.5 (b), UAC - Prevention of Significant Deterioration (PSD) review requirements for new major sources or major modifications. This Notice of Intent does not represent a new major source or a major modification under PSD rules. Therefore, this rule does not apply.
17. R307-1-3.6.6, UAC - Increment violations. This rule requires the UAQB to promulgate a plan and implement rules to eliminate any PSD increment violations that occur in the state. No known violations have yet occurred. This proposed Notice of Intent will not consume any increments.
18. R307-1-3.7, UAC - Air Quality Modeling - All estimates of ambient concentrations required in meeting the requirements of the regulations shall be based on appropriate air quality models, data bases, and other requirements specified in the Utah Guidelines to Air Quality Models. Modeling analysis is not routinely performed for air pollution sources with emissions below the following levels:

Criteria for Screen Modeling
(≥ Tons per Year)

TSP	10
PM ₁₀	5
SO ₂	20
NO ₂	20
CO	50
VOC	20
O ₃	5
HAPs	10

The increase in emissions will be less than the amounts listed above. Therefore, modeling will not be required.

19. R307-1-3.8, UAC - Stack height rule. This rule limits the creditable height of stacks to that height determined to be good engineering practice. The formulas used to determine good engineering practice are found in 40 CFR 51.100. The maximum creditable height of 65 meters (213.2 feet) is allowed. Hill AFB has no stacks that exceed 65 meters in height. Therefore, this source/facility is in compliance with this rule.
20. R307-1-3.10, UAC - Visibility screening analysis requirements. This rule requires all new major sources or major modifications to undergo a visibility screening analysis to determine visibility impact on any mandatory Class I area. This Notice of Intent does not

8. R307-1-3.1.9, UAC - Rules for relocation of temporary sources. This source is a permanent source. Therefore, this rule does not apply.
9. R307-1-3.1.12, UAC - Requirement for installation of low-NO_x burners on all existing sources whenever existing fuel combustion burners are replaced, unless the replacement is not physically practical or cost effective. The effective date is November 15, 1990. There will be no burners replaced at this time. Therefore, this rule does not apply.
10. R307-1-3.2.1, UAC - Particulate emission limitations for existing sources that are located in a Nonattainment area. This rule has been superseded by the Section IX, Parts A and H of the SIP except for Weber County. This source is not listed in the SIP. Therefore, this rule does not apply.
11. R307-1-3.3.2, UAC - Review requirements for new major sources or major modifications that are located in a Nonattainment area or which impact a Nonattainment area. This Notice of Intent does not represent a new major source or a major modification. Therefore, this rule will not apply.
12. R307-1-3.3.3.B (3), UAC - Enforceable offset of 1:1 required for new sources or modifications that would produce an emission increase greater than or equal to 25.00 tons per year but less than 50 tons per year of any combination of PM₁₀, SO₂, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that affects these three counties as defined in the rule. The effective date is November 15, 1990. This source will have no increase in PM₁₀, SO₂, and NO_x emissions. Therefore, an offset will not be required.
13. R307-1-3.3.3.C, UAC - Enforceable offset of 1.15:1 required for new sources or modifications of sources as defined in Section 182 of the CAA. Section 182(b)(1)(A)(i) of the CAA defines these sources as sources of volatile organic compounds and as sources of oxides of nitrogen. This is required in Salt Lake and Davis Counties and in any area that affects these three counties as defined in the rule. The effective date is August 16, 1993. If it is an existing Major source with a 40 tpy increase or a new major source offsets of 1.15:1 are required. The emissions increase will be less than 40 tpy. Therefore, an offset will not be required.
14. R307-1-3.5, UAC - Emission inventory reporting requirements. This rule requires any source that emits 25 tons or more per year of any pollutant or any Part 70 source to submit an emission inventory to the Division of Air Quality every year or as determined necessary by the executive secretary. This source must comply with this rule.
15. R307-1-3.6.3, UAC - Prevention of Significant Deterioration (PSD) Increment Consumption - This rule lists the allowable PSD increment consumption. Under the PSD rules, the entire state has been triggered for Particulate (PM₁₀), SO₂, and NO_x. The allowable increments are as follows:

Particulate (PM₁₀) (µg/m³)

	<u>Three Hour</u>	<u>24 Hour</u>	<u>Annual</u>
Class I Area	N/A	8	4
Class II Area	N/A	30	17

SO₂ (µg/m³)

4.2.4-38

III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

The VOC emissions from the MPW system is 1000 lbs/aircraft. When the more traditional paint stripping system with methylene chloride is utilized there is 10,000 lbs of HAPS (methylene chloride) and 4,000 lbs of VOCs per airplane.

The New Source Review section recommends that the new medium pressure water and chemical stripping of C-130 aircraft with a 10% opacity limit be accepted as BACT.

IV. APPLICABILITY OF FEDERAL REGULATIONS AND UTAH ADMINISTRATIVE CODES (UAC)

This Notice of Intent is for grandfathered source. It is not a new major source or a major modification. The following federal regulations and state rules have been examined to determine their applicability to this Notice of Intent:

1. R307-1-3.1, UAC - Notice of Intent required for a modified source. This rule applies. A Notice of Intent is required for the new medium pressure water and chemical paint stripping of C-130 aircraft operations..
2. R307-1-3.1.5, UAC - Continuous program of construction required to begin within eighteen months of Approval Order date. If a continuous program of construction is not proceeding, the executive secretary may revoke the Approval Order.
3. R307-1-3.1.7 (A), UAC - A Notice of Intent is not required for all natural gas fuel burning equipment with a total rated capacity of less than 5 MMBTU per hour. There will be no new natural gas devices installed. Therefore, this rule applies, and a Notice of Intent is not required based on this rule but is required based on R307-1-3.1, UAC.
4. R307-1-3.1.7 (E), UAC - Notice of Intent required for a new parking lot of 600 or more spaces and adding 350 or more spaces to an existing lot. This rule will not apply because a new lot or addition is not being constructed.
5. R307-1-3.1.7 (F), UAC - Notice of Intent not required for sources with emissions less than 10 tons/yr of the following compounds: 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,2-dichloro-1,1,2,2-tetrafluoroethane, methane, ethane and chloropentafluoroethane. However, if the source is emitting more than 10 tons/yr of any of these compounds, a Notice of Intent must be filed and an annual report of emissions thereafter. This emission point will not emit 10 tons/year of any of these regulated pollutants. Therefore, this rule applies, and a Notice of Intent is not required based on this rule.
6. R307-1-3.1.8 (A), UAC - Application of best available control technology (BACT) required at all emission points. This rule applies to all sources throughout the state unless they are located in a Nonattainment area. RACT applies in Nonattainment areas.
7. R307-1-3.1.8 (C), UAC - Approval of the Utah Air Quality Board (UAQB) is required before the executive secretary can approve a source under Section 3.6.5 that consumes more than 50% of a PSD increment. This rule does not apply to this NOI because a PSD permit is not being issued.

Abstract

Hill Air Force Base (HAFB) is requesting approval to use a Medium Pressure Water (MPW) stripping system to strip paint off of aircraft. In the past a chemical paint stripping method using methylene chloride was used to strip paint off of aircraft. The VOC and Hazardous Air Pollutants will be less when the MPW system is utilized. The VOC emissions in shall be 5.41 tons per 12-month period.

I. DESCRIPTION OF PROPOSAL

Historically aircraft paint removal has been accomplished with methylene chloride based paint stripper. However, methylene chloride is a hazardous air pollutant (HAP), and its use will be severely limited by the NESHAPs and proposed Aerospace Control Technology Guide. Because of these limitations and because of the large quantity of waste water and hazardous waste generated from this process Hill Air Force Base (HAFB) explored another alternative.

HAFB's review of industrial paint removal processes revealed the most promising alternative to chemical paint stripping is medium (15,000 psi) pressure water (MPW). Emissions from this process are significantly less than chemical paint stripping. The MPW process erodes paint from the aircraft surface and entrains it in the water stream. There is 1000 lbs of VOC emissions per airplane when the MPW system is used and when Methylene Chloride is used there is 10,000 lbs of HAPS (methylene chloride) and 4,000 lbs of VOCs per airplane.

The medium pressure water stripping system consists of a 15,000 psi 3.2 gallon per minute water pump and a bicarbonate of soda (Na HCO_3) injection system with control and peripheral equipment. The system includes a hand-held wand with various nozzle configurations that are matched to the function being performed. Currently a nozzle with a tuned port that produces a fan-like blast pattern is used for aircraft paint stripping.

The MPW process with water pressure alone is not effective for removal of the paint systems used on C-130s. Also, in some areas of the aircraft with exceptionally thin skins (where full pressure can not be applied) and in areas with difficult to remove coatings, a chemical paint softener will be needed to remove the paint.

The softener, containing Benzyl Alcohol, will be spray applied on the aircraft using an air operated drum pump and spray wand. The softener will be allowed to dwell on the surface from 4 to 10 hours and then will be sprayed off with water.

II. EMISSION SUMMARY

The emissions from the Hill Air Force Base Medium Pressure Water & Chemical Paint Stripping of Aircraft will be as follows:

<u>Pollutant</u>	<u>Current Emissions tons/year</u>	<u>Emission Changes tons/year</u>	<u>Total Emissions tons/year</u>
PM ₁₀	0.0	0.65	0.65
VOC	0.0	5.41	5.41

There will be no PM₁₀ emissions because the sodium bicarbonate solution contains a 2.5 ounces of Na HCO₃ per gallon of water. Water is 8.3 lb/gallon (132.8 oz/gal). This is less about 2% Na HCO₃ per gallon of water.

TYPE OF IMPACT AREA

Nonattainment Area

PM ₁₀	Yes
SO ₂	No
NO _x	No
CO	No
Ozone	Yes
NSPS	No
NESHAP	No
Hazardous Air Pollutants	No
Hazardous Air Pollutants Major Source	No
New Major Source	No
Major Modification	No
PSD Permit	No
PSD Increment (modeling)	No
Send to EPA	No
Operating Permit Program	Yes

FOR MODIFIED SOURCES

The Notice of Intent is for a modification to an existing source. The following standards apply in this review:

NSPS applies to modification?	No
PSD review of entire source required?	No
NESHAPS applies to modification?	No
HAPs involved in modification?	No
TITLE V required for entire source?	Yes
HAPs MAJOR for modification?	No
NONATT MAJOR for entire source?	Yes

UTAH DIVISION OF AIR QUALITY
NEW/MODIFIED SOURCE PLAN REVIEW

James R. Van Orman
Director, Environmental Management
Department of the Air Force
Headquarters Ogden Logistics Center (AFMC)
Hill Air Force Base, Utah

RE: Medium Pressure Water & Chemical Paint Stripping of Aircraft
Davis County, CDS A1; NA; HAPs, TITLE V MAJOR

REVIEW ENGINEER: Nando Meli

DATE: December 8, 1995

NOTICE OF INTENT DATED: December 7, 1995

PLANT CONTACT: John Vidic

PHONE NUMBER: (801) 777-2050

FAX NUMBER: (801) 777-6742

PLANT LOCATION: East of Exit 336 on Interstate 15 Freeway

UTM COORDINATES: 4,552.0 km Northing, 418.0 km Easting, Zone 12

APPROVALS:

Peer Engineer *Lynn Menlove* 12-8-95
Lynn Menlove

We request that you read the proposed Approval Order conditions; if you do not understand or do not agree with the contents of the conditions, please contact the review engineer within five days. However, when you understand the attached proposed/draft Approval Order conditions, please sign below and return. Thank You.

Applicant Contact *Nando Meli for John Vidic letter Dated*
(Signature & Date) Dec 14, 95

FAAQENGINEER\NMeli\WP\HI-Strip.Rev

- C. Maintenance records (Condition number 12)
- D. Upset, breakdown episodes (Condition number 14)

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions from the Medium Pressure Water & Chemical Paint Stripping of Aircraft in Building 206 are currently calculated at the following values:

<u>Pollutant</u>	<u>Tons/yr</u>
PM ₁₀	0.65
VOC	5.41

These calculations are for the purposes of determining the applicability of Prevention of Significant Deterioration and nonattainment area major source requirements of the UACR. Except for VOC's they are not to be used for purposes of determining compliance.

In accordance with the requirements of Title V of the 1990 Clean Air Act, the following pollutants may be subject to an operating permit fee. Emissions of the following pollutants from all sources, including pre-November 19, 1969 sources, may be subject to the operating permit fee. Both the fees rate and the class of pollutants are subject to change by State, the federal agencies, or both.

<u>Pollutant</u>	<u>Tons/yr</u>
PM ₁₀	0.65
VOC	5.41

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. Unless public comments are received which require additional work, the fee for this AO will be \$1,000.00. An invoice will follow. You may pay this fee prior to the end of the comment period. If there are comments or additional fees, you will be notified.

Sincerely,



 Lynn R. Menlove, Manager
 New Source Review Section

- F. The amount of volatile organic content potential (potential air emissions) and hazardous air pollutant potential (potential air emissions) in pounds contained in materials deposited as solid or hazardous waste for the month shall be quantified and subtracted from the quantities calculated above. This is done to allow quantification by the source of the total VOCs emissions. (The assumption is that all the two above potentials of the materials applied to a product evaporate and are therefore considered emissions).
 - G. Records of consumption of VOCs shall be kept for all periods when the plant is in operation. Records of consumption shall be made available to the executive secretary upon request, and shall include a period of two years ending with the date of the request.
11. This source is a major Title V source needing an Operating Permit. It is required to pay an annual emission fee upon start-up, or if an existing facility, upon issuance of this AO. The fee will be based on calculated annual emissions listed at the end of this AO. This fee is valid until inventory data for one year are available for the source. The owner or operator of this source will be billed upon start-up for all emissions that are considered "chargeable" as of that date.

Records & Miscellaneous

- 12. All installations and facilities authorized by this AO shall be adequately and properly maintained. All pollution control vendor recommended equipment shall be installed, maintained, and operated. Instructions from the vendor or established maintenance practices that maximize pollution control shall be used. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, etc., shall be installed and operated properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request.
- 13. The owner/operator shall comply with R307-1-3.5, UAC. This rule addresses emission inventory reporting requirements.
- 14. The owner/operator shall comply with R307-1-4.7, UAC. This rule addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. All excess emissions shall immediately be reported to the executive secretary. The total of excess emissions shall be reported to the executive secretary as directed for each calendar year.
- 15. All records referenced in this AO which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. All records shall be kept for a period of two years. Examples of records to be kept at this source shall include the following as applicable:
 - A. Production rate (Condition number 7)
 - B. VOC consumption records (Condition number 10)

Volatile Organic Compound (VOC) Limitations

9. The facility shall abide by all applicable requirements of UAC R307-14 for volatile organic compound (VOC) sources located in an ozone Nonattainment area. At a minimum, RACT control measures are required and BACT will be no less stringent than RACT. These requirements include but are not limited to:

"14-5.A.(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment."

The full text of UAC R307-14 is included as Appendix A. However, to be in compliance, this facility must operate in accordance with the most current version of R307-14 or the applicable section(s), if renumbered.

10. The emissions of VOCs in building 206 from the Medium Pressure Water and Chemical Paint Stripping operations, etc. and associated operations shall not exceed:

5.41 tons per rolling 12-month period for VOCs

This value shall not be exceeded without prior approval in accordance with R307-1-3.1, UAC. Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using data from the previous 12 months.

The emissions of VOCs emitted to the atmosphere from Building 206 shall be determined by maintaining a record of volatile organic compound potential contained in materials used each month. The record shall include the following data for each item used:

- A. Name of the VOC emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, isocyanates, etc.
- B. The weight and use location of the volatile organic compound potential and hazardous air pollutant potential of the material(s) listed in A in pounds per gallon.
- C. Percent by weight of all volatile organic compound potential and hazardous air pollutant potential for each individual material listed in A. The percent by weight of the volatile and hazardous air pollutant potentials can be obtained from the manufacturers' MSDSs. The owner/operator can obtain MSDS data from the manufacturers of the materials and retain the information on-site.
- D. Amount and location of materials containing VOCs used on a monthly basis and summed for every location and for the entire plant each month.
- E. To calculate the above potentials contained in the material listed in D use the following procedure:

$$\text{VOC} = \frac{(\% \text{ Volatile by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times \frac{(\text{Gal Consumed})}{(2,000 \text{ lb})} \times (1 \text{ ton})$$

3. Hill Air Force Base (AFB) shall install and operate the Medium Pressure Water & Chemical Paint Stripping of Aircraft in Building 206 according to the terms and conditions of this AO as requested in the Notice of Intent dated November 27, 1995, and additional information submitted to the Executive Secretary dated December 7, 1995.
4. A copy of this AO shall be posted on site. The AO shall be available to the employees who operate the air emission producing equipment. These employees shall receive instruction as to their responsibilities in operating the equipment according to all of the relevant conditions listed below.
5. The approved installations shall consist of the following equipment or equivalent:
 - A. Aqua Miser Medium Pressure Water Paint Stripper
 - B. Air Operated Drum Pump and Spray Wand with non-atomizing tip

* Equivalency shall be determined by the Executive Secretary.

Limitations and Tests Procedures

6. Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.
7. The following production limits shall not be exceeded without prior approval in accordance with R307-1-3.1, UAC:
 - A. 3300 gallons of Paint Stripper per rolling 12-month period
 - B. 150,000 lbs of Sodium Bicarbonate per rolling 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total based on the first day of each month using data from the previous 12 months. Records of consumption shall be kept for all periods when the plant is in operation. Records of consumption, including rolling 12-month totals shall be made available to the executive secretary or his representative upon request and shall include a period of two years ending with the date of the request. Consumption shall be determined by purchase records and operations log. The records shall be kept on a daily basis.

Fugitive Dust

8. The moisture content of the material used containing sodium bicarbonate shall be maintained at a minimum of 80.0% by weight. All of the sodium bicarbonate shall be periodically swept or sprayed clean from all surface areas as dry conditions warrant or as determined necessary by the Executive Secretary. The moisture content shall be tested if directed by the Executive Secretary using the appropriate American Society of Testing and Methods (ASTM) method.

Abstract

Hill Air Force Base (HAFB) is requesting approval to use a Medium Pressure Water (MPW) stripping system to strip paint off of aircraft. In the past a chemical paint stripping method using methylene chloride was used to strip paint off of aircraft. The VOC and Hazardous Air Pollutants will be less when the MPW system is utilized. The VOC emissions in shall be 5.41 tons per 12-month period.

The Notice of Intent for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Air Conservation Rules (UACR) and the Utah Air Conservation Act. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board.

A Notice of Intent to issue an AO will be published in the Newspaper Agency on January 9, 1996. A 30-day period following the publishing date will be allowed during which the proposal and evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests within 15 days of publication of the notice, a hearing will be held. The hearing will be held as close as practicable to the location of the source. Any comments received during the 30-day period and the hearing, if held, will be evaluated.

Please review the proposed AO conditions during this period and make any comments you may have before its closure. The proposed conditions of the AO may be changed as a result of the comments received. Unless changed, the AO will be based upon the following conditions:

General Conditions:

1. This AO applies to the following company:

Facility Location

Department of the Air Force
 Headquarters Ogden Logistics Center (AFMC)
 Hill Air Force Base, Utah

PHONE NUMBER (801) 777-0359
 FAX NUMBER (801) 777-6742

The equipment listed below in this AO shall be operated at the following location:

PLANT LOCATION:

East of Exit 336 on Interstate 15

Universal Transverse Mercator (UTM) Coordinate System:
 4,551 kilometers Northing; 418 kilometers Easting; Zone 12

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the UACR, Utah Administrative Codes (UAC), and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence unless specifically defined otherwise herein.

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**INTENT TO APPROVE Medium Pressure Water & Chemical
Paint Stripping of Aircraft**

**Prepared By: Nando Meli, Engineer
801-536-4052**

INTENT TO APPROVE NUMBER

DAQE-013-95

Date: January 5, 1996

Source

Hill Air Force Base

**James R. Van Orman
801-777-2050**

**Russell A. Roberts
Executive Secretary
Utah Air Quality Board**



DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Russell A. Roberts
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

DAQE-013-96

January 5, 1996

James R. Van Orman
Hill Air Force Base
Headquarters
Ogden Logistics Center (AFMC)
Hill Air Force Base, Utah 84056

Dear Mr. Van Orman:

Re: Intent to Approve Medium Pressure Water & Chemical Paint Stripping of Aircraft
Davis County, CDS-A1, Non-Attainment, Title V

The attached document is an Intent to Approve for the above referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,

Lynn R. Menlove, Manager
New Source Review Section
Utah Division of Air Quality

LRM:NM:aj

cc: Davis County Health Department
28 East State Street
POB 618
Farmington, UT 84025-618



4. In the Best Available Control Technology (BACT) Analysis section, page 4, the VOC emissions should be changed to 1000 lbs/aircraft. Also note this process is BACT for the HAP Methylene chloride (from 10,000 lbs to 0 lbs). The process is BACT for VOC because using Benzyle Alcohol stripper alone on the entire aircraft would emit approximately 6000 lbs of VOC per aircraft (3 applications @ 11 drums each). With the medium pressure water process, Benzyle Alcohol is used only on areas where the MPW will not work thus reducing emissions to approximately 1,000 lbs / aircraft.

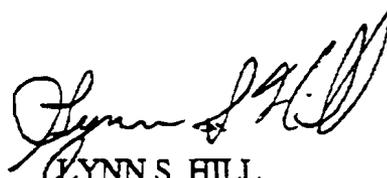
5. In item 6 of APPLICABILITY OF GENERAL REGULATIONS AND UTAH ADMINISTRATIVE CODES (UAC), page 4, the following statement appears "Reasonably Achievable Control Technology (RACT) applies in non-attainment areas." Is this correct? Or, should we be doing a RACT analysis?

6. Item 3 in the general conditions section states "the Chemical Processing Line in Building 538". The statement should be replaced with: "the MPW operations in 206"

7. On page 13 item 7. B, indicates the use of 516 lbs of Sodium Bicarbonate. It should be 150,000 lbs.

8. Page 13, item 9 "written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment...", should read "written procedures for the operation and maintenance of the striping equipment...".

As we have indicated in our 8 December letter, a formal test report will be forwarded prior to 4 February, 1996. Please contact David Budak, at (801) 777-1449, for additional information.



LYNN S. HILL

Chief, Environmental Compliance Div.
Environmental Management Directorate



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFMC)
HILL AIR FORCE BASE, UTAH

RECEIVED

DEC 15 1995

Air Quality

JAG

December 14, 1995

Mr. Lynn S. Hill
OO-ALC/EME
7274 Wardleigh Road
Hill AFB UT 84056-5137

Mr. Nando Meli
Division of Air Quality
1950 West North Temple
PO Box 144820
Salt Lake City, UT 84114-4820

RE: Edits for Notice of Intent for Medium Pressure Water and Chemical Paint Stripping of C-130 Aircraft in Bldg. 206 (DAQE-1000-95 , 2 Nov 95)

The Draft Approval Order *Medium Pressure Water & Chemical Paint Stripping of Aircraft, Davis County*, dated December 8 1995 was reviewed and the following comments are provided for consideration:

1. The footer at the bottom of each page indicates this OA is for our Chem Mill Line. It should read "Medium Pressure Paint Stripping"

2. The statement "The VOC emissions is estimated at 750 lbs using the MPW and 10,000 lbs when Methylene Chloride is used." is not entirely accurate. We estimate approximately 1000 lbs of VOC per C-130 with MPW but zero HAP emissions. The Methylene chloride process emits 10,000 lbs of HAP (Methylene chloride) and 4,000 lbs of VOC. (1400 gal stripper * 10.3 lbs/gal * 0.68 lbs Methylene chloride per lb. of stripper = 10,000; 1400 gal stripper * 10.3 lbs/gal * 0.27 lbs VOC per lb. of stripper = 4,000 lbs of VOC)

3. In the Emissions Summary section, page 3, the first line indicates this is for the Chemical Milling Process Line. It should read "Medium Pressure Paint Stripping". In addition this section states there will be no PM₁₀ emissions. We feel the PM₁₀ emissions will be extremely small (~ 130 lbs / aircraft, .87% PM₁₀ x 15,000 lbs, conservatively assuming none is entrained in the water and minimal > PM₁₀ material fractures to PM₁₀) This number is based on a particle size distribution analysis conducted on the sodium bicarbonate to be used.

FAX TRANSMITTAL SHEET

OO-ALC/EM
7274 WARDLEIGH ROAD
HILL AFB UT 84056-5137

To Nando Meli (80) 536-4052

DAQ / Engineering

(FAX Number)

From John Vidic (80) 777-2050

(Phone Number)

EM/EMR/EME

DSN 777-4306
Comm (801) 777-4306

EMH/EMP/EMX

DSN 777-6142
Comm (801) 777-6142

EM Directorate Voice: DSN 777-6917 or (801) 777-6917

"Do not transmit classified information over unsecured telecommunications systems. Official DoD telecommunications systems are subject to monitoring and use of DoD telecommunications systems constitutes consent to monitor. This device is subject to monitoring at all times. Use of this device constitutes consent to monitor."

Total Number of Pages Including Cover Sheet 2

(where full pressure can not be applied) and in areas with difficult to remove coatings, a chemical paint softener will be needed to remove the paint.

The softener, containing Benzyl Alcohol, will be spray applied on the aircraft using an air operated drum pump and spray wand. The softener will be allowed to dwell on the surface from 4 to 10 hours and then will be sprayed off with water.

UTM COORDINATES: 4552.0 km Northing, 418.0 km Easting, Zone 12

GENERAL DESCRIPTION

Historically aircraft paint removal has been accomplished with methylene chloride based paint stripper. However, methylene chloride is a hazardous air pollutant (HAP), and its use will be severely limited by the NESHAPs and proposed Aerospace Control Technology Guide. Because of these limitations and because of the large quantity of waste water and hazardous waste generated from this process another alternative was explored.

Review of industrial paint removal processes revealed the most promising alternative to chemical paint stripping is medium (15,000 psi) pressure water. Emissions from this process are significantly less than chemical paint stripping. The MPW process erodes paint from the aircraft surface and entrains it in the water stream.

The medium pressure water stripping system consists of a 15,000 psi 3.2 gallon per minute water pump and a bicarbonate of soda (Na HCO_3) injection system with control and peripheral equipment. The system includes a hand-held wand with various nozzle configurations that are matched to the function being performed. Currently a nozzle with a tuned port that produces a fan-like blast pattern is used for aircraft paint stripping.

The system used is an Aqua Miser model E25 manufactured by Carolina Equipment, North Charleston, SC, 29418. The system will be operated with the following nominal parameters:

Stripping medium	-	Sodium bicarbonate water suspension
Mean feed rate	-	3 Lb / min
Nozzle design	-	0.5 inch diameter, # 8
Stand off distance	-	> 18 inches
Impingement angle	-	45 - 60 degrees
Estimated stripping rate	-	1 ft ² / min

The MPW process with water pressure alone is not effective for removal of the paint systems used on C-130s. Also, in some areas of the aircraft with exceptionally thin skins



UTAH DIVISION OF AIR QUALITY

FAX COVER SHEET

150 NORTH 1950 WEST

CANNON L770 FAX # (801) 536-4099

SALT LAKE CITY, UTAH 84114-4820

CONFIRMATION # (801) 536-4000

FROM: Nando Meli Jr.

PHONE: (801) 536 - 4052

TO: John Vidic PHONE: 777-2050

AGENCY/FIRM Hill AFB

FAX NUMBER 777-4352 CONFIRMATION #: _____

NUMBER OF PAGES TO FOLLOW: 15

SUBJECT: ENGINEERING REVIEW

REMARKS: Could you reply as soon as possible with any comments that you may have on this Engineering Review.

Thank you.

LOGGED: 12/8 SENT: 12/8 RECEIVED: 1/18 CONFIRMED: WF

To: HOBSTERB
From: John Vidic
CC: BUDAKD.LAODOMAIN:LAO_W:CHRISTEJ
Subject: Comments on DAQE-013-95 Notice of Intent to Approve your ltr 18 Jan
Date: Wednesday, January 24, 1996 3:07 PM

Bonnie,

I have the following comments on the subject notice.

1. On page 3, the last sentence of the first paragraph appears to have a typo. It should read "... emissions shall be 5.41tons..."

2. On page 4, items 5, A & B the notice indicates the equipment in the singular tense. For example "paint stripper". However, we have several strippers, so the notice should read "paint stripper(s)" for item 5, A and "Drum Pump(s) and Spray Wands(s) with non-automizing tip(s)" for item 5, B.

3. Under item 7, page 4, we request the rolling total for a particular month be calculated by the 5th of the following month rather than on the 1st of the following month.

4. In talking with the permit writer we understand the requirement for maintaining minimum 80% moisture content in the bicarbonate. However the notice should be clarified (page 4, item 8) to indicate 80% is the moisture content as blasted from the Aqua Miser for the following reason.

To function properly the sodium bicarbonate must be loaded into the Aqua Miser dry (wet sodium bicarbonate will plug the hopper and feed mechanism). The Aqua Miser then adds water to the sodium bicarbonate to a level of at least 80% moisture (98% typical) before blasting the sodium bicarbonate on the aircraft.

5. Item 10, requirement F, page 6, directs us to subtract out VOC and HAP emissions potential that is disposed of in our hazardous and solid waste streams. However based on data from our experimental approval order testing we estimate very little HAPs and VOCs will make it to these waste streams. Therefore, we request this not be a requirement but only an option since it is more conservative to assume all emissions potential is released neglecting what may be found in hazardous waste sent to a

TOTAL P.02

FAX TRANSMITTAL SHEET

2/2/11

RECEIVED

FEB 05 1999

Air Quality

OO-ALC/EM
7274 WARDLEIGH ROAD
HILL AFB UT 84056-5137

To Nando Meli
Division of Air Quality
536-4099
(FAX Number)

From Steve Rasmussen
Hill AFB Env Mgt
777-0359
(Phone Number)

EM/EMR/EME

DSN 458-4306
Comm (801) 777-4306

EMH/EMP/EMX

DSN 458-6742
Comm (801) 777-6742

EM Directorate Voice: DSN 458-6917 or (801) 777-6917

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LYNN S. HILL

Chief, Environmental Compliance Div.
Environmental Management Directorate



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFMC)
HILL AIR FORCE BASE, UTAH

RECEIVED
DEC 18 1995
Air Quality

December 14, 1995

Mr. Lynn S. Hill
OO-ALC/EME
7274 Wardleigh Road
Hill AFB UT 84056-5137

Mr. Nando Meli
Division of Air Quality
1950 West North Temple
PO Box 144820
Salt Lake City, UT 84114-4820

RE: Edits for Notice of Intent for Medium Pressure Water and Chemical Paint Stripping of C-130 Aircraft in Bldg. 206 (DAQE-1000-95 , 2 Nov 95)

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1. The footer at the bottom of each page indicates this OA is for our Chem Mill Line. It should read "Medium Pressure Paint Stripping"

2. The statement "The VOC emissions is estimated at 750 lbs using the MPW and 10,000 lbs when Methylene Chloride is used." is not entirely accurate. We estimate approximately 1000 lbs of VOC per C-130 with MPW but zero HAP emissions. The Methylene chloride process emits 10,000 lbs of HAP (Methylene chloride) and 4,000 lbs of VOC. (1400 gal stripper * 10.3 lbs/gal * 0.68 lbs Methylene chloride per lb. of stripper = 10,000; 1400 gal stripper * 10.3 lbs/gal * 0.27 lbs VOC per lb. of stripper = 4,000 lbs of VOC)

3. In the Emissions Summary section, page 3, the first line indicates this is for the Chemical Milling Process Line. It should read "Medium Pressure Paint Stripping". In addition this section states there will be no PM₁₀ emissions. We feel the PM₁₀ emissions will be extremely small (~ 130 lbs / aircraft, .87% PM₁₀ x 15,000 lbs, conservatively assuming none is entrained in the water and minimal > PM₁₀ material fractures to PM₁₀) This number is based on a particle size distribution analysis conducted on the sodium bicarbonate to be used.