

INSTRUCTIONS

FORM 2.0 EMISSION POINT INFORMATION

This form is **REQUIRED** of all facilities.

This form must be completed for each reportable emission point (200 lbs. or more of criteria pollutants per point) shown on Form 1.1, Process Flow Diagram, and Form 1.2, Summary of Emission Points (see definition in Glossary of Reporting Level). A separate Form 2.0 must be completed for each fuel type used (or capable to use) for each emission point even if **no annual throughput**.

The authorized facility representative signing the EIQ is responsible for ensuring all submitted EIQ forms are filled out completely. Incomplete forms will be returned and the program will note that a complete submittal was not received. Items that clearly do not apply may be left blank, but all others must be filled in. Required items include, but are not limited to, SCC codes, throughput values, maximum hourly design rates, emission factors, source and reference for emission factors and actual emissions. All units must be consistent.

Complete **Facility Name**, **County Number**, **Plant Number** and **Year of Data**.

1) POINT IDENTIFICATION

Point Number: This identification number must match the emission point identification number listed on Forms 1.1 and 1.2. The same point number must be used on any other form(s) associated with this emission point.

AIRS ID - Pt.: This is a three-character emission point identifier assigned by APCP staff. It is used as the Point Number in the Environmental Protection Agency's Aerometric Information Retrieval System - Facility Subsystem database. Once this number is assigned to an emission point, it should remain constant from year to year, even if the Point ID supplied by the facility is changed.

Standard Industrial Classification (SIC) Code: The federal government uses this code. Enter the industry code specific to this emission point description.

Point Description: This description must uniquely identify the process associated with this emission point.

Source Classification Code (SCC): This code identifies the type of combustion or processes associated with an emission point. SCCs specific to your facility are contained in AP-42 (U.S. Environmental Protection Agency (EPA) *Compilation of Air Pollution Emission Factors*) or FIRE (Factor Information and Retrieval System). **This is a required field.** If you cannot locate a SCC specific for your process, use a SCC most closely associated to your process.

Emission Factor Unit: SCC emission factor units, Annual Throughput units, and Maximum Hourly Design Rate (MHDR) units must be the same and must correspond to the SCC Emission Factor Unit. For example, if the SCC units are in 1000 gallons, then the Annual Throughput and MHDR must also be in 1000 gallons.

Number of SCCs Used with this Point: Specify the number of SCCs used with this emission point. This number will be the same as the number of copies of Form 2.0 having the same point number. An example of an emission point with multiple SCCs is a boiler burning two different types of fuel. Each fuel type would require a different SCC and a separate Form 2.0 for each fuel used.

Seg. No.: This is a two-digit number assigned by APCP used uniquely to identify processes associated with an emission point. Generally, if emission point EP01 has three processes associated with it, then Seg. No.'s 01, 02 and 03 will be assigned to those processes. The Segment Number is used in the Environmental Protection Agency's Aerometric Information Retrieval System - Facility Subsystem database. Once this number is assigned to a process, it should remain constant from year to year, even if the SCC changes.

SCC Description: Source Classification Code is an eight-digit number associated with a unique process from which air pollutants are emitted. Example: An industrial space heater that uses natural gas as a fuel has an SCC number of 1-05-001-06.

2) **STACK/VENT PARAMETERS**

This section should be left blank for emission points that do not vent through a stack. Height and diameter must be provided when completing this section.

Stack Number: This identification number should be your stack, vent or other identification number that uniquely identifies the stack.

AIRS ID - St.: This is a three-digit stack identifier supplied by APCP staff. It is used as the Stack Number in the Environmental Protection Agency's Aerometric Information Retrieval System - Facility Subsystem database. Once this number is assigned to a stack, it should remain constant from year to year, even if the stack number supplied by the facility changes.

Height (Stack Feet): This is the vertical distance between ground level and the point of exhaust into the ambient air.

Diameter (Feet): This is the inside diameter of the top of a circular stack exit. For a non-circular stack exit, use an equivalent diameter calculated from the cross-sectional area. This equivalent diameter, d , equals the product of the square root of 1.128 and A . That is, $d = (1.128 \times A)^{1/2}$, where A is the cross-sectional area in square feet. The carat symbol, \wedge , indicates that $1/2$ is an exponent.

Temperature (F): This is the exhaust temperature in degrees Fahrenheit for this stack. If the exhaust is discharged at ambient temperatures, enter 77 degrees F.

Velocity (Feet/Minute): This is the exhaust gas velocity from the stack expressed in feet per minute. This figure can be calculated from the flow rate by dividing the actual cubic feet per minute of flow rate by the cross-sectional area of the stack.

Flow Rate (Cubic Feet/Minute): This is the exhaust gas volume from the stack at the actual operating temperature. Flowrates can be obtained from manufacturers' fan output information in some cases (rated flowrate on the equipment). If a stack exit velocity is known through a test, then the stack cross-sectional area can be multiplied by the velocity to get the flowrate.

List other Points Sharing this Stack: Provide a list of the emission points vented through this stack.

Instructions for Form 2.0
Emission Point Information
Continued

3) **AIR POLLUTION CONTROL EQUIPMENT**

If there are more than two control devices operative at an emission point, use Form 2.0C, Control Device Information, to describe the additional devices.

Device Number: This is the number you select uniquely to identify the air pollution control device. This device number should be the same as that shown on Form 1.1, Process Flow Diagram, for this equipment.

Device Code: This three-digit control device code is found in the Control Device Listing included with this instruction packet. Use the code that best describes the control equipment.

Description of Control Device: Describe the control equipment used to reduce or remove air contaminants. The type of equipment (Example: cyclone, baghouse, etc.) is most important, but brand and model numbers are also appropriate.

Capture Efficiency (%): This is the amount of material taken in by the control device. Capture efficiency will be applicable to emission points controlled by air pollution control devices and are not fully enclosed. Capture efficiency is not applicable to emission processes with water suppressant or water spray controls, such as haul roads.

Guidelines for Determining Capture Efficiency of a Control Device at an Emission Point.

Capture efficiency is determined at each emission point controlled by a control device, regardless of the location of the control device. If a facility has a single central control device, and that device takes in pollutants from multiple emission points, a capture efficiency must be determined for each point. Please use the following hierarchy to determine capture efficiency. The APCP reserves the right to require a facility to change its reported capture efficiency.

1) Testing: Testing is the best method of determining capture efficiency. This testing could have been done when the control device was installed, or afterwards. If this method is used to determine capture efficiency, the documentation verifying the capture efficiency needs to be supplied with the EIQ. If new testing is done, the APCP needs to be contacted, so that the proper procedures can be followed.

2) Engineering Calculations/Drawings: If control device testing has not been done, then engineering calculations, drawings or estimations can be supplied with the EIQ to determine the capture efficiency at an emission point.

3) EPA Documents: EPA documents can be used by a facility if the above two methods are not possible. Examples of acceptable EPA documents are the AP-42, AP-42 Background Documents, and Control Technique Guidelines. These documents need to be cited in the EIQ as the source of the capture efficiency determination.

4) Default 50% Capture Efficiency: If both testing and engineering calculations are not possible, and EPA documents are not available, then a default 50% capture efficiency may be used. Documentation will need to be provided stating why the capture efficiency at the emission point was not able to be determined.

Control Device Efficiency (%): The control efficiency entered must be within the acceptable range for this control device. Refer to or must match the control device efficiency % in construction and/or operating permit.

4) **OPERATING RATE/SCHEDULE**

Annual Throughput: This is the amount of material used, processed or produced in the process associated with the emission point during the calendar year.

Annual Throughput Units: SCC emission factor units, Annual Throughput units, and Maximum Hourly Design Rate (MHDR) units must be the same. For example, if the SCC units and Annual Throughput units are in 1000 gallons, the MHDR must also be in 1000 gallons.

Maximum Hourly Design Rate: This entry is the maximum hourly operating rate possible for the equipment associated with the emission point. To calculate the rate for combustion-related equipment, follow the applicable instructions on Form 2.1, Fuel Combustion Worksheet.

Maximum Hourly Design Rate Units: SCC emission factor units, Annual Throughput units, and Maximum Hourly Design Rate (MHDR) units must be the same and must correspond to the SCC Emission Factor Unit. For example, if the SCC units are in 1000 gallons, then the Annual Throughput and MHDR must also be in 1000 gallons.

Hours/Day: This figure is the normal number of hours per day that the equipment or process associated with the emission point was in operation.

Days/Week: This figure is the normal number of days per week that the equipment or process associated with the emission point was in operation.

Weeks/Year: This figure is the normal number of weeks per year that the equipment or process associated with the emission point was in operation.

Jan-Mar(%), Apr-Jun(%), Jul-Sep(%), and Oct-Dec(%): For each of the four calendar quarters, specify the percentage of total Annual Throughput attributable to each quarter. Estimates are acceptable. The entries for all four quarters must total 100%.

EMISSIONS CALCULATIONS

5) **List other Worksheets (used with this Form)**: List all worksheets (Form 2.1 - Form 2.T) associated with this Form 2.0.

6) **Source of Emission Factor**: Indicate the number code of the source of the emission factor for each pollutant emitted at a point. Use the following hierarchy in determining what to use as the source of the emission factor. If information for a source is not available, then the next source on the hierarchy may be used in its place. The Air Pollution Control Program reserves the right to require a facility to use a specific source.

- 1) Continuous Emission Monitoring (CEMS);
- 2) Stack Testing;
- 3) Material/Mass Balance;

Instructions for Form 2.0
Emission Point Information
Continued

If "4" (AP42) or "5" (Other) is selected, the AP42/Other Reference block **MUST** be completed. List the section, table, figure number, title, etc. that identifies the emission factor source.

- 4) AP-42 (Environmental Protection Agency (EPA) *Compilation of Air Pollution Emission Factors*) or FIRE (Factor Information and Retrieval System);
- 5) Other EPA approved documents;
- 6) Sound engineering calculations (must include documentation);
- 7) Worksheet Number; for example, 2.7 means Haul Road Worksheets was used.

- 7) **Emission Factor (Pounds/Unit):** This figure is the factor that must be provided for each pollutant released at the emission point described. If Continuous Emission Monitoring, Stack Test, or Mass Balance was used as the emission source, then supporting documentation **MUST** be supplied to verify the emission factor.
- 8) **Ash or Sulfur %:** This entry is REQUIRED ONLY IF there is an Ash or Sulfur Flag (A or S) accompanying the SCC for this process. If applicable, enter the Ash or Sulfur Content of a fuel used in a combustion process. This content is usually expressed as a percentage of the fuel by weight. If the same fuel type but with different Ash and/or Sulfur Contents was used in the same combustion process during a calendar year, then a weighted average of the ash or sulfur percentage must be calculated using Form 2.1, Fuel Combustion Worksheet. Ash and sulfur percentages should be available from your fuel supplier. When calculating emissions, be sure to use the ash/sulfur percent; **do not convert to the decimal equivalent.** (See example calculation under Section 10, Method 2.) The shaded boxes in Block 8 on Form 2.0 do not need to be completed.
- 9) **Overall Control Efficiency (%):** An overall control efficiency for each class of pollutant will be determined using the following formula:

$$\text{Overall Control Efficiency for } x = (\text{CP} \times \text{CE}_x) \div 100$$

Where x = a class of pollutant (PM₁₀, SO_x, NO_x, VOC, CO, Lead, or HAP)

CP = Capture Efficiency of the Control Device

CE_x = Control Efficiency for that Class of Pollutants

Instructions for Form 2.0
Emission Point Information
Continued

Example: A control device has a Capture Efficiency of 50%, and destroys 75% of the VOCs it captures.

$$CP = 50\%$$

$$CE_{VOC} = 75\%$$

$$\begin{aligned} \text{Overall Control Efficiency for VOCs} &= (50 \times 75) \div 100 \\ &= 3750 \div 100 \\ &= 37.5\% \end{aligned}$$

A pollutant should have an overall control efficiency **ONLY** if there is a control device in block 3 of Form 2.0 (or on Form 2.0C) that controls that particular class of pollutants.

Multiple Control Devices

If more than one control device applies to the same pollutant at an emission point, the combined overall control efficiency needs to be calculated. This can be done several different ways, depending on the configuration of the control devices.

A) If each control device has its own separate intake, then each control device will use its own capture efficiency.

B) If the control devices are in series, the capture efficiency of the first device in the series is used to determine the overall control efficiency for the entire series. The following formula can be used to determine overall control efficiencies for devices in series.

$$\text{Combined Control Efficiency} = \{CE_1 + CE_2 - [(CE_1 \times CE_2) \div 100]\} \times CP_1/100$$

where CE_1 = Control Efficiency for First Device in the Series
 CE_2 = Control Efficiency for Second Device in the Series
 CP_1 = Capture Efficiency for First Device in the Series

Example: When two devices in series are used to remove the pollutant PM10 from the same emission point, the control efficiencies must be combined. For example, if the first device has a capture efficiency of 75% and a control efficiency of 50% for PM10 and the second device has an efficiency of 80% for PM10, the calculation of combined efficiency is as follows:

$$\begin{aligned}\text{Combined Control Efficiency} &= \{50 + 80 - [(50 \times 80) \div 100]\} \times (75 \div 100) \\ &= \{130 - [4000 \div 100]\} \times .75 \\ &= \{130 - [40]\} \times .75 \\ &= 90 \times .75 \\ &= 67.5\%\end{aligned}$$

Thus, the combined control efficiency for PM10 at this emission point would be 67.5%

C) If control devices are in a configuration other than the two listed above, you may provide documentation for your facilities control devices. This documentation should show your calculations for the overall control efficiency for each class of pollutant at this point. If you have any questions call the Missouri Air Pollution Control Program at (573) 751-4817.

- 10) **Actual Emissions (Tons/Year):** This is the amount in tons per year of the pollutant emitted at the emission point described. All figures should be rounded to two decimal places. There are two possible formulas.

Method 1: If the Ash or Sulfur Percent is not given, use the following formula:

$$\begin{aligned}\text{Actual Emissions} &= \text{Annual Throughput} \times \text{Emission Factor} \\ &\quad \times [(100 - \text{Overall Control Efficiency}) \div 100] \div 2000.\end{aligned}$$

Instructions for Form 2.0
Emission Point Information
Continued

Example: Assume the Annual Throughput is 30,000 tons of grain processed, the PM10 emission factor is .91 pounds of PM10 emitted per ton of grain processed and a PM10 control device for this emission point has an efficiency of 90%. Using the formula above:

$$\begin{aligned}\text{Actual Emissions} &= 30,000 \times .91 \times [(100 - 90) \div 100] \div 2000 \\ &= 27,300 \times [10 \div 100] \div 2000 \\ &= 27,300 \times [.1] \div 2000 \\ &= 2,730 \div 2000 \\ &= 1.365 \text{ tons of PM}_{10} \text{ emitted per year}\end{aligned}$$

Enter 1.37 in the PM10 box in Block 10, Actual Emissions, on Form 2.0.

Note: If no control devices were used, the Control Efficiency equals 0% and the annual PM10 emissions would be 13.65 tons.

Method 2: If the Ash or Sulfur Percent is greater than 0, the following formula must be used:

$$\begin{aligned}\text{Actual Emissions} &= \text{Annual Throughput} \times \text{Emission Factor} \times \text{Ash/Sulfur \%} \\ &\quad \times [(100 - \text{Percent Control Efficiency}) \div 100] \div 2000.\end{aligned}$$

Example: Assume the Annual Throughput is 10,000 tons of fuel burned, the SO_x emission factor is 30 pounds of SO_x emitted per ton of fuel burned, the Sulfur Content of the fuel is 1.7% and the SO_x control device has an efficiency of 50%. Using the previous formula:

$$\begin{aligned}\text{Actual Emissions} &= 10,000 \times 30 \times 1.7 \times [(100 - 50) \div 100] \div 2000 \\ &= 300,000 \times 1.7 \times [50 \div 100] \div 2000 \\ &= 300,000 \times 1.7 \times [.5] \div 2000 \\ &= 510,000 \times [.5] \div 2000 \\ &= 255,000 \div 2000 \\ &= 127.50 \text{ tons of SO}_x \text{ emitted per year}\end{aligned}$$

You would enter 127.50 tons in the SO_x box in Block 10, Actual Emissions, on Form 2.0.

THE REST OF THE INSTRUCTIONS ARE FOR
INFORMATIONAL PURPOSES ONLY. YOU ARE NOT
REQUIRED TO COMPLETE ANY PORTION OF THE
SHADED BLOCKS FOR THE EMISSIONS INVENTORY.

YOU ARE NOT REQUIRED TO COMPLETE ANY PORTION OF THE SHADED BLOCKS at the lower right-hand corner of Form 2.0. These blocks are intended for state or local air pollution control agency use in calculating potential emissions. However, if you wish to calculate the potential at your facility, the applicable definitions and formulas are as follows:

Potential Emissions are those emissions that would result if a facility operated at 100% of its rated capacity for 24 hours per day on a year-round basis.

Maximum Hourly (Lbs/Hr) =

Maximum Hourly Design Rate x Emission Factor

Potential Controlled includes the effect of ALL applicable air pollution control measures.

Potential Controlled Emissions -- Annual (Tons /Yr) =

Maximum Hourly Design Rate x Emission Factor x Ash/Sulfur % x 8760 hours/year x
[(100 - Overall Control Efficiency) ÷ 100] ÷ 2000 lb/ton

Potential Uncontrolled does NOT INCLUDE the effect of any air pollution control measures.

Potential Uncontrolled Emissions -- Annual (Tons/Yr) =

Maximum Hourly Design Rate x Emission Factor x Ash/Sulfur % x 8760 hours/year
÷ 2000 lb/ton

NOTE: The above potential calculations do not allow for any federally-enforceable permit conditions.

INSTRUCTIONS
FORM 3.0 EMISSIONS FEE CALCULATION

This form is **REQUIRED** for all facilities. All facilities within the jurisdiction of the Kansas City Health Department use Form 3.0KC, or the St. Louis County Department of Health use Form 3.0STLC. All Charcoal Kilns use Form 3.0CK.

Use the top portion of Form 3.0 to list and total the amount of air pollutant emissions from each emission point shown on Form 1.1 Process Flow Diagram, and Form 1.2 Summary of Emission Points. Enter the amount of each air pollutant emitted from the emission figures calculated on Form 2.0 Emission Point Information. Use the lower portion of Form 3.0 to calculate the emissions fee. Fill out the lower portion **ONLY ONCE**, using the total amount of each pollutant released for the entire facility.

Complete **Facility Name, FIPS County Number, Plant Number and Year of Data.**

1) POINT NUMBER/SCC

Enter in the first column the same Point Number and Source Classification Code (SCC) used for the Point Number and SCC on Form 2.0, Emission Point Information. Copy the calculated Actual Emissions figure for each pollutant from Block 10 of Form 2.0 to the appropriate pollutant box of Block 1; i.e., particulate matter less than ten microns (PM₁₀) Actual Emissions to the box for PM₁₀. Use each row of Block 1 to list the Actual Emissions for only one Form 2.0. The Actual Emission figures should be expressed in **tons per year** and the figures **rounded to two (2) decimal points.**

Use the last row of the upper portion of Form 3.0 to calculate a **Page Total** of emissions for each pollutant. Calculate the Page Total for a pollutant by summing the Actual Emissions for each emission point for that pollutant. If the facility has more than ten emission points, additional copies of Form 3.0 will be needed to list them all. If more than one page is used, make sure to enter the previous Page Total for each pollutant on the first row of each additional page. Using the **first row to list the previous Page Totals** will ensure that the final Page Total figures are the total emissions for each pollutant for the entire facility.

NOTE: FILL OUT THE LOWER PORTION OF FORM 3.0, EMISSIONS FEE CALCULATION ONLY ONCE, USING THE TOTAL ACTUAL EMISSIONS FOR EACH POLLUTANT FOR THE ENTIRE FACILITY.

2) ACTUAL EMISSIONS

Enter the total actual emission figures for each pollutant for the entire facility. These pollutant emission figures should be the numbers that are on the Page Total row for the last copy of Form 3.0. Sum the emissions for all of the pollutants and enter the number in the **TOTALS** box.

Instructions for Form 3.0
Emissions Fee Calculation
Continued

ENTER THE ACTUAL EMISSION FIGURE FOR EACH POLLUTANT FROM BOX 2 INTO THE APPROPRIATE BOX OF THE EMISSIONS STATEMENT ON FORM 1.0, GENERAL PLANT INFORMATION.

3) CHARGEABLE EMISSIONS

There is a 4,000 ton per year emissions cap for any single air pollutant that one facility emits. This cap is the maximum emission for any single air pollutant for which a facility is required to pay an emissions fee. Check to determine if the Actual Emission Figures for any pollutant in Block 2 is greater than 4,000 tons per year.

If the Actual Emissions for a pollutant are more than 4,000 tons per year, enter 4,000 in that pollutant's box in Block 3. If the Actual Emissions are 4,000 tons per year or less, copy the same actual pollutant emission figures from Block 2 to Block 3.

No state Emissions Fee will be charged for Carbon Monoxide (CO).

4) SUM OF CHARGEABLE EMISSIONS SUBJECT TO FEES

Sum the Chargeable Emissions figures for all the pollutants except CO and enter the number in Box 4.

There is a 12,000 ton per year emissions cap for all pollutants emitted from one facility. This cap is the maximum emissions amount for all air pollutants for which a facility is required to pay emissions fees. If the sum of the Actual Emissions is more than 12,000 tons per year, enter 12,000 in Block 4. If the Actual Emissions are 12,000 tons or less per year, enter the Chargeable Emissions figure in Block 4.

Round the number entered in Block 4 **to the nearest ton** of emissions per year. See examples of rounding in the Glossary under "Rounding Numbers." If chargeable emissions are **less than one (1) ton, the source shall pay a fee equal to the amount of one (1) ton** in accordance with 10 CSR 10-6.0110.

5) TOTAL ANNUAL EMISSIONS FEE

Multiply the Sum of Chargeable Emissions calculated in Block 4 by \$31.00 and enter this amount in Block 5.

6) Copy the Actual Emission figures for each pollutant in Box 2 to the appropriate box of the Emissions Statement on Form 1.0, General Plant Information, if you have not already entered it.

Instructions for Form 3.0
Emissions Fee Calculation
Continued

Include a **check** for the Total Chargeable Annual Emissions Fee amount calculated in Block 5 payable to the:

MISSOURI AIR POLLUTION CONTROL PROGRAM

and mail to the:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176, 205 Jefferson Street
Jefferson City, Missouri 65102

Please include your FIPS county-plant number on your check or letter, especially if you mail your check separately from your EIQ. This will ensure that your check is posted to the right facility.

Facilities within **LOCAL** Air Pollution Control Agencies' jurisdiction should mail complete EIQ to local agency and only include copies of the following forms **with their check** to the state:

Form 1.0, General Plant Information;
Form 3.0, Emissions Fee Calculation;
Form 4.0, Financial Cost Estimate.

(NOTE: If applicable, the address at the top of Form 1.0 will be the local agency address.)

Facilities within the **STATE's** jurisdiction should send the entire original EIQ and their check to the state (Jefferson City address).

- 7) Send the completed EIQ and any supporting documentation to the **address** of the Air Pollution Control Agency shown on the **top of Form 1.0**, General Plant Information.

Please be sure to include a date, county-plant number, point identification, and SCC number on any letters of explanation or supporting documentation.

INSTRUCTIONS
FORM 4.0 FINANCIAL COST ESTIMATE

This form is **REQUIRED** for all facilities.

The Missouri Air Law, Chapter 643 requires a financial cost estimate. The cost estimate is an evaluation of any additional cost of doing business (during the current year reporting) attributable to the federal Clean Air Act, as amended.

Complete **Facility Name**, **FIPS County Number**, **Plant Number** and **Year of Data**.
See Form 1.0 instructions, page 1.0-1.

- 1) Calculate the cost incurred to complete the Emissions Inventory Questionnaire (EIQ), including the job titles of the persons reviewing and completing the forms, the number of hours, the cost per hour and the final total amount. Please use the code from the 'A-list' for each personnel this applies to.
- 2) If an outside Engineering Consultant reviewed or completed part or all of the EIQ, list the job titles of the persons reviewing and completing the forms, the number of hours, the cost per hour and the final total amount. Please use the code from the 'A-list' for each personnel this applies to.
- 3) If during the current year reporting, you purchased any new air pollution control devices or had to do additional monitoring or testing during the year because of Clean Air Act requirements, include the cost. **Please list these costs separately.** Please use a code from the 'B, C, D, or E-list' for each piece of equipment or person this applies to.
- 4) If you hired additional employees to implement the provisions of the Clean Air Act, list their job titles, the cost per hour and the final total amount. Please use a code for each personnel this applies to.
- 5) Calculate the cost of personnel; such as, salaries, benefits, and training required by the Act. Also, list other costs for complying with the Clean Air Act. Examples of these costs would be Operating Permit fees, Title I fee, and compliance with Acid Rain Provisions. Please use a code for the equipment or personnel this applies to. Please list these costs separately. Do not include emission fees as expense since that amount is included on Form 3.0.

Total all the columns as appropriate.

If you have further information or comments regarding the above categories or any general comments, please include them under remarks on Form 4.0.

Return a copy of this form to:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176, 205 Jefferson Street
Jefferson City, MO 65102

CODE LISTS FOR FORM 4.0

Use these codes for form 4.0.

Personnel codes are applicable to blocks 1, 2, and 5.

The other codes are applicable for block 3 and 5.

PERSONNEL

A01	Accountant / Bookkeeper
A02	Administrative Assistant / Secretary
A03	Consultant (Engineering, Environmental, and Safety)
A04	Coordinator (Compliance, Environmental, Facility, Permit and Safety)
A05	Director
A06	Data Assistant / Data Processor
A07	Draftsman / CAD Operator
A08	Engineer - Environmental/Air Quality
A09	Engineer - Professional (not Environmental)
A10	Engineer - Other
A11	Environmental Chemist/Scientist
A12	Environmental Assistant
A13	Floor Employee / Operator
A14	Geologist
A15	Industrial Hygienist
A16	Investigator, Senior
A17	Manager / Supervisor
A18	Metallurgist
A19	MIS Programmer
A20	Owner / Co-owner
A21	President / Vice President / CEO
A22	Production Planner
A23	Regulatory Leader
A24	Scientist (Air Quality and Environmental)
A25	Senior Field Specialist
A26	Specialist
A27	Superintendent
A28	Systems Administrator / Operator
A29	Technician
AXX	Other (<u>Please put job title on Form 4.0</u>)

AIR POLLUTION CONTROL EQUIPMENT

B01	Ash Removal System
B02	Chromium Plating Emissions Control Device
B03	Control Equipment
B04	Dust Collectors
B05	Dust Sprayers
B06	Filters
B07	Maintenance of Control Equipment

(Codes are continued on back)

AIR POLLUTION CONTROL EQUIPMENT (cont'd)

B08	Mill Steam Inerting
B09	Nitrogen Oxides Burners
B10	Rack With Emission Controls
B11	Scrubber
B12	Suppressants
B13	Thermal Oxidizer
B14	Vapor Condenser
B15	Water Trucks
BXX	OTHER : (please put on Form 4.0)

CONTROL EQUIPMENT LABOR COSTS

C01	Engineering Support And Consultants
C02	Environmental Technicians
C03	Maintenance Personnel
C04	Supervisory Personnel
C05	Water Truck Drivers
C06	Other Control Device Operators
CXX	OTHER : (please put on Form 4.0)

TESTING AND MONITORING

D01	CEM Capital Costs
D02	CEM Operations and Maintenance
D03	CEM Testing
D04	Continuous Emissions Monitor (CEM)
D05	Contract Labor
D06	Data Reporting
D07	Leak Detection and Repair
D08	Testing
D09	Vapor Combustion Performance Test
DXX	OTHER : (please put on Form 4.0)

VARIOUS PERSONNEL AND OTHER COSTS

E01	CAD Draftsman
E02	Electricity
E03	Calculating of Emission Fees
E04	Nonspecific Costs
E05	Permit Fees
E06	Software Maintenance Contract
E07	Taxes
E08	Training and Meeting Expenses
EXX	OTHER : (please put on Form 4.0)