



ARD-3 FORM INFORMATION REQUIRED FOR PERMITS FOR A UNIT OF PROCESSING OR MANUFACTURING EQUIPMENT



Air Resources Division/Permitting and Environmental Health Bureau

RSA/Rule: RSA 125-C:12 and Env-A 1700

I. EQUIPMENT INFORMATION – Complete a separate form for each Emission Unit.

Emission Unit Description: _____

Process/ Device	Manufacturer Model # Serial #	Maximum Raw Material Process Rate	Maximum Finished Material Process Rate	Manufacture Date ¹	Installation Date ¹	Stack #	Hours of Operation per day and days/yr
Paint Booth #3 <i>(Example)</i>	N/A <i>(Example)</i>	8 gal/hr <i>(Example)</i>	N/A <i>(Example)</i>	1997 <i>(Example)</i>	1999 <i>(Example)</i>	#1 <i>(Ex)</i>	3 hr/day; 250 days/yr <i>(Example)</i>
Metal Furnace #2 <i>(Example)</i>	Consumat Model C12 S/N: 2569 <i>(Example)</i>	N/A <i>(Example)</i>	500 lbs/hr <i>(Example)</i>	2002 <i>(Example)</i>	2002 <i>(Example)</i>	#5 <i>(Ex)</i>	9 hr/day; 300 days/yr <i>(Example)</i>

Process Description - Please provide a brief description of each process performed (attach additional pages as needed):

A. Parts Washers/Solvent Degreasers

Not Applicable

Process/Device	Manufacturer & Model #	Capacity (gal)	Solvent Used	# Solvent Changes per Year
<i>Degreaser #2 (Example)</i>	<i>Safety-Kleen Model 16 (Example)</i>	<i>16 gal (Example)</i>	<i>Recycled 150 Solvent (Example)</i>	<i>2 (Example)</i>

B. Coatings, Solvents, and Inks Entering Process – Use additional sheets if necessary

Not Applicable

Process/Device	Raw Material or Chemical Compound	Potential Usage (gal or lb per hour and per year)		Density (lb/gal)	Percent VOC ² (wt %)	Percent HAP ³ (wt %)	Potential VOC emissions (lb/yr)	Potential HAP emissions (lb/yr)
<i>Paint Booth (Example)</i>	<i>Black Enamel #5693 (Example)</i>	<i>13 gal/hr (Example)</i>	<i>1360 gal/yr (Example)</i>	<i>7.5 lb/gal (Example)</i>	<i>67.96% (Example)</i>	<i>13.17% (Example)</i>	<i>6,932 lb/yr (Example)</i>	<i>1,343 lb/yr (Example)</i>

Provide an example of the calculations used to determine total potential VOC and HAP emitted. Indicate if the results are based on test results; if control equipment was taken into account; if conditions exist where solvents remain in the substrate rather than complete volatilization, transfer efficiency, etc.:

Coating Application Method:

- High Volume-Low Pressure (HVLP) Spray
 Electrostatic Spray
 Zinc-Arc Spray
 Air-Assisted Airless Spray
 Airless Spray
 Dip Coat
 A Flow Coating Technique
 Other (specify): _____

C. Amount of Liquid Waste Discarded:

_____ gal/yr
 _____ tons/yr

D. Stack Information

Is device equipped with multiple stacks? Yes No *(If yes, provide data for each stack)*

Are multiple units connected to this stack? Yes No

(If yes, identify other devices on this stack:)

Stack #	Discharge Height Above Ground Level (ft)	Inside Diameter (ft) or Area (ft ²) at Stack Exit ⁴	Exhaust Temperature (°F)	Exhaust Flow (acfm)	Stack Capped or Otherwise Restricted ⁵ (Yes - Type/No)	Exhaust Orientation ⁶	Stack Monitor (Yes/No) and Description
#5 (Ex)	65 ft <i>(Example)</i>	4 ft <i>(Example)</i>	70 °F <i>(Example)</i>	1500 acfm <i>(Example)</i>	Yes - Rain Cap <i>(Example)</i>	Vertical <i>(Example)</i>	No <i>(Example)</i>

E. Hours of Operation

Hours per day: _____ Days per year: _____

II. NEW HAMPSHIRE REGULATED TOXIC AIR POLLUTANTS (RTAPs) – Env-A 1400

Do any of the devices or processes emit any of the RTAPs listed in Env-A 1400?

Yes No

If **Yes**, attach your facility's most recent compliance demonstration.

III. SUPPLEMENTAL FUEL USAGE INFORMATION

Not Applicable

A. Fuel Information (List each fuel utilized by the devices)

Device	Fuel Type	Heat Value ⁷	Units	Sulfur Content (%)	Maximum Fuel Flow Rate	Units	Maximum Gross Heat Input Rate	Units
<i>Thermal Oxidizer (Example)</i>	<i>#2 Fuel Oil (Example)</i>	<i>140,000 (Example)</i>	<i>Btu/gal (Example)</i>	<i>0.0015 (Example)</i>	<i>20 (Example)</i>	<i>gal/hr (Example)</i>	<i>1.2 (Example)</i>	<i>MMBtu/hr (Example)</i>

B. Air Pollutant Emissions from Combustion

Pollutant	Emission Factor	Units	Emission Factor Source ⁸	Actual (lb/hr)	Potential (lb/hr)	Actual (tpy)	Potential (tpy)
TSP							
PM ₁₀							
NO _x							
VOC							
CO							
SO ₂							
Other (<i>specify</i>)							

Provide an example of the calculations used to determine uncontrolled air pollutant emissions, if applicable:

Note: If process utilizes more than one Supplemental Fuel Burning Device, provide all six pollutant emissions information for each device. Use additional pages if necessary.

IV. POLLUTION CONTROL EQUIPMENT

Not Applicable

Note: If the devices utilize more than one type of pollution control equipment, provide data for each type of equipment.

Device	Type of Control Device	Manufacturer of Control Device	Model and Serial Number of Control Device (if known)	Pollutant(s) Controlled by Device
<i>Metal Furnace #2 (Example)</i>	<i>Baghouse #2 (Example)</i>	<i>Ultra-Flow Inc. (Example)</i>	<i>2400 CFM Small Dust Collector Serial #: N/A (Example)</i>	<i>TSP (Example)</i>
<i>Paint Spray Booth (Example)</i>	<i>Filter (Example)</i>	<i>Paint Arrestors (Example)</i>	<i>3100 Series (Example)</i>	<i>Zinc Chromate (Example)</i>

For each control device, include an Air Pollution Control Equipment Monitoring Plan pursuant to Env-A 810.

A. Controlled Air Pollution Emissions (list emissions that result after all add on controls – use additional sheets if necessary)

Pollutant	Controlled Emission Factor	Units	Emission Factor Source ⁹	Actual (lb/hr)	Potential (lb/hr)	Actual (tpy)	Potential (tpy)

Provide an example of the calculations used to determine controlled air pollutant emissions, if applicable:

ARD-3 FORM INFORMATION INSTRUCTIONS

- 1 If exact date is unknown for Manufacture Date or Installation Date, you may use 01/01/year. Manufacture Date refers to the date the emission unit was originally produced. Installation Date refers to the date the emission unit is installed at the facility.
- 2 Volatile Organic Compound, as defined in Env-A 100.
- 3 Hazardous Air Pollutant, as defined in section 112 of the 1990 Clean Air Act Amendments.
- 4 Examples of Inside Diameter or Area at Stack Exit: Diameter at discharge point of convergence cone, if applicable
- 5 Flapper valves and other devices which do not restrict the vertical exhaust flow while the device is operating are not considered obstructions or restrictions.
- 6 Examples of Exhaust Orientation: Vertical, Horizontal, Downward
Note: for a stack to be considered vertical and unobstructed, there shall be no impediment to vertical flow, and the exhaust stack extends 2 feet higher than any roofline within 10 horizontal feet of the exhaust stack

7	<u>Liquid Fuels</u>	<u>Heat Value</u>
	Ultra-Low Sulfur Diesel (ULSD)	137,000 Btu/gal
	#2 Fuel Oil	140,000 Btu/gal
	Kerosene	135,000 Btu/gal
	Other – Liquid	Obtain from Fuel Supplier

<u>Gaseous Fuels</u>	<u>Heat Value</u>
Natural Gas	1,020 Btu/cubic foot
Propane (LPG)	94,000 Btu/gal
Gasoline	130,000 Btu/gal
Other (Gaseous)	Obtain from Fuel Supplier

- 8 Emission factor sources may include:
 - Continuous Emissions Monitor (CEM)
 - Stack Test (Provide Date)
 - Vendor Guaranteed Rates (Provide Documentation)
 - AP-42 Emission Factors
 - Material Balance (Provide Sample Calculation)
 - Engineering Estimate