



**Gila River Indian Community
Department of Environmental Quality
Air Quality Program**

P.O. Box 2139
168 Skill Center Rd.
Sacaton, Arizona 85147
Phone: (520) 562-2234
www.gricdeq.org

**INSTRUCTIONS
APPLICATION FOR NON-TITLE V AIR QUALITY PERMIT**

Use this form to apply for a Non-Title V air quality permit or permit renewal for an entire facility. Do not use it to amend prior applications, add additional pieces of equipment to an existing permitted facility, or transfer a current air quality permit from one person to another. Separate application packages are available for those purposes.

The submitted application and documents become the property of the Gila River Indian Community (GRIC) DEQ and will not be returned. All submitted documents will be available to the public unless a notice of confidentiality has been submitted by the applicant and agreed upon by the Director in accordance with Part II, Section 10 of the GRIC Air Quality Management Plan (AQMP). If confidentiality is granted, a fully completed application with confidential information clearly identified along with a separate copy of the application for public review without the confidential information must be submitted.

Applications can be mailed to the **Department of Environmental Quality (DEQ)** at PO Box 2139, Sacaton, AZ 85147, submitted in-person at 168 Skill Center Rd., Sacaton, AZ 85147, or emailed to air@gric.nsn.us. A **\$350.00** application fee must accompany the application. Payments can be made by check (made out to the Gila River Indian Community DEQ) and mailed or hand-delivered to the DEQ office or by credit card at the GRIC Cashier's office or over the phone (520-562-9621). If paying by credit card, please reference "**DEQ28**" and the facility/company name and submit the payment receipt along with the application. Before the permit is issued, the Permittee will be billed and must submit payment for all permit processing time required for billable permit actions, in excess of the application fee, at a rate adjusted annually under Part II, Section 11.8 of the AQMP. An annual administrative fee will also be charged per Part II, Section 11.3(B)(3).

An application fee is not required for a Tribal Entity. Part II, Section 1.0 of the AQMP defines a Tribal Entity as "a tribally owned and operated corporation, business or enterprise that provides funding to the Community Council resulting from profits from operating the entity where at least fifty (50) percent of the profits are shared with the Council for the benefit of Community members."

Complete items 1-20 and attach manufacturers' drawings and specifications when required by the permit application. If necessary, attach additional sheets to the application to provide all required information. Submit the application by completing the attached original forms. Consider future growth when determining the maximum throughputs and/or production rates. **All applicants must complete items 1 through 20 and Sections L and Z or the application will be deemed incomplete. Submit only the other sections that apply.**

The GRIC AQMP (air pollution control regulations) is available at the above address or may be viewed and/or downloaded from our web site at www.gricdeq.org. You may also contact the Department by telephone at (520) 562-2234 to obtain a hard copy or electronic copy of the GRIC AQMP.

If you need help completing the application package or to schedule a pre-application meeting with permitting staff, please see our website or contact the Air Quality Program Manager at air@gric.nsn.us / (520) 796-3781.

APPLICATION FOR NON-TITLE V AIR QUALITY PERMIT

(As required by Title 17, Chapter 9, Part II of the GRIC Air Quality Management Plan)

READ INSTRUCTIONS FIRST. COMPLETE ITEMS 1 THROUGH 20 AND EACH APPLICABLE SECTION A THROUGH Z.

1. BUSINESS NAME:				
2. IS THIS A PORTABLE SOURCE ?		<input type="checkbox"/> YES (IF YES, PROVIDE THE <u>CURRENT</u> SITE INFORMATION IN ITEMS 2a, 3, AND 3a) <input type="checkbox"/> NO (COMPLETE ITEMS 2a, 3, AND 3a)		
2a. ADDRESS OF SITE:	STREET:			
	CITY:	STATE: AZ	ZIP CODE:	
3. CONTACT PERSON AT SITE:		TELEPHONE AT SITE:		
4. TYPE OF OWNERSHIP: <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Owner <input type="checkbox"/> Government <input type="checkbox"/> Other - Specify:				
5. OWNERSHIP OR LEGAL ENTITY:	NAME:			
	ADDRESS:			
	CITY:	STATE: AZ	ZIPCODE:	
5a. IS THIS A TRIBAL ENTITY?		<input type="checkbox"/> YES <input type="checkbox"/> NO "Tribal Entity" means a tribally owned and operated corporation, business or enterprise that provides funding to the Community Council resulting from profits from operating the entity where at least fifty (50) percent of the profits are shared with the Council for the benefit of Community members.		
6. OWNERSHIP CONTACT:		TELEPHONE:		
		FAX:		
7. SEND ALL CORRESPONDENCE INCLUDING INVOICE AND PERMIT TO:	COMPANY NAME:			
	ADDRESS:			
	CITY:	STATE:	ZIP CODE:	
	ATTN:	E-MAIL:		
8. SIC (STANDARD INDUSTRIAL CLASSIFICATION) OR NAICS (NORTH AMERICAN INDUSTRY CLASSIFICATION) CODE(S):		9. IS THIS A RENEWAL APPLICATION? YES <input type="checkbox"/> NO <input type="checkbox"/>		
		IF YES, ENTER THE EXISTING AIR PERMIT NUMBER FOR THIS SITE:		
10. IF THIS APPLICATION IS SUBMITTED AS A RENEWAL APPLICATION, HAS THE OWNERSHIP OF THIS FACILITY CHANGED SINCE THE PERMIT WAS LAST ISSUED OR TRANSFERRED?			YES <input type="checkbox"/> NO <input type="checkbox"/>	
11. BRIEF DESCRIPTION OF BUSINESS OR PROCESS AT SITE:				
12. OPERATING SCHEDULE:	HOURS PER DAY:	DAYS PER WEEK:	WEEKS PER YEAR:	13. PROJECTED START-UP DATE (NEW FACILITIES):

14. THE AUTHORIZED CONTACT PERSON REGARDING THIS APPLICATION IS:

NAME: _____ TELEPHONE: _____
 TITLE: _____ FAX: _____
 COMPANY: _____ E-MAIL: _____

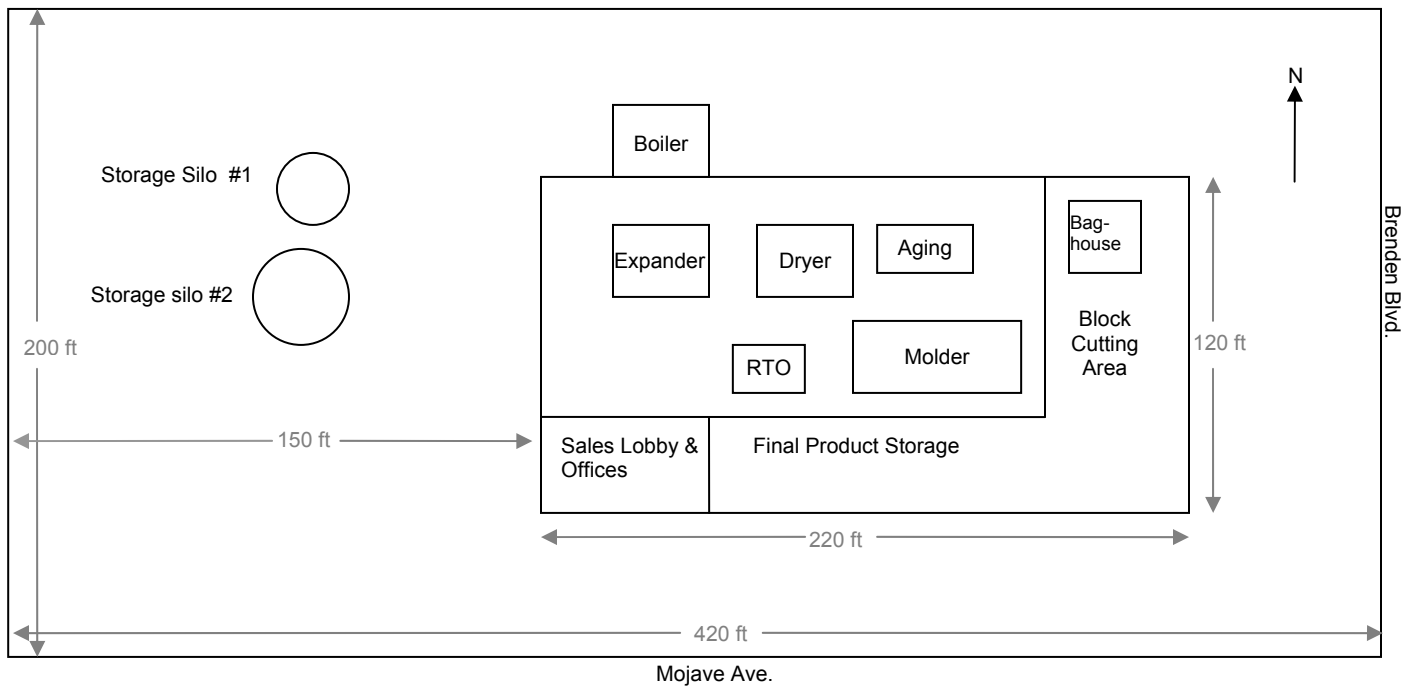
15. I CERTIFY THAT I AM FAMILIAR WITH THE OPERATIONS AND EQUIPMENT REPRESENTED ON THIS APPLICATION AND ATTACHMENTS AND THE INFORMATION PROVIDED HEREIN IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

SIGNATURE OF OWNER OR RESPONSIBLE OFFICIAL OF BUSINESS: _____ DATE: _____

TYPE OR PRINT NAME AND TITLE: _____

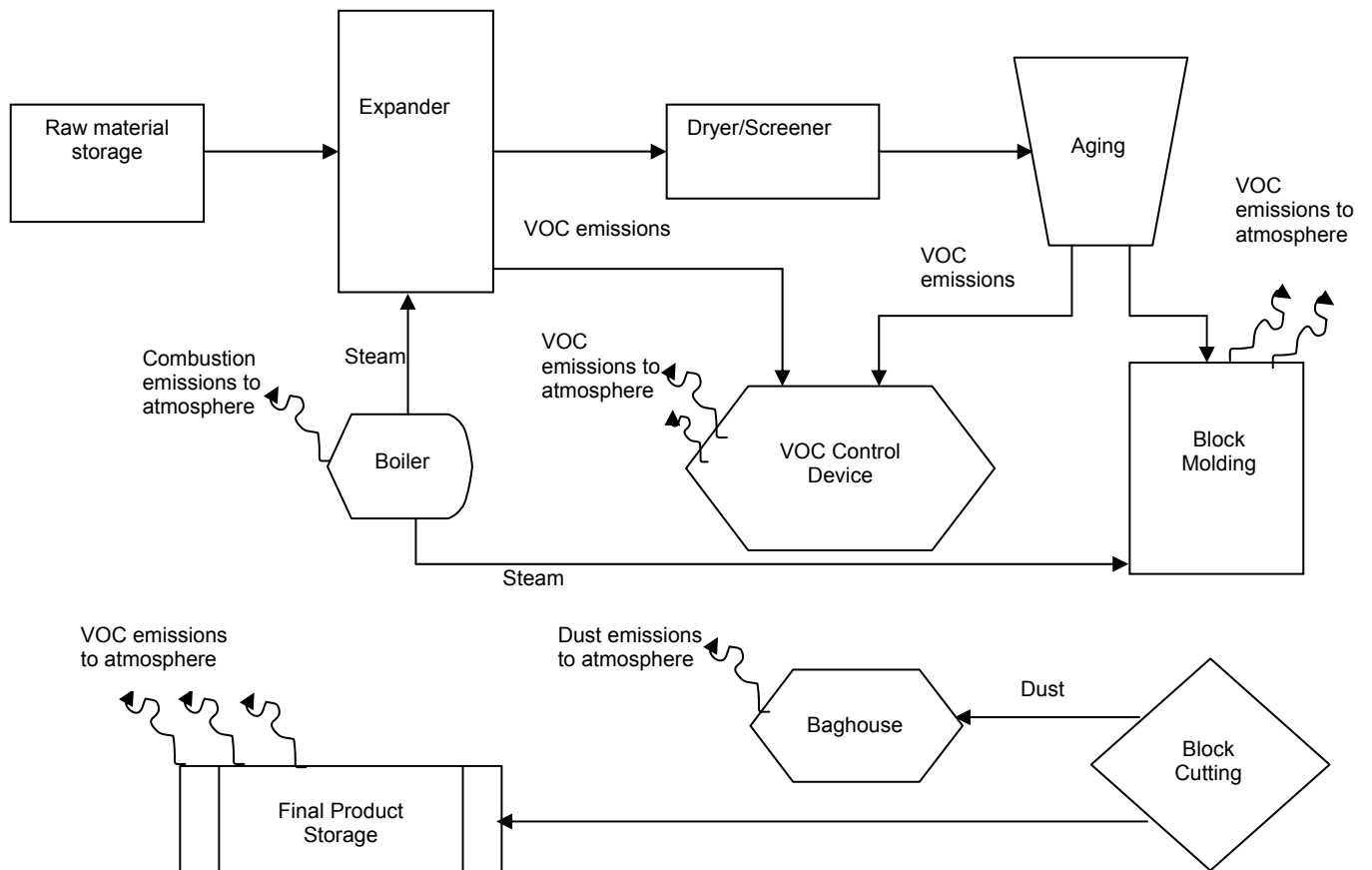
16. SITE DIAGRAM: Attach a site layout showing distances to property lines, equipment, controls, ducts, stacks and emission points. Also show storage areas for fuels, raw materials, chemicals, finished products, waste materials, etc.

EXAMPLE SITE DIAGRAM



17. PROCESS FLOW DIAGRAM: Attach a flow diagram which indicates how processes/activities are conducted at the facility. Begin with raw materials and show each step in the production process. Also indicate emissions control devices and all emission points. An example process flow diagram is provided below.

EXAMPLE PROCESS FLOW DIAGRAM



18. OPERATION & MAINTENANCE (O&M) PLAN(S): O&M Plans are required for any process that vents emissions through a control device and includes both add-on control type equipment or processes whose controls are integrated into the design of the process equipment. Indicate if your facility has such control devices (the list below is not an all-inclusive list of control devices).

<u>EQUIPMENT</u>	<u>NO</u>	<u>YES</u>	<u>HOW MANY?</u>
BAGHOUSE	<input type="checkbox"/>	<input type="checkbox"/>	_____
DUST COLLECTOR / FILTER	<input type="checkbox"/>	<input type="checkbox"/>	_____
INCINERATION SYSTEM (E.G., CATALYTIC OR THERMAL OXIDIZER, AFTER BURNER, BOILER, PROCESS HEATER, FLARE) – SPECIFY: _____	<input type="checkbox"/>	<input type="checkbox"/>	_____
SCRUBBER	<input type="checkbox"/>	<input type="checkbox"/>	_____
ADSORPTION UNIT (E.G., RESIN, CARBON FILTER, OTHER) – SPECIFY: _____	<input type="checkbox"/>	<input type="checkbox"/>	_____
ABSORPTION UNIT	<input type="checkbox"/>	<input type="checkbox"/>	_____
OTHER – SPECIFY: _____	<input type="checkbox"/>	<input type="checkbox"/>	_____

If you checked YES to any of these boxes, attach a separate O&M Plan for each control device. The O&M Plan should describe key system operating parameters and appropriate operating ranges for these parameters. For new equipment or processes, provide an educated estimate of the ranges of any parameters to be monitored. These ranges should be supported with manufacturer's test data or other manufacturer's data from engineering calculations and/or experience with the equipment. In addition, O&M Plans should be prepared in accordance with GRIC Department of Environmental Quality, Air Quality Program - Operation and Maintenance (O&M) Plan Guidelines. A copy of these guidelines can be obtained at www.gricdeq.org or by contacting the GRIC DEQ at (520) 562-2234. Multiple control devices can be combined in a single O&M Plan provided they are identical in type, capacity, and use. A separate O&M Plan is required for each device that is unique in type, capacity, or use.

19. DUST CONTROL PLAN: The owner and/or operator of a dust-generating operation shall submit a Dust Control Plan with any permit applications that involve dust-generating operations with a disturbed surface area that equals or exceeds 1.0 acre (43,560 square feet).

<u>REQUIREMENT</u>	<u>NO</u>	<u>YES</u>	<u>DISTURBED SURFACE AREA ≥ 1.0 ACRE</u>	<u>SUBJECT TO PART V, SECTION 2 OF THE AQMP</u>
DUST CONTROL PLAN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Dust Control Plan should describe the dust generating activities at the facility and appropriate control measures. Dust Control Plans should be prepared in accordance with the Dust Control Plan requirements located in Part V of the GRIC AQMP. An example Dust Control Plan is attached to the *Earthmoving Permit Application with Dust Control Plan* available on the DEQ website (www.gricdeq.org).

20. APPLICABLE SECTIONS: Review each section of the application and mark below which sections apply to this facility. In the final application, only submit those sections that apply to this facility. Note that Sections L and Z must be completed by all applicants.

- A FUEL BURNING EQUIPMENT
- B INTERNAL COMBUSTION ENGINES & TURBINES
- C PETROLEUM STORAGE TANKS
- D WATER & SOIL REMEDIATION
- E-1 SPRAY PAINTING & OTHER SURFACE COATING (EXCLUDING VEHICLE AND WOOD COATING)
- E-2 VEHICLE & MOBILE EQUIPMENT COATING
- F WOOD WORKING AND WOOD COATING OPERATIONS
- G SOLVENT CLEANING
- H PLATING, ETCHING & OTHER METAL FINISHING PROCESSES
- I DRY CLEANING EQUIPMENT
- J GRAPHIC ARTS
- K-1 CONCRETE BATCH PLANTS
- K-2 NON-METALLIC MINERAL MINING AND PROCESSING
- K-3 ASPHALT PRODUCTION
- K-4 NON-METALLIC MINERAL PROCESSING - CONTINUED
- L OTHER DUST GENERATING OPERATIONS
- M ABRASIVE BLASTING
- X-1 POINT SOURCE EMISSIONS OF HAZARDOUS AIR POLLUTANTS
- X-2 NON-POINT AREA EMISSION SOURCES FOR HAZARDOUS AIR POLLUTANTS
- Y OTHER SOURCES
- Z1 AIR POLLUTANT EMISSIONS
- Z2 HAZARDOUS AND ULTRAHAZARDOUS AIR POLLUTANT EMISSIONS

SECTION A. EXTERNAL FUEL BURNING EQUIPMENT

Complete this section if you burn natural gas, propane, butane, waste derived fuel, fuel oils, diesel, kerosene, gasoline, coal, charcoal, wood, or any other fossil fuel. Provide complete specifications for non-commercial and special fuels. Describe equipment such as boilers, furnaces, space heaters, water heaters, dryers, pool and spa heaters, kilns, ovens, burners, stoves, steam cleaners, hot water pressure washers, etc, with an input rating of 300,000 Btu/hr or more. Do not include vehicles, forklifts, lawnmowers, weed eaters and hand-held equipment operating on fossil fuels. Use Section Y to describe items such as asphalt kettles, incinerators, crematories, and emission control devices burning fuel. List internal combustion engines and gas turbines in Section B.

FUEL TYPE	EQUIPMENT DESCRIPTION. INCLUDE MAKE & MODEL. DESCRIBE AIR POLLUTION ABATEMENT/CONTROLS, IF ANY	DATE OF INSTALLATION	HOW MANY	NUMBER OF HOURS IN OPERATION DAILY	NUMBER OF HOURS IN OPERATION ANNUALLY	EQUIPMENT RATING (Btu/hr or MM Btu/hr)

SECTION B. INTERNAL COMBUSTION ENGINES & TURBINES

This section applies to stationary and portable fuel-fired equipment such as generators, fire pumps, air conditioning compressor engines, co-generation units, etc. Indicate in the description if the equipment is used only for emergency purposes. Attach the manufacturer's specification sheets for each engine listing the engine make, model, model year, emission data, and maximum engine power rating. Do not include vehicles, forklifts, lawnmowers and hand-held equipment. Use additional sheets if necessary.

FUEL TYPE	EQUIPMENT DESCRIPTION. INCLUDE MAKE, MODEL, AND INSTALLATION DATE. DESCRIBE AIR POLLUTION ABATEMENT/CONTROLS, IF ANY	DATE OF MANUFACTURE	HOW MANY	NUMBER OF HOURS IN OPERATION DAILY	NUMBER OF HOURS IN OPERATION ANNUALLY	ENGINE RATING ¹ (bhp,bkW)	GENSET OUTPUT ² (hp,kW)

¹ Enter the brake horsepower (bhp) or brake kilowatt (bkW) rating of the engine. This information may be found on the engine faceplate or obtained from the engine manufacturer. NOTE: The engine bhp/bkW rating should not be confused with the output power rating of the generator.

² Enter the output power rating of the generator. This information may be found on the generator faceplate or obtained from the generator manufacturer.

SECTION C. PETROLEUM STORAGE TANKS

This section applies to storage of gasoline and other fuels which have a true vapor pressure of 1.5 psia (77.6 mm of mercury) or greater under actual loading conditions. Petroleum terminals and bulk plants must use Section Y instead of this section. Also use Section Y to list storage tanks containing liquids with a vapor pressure less than 1.5 psia, non-petroleum organic liquids, caustic solutions, acids, etc.

1. DESCRIBE TANKS AND PRODUCTS STORED:

HOW MANY	CAPACITY OF EACH TANK (GALLONS)	DATE OF INSTALLATION	ABOVE GROUND OR UNDERGROUND	PRODUCT STORED

2. ESTIMATE TOTAL ANNUAL THROUGHPUT FOR EACH PRODUCT STORED IN THESE TANKS (GALLONS/YEAR):

3. IS ANY GASOLINE STORED AT THIS FACILITY RESOLD? YES NO N/A (gasoline is not stored at this facility)

4. EMISSION CONTROLS: STAGE I VAPOR RECOVERY STAGE II NONE

5. SUBMERGED FILL*

BOTTOM FILL

OTHER, SPECIFY: _____

* A fill pipe is considered submerged if the discharge opening is completely submerged when the liquid level is six inches (15 cm) from the bottom of the tank. All gasoline storage tanks must be equipped with a submerged fill pipe.

SECTION D. WATER & SOIL REMEDIATION

This section applies to any site where clean-up activities for contaminated soil or water will be conducted.

1. TYPE OF CONTAMINANT: DIESEL GASOLINE OTHER, SPECIFY _____

2. CONTAMINATED MATERIAL: SOIL WATER

3. CONTROL DEVICE: CARBON CANISTER CATALYTIC OXIDIZER BIOFILTER

THERMAL OXIDIZER

OTHER: _____

4. CONCENTRATION OF EACH CONTAMINANT (Specify unit of measure): _____

5. BRIEFLY DESCRIBE PROCEDURE (Describe fully in the scope of work summary required by Item 8 of this Section):

6. ESTIMATED VOC EMISSION RATES: BEFORE THE CONTROL DEVICE: _____ LB/DAY; _____ LB/HR

AFTER THE CONTROL DEVICE: _____ LB/DAY; _____ LB/HR

7. DESCRIBE TYPE, CAPACITY, AND EFFICIENCY OF CONTROLS FOR AIR EMISSIONS:

(Describe fully in the scope of work summary required by Item 9 of this Section): _____

8. PROJECTED START-UP AND COMPLETION DATES: _____

9. ATTACH FULL DETAILS OF SCOPE OF WORK, TREATMENT PROCEDURES, EQUIPMENT SPECIFICATIONS AND TEST RESULTS. INCLUDE CALCULATIONS USED TO ESTIMATE VOC AND FEDERAL HAZARDOUS AIR POLLUTANT EMISSIONS.

SECTION E-1. SPRAY PAINTING & OTHER SURFACE COATING

{EXCLUDING VEHICLE COATING (SECTION E-2) AND WOOD COATING (SECTION F)}

This section applies to but is not limited to: spray painting, powder coating, dipping, ultrasound coating and roller, brush and wipe applications. In response to item 1, list all materials used in painting or coating operations, including but not limited to: paints, primers, clear coats, catalysts, thinners, reducers, accelerators, retarders, paint strippers, gun cleaners, cleaning solvents, stains, plastic coatings, adhesives and surface preparation materials. Attach a manufacturer's technical data sheet or material safety data sheet (MSDS) for each material listed and number it to correspond to column 1 of the table below. Each data sheet must state the name, manufacturer, VOC content, hazardous component concentrations, density/specific gravity and vapor pressure of the material. If more room is necessary, attach additional material and/or equipment lists that include all information requested below. Use Section E-2 for vehicle spray painting operations and Section F for wood coating operations.

1. LIST ALL COATING MATERIALS (USE SEPARATE PAGE IF NECESSARY):

MSDS NUMBER	NAME & TYPE OF MATERIAL (Attach & number MSDS)	ESTIMATED USAGE (gal/yr)	VOC CONTENT (lb/gal)	METHOD OF APPLICATION* (See list below)	AMOUNT SHIPPED AS WASTE (gal/yr)

* APPLICATION METHODS:

- a. High Volume Low Pressure (HVLV)
- b. Pressure Atomization (Airless)
- c. Combined Air and Airless
- d. Air Atomization
- e. Electrostatic
- f. Other (specify in Item 1, Column 5):

2. DESCRIBE SUBSTRATE BEING COATED (such as metal, plastic, etc.): _____

DESCRIBE PRODUCT BEING COATED (such as file cabinets, bed frames, etc.): _____

WILL PRODUCT CONSIST OF AEROSPACE VEHICLES OR COMPONENTS: YES NO

3. DESCRIBE FACILITIES FOR APPLYING COATINGS. ATTACH MANUFACTURER'S SPECIFICATIONS.

TYPE (Enclosure or Booth)	SIZE (L x W x H)	DATE OF INSTALLATION	EXHAUST FAN C.F.M.	FILTER SYSTEM & EFFICIENCY *

* Provide written documentation of filter efficiency (i.e., manufacturer's data or source test data)

4. WILL ALL SPRAYING OPERATIONS BE CONDUCTED INSIDE A BOOTH OR ENCLOSED BUILDING?: _____

IF THE ANSWER IS NO, DESCRIBE THE AREA AND EXPLAIN HOW THE OVERSPRAY WILL BE CONTROLLED: _____

5. ARE ANY COATINGS BAKED, OVEN-CURED OR HEAT-TREATED? WHICH ONES? AT WHAT TEMPERATURE? PROVIDE A COMPLETE DESCRIPTION AND SPECIFICATIONS FOR THE OVENS. IF OVENS ARE FUEL-FIRED, ALSO INCLUDE THEM IN SECTION A OF THIS APPLICATION.

6. DESCRIBE CLEAN-UP OF COATING EQUIPMENT AND HOW CLEAN-UP SOLVENT IS DISPOSED (Complete Section G, if applicable):

SECTION E-2. VEHICLE & MOBILE EQUIPMENT COATING

This section applies to auto body shops, collision repair shops and to any person or facility recoating previously paint-finished vehicles or parts of vehicles. This includes cars, large and small trucks, recreational and off-road vehicles of all types including, but not limited to, self-propelled movers of earth and/or materials. The refinishing of any machinery or wheeled trailer that is designed to be able to move or be towed on a highway is also included. Provide material safety data sheets (MSDS) for each material and number them to correspond to the table below. If more room is necessary, attach additional material and/or equipment lists that include all information requested below. Use Section E-1 for non-vehicle spray painting and surface coating operations. In Item 1, list all materials used in painting or coating operations, including but not limited to: paints, primers, enamels, catalysts, sealers, topcoats, thinners, reducers, accelerators, retarders, paint strippers, gun cleaners, cleaning solvents, and surface preparation materials.

1. LIST ALL MATERIALS APPLIED:

MSDS NUMBER	NAME & TYPE OF MATERIAL (Attach & number an MSDS for each)	ESTIMATED USAGE (gal/yr)	VOC CONTENT (lb/gal)	METHOD OF APPLICATION* (See list below)	AMOUNT SHIPPED AS WASTE (gal/yr)

* APPLICATION METHODS:

- | | |
|------------------------------------|--|
| a. High Volume Low Pressure (HVLP) | d. Air Atomization |
| b. Pressure Atomization (Airless) | e. Electrostatic |
| c. Combined Air and Airless | f. Other (specify in Item 1, Column 5) |

2. METHOD OF DRYING FOR SPRAYED ITEMS: Air Dried Oven Dried or Baked (include fuel-fired ovens in Section A of the application)

3. GUN CLEANING EQUIPMENT (specify each piece of equipment or refer to Section G):

HOW MANY	MANUFACTURER, MODEL #	DATE OF INSTALLATION	SOLVENT NAME/TYPE (Attach MSDS)	ANNUAL SOLVENT USAGE (gal/yr)	QUANTITY OF SOLVENT DISPOSED (gal/yr)

4. DESCRIBE FACILITIES FOR APPLYING COATINGS. ATTACH MANUFACTURER'S SPECIFICATIONS.

TYPE (Enclosure or Booth)	SIZE (L X W X H)	DATE OF INSTALLATION	EXHAUST FAN (C.F.M.)	TYPE OF FILTER SYSTEM & EFFICIENCY *

* PROVIDE WRITTEN DOCUMENTATION OF FILTER EFFICIENCY (i.e., manufacturer's data or source test data)

5. WILL ALL SPRAYING OPERATIONS BE CONDUCTED INSIDE A BOOTH OR ENCLOSED BUILDING? YES NO

IF THE ANSWER IS NO, DESCRIBE THE AREA AND EXPLAIN HOW THE OVERSPRAY WILL BE CONTROLLED: _____

SECTION F. WOOD WORKING AND WOOD COATING OPERATIONS

THIS SECTION IS INTENDED FOR ALL PROCESSES, EQUIPMENT, AND RELATED EMISSION CONTROLS ASSOCIATED WITH THE MANUFACTURE AND/OR COATING OF FURNITURE, FIXTURES, OR MILLWORK MADE OF WOOD OR WOOD-DERIVED MATERIAL.

1. WOODWORKING EQUIPMENT: List all woodworking equipment including, but not limited to, saws, routers, planers, sanders, edgers, etc. List particulate (dust) control devices such as cyclones, baghouse, etc. Attach additional sheets if necessary.

DESCRIBE EACH PIECE OF EQUIPMENT INCLUDE MAKE AND MODEL NUMBER	QTY	POWER RATING (HP)	EXHAUSTED TO CONTROL? (YES OR NO)	TYPE OF CONTROL DEVICE	CONTROL EFFICIENCY *	WHERE IS THE CONTROL DEVICE VENTED? (indoors or outdoors)

* PROVIDE WRITTEN DOCUMENTATION OF CONTROL EFFICIENCY (e.g., manufacturer's data or actual test data)

2. HOW MUCH SAWDUST IS PRODUCED ANNUALLY? _____ cubic yards or tons (specify)
3. SURFACE PREPARATION AND COATING: List all VOC-containing materials applied. Provide Material Safety Data Sheets (MSDSs) for each material and number them to correspond to the table below. Attach additional sheets if necessary.

MSDS NUMBER	NAME & TYPE OF MATERIAL (Attach & number an MSDS for each)	VOC CONTENT (lb/lb or gram/liter)	ESTIMATED USAGE (gal/yr)	METHOD OF APPLICATION* (See list below)	AMOUNT SHIPPED AS WASTE (gal/yr)

* APPLICATION METHODS (for Column 5 of Item 3):

- a. High Volume Low Pressure (HVLV)
- b. Pressure Atomization (Airless)
- c. Combined Air and Airless
- d. Air Atomization
- e. Electrostatic
- f. Other (specify in Item 3, Column 5)

4. DESCRIBE CLEAN-UP OF COATING EQUIPMENT AND HOW CLEAN-UP SOLVENT IS DISPOSED (Complete Section G, if applicable):
-

SECTION G. SOLVENT CLEANING

1. Complete the table below for all solvent cleaning devices used. Attach manufacturer's equipment specifications/literature whenever available. Include an MSDS for each solvent with the application, which states the name, manufacturer, VOC content, hazardous component concentrations, density/specific gravity and vapor pressure of the material.

EQUIPMENT TYPE ^a (See List Below)	HOW MANY	MANUFACTURER, MODEL	DATE OF INSTALLATION	SOLVENT SURFACE DIMENSIONS	INTERNAL VOLUME (gallons)	NAME OF SOLVENT TO BE USED	ANNUAL SOLVENT USAGE (gallons)	DISPOSAL QUANTITY (gallons)	DISPOSAL METHOD ^b

2. On a separate attachment, provide any additional equipment information, usage rate and/or operating parameters for solvent cleaning devices utilizing any of the following halogenated solvents: **methylene chloride, perchloroethylene, trichloroethylene, 1,1,1 – trichloroethane, carbon tetrachloride and/or chloroform.**

NOTES:

^a SOLVENT CLEANING EQUIPMENT TYPES:

- | | |
|---|--|
| A. Cold Cleaner | E. Non-Vapor Batch Cleaning Machine Using Solvent That Is Heated, Agitated, Or Is Non-Conforming |
| B. Non-Vapor Batch Cleaning Machine With Remote Reservoir | F. Special Non-Vapor Machine Using: Blasting, Misting Or High Pressure Flushing |
| C. Non-Vapor Batch Cleaning Machine With Internal Reservoir | G. Batch Loaded Vapor Cleaning Machine |
| D. Non-Vapor In-Line Cleaning Machine | H. In-Line Vapor Cleaning Machine |
| I. Other (specify) : | |

^b DISPOSAL OF SOLVENT BY EVAPORATION IS NOT PERMITTED. IF WASTE SOLVENT IS REDISTILLED ON SITE, PROVIDE INFORMATION ON THE STILL, INCLUDING MANUFACTURER'S LITERATURE:

SECTION H. PLATING, ETCHING & OTHER METAL FINISHING PROCESSES

Use a separate sheet for each process line. If additional space is required, attach separate sheets following the same format as below. If any tank is heated by a flame, include the burner information in Section A. Evaporation from open ponds or evaporating tanks is not permitted for materials such as acids, alkalis, VOCs or materials containing VOCs.

1. PROCESS NARRATIVE DESCRIPTION: _____

2. On a separate page, provide a simple process (block flow) diagram with emission points and/or emission areas and control equipment identified. Also include a brief narrative description of this process. Be sure to indicate how waste solutions and rinse waters are disposed. If a wastewater evaporator is used, provide detailed information (make, model, capacity, fuel source, burner rating, etc.) on a separate page.

3. PROCESS TANKS (exclude rinse and wastewater tanks):

ASSIGNED EQUIPMENT NUMBER	CAPACITY (gallons)	NAME/TYPE OF CHEMICAL IN TANK	SURFACE AREA (SQ. FT.)	TEMP (°F)	CONCENTRATION (%)	pH	EXHAUST	
							VENT TO AIR	VENT TO CONTROL

4. LIST MATERIALS TO BE USED: The equipment number is to be taken from item 3, column 1. Include a copy of the Material Safety Data Sheet (MSDS) for each material and number the MSDS to correspond to the table below.

MSDS NUMBER	MATERIAL	CONCENTRATION (%) IN BATH	ANNUAL USAGE (gal/yr or lb/yr)	EQUIPMENT NUMBER IN WHICH USED

5. AIR POLLUTION CONTROL EQUIPMENT:

On a separate page, describe the design and operational parameters of the control device (liquid flow rate, gas flow rate, control efficiency for each compound in weight %, pH set point, how the pH is controlled, operating temperature, etc). Indicate if the capture system is push-pull, enclosed, or hood. If it is a push-pull system, state if anything (racks, works in progress, etc.) block push air during operation.

CONTROL EQUIPMENT ID	EQUIPMENT CONTROLLED ¹	CONTROL EQUIPMENT DESCRIPTION AND CAPACITY	MAKE & MODEL	CONTROL EFFICIENCY ² (%)	FLOWRATE (cfm or fps)	DATE OF INSTALLATION

¹ Specify the equipment number from item 3 for the piece of equipment whose emissions are being controlled by the control device.

² Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data). Attach the manufacturer's specifications and drawings for each air pollution control device listed. Be sure that the locations of all flow devices and pressure/temperature gauges are indicated. Attach an operation and maintenance plan for each piece of control equipment listed above.

SECTION I. DRY CLEANING EQUIPMENT

1. SOLVENT USED: _____ ESTIMATED USAGE: _____ GALLONS/YEAR

2. TYPE OF OPERATION: DRY-TO-DRY TRANSFER

3. DATE OF INSTALLATION OF DRY CLEANING EQUIPMENT: _____

4. LIST DRY CLEANING-RELATED EQUIPMENT:

DESCRIBE EQUIPMENT, INCLUDING MAKE & MODEL	INSTALLATION DATE	HOW MANY	RATED CAPACITY (lbs)	EXHAUST FLOW RATE (specify CFM or FPS)	
				VENT TO AIR	VENT TO CONTROL

5. ARE ANY DRY CLEANING MACHINES COIN OPERATED? Yes No

6. IS THE DRY CLEANING FACILITY LOCATED IN A BUILDING WITH A RESIDENCE(S), EVEN IF THE RESIDENCE IS VACANT AT THE TIME OF THIS APPLICATION? Yes No

7. COOLING TOWER: Yes No If Yes, Capacity: _____ gallons; _____ Tons Cooling Capacity

8. EMISSION CONTROLS: Refrigerated Condensing Coils: Built In Separate Condensing Unit
 Carbon Adsorber Other (Specify) _____

9. DATE OF INSTALLATION OF CONTROL EQUIPMENT: _____ (Attach Manufacturer's Specifications.)

10. STEAM BOILERS USED SPECIFICALLY FOR STRIPPING ADSORBER AND/OR PRESSING: (Include all others in Section A.)

FUEL	BOILER DESCRIPTION, INCLUDING MAKE & MODEL	DATE OF INSTALLATION	GROSS BTU/HR, HP OR OTHER RATING

SECTION J. GRAPHIC ARTS

THIS SECTION APPLIES TO SCREEN, LETTERPRESS, FLEXOGRAPHIC AND LITHOGRAPHIC PRINTING PROCESSES, INCLUDING RELATED COATING AND LAMINATING PROCESSES.

1. EQUIPMENT LIST (LIST EACH PRESS INDIVIDUALLY):

ASSIGNED EQUIPMENT NUMBER	PRESS MANUFACTURER, MODEL	DATE OF INSTALLATION	IMPRESSION AREA (SQ. IN)	PRESS TYPE *	HOW MANY?	EXHAUST FLOW RATE (CFM)	
						VENT TO AIR	VENT TO CONTROL (IDENTIFY)

* (F) Flexographic, (L) Lithographic – specify Heatset Web, Sheet-Fed, or Cold-Set, (G) Gravure, (LP) Letter Press, (S) Screen, Other (please specify)

2. MATERIALS LIST:

List all materials including, but not limited to, inks, fountain solution, blanket wash, varnishes, roller wash, etch solutions, fixers, developers, replenishers, alcohol substitutes, finishers, adhesives, solvents, and cleanup materials. Complete the table below for each material. Provide material safety data sheets (MSDS) for each material and number them to correspond to the table below.

MSDS NUMBER	MATERIAL	ANNUAL USAGE OR THROUGHPUT SPECIFY: (gal/yr or lb/yr)	VOC CONTENT (% BY WEIGHT)	AMOUNT RECLAIMED OR SHIPPED AS WASTE SPECIFY: (gal/yr or lb/yr)

3. SUBSTRATE TYPE:

- POROUS COATED
 NONPOROUS UNCOATED

4. DESCRIBE CONTROL DEVICES: Provide flow diagrams and/or briefly describe how volatile organic compounds (VOC) emissions are controlled. Include equipment type, manufacturer, model, date of installation, rating, efficiency, ID or serial number, and location. Attach vendor data sheets and general design details. Provide Operation & Maintenance Plans for each control device.

SECTION K-1. CONCRETE BATCH PLANTS, LOADING STATIONS AND/OR BAGGING OPERATIONS

THIS SECTION IS INTENDED FOR ALL PROCESSES, EQUIPMENT AND RELATED EMISSION CONTROLS FOR CONCRETE BATCH PLANTS, LOADING STATIONS AND/OR BAGGING OPERATIONS. PROVIDE FLOW DIAGRAMS AND LAYOUTS FOR EACH PROCESS. AN OPERATION AND MAINTENANCE PLAN FOR EACH AIR POLLUTION CONTROL EQUIPMENT IS REQUIRED. DESCRIBE HOW THE ANNUAL QUANTITY FIGURES WERE DEVELOPED. IF AGGREGATE CRUSHING OCCURS IN CONJUNCTION WITH THIS PROCESS, YOU MUST ALSO COMPLETE SECTION Y.

1. TYPE OF OPERATION: Concrete Batch Plant Dry Mix Concrete Bagging Operation Loading Station
 Other _____

2. RAW MATERIALS: List all materials handled, stored, processed, used, mixed, treated, or emitted.

MATERIAL TYPE/TRANSFER OPERATION	MAXIMUM PROJECTED ANNUAL USAGE OR THROUGHPUT (tons/yr)	ACTUAL ANNUAL USAGE OR THROUGHPUT FROM PREVIOUS 12-MONTHS (tons/yr)
Sand delivered to ground storage		
Aggregate delivered to ground storage		
Sand transfer to conveyor (account for multiple transfer points)*		
Aggregate transfer to conveyor (account for multiple transfer points)*		
Sand transfer to elevated storage bin		
Aggregate transfer to elevated storage bin		
Cement transfer to elevated silo		
Cement Supplement (such as flyash) transfer to elevated silo		
Weigh hopper loading (sand and aggregate only)		
Mixer loading - central mix (cement and supplement only)		
Truck loading - truck mix (cement and supplement only)		
Other		

* For sand and aggregate transfer to conveyor, account for multiple transfer points. For example, if 100 tons of sand is transferred three times to different conveyors, the total throughput of sand is 300 tons.

3. PROCESSING: Describe each piece of equipment utilizing the table below. List weigh hoppers, conveyors, mixers, etc. Assign an equipment number in the table below and label the attached flow diagram accordingly. Attach additional pages if necessary

EQUIPMENT NUMBER	MAKE, MODEL & SERIAL NUMBER	DATE OF MANUFACTURE	MAXIMUM DESIGN THROUGHPUT CAPACITY (Tons/hr)	EXHAUST TO:	
				AIR	CONTROL
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>

CONTINUED ON NEXT PAGE

SECTION K-1. CONCRETE BATCH PLANTS - CONTINUED

4. MAXIMUM CAPACITY OF CONCRETE BATCH PLANT (tons/hr): _____

5. NUMBER OF CONVEYORS: _____

6. CONTROL DEVICES: Attach an Operation and Maintenance Plan to this application for each control device.

EQUIPMENT NUMBER	EQUIPMENT CONTROLLED ¹	TYPE OF DEVICE	MAKE, MODEL & SERIAL NUMBER	MAXIMUM DESIGN AIR FLOW RATE (CFM)	CONTROL EFFICIENCY ² (% Weight)

¹ Specify the equipment number from Item 3 for the piece of equipment whose emissions are being controlled by the control device.

² Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).

7. VEHICLE TRAFFIC ON UNPAVED ROADS: Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

VEHICLE TYPE	VEHICLE MILES TRAVELED ANNUALLY (VMT)			
	10 MPH	15 MPH	20 MPH	OTHER SPEED: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

CONTINUE TO SECTION K-4

SECTION K-2. NON-METALLIC MINERAL MINING AND PROCESSING

{EXCEPT CONCRETE BATCH PLANTS (SECTION K-1) AND ASPHALT PLANTS (SECTION K-3)}

THIS SECTION IS INTENDED FOR ALL PROCESSES, EQUIPMENT AND RELATED EMISSION CONTROLS FOR SAND AND GRAVEL PLANTS. PROVIDE FLOW DIAGRAMS AND LAYOUTS FOR EACH PROCESS. AN OPERATION AND MAINTENANCE PLAN FOR EACH AIR POLLUTION CONTROL EQUIPMENT IS REQUIRED. DESCRIBE HOW THE ANNUAL QUANTITY FIGURES WERE DEVELOPED.

1. MATERIALS: List all materials handled, stored, processed, used, mixed, treated, or emitted.

MATERIAL	MAXIMUM PROJECTED ANNUAL USAGE OR THROUGHPUT(tons/yr)	ACTUAL ANNUAL USAGE OR THROUGHPUT FROM PREVIOUS 12-MONTHS (tons/yr)
Sand		
Aggregate		
Other		

2. PROCESS NARRATIVE DESCRIPTION: _____

3. MAXIMUM DESIGN CAPACITY OF MINERAL MINING AND PROCESSING PLANT (tons/hr): _____

4. PROCESS EQUIPMENT: Describe each piece of equipment used for mining and processing operations including, but not limited to crushers, screens, weigh hoppers, conveyors, stackers, mixers, etc. Assign equipment numbers in the table below and label the attached flow diagram accordingly. Attach additional pages if necessary

EQUIPMENT NUMBER	MAKE, MODEL & SERIAL NUMBER	QUANTITY	DATE OF MANUFACTURE	MAXIMUM DESIGN THROUGHPUT CAPACITY (tons/hr)	EXHAUST TO:	
					AIR	CONTROL
					<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>

5. CONTROL DEVICES: (Attach an Operation and Maintenance Plan for each control device)

EQUIPMENT NUMBER	EQUIPMENT CONTROLLED ¹	TYPE OF DEVICE	MAKE, MODEL & SERIAL NUMBER	MAXIMUM DESIGN AIR FLOW RATE (CFM)	CONTROL EFFICIENCY ² (% Weight)

¹ Specify the equipment number from Item 4, Column 1 for the piece of equipment whose emissions are being controlled by the control device.

² Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).

6. VEHICLE TRAVEL ON UNPAVED ROADS: Indicate the number of miles traveled on-site annually on unpaved roads for each class of vehicle specified below.

VEHICLE TYPE	VEHICLE MILES TRAVELED ANNUALLY (VMT)			
	10 MPH	15 MPH	20 MPH	OTHER SPEED: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

CONTINUE TO SECTION K-4

SECTION K-3. ASPHALT PRODUCTION

THIS SECTION IS INTENDED FOR ALL PROCESSES, EQUIPMENT AND RELATED EMISSION CONTROLS FOR ASPHALT PLANTS. PROVIDE FLOW DIAGRAMS AND LAYOUTS FOR EACH PROCESS. AN OPERATION AND MAINTENANCE PLAN FOR EACH AIR POLLUTION CONTROL DEVICE IS REQUIRED. DESCRIBE HOW THE ANNUAL QUANTITY FIGURES WERE DEVELOPED. IF YOU OWN/OPERATE AGGREGATE CRUSHING EQUIPMENT THAT OPERATES ON-SITE WITH THIS ASPHALT PLANT YOU MUST ALSO FILL OUT SECTION Y. COMPLETE SECTION A OF THIS APPLICATION FOR FUEL-BURNING DRYERS AND HEATERS

1. MAXIMUM DESIGN PRODUCTION CAPACITY: _____ TONS PER HOUR _____ TONS PER YEAR
2. ACTUAL PRODUCTION RATE: _____ TONS PER HOUR
3. DAILY HOURS OF OPERATION: _____ HOURS PER DAY
4. TYPE OF PLANT: BATCH MIX CONTINUOUS MIX
5. DRYER FUEL TYPE & HEAT RATING: NATURAL GAS FUEL OIL (Specify grade): _____ DIESEL ON SPEC. USED OIL
 OTHER FUEL (Specify): _____ HEAT RATING (BTU/HR): _____
6. ASPHALT HEATER: ELECTRIC
(if applicable) FUEL FIRED: FUEL TYPE: _____ HEAT RATING (BTU/HR): _____
7. AGGREGATE MATERIAL USED: VIRGIN AGGREGATE RECLAIMED ASPHALT PAVEMENT (RAP)
(Check all that apply) RUBBER OR RUBBER-LIKE MATERIAL

8. DESCRIBE CONTROL DEVICES:

TYPE OF DEVICE ¹	MAKE, MODEL, & SERIAL NUMBER	MAXIMUM DESIGN AIR FLOW RATE (CFM)	CONTROL EFFICIENCY ² (% WEIGHT)

¹ Attach an operation and maintenance plan for each piece of control equipment listed above.

² Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).

9. VEHICLE TRAFFIC ON UNPAVED ROADS:

Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

VEHICLE TYPE	VEHICLE MILES TRAVELED ANNUALLY (VMT)			
	10 MPH	15 MPH	20 MPH	OTHER SPEED: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

CONTINUE TO SECTION K-4

SECTION K-4: NON-METALLIC MINERAL PROCESSING - CONTINUED

APPLICANTS COMPLETING SECTIONS K-1, K-2, OR K-3 MUST ALSO COMPLETE THIS SECTION.

1. MAXIMUM NUMBER OF AGGREGATE, MIXER, AND/OR BATCH TRUCKS EXITING THE FACILITY ON ANY DAY: _____
2. NUMBER OF ACRES OF SAND AND AGGREGATE STORAGE PILES: _____
3. NUMBER OF ACRES OF DISTURBED SURFACE AREA AT THE SITE: ¹ _____
4. IS THE FACILITY A STATIONARY SOURCE THAT IS LOCATED CONTIGUOUS OR ADJACENT TO ANOTHER FACILITY WITH A GRIC AIR PERMIT? YES NO
 1. IF THE ANSWER TO 4 IS "YES", ARE THE FACILITIES UNDER COMMON CONTROL? ² YES NO
 2. IF THE ANSWER TO 4 IS "YES", ARE THE FACILITIES PART OF THE SAME INDUSTRIAL GROUPING (HAVE THE SAME TWO DIGIT SIC CODE) OR IS THERE A SUPPORT RELATIONSHIP BETWEEN THE TWO FACILITIES? ³ YES NO
 3. IF THE ANSWER TO 4, 4.A AND 4.B ARE "YES", LIST THE CO-LOCATED BUSINESS(ES)

BUSINESS NAME: _____ ADDRESS: _____

BUSINESS NAME: _____ ADDRESS: _____

NOTES:

¹ DISTURBED SURFACE AREA is defined as a portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust.

² COMMON CONTROL is determined on a case-by-case basis, and can be established by common ownership, decision-making authority, or a contract-for-service relationship or support/dependency relationship.

³ SUPPORT FACILITIES are considered to be part of the same industrial grouping as that of the primary facility it supports even if the support facility has a different two digit SIC code. Support facilities are typically those which convey, store, or otherwise assist in the production of the principal product.

5. VEHICLE TRAFFIC ON UNPAVED ROADS:

Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

VEHICLE TYPE	VEHICLE MILES TRAVELED ANNUALLY (VMT)			
	10 MPH	15 MPH	20 MPH	OTHER SPEED: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

6. PORTABLE SOURCE: LOCATION OF OPERATION

If the facility is a portable source, please list the address(es) of operation for the previous 5 year period.

DATES		ADDRESS OR DRIVING DIRECTIONS
FROM	TO	

SECTION L. OTHER DUST GENERATING OPERATIONS

THIS SECTION IS INTENDED FOR ALL DUST GENERATING OPERATIONS NOT COVERED ELSEWHERE IN THE PERMIT APPLICATION.

1. ARE ROUTINE DUST-GENERATING OPERATIONS PERFORMED AT THIS FACILITY THAT DISTURB A SURFACE AREA OF 1.0 ACRE Yes No
2. HOW MANY ACRES OF DISTURBED LAND ARE LOCATED AT THIS FACILITY? _____
3. ARE ANY UNPAVED PARKING LOTS LOCATED AT THIS FACILITY? Yes No
4. ARE ANY UNPAVED HAUL/ACCESS ROADS PRESENT AT THIS FACILITY? Yes No
5. IF THE ANSWER TO ITEM 4 IS "YES", HOW MANY VEHICLE TRIPS ARE MADE DAILY ON EACH UNPAVED ROAD? _____
6. ARE BULK MATERIALS HANDLED, STORED, OR TRANSPORTED AT THIS FACILITY? BULK MATERIALS INCLUDE BUT ARE NOT LIMITED TO, NON-METALLIC MINERALS, SOIL, DEMOLITION DEBRIS, COTTON, TRASH, SAW DUST, FEED, GRAIN, FERTILIZERS, DRY CONCRETE OR ANY OTHER MATERIAL THAT IS CAPABLE OF PRODUCING FUGITIVE DUST. Yes No
7. IF THE ANSWER TO ITEM 6 IS "YES", LIST THE TYPE AND AMOUNT (TONS PER YEAR) OF BULK MATERIAL(S) HANDLED, STORED AND/OR TRANSPORTED:
a. _____ c. _____
b. _____ d. _____
8. ARE ANY BLASTING OPERATIONS USING EXPLOSIVES PERFORMED AT THIS FACILITY? Yes No
9. ARE ANY OPEN STORAGE PILES LOCATED AT THIS FACILITY? Yes No
10. IF THE ANSWER TO ITEM 9 IS "YES", HOW MANY ACRES DO THE STORAGE PILES COVER? _____
11. DO YOU HAVE ANY UNPAVED STAGING OR MATERIAL STORAGE AREAS? Yes No
12. DO YOU HAVE AN EASEMENTS, RIGHTS-OF-WAY, OR ACCESS ROADS FOR UTILITIES (TRANSMISSION OF ELECTRICITY, NATURAL GAS, OIL, WATER, AND GAS)? Yes No
13. BRIEFLY DESCRIBE HOW TRACKOUT IS CONTROLLED AT EXITS FROM UNPAVED ROADS AT THIS FACILITY THAT LEAD TO PAVED AREAS ACCESSIBLE TO THE PUBLIC:

14. SUBMIT A DUST CONTROL PLAN WITH THIS APPLICATION IF THIS FACILITY IS INVOLVED IN DUST-GENERATING OPERATIONS THAT EQUAL OR EXCEED 1.0 ACRE (43,560 SQUARE FEET) INCLUDING THE FOLLOWING:
 - a. Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the dust control plan and responsible for the dust-generating operation.
 - b. A drawing, on 8½" x 11" paper, that shows entire project site/facility boundaries, acres to be disturbed with linear dimensions, nearest public roads, north arrow, and planned exit locations onto paved areas accessible to the public.
 - c. Appropriate control measures, or a combination thereof, for every actual and potential dust-generating operation.
 - d. One contingency control measure must be identified for all dust-generating operations.
 - e. The maximum number of vehicle trips on unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
 - f. Dust suppressants to be applied, method, frequency, and intensity of application; type, number, and capacity of application equipment; and information environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
 - g. Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved roads and/or access points join paved areas accessible to the public.

AN EXAMPLE DUST CONTROL PLAN IS ATTACHED TO THE *EARTHMOVING PERMIT APPLICATION WITH DUST CONTROL PLAN* AVAILABLE ON THE DEQ WEBSITE (WWW.GRICDEQ.ORG).

SECTION M. ABRASIVE BLASTING

THIS SECTION IS INTENDED FOR ALL PROCESSES, EQUIPMENT, AND RELATED EMISSION CONTROLS ASSOCIATED WITH ABRASIVE BLASTING OPERATIONS.

TYPE OF ABRASIVE BLASTING EQUIPMENT: STATIONARY PORTABLE

1. ABRASIVE BLASTING EQUIPMENT LIST: List all abrasive blasting equipment. Attach additional sheets if necessary.

SPECIFY EQUIPMENT TYPE (BLAST BOOTH, ROOM, ENCLOSURE, CABINET, AUTOMATIC MACHINE) – INCLUDE MAKE AND MODEL NUMBER	ABRASIVE BLASTING METHOD USED *	HOW MANY?	INTERNAL VOLUME (ft ³)	CONFINED OR UNCONFINED	VENTED: INDOORS OR OUTDOORS	EQUIPMENT VENT TO:	
						AIR	CONTROL
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

* Examples of abrasive blasting methods may include: wet abrasive blasting, hydroblasting, vacuum blasting, dry blasting, unconfined blasting, other

2. IS ABRASIVE BLASTING PERFORMED DAILY OR IS IT A PART OF THE FACILITY'S PRIMARY WORK ACTIVITY? Yes No

3. HOW IS THE ABRASIVE BLAST UNIT POWERED (ELECTRIC, GENERATOR)? _____
(If powered by an internal combustion engine, complete Section B of this application)

4. Blast Media: Indicate the type and quantity of each blast media used and attach a material safety data sheet (MSDS).

TYPE OF BLAST MEDIA	MAXIMUM DAILY USAGE (lbs/day)	MAXIMUM ANNUAL USAGE (tons/yr)	IS BLAST MEDIA CARB CERTIFIED?*		
			YES	NO	NOT SURE
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Certified by California Air Resources Board (CARB) pursuant to Section 92530 of Subchapter 6, Title 17, California Code of Regulations. A list of certified abrasives can be found at: <http://www.arb.ca.gov/ba/certabr/eo/eo.htm>

5. DESCRIBE SUBSTRATE BEING BLASTED (I.E., METAL, STONE, CONCRETE, ETC.): _____

6. DESCRIBE SUBSTRATE BEING REMOVED (I.E., NON-LEADED PAINT, LEADED PAINT, RUST, ETC.): _____

7. IF LEADED PAINT WAS INDICATED IN ITEM 5, INDICATE THE PERCENT CONCENTRATION OF LEAD IN THE PAINT: _____ %

8. DESCRIBE CONTROL DEVICES:

TYPE OF CONTROL DEVICE ¹	MAKE, MODEL, & SERIAL NUMBER	MAXIMUM DESIGN AIR FLOW RATE (CFM)	CONTROL EFFICIENCY (% BY WEIGHT) ²

¹ ATTACH AN OPERATION AND MAINTENANCE PLAN FOR EACH PIECE OF CONTROL EQUIPMENT LISTED ABOVE.

² PROVIDE WRITTEN DOCUMENTATION OF CONTROL EFFICIENCY (e.g., manufacturer's data or actual test data)

SECTION X1. POINT SOURCE EMISSIONS OF HAZARDOUS AIR POLLUTANTS AND ULTRAHAZARDOUS AIR POLLUTANTS (UHAPs)

COMPLETION OF THIS SECTION IS MANDATORY FOR ALL SITES WHICH WILL HAVE AN ACTUAL EMISSION RATE OF MORE THAN 1000 POUNDS PER YEAR OF A SINGLE HAZARDOUS AIR POLLUTANT (HAP) OR ONE (1) TON OR MORE OF ANY COMBINATION OF HAPs. COMPLETION OF THIS SECTION IS ALSO MANDATORY FOR ALL SITES THAT HAVE ACTUAL EMISSIONS OF GREATER THAN 300 POUNDS OR MORE OF ANY SINGLE ULTRAHAZARDOUS AIR POLLUTANT (UHAP) OR ANY COMBINATION OF UHAPs.

SOURCE EQUIPMENT NAME (1)	HAP NAME AND/OR CAS NUMBER (2)	HAP EMISSION RATE		STACK OR POINT DISCHARGE PARAMETERS (5)									
		(lb/hr) (3)	(tons/yr) (4)	STACK ID	STACK HEIGHT ABOVE GROUND (feet)	BUILDING DIMENSIONS			DISTANCE FROM STACK TO NEAREST PROPERTY LINE (feet)	STACK EXIT DATA			
						BUILDING LENGTH (feet)	BUILDING WIDTH (feet)	BUILDING HEIGHT (feet)		DIAMETER or LENGTH x WIDTH (feet)	VELOCITY (fps)	TEMP. (°F)	

General Instructions:

- (1) Identify each HAP and UHAP emission source and each HAP and/or UHAP associated with that emission source for the entire plant site. Use as many lines as necessary for each HAP and UHAP source.
- (2) Refer to the list of federal HAPS on the last page of the application and section 112(r)(3) for ULTRAHAZARDOUS pollutants.
- (3) Pounds per hour (lb/hr) is actual emission rate estimated or measured by applicant to be vented through stack.
- (4) Tons per year is actual annual emission rate estimated or measured by applicant to be vented through stack, which takes into account process operating schedule.
- (5) Supply additional information as follows on a separate sheet if appropriate:
 Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate if discharge is horizontal.
 Show layout of adjacent structures if structure is within 3 times stack height above the ground.

SECTION X2. NON-POINT AREA EMISSION SOURCES FOR HAZARDOUS AIR POLLUTANTS AND ULTRAHAZARDOUS AIR POLLUTANTS (UHAPs)

COMPLETION OF THIS SECTION IS MANDATORY FOR ALL SITES WHICH WILL HAVE AN ACTUAL EMISSION RATE OF MORE THAN 1000 POUNDS PER YEAR OF A SINGLE HAZARDOUS AIR POLLUTANT (HAP) OR ONE (1) TON OR MORE OF ANY COMBINATION OF HAPs. COMPLETION OF THIS SECTION IS ALSO MANDATORY FOR ALL SITES THAT HAVE ACTUAL EMISSIONS OF GREATER THAN 300 POUNDS OR MORE OF ANY SINGLE ULTRAHAZARDOUS AIR POLLUTANT (UHAP) OR ANY COMBINATION OF UHAPs.

SOURCE OR EQUIPMENT NAME (1)	HAP NAME AND/OR CAS NUMBER (2)	HAP EMISSION RATE		DIMENSIONS OF RELEASE SOURCE (5)			BUILDING DIMENSIONS			DISTANCE TO NEAREST PROPERTY LINE (6) (feet)	SOURCE TEMP. (°F)
		(lb/hr) (3)	(tons/yr) (4)	LENGTH (feet)	WIDTH (feet)	HEIGHT (feet)	LENGTH (feet)	WIDTH (feet)	HEIGHT (feet)		

General Instructions:

- (1) Identify each HAP and UHAP emission source and each HAP and/or UHAP that is not collected by a capture system and is released to the atmosphere. Use as many lines as necessary for each HAP and/or UHAP source.
- (2) Refer to the list of federal HAPS on the last page of the application and section 112(r)(3) for ULTRAHAZARDOUS pollutants.
- (3) Pounds per hour (lb/hr) is actual emission rate estimated or measured by applicant to be released from the emission source.
- (4) Tons per year is actual annual emission rate estimated or measured by applicant to be released from the emission source. This value should take into account process operating schedules.
- (5) Release structure: If the non-point (area) emissions source is located inside a building, provide the dimensions of the building. Otherwise, indicate zero for building dimensions.
- (6) Distance to nearest property line is the closest distance from the release structure to the property line.

SECTION Y. OTHER SOURCES

This section is intended for all emissions related activities, equipment and applicable emission controls which are not covered in previous sections. In response to item 2, provide a detailed step-by-step narrative, including how raw materials are handled, stored, processed, mixed, treated, and converted to finished products. Provide flow rates, temperatures, pressures, and other appropriate details concerning each process. Whenever available, provide manufacturer's data sheets and literature. Provide flow diagrams and layouts for each process. Describe in detail how waste materials are generated, handled, stored, processed, mixed, treated and disposed of. An Operation and Maintenance Plan for each air pollution control equipment is required. List each material that is partially recovered, salvaged or otherwise reclaimed. Provide estimates of the quantities of such material recoveries on an annual basis. Describe how the annual quantity figures were developed. USE A SEPARATE SHEET FOR EACH PROCESS OR ACTIVITY.

1. NAME OF PROCESS, EQUIPMENT GROUPING OR ACTIVITY: _____

2. NARRATIVE DESCRIPTION: _____

3. EQUIPMENT LIST: Include machinery, storage silos, tanks, emission control devices, etc., in this list.

ASSIGNED EQUIPMENT NUMBER	DESCRIBE EACH PIECE OF EQUIPMENT INCLUDE MAKE & MODEL	HOW MANY	DATE OF INSTALLATION	HP, KVA GAL OR OTHER RATING	EXHAUST	
					VENT TO AIR	VENT TO CONTROL (Identify)

4. MATERIALS LIST:

List all materials handled, stored, processed, used, mixed, treated, or emitted from the facility, including but not limit to chemicals, mixtures, resins, cleaning compounds, etc. Identify each material in sufficient detail and provide material safety data sheets (MSDS) for each material.

MATERIAL	ANNUAL USAGE OR THROUGHPUT (gal/yr or lb/yr)	CHEMICAL COMPOSITION (% by weight)	MATERIAL RECLAIMED OR SHIPPED AS WASTE (gal/yr or lb/yr)	EQUIPMENT NUMBER IN WHICH USED

5. DESCRIBE CONTROL DEVICES:

TYPE OF DEVICE	NAME / ID / CAPACITY	EQUIPMENT CONTROLLED ¹	DATE OF INSTALLATION	CONTROL EFFICIENCY ² (% WEIGHT)

¹ Specify the equipment number from item 3 for the piece of equipment whose emissions are being controlled by the control device.

² PROVIDE WRITTEN DOCUMENTATION OF CONTROL EFFICIENCY (i.e., manufacturer's data or source test data). Attach the manufacturer's specifications and drawings for each air pollution control device listed. Be sure that the locations of all flow devices and pressure/temperature gauges are indicated. Attach an operation and maintenance plan for each piece of control equipment listed above.

SECTION Z1. AIR POLLUTANT EMISSIONS

PROVIDE A SUMMARY OF THE PROJECTED ACTUAL AIR EMISSIONS ON AN ANNUAL BASIS FOR THE ENTIRE SITE IN THE FOLLOWING SUMMARY TABLES. ATTACH DETAILED CALCULATIONS TO SUPPORT THE FIGURES. **IF SUPPORTING CALCULATIONS ARE NOT INCLUDED WITH THE APPLICATION, THE APPLICATION WILL BE DEEMED INCOMPLETE.**

POLLUTANT	NON-FUGITIVE EMISSIONS ⁽¹⁾ (lb/yr)	FUGITIVE EMISSIONS ⁽²⁾ (lb/yr)	TOTAL EMISSIONS ⁽³⁾ (lb/yr)
CARBON MONOXIDE (CO)			
OXIDES OF NITROGEN (NO _x)			
OXIDES OF SULFUR (SO _x)			
PARTICULATES OF 10 MICRONS OR SMALLER (PM ₁₀)			
PARTICULATE MATTER (PM), INCLUDING PM ₁₀			
VOLATILE ORGANIC COMPOUNDS (VOC) ⁴ EXCLUDING NON-PRECURSOR ORGANIC COMPOUNDS			
LEAD			
TOTAL HAZARDOUS AIR POLLUTANTS (INDIVIDUAL HAP EMISSIONS MUST BE SUMMARIZED IN SECTION Z2):			
TOTAL ULTRA HAZARDOUS AIR POLLUTANTS (INDIVIDUAL UHAP EMISSIONS MUST BE SUMMARIZED IN SECTION Z2):			
OTHER REGULATED AIR POLLUTANTS (LIST SEPARATELY):			

TABLE NOTES:

- (1) -Non-fugitive emissions include emissions from stacks, chimneys, vents, or other functionally equivalent openings (e.g., baghouse stacks, dust collector, etc.)
- (2) -Fugitive emissions include emissions that could not reasonable pass through a stack, chimney, vent, or other functionally equivalent opening. Only include fugitive emissions for the following sources:
 - Coal cleaning plants (with thermal dryers);
 - Kraft pulp mills;
 - Portland cement plants;
 - Primary zinc smelters;
 - Iron and steel mills;
 - Primary aluminum ore reduction plants;
 - Primary copper smelters;
 - Municipal incinerators capable of charging more than fifty (50) tons of refuse per day;
 - Hydrofluoric, sulfuric, or nitric acid plants;
 - Petroleum refineries;
 - Lime plants;
 - Phosphate rock processing plants;
 - Coke oven batteries;
 - Sulfur recovery plants;
 - Carbon black plants (furnace process);
 - Primary lead smelters;
 - Fuel conversion plants;
 - Sintering plants;
 - Secondary metal production plants;
 - Chemical process plants;
 - Fossil-fuel boilers (or combination thereof) totaling more than 250 million BTU per hour heat input;
 - Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
 - Taconite ore processing plants;
 - Glass fiber processing plant;
 - Charcoal production plants;
 - Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;
 - Any other stationary source category, which as of August 7, 1980 is being regulated under Section 111 (NSPS) or 112 (NESHAP) of the Act and for which EPA has made an affirmative determination by rule under Section 302(j) of the Act (e.g., Subpart I – Hot Mix Asphalt Facilities).
- (3) -Sum of fugitive (if any) and non-fugitive emissions.
- (4) VOCs are defined by EPA at: http://www.epa.gov/ttn/naaqs/ozone/ozonetech/def_voc.htm

Help sheets for calculating emissions from specific industries or processes can be obtained at: http://www.maricopa.gov/aq/divisions/planning_analysis/emissions_inventory/instructions.aspx

If you need help completing the application package, please see our website (www.gricdeg.org) or contact (520) 796-3781.

SECTION Z2. HAZARDOUS AND ULTRAHAZARDOUS AIR POLLUTANT EMISSIONS

PROVIDE A SUMMARY OF THE PROJECTED ACTUAL INDIVIDUAL HAZARDOUS AND ULTRAHAZARDOUS AIR POLLUTANT EMISSIONS ON AN ANNUAL BASIS FOR THE ENTIRE SITE IN THE FOLLOWING SUMMARY TABLE. ATTACH DETAILED CALCULATIONS TO SUPPORT THE FIGURES. **IF SUPPORTING CALCULATIONS ARE NOT INCLUDED WITH THE APPLICATION, THE APPLICATION WILL BE DEEMED INCOMPLETE.**

POLLUTANT	NON-FUGITIVE EMISSIONS ⁽¹⁾ (lb/yr)	FUGITIVE EMISSIONS ⁽²⁾ (lb/yr)	TOTAL EMISSIONS ⁽³⁾ (lb/yr)
HAZARDOUS AIR POLLUTANTS (LIST SEPARATELY):			
ULTRA HAZARDOUS AIR POLLUTANTS (LIST SEPARATELY):			

FEDERAL HAZARDOUS AIR POLLUTANTS LIST

(Federal Clean Air Act, Title I, Section 112(b))

<u>CAS No.</u>	<u>Chemical name</u>	<u>CAS No.</u>	<u>Chemical name</u>	<u>CAS No.</u>	<u>Chemical name</u>	<u>Chemical name</u>
75070	Acetaldehyde	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	101688	Methylene diphenyl diisocyanate (MDI)	Antimony Compounds
60355	Acetamide	64675	Diethyl sulfate	101779	4,4'-Methylenedianiline	Arsenic Compounds (inorganic including arsine)
75058	Acetonitrile	119904	3,3-Dimethoxybenzidine	91203	Naphthalene	Beryllium Compounds
98862	Acetophenone	60117	Dimethyl aminoazobenzene	98953	Nitrobenzene	Cadmium Compounds
53963	2-Acetylaminofluorene	119937	3,3'-Dimethyl benzidine	92933	4-Nitrobiphenyl	Chromium Compounds
107028	Acrolein	79047	Dimethyl carbamoyl chloride	100027	4-Nitrophenol	Cobalt Compounds
79061	Acrylamide	68122	Dimethyl formamide	79469	2-Nitropropane	Coke Oven Emissions
79107	Acrylic acid	57147	1,1-Dimethyl hydrazine	684935	N-Nitroso-N-methylurea	Cyanide Compounds[1]
107131	Acrylonitrile	131113	Dimethyl phthalate	62759	N-Nitrosodimethylamine	Glycol ethers[2]
107051	Allyl chloride	77781	Dimethyl sulfate	59892	N-Nitrosomorpholine	Lead Compounds
92671	4-Aminobiphenyl	534521	4,6-Dinitro-o-cresol, and salts	56382	Parathion	Manganese Compounds
62533	Aniline	51285	2,4-Dinitrophenol	82688	Pentachloronitrobenzene (Quintobenzene)	Mercury Compounds
90040	o-Anisidine	121142	2,4-Dinitrotoluene	87865	Pentachlorophenol	Fine mineral fibers[3]
1332214	Asbestos	123911	1,4-Dioxane (1,4-Diethyleneoxide)	108952	Phenol	Nickel Compounds
71432	Benzene (including benzene from gasoline)	122667	1,2-Diphenylhydrazine	106503	p-Phenylenediamine	Polycyclic Organic Matter[4]
92875	Benzidine	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	75445	Phosgene	Radionuclides (including radon)[5]
98077	Benzotrithloride	106887	1,2-Epoxybutane	7803512	Phosphine	Selenium Compounds
100447	Benzyl chloride	140885	Ethyl acrylate	7723140	Phosphorus	
92524	Biphenyl	100414	Ethyl benzene	85449	Phthalic anhydride	
117817	Bis(2-ethylhexyl)phthalate (DEHP)	51796	Ethyl carbamate (Urethane)	1336363	Polychlorinated biphenyls (Aroclors)	
542881	Bis(chloromethyl)ether	75003	Ethyl chloride (Chloroethane)	1120714	1,3-Propane sultone	
75252	Bromoform	106934	Ethylene dibromide (Dibromoethane)	57578	beta-Propiolactone	
106990	1,3-Butadiene	107062	Ethylene dichloride (1,2-Dichloroethane)	123386	Propionaldehyde	
156627	Calcium cyanamide	107211	Ethylene glycol	114261	Propoxur (Baygon)	
133062	Captan	151564	Ethylene imine (Aziridine)	78875	Propylene dichloride (1,2-Dichloropropane)	
63252	Carbaryl	75218	Ethylene oxide	75569	Propylene oxide	
75150	Carbon disulfide	96457	Ethylene thiourea	75558	1,2-Propylenimine(2-Methyl aziridine)	
56235	Carbon tetrachloride	75343	Ethylidene dichloride (1,1-Dichloroethane)	91225	Quinoline	
463581	Carbonyl sulfide	50000	Formaldehyde	106514	Quinone	
120809	Catechol	76448	Heptachlor	100425	Styrene	
33904	Chloramben	118741	Hexachlorobenzene	96093	Styrene oxide	
57749	Chlordane	87683	Hexachlorobutadiene	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	
7782505	Chlorine	77474	Hexachlorocyclopentadiene	79345	1,1,2,2-Tetrachloroethane	
79118	Chloroacetic acid	67721	Hexachloroethane	127184	Tetrachloroethylene (Perchloroethylene)	
532274	2-Chloroacetophenone	822060	Hexamethylene-1,6-diisocyanate	7550450	Titanium tetrachloride	
108907	Chlorobenzene	680319	Hexamethylphosphoramide	108883	Toluene	
510156	Chlorobenzilate	110543	Hexane	95807	2,4-Toluene diamine	
67663	Chloroform	302012	Hydrazine	584849	2,4-Toluene diisocyanate	
107302	Chloromethyl methyl ether	7647010	Hydrochloric acid	95534	o-Toluidine	
126998	Chloroprene	7664393	Hydrogen fluoride (Hydrofluoric acid)	8001352	Toxaphene (chlorinated camphene)	
1319773	Cresols/Cresylic acid (isomers and mixture)	123319	Hydroquinone	120821	1,2,4-Trichlorobenzene	
95487	o-Cresol	78591	Isophorone	79005	1,1,2-Trichloroethane	
108394	m-Cresol	58899	Lindane (all isomers)	79016	Trichloroethylene	
106445	p-Cresol	108316	Maleic anhydride	95954	2,4,5-Trichlorophenol	
98828	Cumene	67561	Methanol	88062	2,4,6-Trichlorophenol	
94757	2,4-D, salts and esters	72435	Methoxychlor	121448	Triethylamine	
3547044	DDE	74839	Methyl bromide (Bromomethane)	1582098	Trifluralin	
334883	Diazomethane	74873	Methyl chloride (Chloromethane)	540841	2,2,4-Trimethylpentane	
132649	Dibenzofurans	71556	Methyl chloroform (1,1,1-Trichloroethane)	108054	Vinyl acetate	
96128	1,2-Dibromo-3-chloropropane	60344	Methyl hydrazine	593602	Vinyl bromide	
84742	Dibutylphthalate	74884	Methyl iodide (Iodomethane)	75014	Vinyl chloride	
106467	1,4-Dichlorobenzene(p)	108101	Methyl isobutyl ketone (Hexone)	75354	Vinylidene chloride (1,1-Dichloroethylene)	
91941	3,3-Dichlorobenzidine	624839	Methyl isocyanate	1330207	Xylenes (isomers and mixture)	
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	80626	Methyl methacrylate	95476	o-Xylenes	
542756	1,3-Dichloropropene	1634044	Methyl tert butyl ether	108383	m-Xylenes	
62737	Dichlorvos	101144	4,4-Methylene bis(2-chloroaniline)	106423	p-Xylenes	
111422	Diethanolamine	75092	Methylene chloride (Dichloromethane)			

For all listings above which contain the word "compounds" and for glycol ethers, unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical as part of that chemical's infrastructure.

[1] X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)₂.

[2] Includes mono- and di- ethers of ethylene glycol, diethylene glycol and triethylene glycol R(OCH₂CH₂)_n-OR' where:

n = 1, 2 or 3

R = alkyl C7 or less, or phenyl or alkyl substituted phenyl

R' = H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

[3] Includes mineral fiber emissions from facilities manufacturing or processing glass, rock or slag fibers or other mineral derived fibers of average diameter one (1) micrometer or less.

[4] Includes organic compounds with more than one (1) benzene ring and which have a boiling point greater than or equal to 100°C.

[5] A type of atom which spontaneously undergoes radioactive decay