

Standard Exemption No. 32407
Building 200 Paint Booth
April 1996

Exemption No. 32407

***GENERAL PERMIT INFORMATION

PERMIT: 32407 ENGR: BULLARD, KAREN M./
ISSUED TO: DEPARTMENT OF THE ARMY, CAMP STANLEY
UNIT NAME: BLDG. 200 PAINT BOOTH
OPERATING SCHEDULE: 24.0 HRS/DAY 7 DAYS/WK 52 WKS/YR
LAT: 29-40-35 LONG: 098-37-52 REGION: 13 COUNTY: BEXAR
NEAR CITY: BOERNE LOC: 25800 RALPH FAIR RD

GROUP: COAT ID:860841

***PERMIT/SITE CONTACT INFORMATION:

PERSON: LT. DEAN C. SCHMELLING ADDR1: 25800 RALPH FAIR ROAD
TITLE: POST COMMANDER ADDR2: BOERNE
CITY: BOERNE STATE: TX ZIP: 78006 PHONE: (210)221-7461

** CONSTRUCTION **

** OPERATING **

** CONTINUANCE **

TYPE APPL(C,S,X): (X) OPERATION START : NOTICE MAILED :
APPL RECD : 04-17-96 OPER APPL RECD : APPL RECD :
DEFIC LTR SNT : OPER APPL CMPLT : DEFIC LTR SNT :
SUPP INFO REQ : DISP(I,D): () SUPP INFO REQ :
SUPP INFO RECD : OPR TYPE(R,S) : () SUPP INFO RECD :
APPL CMPLT : ***** APPL CMPLT :
COMP LTR SNT : * * COMP LTR SNT :
PUB NTC SNT : * I= ISSUED D=DENIED * PUB NTC SNT :
PUB NTC PUB : * E=EXPIRED * PUB NTC PUB :
PUB HEAR (R,H) : () * C=CNST S=SPECIAL * PUB HEAR(R,H) : ()
CNST TYPE(C,X,S): (X) * X=EXEMPT R=OPER * DISP(I,D,E):() :
DISP (I) : 05-02-96 *****
CNST START DATE :

***EMISSIONS CHANGED :

***REMARKS:

***OTHER PERMIT DATES:

APP/PERMIT VOIDED:
APP ON HOLD UNTIL:
CONST STOPPED UNTIL:

REASON:
REASON:

VOID/HOLD CODES:

CR-COMPANY REQUEST
DD-DATA DELAY
RE-REISSUED

PD-PLT DISMANTLED

TI-TIME EXPIRED
TD-TECH DIFFICULTY
NR-NO RESPONSE

•••PERMIT TYPES/STANDARDS:

NEW MAJ SOURCE:> 100 TPY:
MAJOR MODIFICATION:
NON-ATTAIN REVIEW:
INSIGNIFICANT EMISSIONS:
FUEL CONVERSION:

SIC: 9999

PORTABLE:

NSPS:

NEESHAP:

TOXIC MATERIALS:

RELATED PERMITS: SUFFIX REASON

TACB: CHG LOC:

PSD-TX: CHG OWN:

STD EX NO.:

***AIR CONTAMINANT INFORMATION:

NAME CODE MAX ALLOWABLE RATE ACTUAL
LBS/HR TONS/YR TONS/YR

***ABATEMENT EQUIPMENT:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
 REGISTRATION FORM FOR STANDARD EXEMPTIONS
 FORM PI-7

I. Company Name Department of the Army, Camp Stanley
 (Corporation, Company, Government Agency, Firm, etc.)
 Mailing Address 25800 Ralph Fair Rd., Boerne, TX 78006
 Individual Authorized to Act for Applicant: Name LTC Dean C. Schmelling Title Post Commander
 Address 25800 Ralph Fair Rd., Boerne, TX 78006 Telephone (210) 221-7461

II. LOCATION OF EXEMPT FACILITY (Latitude and Longitude must be to the nearest second):
 Name of Plant or Site Department of the Army, Camp Stanley
 Street Address 25800 Ralph Fair Rd., Boerne, Tx 78006
 Nearest City Boerne County Bexar Latitude 29° 40' 35" Longitude 98° 37' 52"
 SITE REQUIREMENTS: A. Submit a plot plan to scale of the property showing the location of plant boundaries, plant equipment, and surrounding area.
 B. Furnish an area map with a scale showing the facility location relative to highways and towns.

III. TYPE OF FACILITY: 107

A. Applicable Standard Exemption Number(s) from TNRCC List 75
 B. Name of Facility and Company's Facility Number _____
 C. TNRCC Account Identification Number PL 03415
 D. Previous Special Exemption or Permit Number _____
 E. Operating Schedule: Hours/day 24 Days/week 7 Weeks/year 52
 F. Proposed Start of Construction _____ (Date) Operation _____ (Date)
 G. Permanent [X] Portable []
 H. Length of time at this site, if portable _____

IV. PROCESS INFORMATION
 Description of Process: Prepare and attach a written description of the exempt process and applicable checklists (when available). The description must be in sufficient detail to indicate that the facility will conform to the specified exemption.

V. EMISSIONS DATA Furnish a description of the basis for emission rates including fugitives. (Calculations, emission factors, measurement, NSPS, etc.)

| Emission Point Number | Name of Source | Name of Air Contaminant | Emission Rate of Each Air Contaminant | | | |
|-----------------------|-----------------------|-------------------------|---------------------------------------|-------------|---------|-------------|
| | | | lb/hr | | tons/yr | |
| | | | Gaseous | Particulate | Gaseous | Particulate |
| EPN 6 | Bldg. 200 Paint Booth | VOC | 5.40 | | 0.190 | |
| EPN 6 | Bldg. 200 Paint Booth | Particulates | | 0.013 | | 0.00015 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

VI. A copy of the application is being sent to the Regional Office of the TNRCCA: [X] Yes [] No

VII. I, LTC Dean C. Schmelling Post Commander
 (Name) (Title)

state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project will satisfy the conditions and limitations of the indicated exemption. The facility will operate in compliance with all Regulations of the Texas Natural Resource Conservation Commission and with Federal Environmental Protection Agency Regulations governing air pollution.

DATE 4/11/90 SIGNATURE [Signature]

APR 18 1990

Texas Natural Resource Conservation Commission
Standard Exemption Registrations:
SWMU B-3 SVE Site, Building 27, Building 200

April 1996

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Prepared for

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

Prepared by

Parsons Engineering Science
8000 Center Park Drive, Suite 200
Austin, TX 78754

Project Number 721460.09

APR 1996
REGISTRATION

This report has been printed on recycled paper.

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Section 2 Standard Exemption Registration Building 27

P1-7 Form
Process Description
Process Flow Diagram
Emission Calculation
Supplemental Emissions Data for Building 27 Paint Booth

Section 3 Standard Exemption Registration SWMU B-3 Soil Vapor Extraction System

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Process Flow Diagram
Standard Exemption 68 checklist
Emission Calculation
SWMU B-3 SVE Emissions Data

STANDARD EXEMPTION APPLICABILITY CHECKLIST

30 TAC CHAPTER 116, SECTION 116.211
PERMIT EXEMPTIONS - APPLICABILITY CHECKLIST

This checklist is designed to help you confirm that you meet the general rule for using standard exemptions. Whether or not you use this checklist, your claim must be shown to meet all appropriate general requirements, as well as those in each standard exemption (STDX) you are claiming.

1. Description of overall activities at this location: see Introduction
2. Are there any numbered air permits under the same account number? YES NO
If yes, do any permit conditions prohibit or restrict the use of standard exemptions (§116.211[a][6])? YES NO
 - (1) If yes, which permit numbers: _____
 - (2) If yes, standard exemptions may not be used or their use must meet the restrictions of the permit. A new permit or permit amendment may be required.

3. Emissions check for this STDX claim (§116.211(a)(1)) (see Note 1)

| <u>Calculated Tons Per Year</u> | | |
|---------------------------------|----------------------------|----------------------------|
| CO : <u>0</u> | NO _x : <u>0</u> | SO _x : <u>0</u> |
| PM : <u>0.012</u> | VOC: <u>8.42</u> | Other: _____ |

Note 1: List all emissions for this project (include point and equipment fugitive emissions from new or modified facilities as well as increases upstream and downstream that result from this project.)

Are SO_x, PM, VOC, and other emissions shown above each less than 25 TPY?
 YES NO

Are the NO_x and CO emissions shown above each less than 250 TPY? YES NO

If the answer to either question is "NO," a standard exemption cannot be claimed.

4. Site exemption emissions check (§116.211[a][3]):

Are total SO_x, PM, VOC and other emissions claimed under standard exemption at the site each less than 25 TPY? YES NO

Are total NO_x and CO emissions claimed under standard exemption at the site each less than 250 TPY? YES NO

If either question is answered "NO," determine if one facility at the property has had public notification and comment as required in Subchapter B or D of 30 TAC 116 or the applicable procedures of Chapter 116 in effect at the time of registration. If public notice has occurred, what permit or STDX required this action? _____

If public notice has not occurred, a permit may be required for the proposed facility.

5. Nonattainment Check (§116.211[a][2]):

Is the facility located in a nonattainment county/area (see listing below)? No

If "NO," skip to paragraph 6.

If "YES," which county/area? _____

Show the actual increases (defined as new allowables minus old actuals - see Nonattainment New Source Review Manual) in emissions, without regard for any decreases, which result from this standard exemption claim for the following pollutants: NO_x: _____ VOC: _____
CO: _____ PM10: _____

Is the site an existing major source? (See §116.012) YES NO
 Is the modification major? (See §116.012, Table I) YES NO

You may be required to provide documentation of nonattainment new source review applicability. If you have determined these requirements apply at your site for this exemption claim, enclose the necessary netting documentation (See Nonattainment New Source Review Manual).

6. Prevention of Significant Deterioration (PSD) Check (§116.211[b]):
 An overall emissions rate of 100 (for a named source) or 250 tons per year or more on-site, or a significant modification for any single air contaminant for which a NAAQS has been issued may indicate a need for PSD review under 40 CFR 52. If you have determined that the netting requirements of 40 CFR 52 are triggered by this exemption claim, enclose the necessary documentation.
7. If any EPA New Source Performance Standards (NSPS) or National Emissions Standards for Hazardous Air Pollutants (NESHAPS) are applicable for the facility covered by the exemption(s) claimed (§116.211[a][5]), list them here: NA
-
8. §116.211(c) states "No person shall circumvent by artificial limitations the requirements of §116.110 of this title (covering permitting)." Circumvention by artificial limitations may include:
- (a) dividing a complete project into separate segments to circumvent §116.211(a)(1) limits;
 - (b) claiming feed or production rates below the physical capacity of the project's equipment in order to begin constructing facilities before a permit or permit amendment is approved for full scale operations.

Ensure that any exemption claim is free of circumvention by means of artificial limits such as these.

9. If all §116.211 requirements are met, we suggest use of the appropriate standard exemption worksheet(s) or checklist(s).

NONATTAINMENT AREAS

FOR OZONE (VOC OR NO_x) Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties for VOC and NO_x as precursors to ozone; and, Victoria County for VOC only.

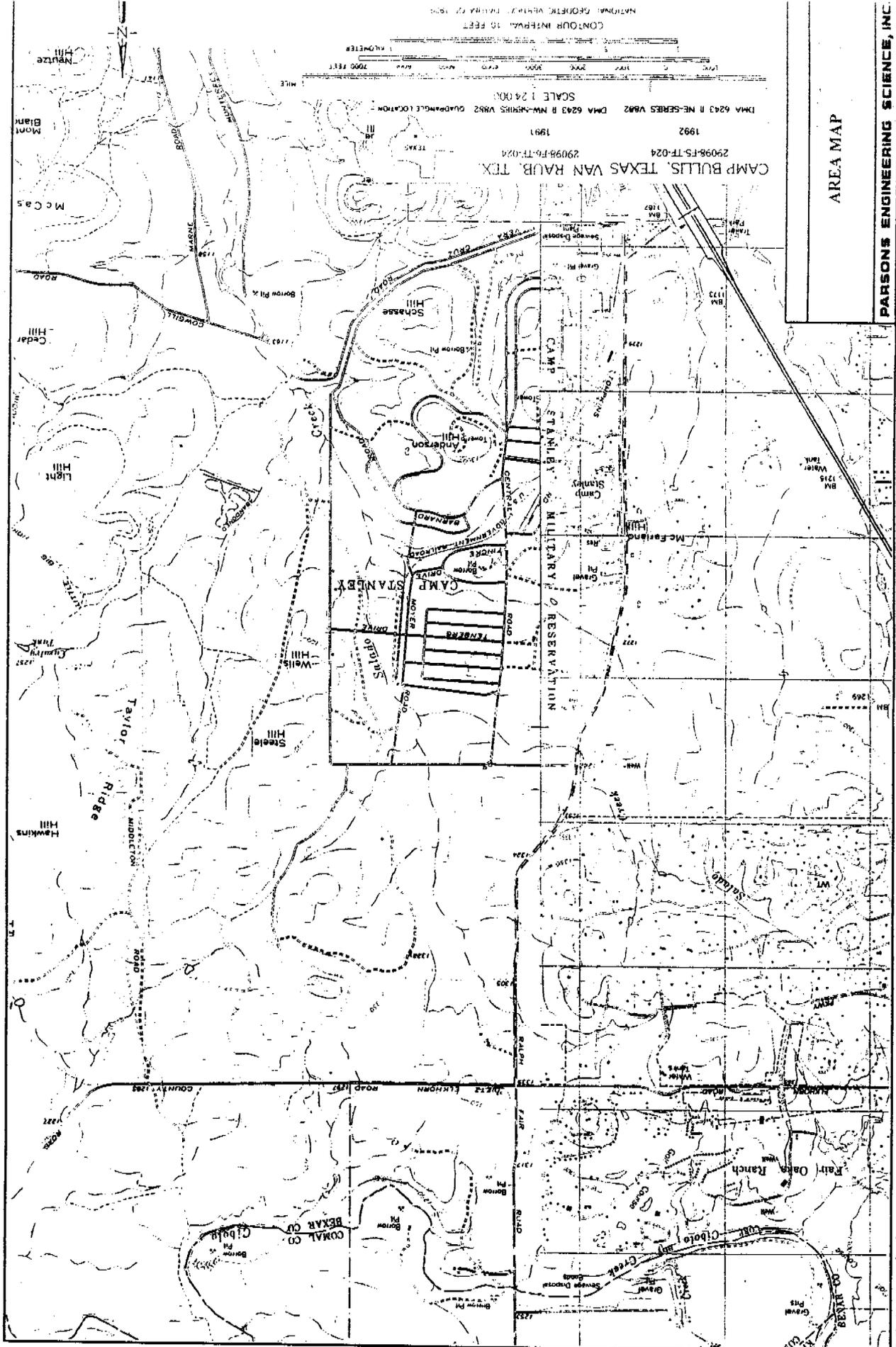
FOR LEAD: Section of Collin County

FOR PARTICULATE MATTER (PM 10): El Paso County

FOR CARBON MONOXIDE: Section of El Paso County

AREA MAP

AREA MAP



PLOT PLAN

RECEIVED

APR 17 1996

PERMITS PROGRAM

ATTACHMENT IIA
PLOT PLAN OF
ENTIRE FACILITY

CAMP STANLEY STORAGE ACTIVITY

Table IIA-1. UTM Coordinates and Dimensions for Various Facility Buildings

| Building Number | Building Corner | North UTM (M) | East UTM (M) | Building Height (ft) | Building Height (m) |
|-----------------|-----------------|---------------|--------------|----------------------|---------------------|
| 4 | NE | 3284408.54133 | 536525.05881 | 12 | 3.66 |
| 4 | NW | 3284409.41551 | 536515.55016 | 12 | 3.66 |
| 4 | SE | 3284368.50057 | 536521.37765 | 12 | 3.66 |
| 4 | SW | 3284369.37474 | 536511.86899 | 12 | 3.66 |
| 5 | NE | 3284445.85803 | 536526.39481 | 12 | 3.66 |
| 5 | NW | 3284446.60421 | 536518.27839 | 12 | 3.66 |
| 5 | SE | 3284438.83971 | 536525.74957 | 12 | 3.66 |
| 5 | SW | 3284439.58589 | 536517.63319 | 12 | 3.66 |
| 27 | NE | 3284428.44484 | 536524.04790 | 20 | 6.10 |
| 27 | NW | 3284429.27202 | 536515.05060 | 20 | 6.10 |
| 27 | SE | 3284416.66090 | 536522.96452 | 20 | 6.10 |
| 27 | SW | 3284417.48808 | 536513.96722 | 20 | 6.10 |
| 79 | NE | 3283696.73811 | 535768.33420 | 12 | 3.66 |
| 79 | NW | 3283696.60753 | 535760.86697 | 12 | 3.66 |
| 79 | SE | 3283694.13526 | 535768.37973 | 12 | 3.66 |
| 79 | SW | 3283694.00468 | 535760.91249 | 12 | 3.66 |
| 89 | NE | 3283410.22942 | 535756.25190 | 12 | 3.66 |
| 89 | NW | 3283410.06138 | 535746.64236 | 12 | 3.66 |
| 89 | SE | 3283402.87292 | 535756.38056 | 12 | 3.66 |
| 89 | SW | 3283402.70487 | 535746.77102 | 12 | 3.66 |
| 90 | NE | 3283596.52581 | 535769.04730 | 17 | 5.18 |
| 90 | NW | 3283596.09974 | 535744.68569 | 17 | 5.18 |
| 90 | SE | 3283438.17804 | 535771.81666 | 17 | 5.18 |
| 90 | SW | 3283437.75198 | 535747.45505 | 17 | 5.18 |
| 91 | NE | 3283410.63610 | 535827.75404 | 17 | 5.18 |
| 91 | NW | 3283410.23861 | 535805.02571 | 17 | 5.18 |
| 91 | SE | 3283227.69298 | 535830.95375 | 17 | 5.18 |
| 91 | SW | 3283227.29547 | 535808.22521 | 17 | 5.18 |
| 92 | NE | 3283411.11940 | 535866.62460 | 17 | 5.18 |
| 92 | NW | 3283410.73303 | 535844.53128 | 17 | 5.18 |
| 92 | SE | 3283227.66682 | 535869.83303 | 17 | 5.18 |
| 92 | SW | 3283227.28041 | 535847.73971 | 17 | 5.18 |
| 93 | NE | 3283212.01672 | 535829.57683 | 17 | 5.18 |
| 93 | NW | 3283211.62119 | 535806.96128 | 17 | 5.18 |
| 93 | SE | 3283027.07190 | 535832.81132 | 17 | 5.18 |
| 93 | SW | 3283026.67637 | 535810.19576 | 17 | 5.18 |
| 94 | NE | 3283212.14621 | 535868.51841 | 17 | 5.18 |
| 94 | NW | 3283211.76326 | 535846.62124 | 17 | 5.18 |
| 94 | SE | 3283027.47639 | 535871.74812 | 17 | 5.18 |
| 94 | SW | 3283027.09344 | 535849.85094 | 17 | 5.18 |
| 96 | NE | 3283011.22992 | 535869.95682 | 17 | 5.18 |
| 96 | NW | 3283010.85198 | 535848.34529 | 17 | 5.18 |
| 96 | SE | 3282826.55580 | 535873.18656 | 17 | 5.18 |
| 96 | SW | 3282826.17786 | 535851.57502 | 17 | 5.18 |
| 98 | NE | 3283778.27125 | 535826.09001 | 12 | 3.66 |
| 98 | NW | 3293780.77057 | 535819.33262 | 12 | 3.66 |
| 98 | SE | 3283708.88890 | 535800.42770 | 12 | 3.66 |
| 98 | SW | 3283711.38825 | 535793.67034 | 12 | 3.66 |

Table IIA-1. UTM Coordinates and Dimensions for Various Facility Buildings

| Building Number | Building Corner | North UTM (M) | East UTM (M) | Building Height (ft) | Building Height (m) |
|-----------------|-----------------|---------------|--------------|----------------------|---------------------|
| 200 | NE | 3286586.82408 | 536668.42981 | 20 | 6.10 |
| 200 | NW | 3286586.34967 | 536641.31003 | 20 | 6.10 |
| 200 | SE | 3286575.78713 | 536668.61187 | 20 | 6.10 |
| 200 | SW | 3286575.31303 | 536641.50309 | 20 | 6.10 |
| 201 | NE | 3286563.59796 | 536662.31175 | 12 | 3.66 |
| 201 | NW | 3286563.33203 | 536647.10909 | 12 | 3.66 |
| 201 | SE | 3286555.18440 | 536662.45894 | 12 | 3.66 |
| 201 | SW | 3286554.91845 | 536647.25628 | 12 | 3.66 |
| 90-1 | NE | 3283582.64031 | 535788.21677 | 12 | 3.66 |
| 90-1 | NW | 3283582.38299 | 535773.50296 | 12 | 3.66 |
| 90-1 | SE | 3283568.28866 | 535788.46777 | 12 | 3.66 |
| 90-1 | SW | 3283568.03131 | 535773.75396 | 12 | 3.66 |
| 90-2 | NE | 3283556.64741 | 535788.77776 | 12 | 3.66 |
| 90-2 | NW | 3283556.39376 | 535774.27394 | 12 | 3.66 |
| 90-2 | SE | 3283542.00689 | 535789.03380 | 12 | 3.66 |
| 90-2 | SW | 3283541.75324 | 535774.52998 | 12 | 3.66 |

**BUILDING 200
EXEMPTION REGISTRATION**

**Section 1
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PI-7 Form

Process Description

Process Flow Diagrams

Emission Calculations

Supplemental Emissions Data for Building 200 Paint Booth

**BUILDING 200 PAINT BOOTH
FORM PI-7**

BUILDING 200 PAINT BOOTH

PROCESS DESCRIPTION

EPN 6 and FUG1 - Building 200 Paint Booth

Both VOC and particulate emissions arise from the paint spray booth at Building 200. Painting operations at Building 200 (EPN 6) are limited to low volume applications to flat surfaces utilizing aerosol propelled paints and brush and roller coating. Aerosol painting and brush and roller painting techniques are utilized to minimize paint overspray and spillage. This spray booth does not utilize a pressurized spray gun. When coating or painting with aerosol, or brush- or roller-applied coatings, techniques are utilized to minimize paint overspray and spillage. The coatings used at the booth, while not exclusively low-VOC coatings, are those which meet military specifications for specific applications.

The following procedures are utilized to minimize fugitive emissions from spray booth operations at Building 200:

All spills are immediately cleaned up.

All equipment clean-up is performed in the booth with the booth and work area fans operating.

All waste coatings, solvents, and spent clean up solvents are stored in sealed containers until removed for disposal or recycling.

Solvent and paint laden rags will be maintained in closed containers until removed for disposal or recycling.

At building 200, painting operations are conducted in an enclosed spray booth in which the emissions of particulate matter are controlled by a dry filter system. The particulate removal systems have a removal efficiency of 99 percent, which surpasses the current TNRCC guidance for BACT of 95 percent removal efficiency.

The paint booth at Building 200 meets the requirements of standard exemption 75. An overview of standard exemption 75 requirements and how the paint booth at Building 200 complies with each applicable requirement is addressed by the following:

Building 200 Paint Booth Standard Exemption 75 Requirements

- 75(a) CSSA has met the limits of this exemption without the use of VOC or exempt solvent (non-VOC) control equipment.
- 75(b) CSSA building 200 paint booth includes only VOCs or non-VOCs and not metal spraying or metalizing (the deposition or spraying of molten metal onto a surface to form a coating).
- 75(c) CSSA building 200 paint booth complies with all VOC emission limitations (see emission calculations, and supplemental emissions data).

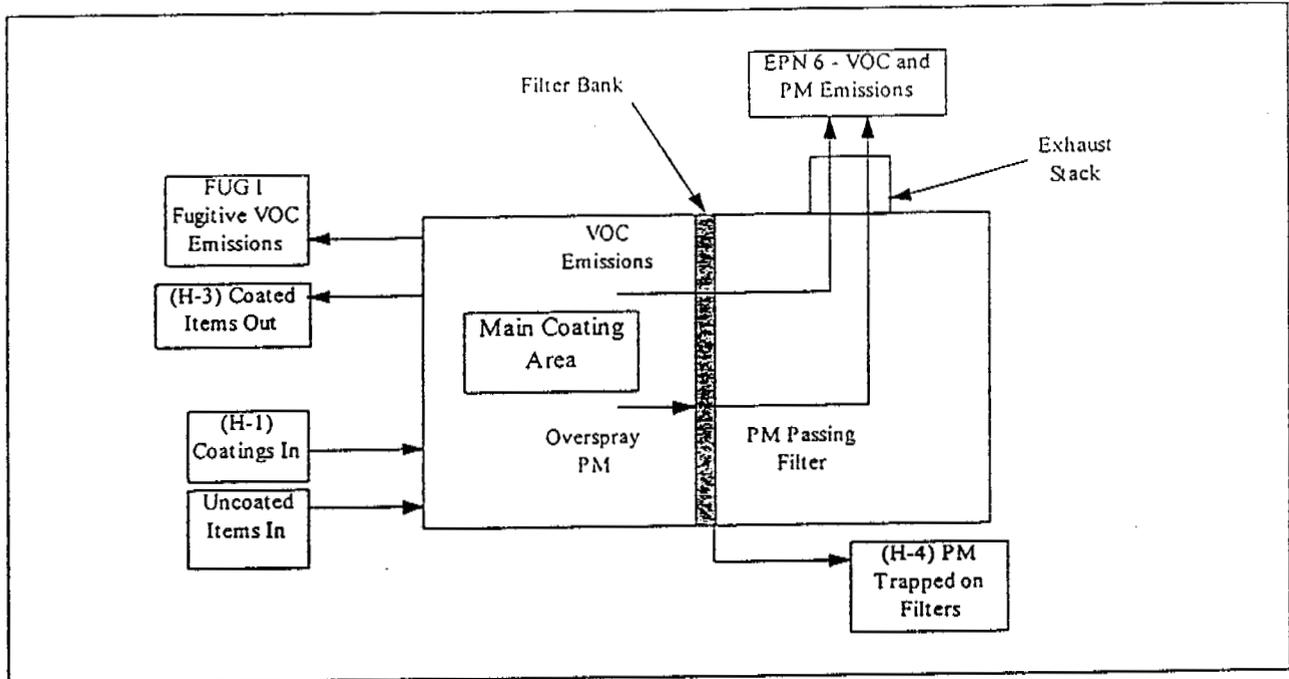
- 75(e) CSSA will maintained, in sufficient detail, records to demonstrate compliance with this standard exemption.
- 75(f) CSSA employs good housekeeping procedures to minimize fugitive emissions.
- 75(g) CSSA will not exceed 5% opacity from any emission point as determined by the United States Environmental Protection Agency Method 9 averaged over a 6 minute period except for those periods described in 30 TAC 111.111 (a) (1) (E) (Regulation I).
- 75(h) CSSA is located in Bexar County, an attainment county.
- 75(i) A form PI-7 for the paint booth in building 200 is included in this registration submittal.
- 75(j) CSSA operations conducted in building 200 spray booth has a ventilating velocity of 113 ft/min., particulate matter control efficiency of 99%, a face velocity greater than 200 ft/min., and vertical elevated stacks through which the spray booth emissions are exhausted at least 1.5 times the building height above grade.
- 75(k&l) Outdoor or non-enclosed painting operations occurring at CSSA will comply with all requirements identified by Standard Exemption 75(k) and 75(l).

BUILDING 200 PAINT BOOTH

PROCESS FLOW DIAGRAMS

PROCESS FLOW DIAGRAMS

Figure IV.1. Process Flow Diagram for Paint Booth - Building 200



BUILDING 200 PAINT BOOTH

EMISSION CALCULATIONS

EMISSION CALCULATIONS

Paint Booth - Building 200 (EPN 6 and FUG 1)

The paint booth at Building 200 is used for flat-surface stenciling of crates, boxes, and other containers. Coatings are applied by aerosol, brush, or roller. Emissions from this booth are calculated following the calculation guidance provided in the TNRCC Technical Guidance Package for Coatings Sources: Spray Painting and Dip Coating Operations. The equations presented in the Technical Package have not been reprinted in this application, but sample calculations and spreadsheets are presented to demonstrate each calculation procedure.

Product Usage Rates and MSDSs. The names and maximum usage rates for the respective products used in the booth are presented in Table V.-a2.

Since this booth does not employ the use of an automatic spray gun, hourly rates can not be predicted from equipment design parameters (e.g., maximum gun flow rate). All usage rates are predicted maximums based on historical hourly and annual usage rates for each coating at the booth. Usage rates were determined by the normal operator of the booth and are considered to be conservative.

Emissions Assumptions. A summary of maximum hourly emissions for each product used in the booth is presented in Table V.-a2 in Attachment V.-a. A summary of annual emissions for each product is presented in Table V.-a3 in Attachment V.-a. The worksheets shown in Table V.-a4 of Attachment V.-a detail the calculation of bulk emissions for each material used in the booth. Each material is presented in a separate worksheet.

Maximum hourly emissions and maximum annual emissions are calculated from the maximum hourly usage rate and maximum annual usage rate, respectively, for each coating. Procedures follow the guidelines established in the aforementioned TNRCC technical guidance package. The following assumptions and general procedures are used during the calculation emissions:

- (1) The solids content of each material is taken as the difference between the material density and the maximum VOC content of the material as listed on the product MSDS.
- (2) For all brush- and roller-applied materials, the percent overspray was assumed to be zero (0), implying a 100 percent transfer efficiency.
- (3) For aerosol-applied materials, the percent overspray is estimated at 50 percent for the air atomization spraying method on flat surfaces using Table 232 from *Modern Pollution Control Technology, Volume 1*. Aerosol spraying was assumed to represent the air atomization method of spraying.
- (4) The filter efficiency of the filters in the booth is 99 percent.
- (5) Booth flashoff for each coating is estimated using Figure 655 from *Modern Pollution Control Technology, Volume 1*. Each item coated is assumed to dry

inside the booth for a minimum of 5 minutes before being removed. The enamel used in the booth was determined to have a booth flashoff of 40 percent using evaporation curve 5 in Figure 655 for alkyds. Lacquers used in the booth were determined to have a booth flashoff of 91 percent using evaporation curve 1 for lacquers. Where applicable, the amounts of thinners used to thin enamels and lacquers are assumed to have the same booth flashoff as the coating in which they are mixed.

- (6) All PM emissions presented are assumed to be stack emissions and not fugitive emissions.
- (7) The thinner amounts used strictly for cleanup are assumed to have booth flashoffs of 100 percent since all cleanup is conducted inside the booth with the fan on.
- (8) The overall maximum hourly amount of emissions presented in Table VI.C-a2 reflect the largest single hourly emissions release from a discrete application (either coating or thinner cleanup)
- (9) The total annual emissions presented in Table VI.C-a3 reflect the sum of annual emissions from all applications (both coating and thinner cleanup)

Sample Calculations. The following section presents sample calculations of emissions from the paint booth in Building 200. Calculations are performed using the assumptions previously stated. The coating chosen is Lacquer 2 - Black Gloss Aerosol Lacquer. The worksheet for this coating in Table VI.C-a4 presents the chemical data for this coating.

Total Hourly VOC Emissions:

$$\text{Total hourly VOC (lb/hr)} = \text{Max. Allowable Hourly Usage Rate (gal/hr)} * \text{Maximum VOC content (lb/gal)}$$

$$\text{Total hourly VOC} = 1.0 \text{ gal/hr} * 5.23 \text{ lb/gal} = 5.23 \text{ lb/hr}$$

Hourly Fugitive VOC Emissions:

$$\text{Hourly Fugitive VOC (lb/hr)} = \text{Total hourly VOC (lb/hr)} * \text{Transfer Efficiency} * \text{Fugitive Flashoff}$$

$$\text{Hourly Fugitive VOC} = 5.23 \text{ lb/hr} * 0.50 * 0.09 = 0.235 \text{ lb/hr}$$

Hourly Booth VOC Emissions:

$$\text{Hourly Booth VOC (lb/hr)} = \text{Total VOC (lb/hr)} - \text{Fugitive VOC (lb/hr)}$$

$$\text{Hourly Booth VOC} = 5.23 \text{ lb/hr} - 0.09 \text{ lb/hr} = 0.47 \text{ lb/hr}$$

Hourly PM Emissions:

$$\text{Hourly PM (lb/hr)} = \text{Max. Allowable Hourly Usage Rate (gal/hr)} * \text{Solids Cont. (lb/gal)} * (1 - \text{Trans. Effic.}) * (1 - \text{Filter Efficiency})$$

$$\text{Hourly PM} = 1.0 \text{ gal/hr} * 2.00 \text{ lb/gal} * (1 - .50) * (1 - 0.99) = 0.01 \text{ lb/hr}$$

All annual emission rates are calculated in an identical manner to hourly emission rates substituting the annual material use rate for the hourly usage rate.

**SUPPLEMENTAL EMISSIONS DATA
FOR BUILDING 200 PAINT BOOTH**

TABLE 18
BUILDING 200 SPRAY BOOTH

| | | | | | | |
|--|---------------------------|---|-------------------|----------------------------|----------------------|--|
| Point Number (from Flow Diagram) EPN 6 (Figure IV.1 Bldg. 200 Paint Booth) | | Annual Hours of Operation of this Booth 1,920 hours | | | | |
| EXHAUST GAS STREAM CHARACTERISTICS | | | | | | |
| Flow Rate (acfm) | | Exhaust Stack | | | Building Height (ft) | Abatement Device Particulate Loading (lb/hr) |
| Design Maximum | Average Expected 1,200 | Temperature °F Ambient | Height (ft) 30 | Diameter (ft) 3.5 | 20 | Inlet 99% eff. filters Outlet |
| TYPE OF COATING AND MAXIMUM RATE OF USE | | | | | | |
| Type | Max. Rate of Use (lb/hr) | Max. Rate of Use (Tons/yr) | | Volatile Portion (%weight) | | |
| Lacquer | See note (a) | See note (a) | | See note (b) | | |
| Varnish | | | | | | |
| Enamel | See note (a) | See note (a) | | See note (b) | | |
| Metal Primer | | | | | | |
| Metal Spray | | | | | | |
| Resin | | | | | | |
| Sealer | | | | | | |
| Shellac | | | | | | |
| Stain | | | | | | |
| Zinc Chromate | | | | | | |
| Epoxy | | | | | | |
| Polyurethane | | | | | | |
| Other | | | | | | |
| SOLVENT COMPOSITION AND RATE OF USE (INCLUDE THAT SUPPLIED WITH COATING) | | | | | | |
| Chemical Composition of Volatiles & wt.(%) | | Max. Rate of Use (lb/hr) | | Max Rate of Use (ton/yr) | | |
| See note (b) | | See note (a) | | See note (a) | | |
| TYPE AND COST OF ABATEMENT DEVICE | | | | | | |
| <input type="checkbox"/> Spray Chamber (water use gal/hr) _____ <input type="checkbox"/> Water Curtain (water use gal/hr) _____ <input checked="" type="checkbox"/> Dry Filter Pads (No.) <u>20</u> (Size) <u>21"x21"x1"</u> <input type="checkbox"/> Other (Explain) _____ | | | | | | |
| Capital Installed Cost \$ <u>N/A - Federal Facility</u> Annual Operating Cost \$ <u>N/A - Federal Facility</u> | | | | | | |
| METHOD OF SPRAYING | | DESCRIPTION OF ITEMS TO BE COATED (SHAPE AND SIZE) | | | | |
| <input type="checkbox"/> Air Atomization <input type="checkbox"/> Airless Electrostatic <input type="checkbox"/> Disc <input type="checkbox"/> Airless <input type="checkbox"/> Air-Atomized <input checked="" type="checkbox"/> Other <u>Aerosol/Brush/Roller</u> | | Coating is primarily stencilling of letters and symbols on boxes, crates, and other containers. Containers vary in size but are cubic in shape. Coating is almost exclusively flat-surface coating. | | | | |

(a) Hourly and annual usage rates for materials in this booth are shown in table V.-a1 in Attachment V.-a. Densities and other specific information are presented in the worksheets of Table V.-a4.
 (b) Volatile contents of each material are presented in the worksheets of Table V.-a4 in Attachment V.-a

Table V.-b1. Summary of Hourly And Annual Emission Rates from Building 200 Paint Booth

| | Total Hourly VOC Emissions | Hourly Fugitive VOC Emissions | Hourly Booth VOC Emissions | Hourly PM Emissions |
|-----------------------------------|----------------------------------|-------------------------------------|----------------------------------|---------------------------|
| Maximum Hourly Emissions (lb/hr): | 5.40 | 3.19 | 5.40 | 0.013 |
| Total Annual Emissions (ton/yr): | 0.19 | 0.02 | 0.17 | 0.000 |

Emissions from Building 200 Paint Booth

| Number | Name | Application Type | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
|---|---|------------------|------------------------------------|---------------------------------------|------------------------------------|-----------------------------|
| Enamels | | | | | | |
| Enamel 1 | Desert Sand Alkyd Enamel with Thinner 2 | Brush/Roller | 5.31 | 3.19 | 2.13 | 0.0000 |
| Lacquers | | | | | | |
| Lacquer 1 | Lustreless Lacquer with Thinner 1 | Brush/Roller | 5.29 | 0.48 | 4.82 | 0.0000 |
| Lacquer 2 | Black Gloss Aerosol Lacquer | Aerosol Can | 5.23 | 0.24 | 4.99 | 0.0100 |
| Lacquer 3 | Olive Green Aerosol Lacquer | Aerosol Can | 5.32 | 0.24 | 5.08 | 0.0127 |
| Lacquer 4 | Red Aerosol Lacquer | Aerosol Can | 5.28 | 0.24 | 5.04 | 0.0125 |
| Lacquer 5 | Blue Aerosol Lacquer | Aerosol Can | 5.33 | 0.24 | 5.09 | 0.0127 |
| Lacquer 6 | Yellow Aerosol Lacquer | Aerosol Can | 5.36 | 0.24 | 5.12 | 0.0130 |
| Thinners | | | | | | |
| Thinner 1 | Dope and Lacquer Thinner | Cleanup | 5.15 | 0.00 | 5.15 | 0.0000 |
| Thinner 2 | Paint Thinner, Turpentine | Cleanup | 5.40 | 0.00 | 5.40 | 0.0000 |
| Maximum Hourly Emissions (lb/hr) | | | 5.40 | 3.19 | 5.40 | 0.0130 |

* Maximum hourly emissions reflect the largest single hourly emissions release from a discreet application (coating or cleanup).

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth

| NSN | Name | Application Type | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
|--|---|------------------|-------------------------------------|--|-------------------------------------|------------------------------|
| Enamels | | | | | | |
| Enamel 1 | Desert Sand Alkyd Enamel with Thinner 2 | Brush/Roller | 0.024 | 0.014 | 0.010 | 0.00000 |
| Lacquers | | | | | | |
| Lacquer 1 | Lustreless Lacquer with Thinner 1 | Brush/Roller | 0.030 | 0.003 | 0.027 | 0.00000 |
| Lacquer 2 | Black Gloss Aerosol Lacquer | Aerosol Can | 0.013 | 0.001 | 0.012 | 0.00002 |
| Lacquer 3 | Olive Green Aerosol Lacquer | Aerosol Can | 0.013 | 0.001 | 0.013 | 0.00003 |
| Lacquer 4 | Red Aerosol Lacquer | Aerosol Can | 0.013 | 0.001 | 0.013 | 0.00003 |
| Lacquer 5 | Blue Aerosol Lacquer | Aerosol Can | 0.013 | 0.001 | 0.013 | 0.00003 |
| Lacquer 6 | Yellow Aerosol Lacquer | Aerosol Can | 0.013 | 0.001 | 0.013 | 0.00003 |
| Thinners | | | | | | |
| Thinner 1 | Dope and Lacquer Thinner | Cleanup | 0.034 | 0.000 | 0.034 | 0.00000 |
| Thinner 2 | Paint Thinner, Turpentine | Cleanup | 0.036 | 0.000 | 0.036 | 0.00000 |
| Total Annual Emissions (ton/yr) | | | 0.190 | 0.020 | 0.170 | 0.00015 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
Enamel 1 - Desert Sand Alkyd Enamel with Thinner 2 -

| | | | | |
|---|--------------------------|---------------------|------------------|------------------|
| Application Type: | Brush/Roller | | | |
| Total Allowable Hourly Application Rate (lb/hr) | 1.25 | | | |
| Total Max. Hourly Application Rate (lb/hr): | 1.13 | | | |
| Total Max. Annual Application Rate (lb/hr): | 11.25 | | | |
| Mix Ratio (Thinner:Coating): | 1:8 | | | |
| | Coating | Thinner | | |
| Name: | Desert Sand Alkyd Enamel | Paint Thinner | | |
| National Stock Number: | 8010-00-111-8353 | 8010-00-246-6443 | | |
| Max. Hourly Usage Rate (gal/hr): | 1.00 | 0.13 | | |
| Max. Allowable Usage Rate (gal/hr): | 1.11 | 0.14 | | |
| Annual Use Rate (gal/yr): | 10.00 | 1.25 | | |
| Specific Gravity: | 1.200 | 0.864 | | |
| Density (lb/gal): | 10.00 | 7.20 | | |
| Max. VOC Content (lb/gal): | 3.88 | 7.20 | | |
| Solids Content (lb/gal): | 6.12 | 0.00 | | |
| Percent Overspray (%): | 0.00 | 0.00 | | |
| Transfer Efficiency (%): | 100.00 | 100.00 | | |
| Filter Efficiency (%): | 99.00 | 99.00 | | |
| Booth Flashoff (%): | 40.00 | 40.00 | | |
| Fugitive Flashoff (%): | 60.00 | 60.00 | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 11.10 | 1.01 | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.00 | 0.00 | | |
| HOURLY EMISSIONS: | Total | Hourly | Hourly | Hourly |
| | Hourly VOC | Fugitive VOC | Booth VOC | PM |
| | Emissions | Emissions | Emissions | Emissions |
| | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) |
| Coating: | 4.31 | 2.58 | 1.72 | 0.000 |
| Thinner: | 1.01 | 0.60 | 0.40 | 0.000 |
| Total: | 5.31 | 3.19 | 2.13 | 0.000 |
| ANNUAL EMISSIONS: | Total | Annual | Annual | Annual |
| | Annual VOC | Fugitive VOC | Booth VOC | PM |
| | Emissions | Emissions | Emissions | Emissions |
| | (ton/yr) | (ton/yr) | (ton/yr) | (ton/yr) |
| Coating: | 0.019 | 0.012 | 0.008 | 0.000 |
| Thinner: | 0.005 | 0.003 | 0.002 | 0.000 |
| Total: | 0.02 | 0.01 | 0.01 | 0.000 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Lacquer 1 - Lustreless Lacquer with Thinner 1

| | | | | |
|--|--|---|--|-------------------------------------|
| Application Type: | Brush/Roller | | | |
| Max. Allowable Hourly Application Rate (lb/hr) | 1.00 | | | |
| Max. Hourly Application Rate (lb/hr): | 1.13 | | | |
| Maximum Annual Application Rate (lb/yr): | 11.25 | | | |
| Mix Ratio (Thinner:Coating): | 1:8 | | | |
| | Coating | Thinner | | |
| Name: | Lustreless Lacquer | Lacquer Thinner | | |
| National Stock Number: | 8010-00-527-3196 | 8010-00-160-5788 | | |
| Max. Hourly Usage Rate (gal/hr): | 1.00 | 0.13 | | |
| Max. Allowable Usage Rate (gal/hr): | 0.89 | 0.11 | | |
| Annual Use Rate (gal/yr): | 10.00 | 1.25 | | |
| Specific Gravity: | 1.080 | 0.824 | | |
| Density (lb/gal): | 9.00 | 6.87 | | |
| Max. VOC Content (lb/gal): | 5.10 | 6.87 | | |
| Solids Content (lb/gal): | 3.90 | 0.00 | | |
| Percent Overspray (%): | 0.00 | 0.00 | | |
| Transfer Efficiency (%): | 100.00 | 100.00 | | |
| Filter Efficiency (%): | 99.00 | 99.00 | | |
| Booth Flashoff (%): | 91.00 | 91.00 | | |
| Fugitive Flashoff (%): | 9.00 | 9.00 | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 8.01 | 0.76 | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.00 | 0.00 | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Coating: | 4.54 | 0.41 | 4.13 | 0.00 |
| Thinner: | 0.76 | 0.07 | 0.69 | 0.00 |
| Total: | 5.29 | 0.48 | 4.82 | 0.00 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Coating: | 0.03 | 0.00 | 0.02 | 0.000 |
| Thinner: | 0.00 | 0.00 | 0.00 | 0.000 |
| Total: | 0.03 | 0.00 | 0.03 | 0.000 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Lacquer 2 - Black Gloss Aerosol Lacquer

| | | | | |
|--|--|---|--|-------------------------------------|
| Name: | Black Gloss Aerosol Lacquer | | | |
| National Stock Number: | 8010-00-290-6984 | | | |
| Application Type: | Aerosol | | | |
| Max. Hourly Usage Rate (gal/hr): | 0.40 | | | |
| Max. Allowable Hourly Usage Rate (gal/hr): | 1.00 | | | |
| Annual Use Rate (gal/yr): | 5.00 | | | |
| Specific Gravity: | 0.867 | | | |
| Density (lb/gal): | 7.23 | | | |
| Max. VOC Content (lb/gal): | 5.23 | | | |
| Solids Content (lb/gal): | 2.00 | | | |
| Percent Overspray (%): | 50.00 | | | |
| Transfer Efficiency (%): | 50.00 | | | |
| Filter Efficiency (%): | 99.00 | | | |
| Booth Flashoff (%): | 91.00 | | | |
| Fugitive Flashoff (%): | 9.00 | | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 7.23 | | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.04 | | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Coating: | 5.23 | 0.24 | 4.99 | 0.010 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Coating: | 0.01 | 0.00 | 0.01 | 0.00002 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
Lacquer 3 - Olive Green Lacquer Aerosol

| | | | | |
|---|--|---|--|---|
| Name: | Olive Green Aerosol Lacquer | | | |
| National Stock Number: | 8010-00-584-3149 | | | |
| Application Type: | Aerosol | | | |
| Max. Hourly Usage Rate (gal/hr): | 0.40 | | | |
| Max. Allowable Hourly Usage Rate (gal/hr) | 1.00 | | | |
| Annual Use Rate (gal/yr): | 5.00 | | | |
| Specific Gravity: | 0.943 | | | |
| Density (lb/gal): | 7.86 | | | |
| Max. VOC Content (lb/gal): | 5.32 | | | |
| Solids Content (lb/gal): | 2.54 | | | |
| Percent Overspray (%): | 50.00 | | | |
| Transfer Efficiency (%): | 50.00 | | | |
| Filter Efficiency (%): | 99.00 | | | |
| Booth Flashoff (%): | 91.00 | | | |
| Fugitive Flashoff (%): | 9.00 | | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 7.86 | | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.04 | | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Coating: | 5.32 | 0.24 | 5.08 | 0.013 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Coating: | 0.01 | 0.00 | 0.01 | 0.00003 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Lacquer 4 - Red Aerosol Lacquer

| | | | | |
|---|--|---|--|-------------------------------------|
| Name: | Red Aerosol Lacquer | | | |
| National Stock Number: | 8010-00-721-9743 | | | |
| Application Type: | Aerosol | | | |
| Max. Hourly Usage Rate (gal/hr): | 0.40 | | | |
| Max. Allowable Hourly Usage Rate (gal/hr) | 1.00 | | | |
| Annual Use Rate (gal/yr): | 5.00 | | | |
| Specific Gravity: | 0.933 | | | |
| Density (lb/gal): | 7.78 | | | |
| Max. VOC Content (lb/gal): | 5.28 | | | |
| Solids Content (lb/gal): | 2.50 | | | |
| Percent Overspray (%): | 50.00 | | | |
| Transfer Efficiency (%): | 50.00 | | | |
| Filter Efficiency (%): | 99.00 | | | |
| Booth Flashoff (%): | 91.00 | | | |
| Fugitive Flashoff (%): | 9.00 | | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 7.78 | | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.04 | | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Coating: | 5.28 | 0.24 | 5.04 | 0.012 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Coating: | 0.01 | 0.00 | 0.01 | 0.00003 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Lacquer 5 - Blue Aerosol Lacquer

| | | | | |
|---|--|---|--|---|
| Name: | Blue Aerosol Lacquer | | | |
| National Stock Number: | 8010-00-721-9745 | | | |
| Application Type: | Aerosol | | | |
| Max. Hourly Usage Rate (gal/hr): | 0.40 | | | |
| Max. Allowable Hourly Usage Rate (gal/hr) | 1.00 | | | |
| Annual Use Rate (gal/yr): | 5.00 | | | |
| Specific Gravity: | 0.945 | | | |
| Density (lb/gal): | 7.88 | | | |
| Max. VOC Content (lb/gal): | 5.33 | | | |
| Solids Content (lb/gal): | 2.55 | | | |
| Percent Overspray (%): | 50.00 | | | |
| Transfer Efficiency (%): | 50.00 | | | |
| Filter Efficiency (%): | 99.00 | | | |
| Booth Flashoff (%): | 91.00 | | | |
| Fugitive Flashoff (%): | 9.00 | | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 7.88 | | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.04 | | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Coating: | 5.33 | 0.24 | 5.09 | 0.013 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Coating: | 0.01 | 0.00 | 0.01 | 0.00003 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Lacquer 6 - Yellow Aerosol Lacquer

| | | | | |
|--|--|---|--|---|
| Name: | Yellow Aerosol Lacquer | | | |
| National Stock Number: | 8010-00-721-9744 | | | |
| Application Type: | Aerosol | | | |
| Max. Hourly Usage Rate (gal/hr): | 0.40 | | | |
| Max. Allowable Hourly Usage Rate (gal/hr): | 1.00 | | | |
| Annual Use Rate (gal/yr): | 5.00 | | | |
| Specific Gravity: | 0.956 | | | |
| Density (lb/gal): | 7.97 | | | |
| Max. VOC Content (lb/gal): | 5.36 | | | |
| Solids Content (lb/gal): | 2.61 | | | |
| Percent Overspray (%): | 50.00 | | | |
| Transfer Efficiency (%): | 50.00 | | | |
| Filter Efficiency (%): | 99.00 | | | |
| Booth Flashoff (%): | 91.00 | | | |
| Fugitive Flashoff (%): | 9.00 | | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 7.97 | | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.04 | | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Coating: | 5.36 | 0.24 | 5.12 | 0.013 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Coating: | 0.01 | 0.00 | 0.01 | 0.00003 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Thinner 1 - Dope and Lacquer Thinner

| | | | | |
|---|--|---|--|-------------------------------------|
| Name: | Dope and Lacquer Thinner | | | |
| National Stock Number: | 8010-00-160-5788 | | | |
| Application Type: | Cleanup Only | | | |
| Max. Hourly Usage Rate (gal/hr): | 0.50 | | | |
| Max. Allowable Hourly Usage Rate (gal/hr) | 0.75 | | | |
| Annual Use Rate (gal/yr): | 10.00 | | | |
| Specific Gravity: | 0.824 | | | |
| Density (lb/gal): | 6.87 | | | |
| Max. VOC Content (lb/gal): | 6.87 | | | |
| Solids Content (lb/gal): | 0.00 | | | |
| Percent Overspray (%): | 0.00 | | | |
| Transfer Efficiency (%): | 100.00 | | | |
| Filter Efficiency (%): | 99.00 | | | |
| Booth Flashoff (%): | 100.00 | All cleaning assumed to be done within booth | | |
| Fugitive Flashoff (%): | 0.00 | | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 5.15 | | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.00 | | | |
| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
| Thinner: | 5.15 | 0.00 | 5.15 | 0.00 |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Thinner: | 0.03 | 0.00 | 0.03 | 0.000 |

Table V.-a3. Summary of Annual Emissions from Building 200 Paint Booth
 Thinner 2 - Paint Thinner, Turpentine

| | | | |
|---|---------------------------|--|--|
| Name: | Paint Thinner, Turpentine | | |
| National Stock Number: | 8010-00-246-6443 | | |
| Application Type: | Cleanup Only | | |
| Max. Hourly Usage Rate (gal/hr): | 0.50 | | |
| Max. Allowable Hourly Usage Rate (gal/hr) | 0.75 | | |
| Annual Use Rate (gal/yr): | 10.00 | | |
| Specific Gravity: | 0.864 | | |
| Density (lb/gal): | 7.20 | | |
| Max. VOC Content (lb/gal): | 7.20 | | |
| Solids Content (lb/gal): | 0.00 | | |
| Percent Overspray (%): | 0.00 | | |
| Transfer Efficiency (%): | 100.00 | | |
| Filter Efficiency (%): | 99.00 | | |
| Booth Flashoff (%): | 100.00 | All cleaning assumed to be done within booth | |
| Fugitive Flashoff (%): | 0.00 | | |
| Generic Short Term VOC Rate (wt% lb/hr): | 5.40 | | |
| Generic Short Term PM Rate (wt% lb/hr): | 0.00 | | |

| HOURLY EMISSIONS: | Total Hourly VOC Emissions (lb/hr) | Hourly Fugitive VOC Emissions (lb/hr) | Hourly Booth VOC Emissions (lb/hr) | Hourly PM Emissions (lb/hr) |
|-------------------|-------------------------------------|--|-------------------------------------|------------------------------|
| Thinner: | 5.40 | 0.00 | 5.40 | 0.00 |
| | | | | |
| ANNUAL EMISSIONS: | Total Annual VOC Emissions (ton/yr) | Annual Fugitive VOC Emissions (ton/yr) | Annual Booth VOC Emissions (ton/yr) | Annual PM Emissions (ton/yr) |
| Thinner: | 0.04 | 0.00 | 0.04 | 0.000 |

