Appendix B-1

EIQ Forms

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 1.0 GENERAL PLANT INFORMATION

☐ **Request Confidentiality - see instructions to initiate the confidentiality request.**

FACILITY NAME			FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA
FACILITY STREET ADDRESS			COUNTY NAME		
CITY	ZIP CODE +4	PHONE NUMBER WITH AREA CODE		EXT.	FAX NUMBER WITH AREA CODE
FACILITY MAILING ADDRESS		CITY		STATE	ZIP CODE +4
FACILITY CONTACT NAME	FACILITY CONTACT TITLE	FACILITY CONTACT E-MAIL		WHERE TO SEND EIQ IN FUTURE (CHECK ONE) ☐ Facility Mailing Address ☐ Parent Company Mailing Address	
PRODUCT/PRINCIPAL ACTIVITY	SIC	NAICS		NUMBER OF EMPLOYEES	

	LATITUDE	LONGITUDE	UTM COORDINATES				
			ZONE	EASTING (M)	NORTHING (M)	ACC (M)	HORIZONTAL DATUM (CHECK ONE)
DEGREES							☐ NAD27 ☐ WGS84
MINUTES							☐ NAD83
SECONDS							

PARENT COMPANY NAME	PHONE NUMBER WITH AREA CODE	EXT.	FAX NUMBER WITH AREA CODE
MAILING ADDRESS	CITY	STATE	ZIP CODE +4
CONTACT PERSON NAME / CONTACT PERSON TITLE	CONTACT PERSON E-MAIL		COUNTRY

TOTAL PLANT EMISSIONS FROM FORM 3.0 (TONS PER YEAR)

PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPs	$PM_{2.5}$	NH_3

The undersigned hereby certifies that they have personally examined and are familiar with the information and statements contained herein and further certifies that they believe this information and statements to be true, accurate and complete. The undersigned certifies that knowingly making a false statement or misrepresenting the facts presented in this document is a violation of state law.

PRINT NAME OF PERSON COMPLETING FORM	TITLE	PAYMENT AMOUNT
SIGNATURE	DATE	CHECK/AUTH. NO.
PRINT NAME OF AUTHORIZED COMPANY REPRESENTATIVE	TITLE	PAYMENT DATE
SIGNATURE	DATE	

CONTACT INFORMATION

Missouri Department of Natural Resources
Air Pollution Control Program
1659 E. Elm St.
Jefferson City, MO 65101
573-751-4817
www.dnr.mo.gov/env/apcp/moeis/emissionsreporting.htm
eiq@dnr.mo.gov

OFFICE USE ONLY

LOGGED IN BY	DATE

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 1.1 PROCESS FLOW DIAGRAM

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

Use this page or a separate sheet to provide a Process Flow Diagram per the instructions for Form 1.1 in the Instruction Packet. Do not forget to include all processes used in your facility. Make sure to label each process and piece of equipment and provide an identification number for all emission units (including fugitive emissions) and air pollution control equipment. Make sure to use the same identification number throughout the entire EIQ.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 1.2 SUMMARY OF EMISSION UNITS AND RELATED PROCESSES

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

INSTRUCTIONS

If all emissions are under the reporting threshold, mark below as "Insignificant", and do not report on Forms 2.0 and 3.0.
If one pollutant exceeds the reporting threshold, mark below as "Active" and report all pollutants on Forms 2.0 and 3.0.

REPORTING THRESHOLD

Pollutant	PM_{10}	SO_x	NO_x	VOC	CO	CATEGORY 1 HAPs	CATEGORY 2 HAPs	$PM_{2.5}$	NH_3
Threshold (lbs)	876	2,000	2,000	876	2,000	20	200	876	876
Threshold (tons)	0.438	1.0	1.0	0.438	1.0	0.01	0.1	0.438	0.438

EMISSION UNIT NO. / SCC	EMISSION UNIT DESCRIPTION (USE SAME DESCRIPTION ON FORM 2.0)	OPERATING STATUS (CHOOSE ONE)				
		Active	Inactive	Dismantled	Under Construction	Insignificant

MO 780-1620 (12-09)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ

FORM 2.0 EMISSION UNIT INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. EMISSION UNIT IDENTIFICATION

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION

2. EMISSION PROCESS DETAIL

SEG. NO.	SOURCE CLASSIFICATION CODE (SCC)	SCC DESCRIPTION

DO THE EMISSIONS FROM THIS UNIT FLOW THROUGH A STACK OR VENT? ☐ Yes ☐ No IF YES, COMPLETE *FORM 2.0S STACK/VENT INFORMATION*

ARE THE EMISSIONS FROM THIS UNIT FUGITIVE? ☐ Yes ☐ No IF FUGITIVE, WHAT PERCENTAGE?

3. OPERATING RATE/SCHEDULE

ANNUAL THROUGHPUT	UNITS			DEC-FEB (%)
				MAR-MAY (%)
HOURS / DAY	DAYS / WEEK	WEEKS / YR.	TOTAL HOURS / YR.	JUN-AUG (%)
				SEPT-NOV (%)

4. ANNUAL FUEL CHARACTERISTICS

For coal or fuel oil, list details below

Heat Content (BTU/Fuel Unit)
ASH % (INCLUDE IN EF)
SULFUR % (INCLUDE IN EF)

5. EMISSION CALCULATIONS

AIR POLLUTANT	1. SOURCE OF EMISSION FACTOR	2. EMISSION FACTOR	3. EMISSION FACTOR (EF) CONTROL STATUS	4. OVERALL CONTROL EFFICIENCY (% FORMAT)	5. ACTUAL EMISSIONS (TONS/YR)
					Annual Throughput × Emission Factor × (1-Overall Control Eff/100) ÷ 2,000 = Actual Emissions (tons)
Instructions:	Choose from the Source of Emission Factor List at lower right	Lbs./unit of throughput	If EF includes control mark "C", otherwise "U"	Combination of all capture and destruction efficiencies	If controlled, include *Form 2.0C Control Device Listing*
PM_{10}					
SO_X					
NO_X					
VOC					
CO					
LEAD					
HAPs					
$PM_{2.5}$					
NH_3					

List Other Worksheets or AP-42/Other Reference

SOURCE OF EMISSION FACTOR LIST

1. CEM	Include documentation
2. Stack Test	Include documentation
3. Mass Balance	Include documentation
4. AP-42	Include reference
4F. FIRE or webFIRE	
5. Other	Include documentation
EC. Engr Calc	Include documentation
LS. Landfill Spdsht	Include documentation
TK. TANKS Program	Supply TANKS output
2.3. VOC Mass Bal	Complete Form 2.3
2.4. Liquid Loading	Complete Form 2.4
2.7. Haul Road	Complete Form 2.7
2.8. Storage Pile	Complete Form 2.8
2.T. HAP Worksheet	Complete Form 2.T
2.9. Stack Test/CEM	Complete Form 2.9
2.0L. Landfill	Complete Form 2.0L

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.0 PART 70 OPERATING PERMIT EMISSION UNIT INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. EMISSION UNIT IDENTIFICATION

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION

2. EMISSION PROCESS DETAIL

SEG. NO.	SOURCE CLASSIFICATION CODE (SCC)	SCC DESCRIPTION

DO THE EMISSIONS FROM THIS UNIT FLOW THROUGH A STACK OR VENT? ☐ Yes ☐ No IF YES, COMPLETE *FORM 2.0S STACK/VENT INFORMATION*

ARE THE EMISSIONS FROM THIS UNIT FUGITIVE? ☐ Yes ☐ No IF FUGITIVE, WHAT PERCENTAGE?

3. OPERATING RATE/SCHEDULE

ANNUAL THROUGHPUT	UNITS		

HOURS / DAY	DAYS / WEEK	WEEKS / YR	TOTAL HOURS / YR

DEC-FEB (%)
MAR-MAY (%)
JUN-AUG (%)
SEPT-NOV (%)

4. ANNUAL FUEL CHARACTERISTICS

For coal or fuel oil, list details below

Heat Content (BTU/Fuel Unit)
ASH % (INCLUDE IN EF)
SULFUR % (INCLUDE IN EF)

5. EMISSION CALCULATIONS

AIR POLLUTANT	1. SOURCE OF EMISSION FACTOR	2. EMISSION FACTOR	3. EMISSION FACTOR (EF) CONTROL STATUS	4. OVERALL CONTROL EFFICIENCY (% FORMAT)	5. ACTUAL EMISSIONS (TONS/YR)
Instructions:	Choose from the Source of Emission Factor List at lower right	Lbs/unit of throughput	If EF includes control mark "C", otherwise "U"	Combination of all capture and destruction efficiencies	If controlled, include *Form 2.0C Control Device Listing*
PM_{10} FIL *					
SO_X					
NO_X					
VOC					
CO					
LEAD					
HAPs					
$PM_{2.5}$ FIL *					
NH_3					
PM CON *					

Annual Throughput
× **Emission Factor**
× **(1-Overall Control Eff/100)**
÷ **2,000**
= **Actual Emissions (tons)**

List Other Worksheets or AP-42/Other Reference

SOURCE OF EMISSION FACTOR LIST

1. CEM	Include documentation
2. Stack Test	Include documentation
3. Mass Balance	Include documentation
4. AP-42	Include reference
4F. FIRE or webFIRE	
5. Other	Include documentation
EC. Engr Calc	Include documentation
LS. Landfill Spdsht	Include documentation
TK. TANKS Program	Supply TANKS output
2.3. VOC Mass Bal	Complete Form 2.3
2.4. Liquid Loading	Complete Form 2.4
2.7. Haul Road	Complete Form 2.7
2.8. Storage Pile	Complete Form 2.8
2.T. HAP Worksheet	Complete Form 2.T
2.9. Stack Test/CEM	Complete Form 2.9
2.0L. Landfill	Complete Form 2.0L

* If PM CON is reported, PM10 and PM25 entries above are required and should represent only the filterable PM10 and filterable PM25.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.0C CONTROL DEVICE INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DEVICE NO.	DEVICE CODE

CONTROL DEVICE DESCRIPTION

OPERATING STATUS (CHECK ONE) ☐ Active ☐ Inactive ☐ Dismantled

ARE THE EMISSIONS CONTROLLED THROUGH THE STACK/VENT ONLY? ☐ Yes ☐ No

LIST ALL STACK/VENT NUMBERS SHARING THIS CONTROL DEVICE (LISTED ON *FORM 2.0S STACK/VENT INFORMATION*)

AIR POLLUTANT	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAP(s)	$PM_{2.5}$	NH_3
CAPTURE EFFICIENCY (%)									
CONTROL DEVICE EFFICIENCY (%)									
SOURCE OF EFFICIENCY (CODES)									

CAS NUMBER(S) FOR CONTROLLED HAPS

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DEVICE NO.	DEVICE CODE

CONTROL DEVICE DESCRIPTION

OPERATING STATUS (CHECK ONE) ☐ Active ☐ Inactive ☐ Dismantled

ARE THE EMISSIONS CONTROLLED THROUGH THE STACK/VENT ONLY? ☐ Yes ☐ No

LIST ALL STACK/VENT NUMBERS SHARING THIS CONTROL DEVICE (LISTED ON *FORM 2.0S STACK/VENT INFORMATION*)

AIR POLLUTANT	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAP(s)	$PM_{2.5}$	NH_3
CAPTURE EFFICIENCY (%)									
CONTROL DEVICE EFFICIENCY (%)									
SOURCE OF EFFICIENCY (CODES)									

CAS NUMBER(S) FOR CONTROLLED HAPS

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DEVICE NO.	DEVICE CODE

CONTROL DEVICE DESCRIPTION

OPERATING STATUS (CHECK ONE) ☐ Active ☐ Inactive ☐ Dismantled

ARE THE EMISSIONS CONTROLLED THROUGH THE STACK/VENT ONLY? ☐ Yes ☐ No

LIST ALL STACK/VENT NUMBERS SHARING THIS CONTROL DEVICE (LISTED ON *FORM 2.0S STACK/VENT INFORMATION*)

AIR POLLUTANT	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAP(s)	$PM_{2.5}$	NH_3
CAPTURE EFFICIENCY (%)									
CONTROL DEVICE EFFICIENCY (%)									
SOURCE OF EFFICIENCY (CODES)									

CAS NUMBER(S) FOR CONTROLLED HAPS

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ

FORM 2.0C PART 70 OPERATING PERMIT CONTROL DEVICE INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DEVICE NO.	DEVICE CODE

CONTROL DEVICE DESCRIPTION

OPERATING STATUS (CHECK ONE) ☐ Active ☐ Inactive ☐ Dismantled

ARE THE EMISSIONS CONTROLLED THROUGH THE STACK/VENT ONLY? ☐ Yes ☐ No

LIST ALL STACK/VENT NUMBERS SHARING THIS CONTROL DEVICE (LISTED ON *FORM 2.0S STACK/VENT INFORMATION*)

AIR POLLUTANT	PM_{10} FIL	SO_X	NO_X	VOC	CO	LEAD	HAP(s)	$PM_{2.5}$ FIL	NH_3	PM CON
CAPTURE EFFICIENCY (%)										
CONTROL DEVICE EFFICIENCY (%)										
SOURCE OF EFFICIENCY (CODES)										

CAS NUMBER(S) FOR CONTROLLED HAPS

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DEVICE NO.	DEVICE CODE

CONTROL DEVICE DESCRIPTION

OPERATING STATUS (CHECK ONE) ☐ Active ☐ Inactive ☐ Dismantled

ARE THE EMISSIONS CONTROLLED THROUGH THE STACK/VENT ONLY? ☐ Yes ☐ No

LIST ALL STACK/VENT NUMBERS SHARING THIS CONTROL DEVICE (LISTED ON *FORM 2.0S STACK/VENT INFORMATION*)

AIR POLLUTANT	PM_{10} FIL	SO_X	NO_X	VOC	CO	LEAD	HAP(s)	$PM_{2.5}$ FIL	NH_3	PM CON
CAPTURE EFFICIENCY (%)										
CONTROL DEVICE EFFICIENCY (%)										
SOURCE OF EFFICIENCY (CODES)										

CAS NUMBER(S) FOR CONTROLLED HAPS

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DEVICE NO.	DEVICE CODE

CONTROL DEVICE DESCRIPTION

OPERATING STATUS (CHECK ONE) ☐ Active ☐ Inactive ☐ Dismantled

ARE THE EMISSIONS CONTROLLED THROUGH THE STACK/VENT ONLY? ☐ Yes ☐ No

LIST ALL STACK/VENT NUMBERS SHARING THIS CONTROL DEVICE (LISTED ON *FORM 2.0S STACK/VENT INFORMATION*)

AIR POLLUTANT	PM_{10} FIL	SO_X	NO_X	VOC	CO	LEAD	HAP(s)	$PM_{2.5}$ FIL	NH_3	PM CON
CAPTURE EFFICIENCY (%)										
CONTROL DEVICE EFFICIENCY (%)										
SOURCE OF EFFICIENCY (CODES)										

CAS NUMBER(S) FOR CONTROLLED HAPS

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.0K CHARCOAL KILN INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA
EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)		SEG. NO.

COMPLETE ONE OF THE FOLLOWING SECTIONS FOR EACH CHARCOAL KILN/CONCRETE PAD

KILN ID NO.	YEAR KILN BEGAN OPERATING	TONS PRODUCED THIS YEAR	IF NO PRODUCTION, LAST YEAR OF PRODUCTION		AFTERBURNER OR RECOVERY SYSTEM
MAXIMUM TONS PRODUCED IN ONE BATCH	NUMBER OF HOURS REQUIRED TO PRODUCE ONE BATCH	MAX HOURLY DESIGN RATE	DOLLARS SPENT ON RENOVATION		☐ Yes ☐ No
			LAST YEAR	SINCE 1991	
PRESENT CONDITION					

KILN ID NO.	YEAR KILN BEGAN OPERATING	TONS PRODUCED THIS YEAR	IF NO PRODUCTION, LAST YEAR OF PRODUCTION		AFTERBURNER OR RECOVERY SYSTEM
MAXIMUM TONS PRODUCED IN ONE BATCH	NUMBER OF HOURS REQUIRED TO PRODUCE ONE BATCH	MAX HOURLY DESIGN RATE	DOLLARS SPENT ON RENOVATION		☐ Yes ☐ No
			LAST YEAR	SINCE 1991	
PRESENT CONDITION					

KILN ID NO.	YEAR KILN BEGAN OPERATING	TONS PRODUCED THIS YEAR	IF NO PRODUCTION, LAST YEAR OF PRODUCTION		AFTERBURNER OR RECOVERY SYSTEM
MAXIMUM TONS PRODUCED IN ONE BATCH	NUMBER OF HOURS REQUIRED TO PRODUCE ONE BATCH	MAX HOURLY DESIGN RATE	DOLLARS SPENT ON RENOVATION		☐ Yes ☐ No
			LAST YEAR	SINCE 1991	
PRESENT CONDITION					

KILN ID NO.	YEAR KILN BEGAN OPERATING	TONS PRODUCED THIS YEAR	IF NO PRODUCTION, LAST YEAR OF PRODUCTION		AFTERBURNER OR RECOVERY SYSTEM
MAXIMUM TONS PRODUCED IN ONE BATCH	NUMBER OF HOURS REQUIRED TO PRODUCE ONE BATCH	MAX HOURLY DESIGN RATE	DOLLARS SPENT ON RENOVATION		☐ Yes ☐ No
			LAST YEAR	SINCE 1991	
PRESENT CONDITION					

KILN ID NO.	YEAR KILN BEGAN OPERATING	TONS PRODUCED THIS YEAR	IF NO PRODUCTION, LAST YEAR OF PRODUCTION		AFTERBURNER OR RECOVERY SYSTEM
MAXIMUM TONS PRODUCED IN ONE BATCH	NUMBER OF HOURS REQUIRED TO PRODUCE ONE BATCH	MAX HOURLY DESIGN RATE	DOLLARS SPENT ON RENOVATION		☐ Yes ☐ No
			LAST YEAR	SINCE 1991	
PRESENT CONDITION					

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.0L LANDFILL WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.

LANDFILL INFORMATION

TYPE OF LANDFILL (CHECK ONE)
- ☐ New
- ☐ Existing
- ☐ Closed

TYPE OF CONTROL (CHECK ONE)
- ☐ Flare
- ☐ Control system
- ☐ Enclosed combustor
- ☐ None

IF CLOSED, DATE OF LAST WASTE ACCEPTED

TIME SINCE CLOSURE (YRS.) c= CELL(B15)

TIME SINCE INITIAL REFUSE PLACEMENT (YRS.) t= CELL(B13)

CAPTURE EFFICIENCY CELL(B17)

☐ Used EPA's software (LANDGEM) (attach summary)

☐ Used DNR spreadsheet created with Microsoft® Excel® (attach copies)

Default capture efficiency is 75 percent. Documentation must be supplied for other values.

DESTRUCTION EFFICIENCY (%) CELL(B24)	LANDFILL DESIGN CAPACITY (CUBIC METERS)
AVERAGE ANNUAL REFUSE ACCEPTANCE RATE (Mg/YR.) R= CELL(B14)	MASS OF SOLID WASTE IN THE LANDFILL (Mg)
ACRES OF LANDFILL CELL(B16)	GAS SENT OFF-SITE (MMCF) CELL(B18)

CALCULATION OF EMISSIONS

Default values are 100 m^3/Mg for L (Methane generation rate potential) and 0.04/yr for k (Methane generation rate constant).

METHANE GENERATION RATE (QCH4) (m3/YR.) CELL(G11)	METHANE GENERATION RATE (MMCF) CELL(H11)
SO_2 EMISSIONS (LB./YR.) CELL(N35)	HCl EMISSIONS (LB./YR.) CELL(I50)
NMOC (VOC) FUGITIVE EMISSIONS (LB./YR.) CELL(G88)	NMOC (HAP ONLY) FUGITIVE EMISSIONS (LB./YR.) CELL(G51)
NMOC (VOC) COLLECTED, UNCONTROLLED (LB./YR.) CELL(I88)	NMOC (HAP ONLY) COLLECTED, UNCONTROLLED (LB./YR.) CELL(I51)
NMOC (VOC) EMISSIONS FROM CONTROL (LB./YR.) CELL(K88)	NMOC (HAP ONLY) EMISSIONS FROM CONTROL (LB./YR.) CELL(K51)

CALCULATION OF EMISSION FACTORS

Report fugitive emissions and controlled emissions on separate Forms 2.0.

Fugitive emissions use SCC 50100402, throughput units of acres.

VOC FUGITIVE EMISSION FACTOR (LB./ACRE) CELL(L31)	HAP FUGITIVE EMISSION FACTOR (LB./ACRE) CELL(L32)

Waste gas flares use SCC 50100410, throughput unit of MMCF burned.

For SCCs for other controls, contact your regulatory agency.

VOC TO CONTROL EMISSION FACTOR (LB./MMCF) CELL(N31)	HAP TO CONTROL EMISSION FACTOR (LB./MMCF) CELL(N33)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.0P PORTABLE PLANT INFORMATION

COMPANY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

PORTABLE EQUIPMENT OPERATING SITE INFORMATION

FIPS COUNTY NO.	PLANT NO.	PROJECT NO.	TYPE OF INSTALLATION/UNIT

SITE OR LOCATION NAME	PERCENT OF TOTAL THROUGHPUT AT SITE (%)	FIRST DATE AT SITE	LAST DATE AT SITE

ADDRESS	**Period of Operation**	HOURS	DAYS	WEEKS

CITY	ZIP CODE +4	PHONE NUMBER WITH AREA CODE

	Latitude	**Longitude**	**UTM Coordinates**			
			EASTING (M)	NORTHING (M)	ACC (M)	HORIZONTAL DATUM (CHECK ONE)
Degrees						☐ NAD27 ☐ NAD83
Minutes						☐ WGS84
Seconds						

PORTABLE EQUIPMENT OPERATING SITE INFORMATION

FIPS COUNTY NO.	PLANT NO.	PROJECT NO.	TYPE OF INSTALLATION/UNIT

SITE OR LOCATION NAME	PERCENT OF TOTAL THROUGHPUT AT SITE (%)	FIRST DATE AT SITE	LAST DATE AT SITE

ADDRESS	**Period of Operation**	HOURS	DAYS	WEEKS

CITY	ZIP CODE +4	PHONE NUMBER WITH AREA CODE

	Latitude	**Longitude**	**UTM Coordinates**			
			EASTING (M)	NORTHING (M)	ACC (M)	HORIZONTAL DATUM (CHECK ONE)
Degrees						☐ NAD27 ☐ NAD83
Minutes						☐ WGS84
Seconds						

PORTABLE EQUIPMENT OPERATING SITE INFORMATION

FIPS COUNTY NO.	PLANT NO.	PROJECT NO.	TYPE OF INSTALLATION/UNIT

SITE OR LOCATION NAME	PERCENT OF TOTAL THROUGHPUT AT SITE (%)	FIRST DATE AT SITE	LAST DATE AT SITE

ADDRESS	**Period of Operation**	HOURS	DAYS	WEEKS

CITY	ZIP CODE +4	PHONE NUMBER WITH AREA CODE

	Latitude	**Longitude**	**UTM Coordinates**			
			EASTING (M)	NORTHING (M)	ACC (M)	HORIZONTAL DATUM (CHECK ONE)
Degrees						☐ NAD27 ☐ NAD83
Minutes						☐ WGS84
Seconds						

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ

FORM 2.0S STACK/VENT INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	☐ Stack ☐ Vent	FOR A NON-CIRCULAR STACK: DIAMETER = (1.128A)^1/2 (A=CROSS-SECTIONAL AREA IN SQ FEET)
STACK/VENT NO.	STACK/VENT DESCRIPTION			% OF EMISSIONS RELEASED
STACK/VENT OPERATING STATUS (CHECK ONE)	☐ Active	☐ Inactive	☐ Dismantled	

HEIGHT (FT.)	DIAMETER (FT.)	TEMPERATURE (F)	VELOCITY (FT./MIN.)	FLOW RATE (CU FT./MIN.)	LIST OTHER POINTS SHARING THIS STACK/VENT

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	☐ Stack ☐ Vent	FOR A NON-CIRCULAR STACK: DIAMETER = (1.128A)^1/2 (A=CROSS-SECTIONAL AREA IN SQ FEET)
STACK/VENT NO.	STACK/VENT DESCRIPTION			% OF EMISSIONS RELEASED
STACK/VENT OPERATING STATUS (CHECK ONE)	☐ Active	☐ Inactive	☐ Dismantled	

HEIGHT (FT.)	DIAMETER (FT.)	TEMPERATURE (F)	VELOCITY (FT./MIN.)	FLOW RATE (CU FT./MIN.)	LIST OTHER POINTS SHARING THIS STACK/VENT

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	☐ Stack ☐ Vent	FOR A NON-CIRCULAR STACK: DIAMETER = (1.128A)^1/2 (A=CROSS-SECTIONAL AREA IN SQ FEET)
STACK/VENT NO.	STACK/VENT DESCRIPTION			% OF EMISSIONS RELEASED
STACK/VENT OPERATING STATUS (CHECK ONE)	☐ Active	☐ Inactive	☐ Dismantled	

HEIGHT (FT.)	DIAMETER (FT.)	TEMPERATURE (F)	VELOCITY (FT./MIN.)	FLOW RATE (CU FT./MIN.)	LIST OTHER POINTS SHARING THIS STACK/VENT

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	☐ Stack ☐ Vent	FOR A NON-CIRCULAR STACK: DIAMETER = (1.128A)^1/2 (A=CROSS-SECTIONAL AREA IN SQ FEET)
STACK/VENT NO.	STACK/VENT DESCRIPTION			% OF EMISSIONS RELEASED
STACK/VENT OPERATING STATUS (CHECK ONE)	☐ Active	☐ Inactive	☐ Dismantled	

HEIGHT (FT.)	DIAMETER (FT.)	TEMPERATURE (F)	VELOCITY (FT./MIN.)	FLOW RATE (CU FT./MIN.)	LIST OTHER POINTS SHARING THIS STACK/VENT

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	☐ Stack ☐ Vent	FOR A NON-CIRCULAR STACK: DIAMETER = (1.128A)^1/2 (A=CROSS-SECTIONAL AREA IN SQ FEET)
STACK/VENT NO.	STACK/VENT DESCRIPTION			% OF EMISSIONS RELEASED
STACK/VENT OPERATING STATUS (CHECK ONE)	☐ Active	☐ Inactive	☐ Dismantled	

HEIGHT (FT.)	DIAMETER (FT.)	TEMPERATURE (F)	VELOCITY (FT./MIN.)	FLOW RATE (CU FT./MIN.)	LIST OTHER POINTS SHARING THIS STACK/VENT

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	☐ Stack ☐ Vent	FOR A NON-CIRCULAR STACK: DIAMETER = (1.128A)^1/2 (A=CROSS-SECTIONAL AREA IN SQ FEET)
STACK/VENT NO.	STACK/VENT DESCRIPTION			% OF EMISSIONS RELEASED
STACK/VENT OPERATING STATUS (CHECK ONE)	☐ Active	☐ Inactive	☐ Dismantled	

HEIGHT (FT.)	DIAMETER (FT.)	TEMPERATURE (F)	VELOCITY (FT./MIN.)	FLOW RATE (CU FT./MIN.)	LIST OTHER POINTS SHARING THIS STACK/VENT

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.0Z OZONE SEASON INFORMATION - EMISSIONS STATEMENT

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

OPERATING RATE/SCHEDULE (DURING PEAK OZONE SEASON ONLY)

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DAILY THROUGHPUT	UNITS

DAYS/WEEK	WEEKS OF OPERATION	START TIME ON TYPICAL DAY	END TIME ON TYPICAL DAY

EMISSIONS CALCULATIONS

Air Pollutant	Emission Factor	Control Efficiency (%)	Actual Emissions (lbs./day)
VOC			
NO_X			
CO			

OPERATING RATE/SCHEDULE (DURING PEAK OZONE SEASON ONLY)

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DAILY THROUGHPUT	UNITS

DAYS/WEEK	WEEKS OF OPERATION	START TIME ON TYPICAL DAY	END TIME ON TYPICAL DAY

EMISSIONS CALCULATIONS

Air Pollutant	Emission Factor	Control Efficiency (%)	Actual Emissions (lbs./day)
VOC			
NO_X			
CO			

OPERATING RATE/SCHEDULE (DURING PEAK OZONE SEASON ONLY)

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	DAILY THROUGHPUT	UNITS

DAYS/WEEK	WEEKS OF OPERATION	START TIME ON TYPICAL DAY	END TIME ON TYPICAL DAY

EMISSIONS CALCULATIONS

Air Pollutant	Emission Factor	Control Efficiency (%)	Actual Emissions (lbs./day)
VOC			
NO_X			
CO			

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.1 FUEL COMBUSTION WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA
EMISSION UNIT NO.	**SOURCE CLASSIFICATION CODE (SCC)**		**SEG. NO.**

1. COMBUSTION EQUIPMENT INFORMATION

COAL FIRING CODE LIST	EQUIPMENT DESCRIPTION	YEAR PUT IN SERVICE	COAL FIRING CODE NO. (CODE LIST AT LEFT)	MAXIMUM DESIGN RATE (MILLION BTU/HR.)
1. TANGENTIAL				
2. OPPOSED				
3. FRONT				
4. DRY/WET BOTTOM				
OTHER (SPECIFY)				
	Sum of total maximum hourly design rates			

COMBUSTION EQUIPMENT USE (CHECK ONE)

☐ Electric power generation ☐ Industrial use ☐ Commercial/Institutional ☐ Space heating
☐ Other (specify):

COMBUSTION EQUIPMENT CATEGORY - COAL USE ONLY (CHECK ONE)

☐ Pulverized coal ☐ Pulverized coal dry bottom ☐ Pulverized coal wet bottom ☐ Cyclone
☐ Fluidized bed ☐ Spreader stoker ☐ Overfeed stoker ☐ Underfeed stoker
☐ Hand fired ☐ Other (specify):

2. FUEL INFORMATION (CHECK ONLY ONE)

LIQUID FUELS	GASEOUS FUELS	SOLID FUELS	OTHER
☐ Ethanol ☐ Fuel oil 1-4 (distillate) ☐ Fuel oil 5-6 (residual) ☐ Gasoline ☐ Kerosene	☐ Blast oven gas ☐ Coke oven gas ☐ Liquid propane gas (LPG) ☐ Natural gas	☐ Anthracite Coal ☐ Bagasse ☐ Bark ☐ Bituminous coal ☐ Coke ☐ Lignite ☐ Subbituminous coal ☐ Wood	☐ Other (specify):

3. CALCULATION OF MAXIMUM HOURLY DESIGN RATE

TOTAL HEAT CONTENT (BTU/FUEL UNIT)	MAXIMUM HOURLY DESIGN RATE (FUEL UNIT/HR.)	
		= Maximum Design Rate (mmbtu/hr.) × 1,000,000 (btu/mmbtu) / Heat Content (btu/fuel unit)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.2 INCINERATOR WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. EQUIPMENT INFORMATION

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SCC UNITS	SEG. NO.

MAXIMUM HOURLY DESIGN RATE	UNITS/HR.	MAKE / MODEL	SERIAL NUMBER

INCINERATOR USE (CHECK ONE):

☐ Government ☐ Commercial ☐ Institutional ☐ Industrial

☐ Other (specify):

EQUIPMENT TYPE (CHECK APPROPRIATE BOXES):

☐ Pathological ☐ Sewage sludge ☐ Multiple chambers ☐ Controlled air

☐ Other (specify):

NUMBER OF CHAMBERS NOT INCLUDING STACK	SECONDARY CHAMBER TEMPERATURE (F)

2. WASTE INFORMATION AND THROUGHPUTS

PROCESS WASTE TYPES	HEAT CONTENT (BTU/UNITS)	ANNUAL THROUGHPUT	UNITS
	Total annual throughput =		LBS./YR.
	Total annual throughput (TONS/YR.) = {Total annual throughput (LBS./YR.)} / 2,000		TONS/YR.

Enter the total annual throughput (TONS/YR.) into Section 3 on Form 2.0.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.3 VOC PROCESS MASS-BALANCE WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SCC	SEG. NO.

INSTRUCTIONS

If your facility already calculates your VOC or HAP emissions and emission factor directly through a spreadsheet or engineering calculation, this form is **optional** as long as you supply your supporting documentation. This form is designed for annual throughputs measured in **gallons or tons only.** If you use another unit of measure, supply documentation of how you calculated total emissions and an emission factor. Maintain copies of the Material Safety Data Sheet for each material listed and hazardous waste shipment reports for on-demand requests.

1. TOTAL ANNUAL THROUGHPUT AND TOTAL POUNDS OF VOC

APPLICATION METHOD	MATERIAL TYPE	[A] ANNUAL THROUGHPUT (ton/yr. or gal./yr.)	[B] MAXIMUM % BY WT. OF VOC IN MATERIAL	[C] DENSITY (LBS./UNIT) IF (A) IN TONS, (C)=2,000	[D] LBS. OF VOC PER UNIT (B) × (C) = (D)	[E] VOC (LBS./YR.) (A) × (D) = (E)

Enter the total annual throughput value [F] into Section [3], Annual Throughput on Form 2.0	[F] TOTAL ANNUAL THROUGHPUT		[G] TOTAL VOC (LBS./YR.)

2. CALCULATION OF POUNDS OF VOC RECOVERED

AMOUNT OF MATERIAL SHIPPED AS HAZARDOUS WASTE (LBS./YR.)	×	% VOC CONTENT OF WASTE	=	[H] LBS. OF VOC RECOVERED

3. CALCULATION OF POUNDS OF VOC EMITTED PRIOR TO CONTROL EQUIPMENT

[G] - [H] = [I] [Total lbs. of VOC] - [lbs. of VOC recovered] =	[I] LBS. OF VOC EMITTED PRIOR TO CONTROL

4. CALCULATION OF EMISSION FACTOR

[I] / [F] = [J] [lbs of VOC emitted prior to control equipment] / [Total annual throughput] =	Enter [J] on Form 2.0 as VOC EF	[J] EMISSION FACTOR IN LBS./UNIT

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.4 VOLATILE ORGANIC LIQUID LOADING WORKSHEET

Note: This form is used to calculate emissions from loading organic liquids into tank trucks, rail tank cars and barges.

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. LOADING INFORMATION

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.

ANNUAL THROUGHPUT OF LIQUID (1,000 GALLONS)	CONTROL DEVICE TYPE	CONTROL EFFICIENCY (%)

TYPE OF LOADING (CHECK ONE)

☐ Splash loading ☐ Submerged loading ☐ Bottom loading

☐ Other (specify):

2. CHEMICAL INFORMATION

BULK LIQUID TYPE	MOLECULAR WEIGHT OF MATERIAL LOADED [LB. / (LB./MOLE)]

TRUE VAPOR PRESSURE OF BULK LIQUID (PSIA)	SATURATION FACTOR

TEMPERATURE OF LIQUID (DEGREES RANKINE) = DEGREES FAHRENHEIT + 460 DEGREES FAHRENHEIT

3. LOADING LOSS EMISSION FACTOR CALCULATION

LOADING LOSS EMISSION FACTOR =

12.46 x (Molecular Weight) x (True vapor pressure) x (Saturation) / (Temperature in Degrees Rankine)

LOADING LOSS EMISSION FACTOR	UNITS
	lbs. per 1,000 gallons

NOTE

Enter the Control Efficiency (%) from Section 1 (above) into Section 5, Column 4 on Form 2.0.
Enter the Annual Throughput of Liquid from Section 1, expressed in thousands of gallons, into Section 3 on Form 2.0.
Enter the Loading Loss Emission Factor from Section 3 into the VOC box of Section 5, Column 2 on Form 2.0

Remember when calculating emissions, use a separate Form 2.0, *Emission Unit Information*, for each type of liquid loaded in the tank during the year.

Use the same unit number but with the Source Classification Code that corresponds to the different liquid type.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ

FORM 2.5L GENERAL LIQUID STORAGE TANK INFORMATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	TANK ID	SCC (BREATHING OR WORKING)	SEG. NO.	DIAMETER (FT.)	HEIGHT (FT.)	LENGTH (FT.)
CAPACITY (IN THOUSANDS OF GALLONS)		THROUGHPUT (IN THOUSANDS OF GALLONS)		TANKS PROGRAM USED? ☐ Yes ☐ No		
CAS NUMBER		CHEMICAL		CHOOSE TYPE OF TANK (CHECK ONE) ☐ Vertical fixed roof ☐ Vertical floating roof ☐ Horizontal fixed roof ☐ Underground		
EMISSION UNIT NO.	TANK ID	SCC (BREATHING OR WORKING)	SEG. NO.	DIAMETER (FT.)	HEIGHT (FT.)	LENGTH (FT.)
CAPACITY (IN THOUSANDS OF GALLONS)		THROUGHPUT (IN THOUSANDS OF GALLONS)		TANKS PROGRAM USED? ☐ Yes ☐ No		
CAS NUMBER		CHEMICAL		CHOOSE TYPE OF TANK (CHECK ONE) ☐ Vertical fixed roof ☐ Vertical floating roof ☐ Horizontal fixed roof ☐ Underground		
EMISSION UNIT NO.	TANK ID	SCC (BREATHING OR WORKING)	SEG. NO.	DIAMETER (FT.)	HEIGHT (FT.)	LENGTH (FT.)
CAPACITY (IN THOUSANDS OF GALLONS)		THROUGHPUT (IN THOUSANDS OF GALLONS)		TANKS PROGRAM USED? ☐ Yes ☐ No		
CAS NUMBER		CHEMICAL		CHOOSE TYPE OF TANK (CHECK ONE) ☐ Vertical fixed roof ☐ Vertical floating roof ☐ Horizontal fixed roof ☐ Underground		
EMISSION UNIT NO.	TANK ID	SCC (BREATHING OR WORKING)	SEG. NO.	DIAMETER (FT.)	HEIGHT (FT.)	LENGTH (FT.)
CAPACITY (IN THOUSANDS OF GALLONS)		THROUGHPUT (IN THOUSANDS OF GALLONS)		TANKS PROGRAM USED? ☐ Yes ☐ No		
CAS NUMBER		CHEMICAL		CHOOSE TYPE OF TANK (CHECK ONE) ☐ Vertical fixed roof ☐ Vertical floating roof ☐ Horizontal fixed roof ☐ Underground		
EMISSION UNIT NO.	TANK ID	SCC (BREATHING OR WORKING)	SEG. NO.	DIAMETER (FT.)	HEIGHT (FT.)	LENGTH (FT.)
CAPACITY (IN THOUSANDS OF GALLONS)		THROUGHPUT (IN THOUSANDS OF GALLONS)		TANKS PROGRAM USED? ☐ Yes ☐ No		
CAS NUMBER		CHEMICAL		CHOOSE TYPE OF TANK (CHECK ONE) ☐ Vertical fixed roof ☐ Vertical floating roof ☐ Horizontal fixed roof ☐ Underground		
EMISSION UNIT NO.	TANK ID	SCC (BREATHING OR WORKING)	SEG. NO.	DIAMETER (FT.)	HEIGHT (FT.)	LENGTH (FT.)
CAPACITY (IN THOUSANDS OF GALLONS)		THROUGHPUT (IN THOUSANDS OF GALLONS)		TANKS PROGRAM USED? ☐ Yes ☐ No		
CAS NUMBER		CHEMICAL		CHOOSE TYPE OF TANK (CHECK ONE) ☐ Vertical fixed roof ☐ Vertical floating roof ☐ Horizontal fixed roof ☐ Underground		

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.7 HAUL ROAD FUGITIVE EMISSIONS WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

INSTRUCTIONS

This worksheet is **optional**

If the sum of all Vehicle Miles Traveled, or VMT, at the facility is less than 100, this form is not necessary and the emission unit should be marked as insignificant on Form 1.2.

If the haul road parameters are the same as last year and the updated emission factor equation is used (AP-42, Section 13.2.2, *Unpaved Roads*, Nov. 2006), enter the current annual VMT as the throughput on Form 2.0.

Do not calculate a separate emission factor for each vehicle class. Use the weighted average for the entire fleet traveling the haul road to calculate the emission factors.

1. HAUL ROAD INFORMATION

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.

LENGTH OF ROAD (MILES): IF ONE-WAY, DIVIDE BY 2

SILT CONTENT (%) (DEFAULT = 8.3%)	SURFACE MATERIAL OF ROAD

DAYS OF RAIN WITH AT LEAST 0.01" PER YEAR (DEFAULT = 105)

Type of Dust Control (check one)	Control Efficiency
☐ Paved with Washing	95%
☐ Paved	90%
☐ Surfactant Spray	90%
☐ Water Spray Documented	90%
☐ Water Spray	50%
☐ Other - Specify	
☐ No Controls	0%

2. HAUL TRUCK INFORMATION

MAKE/MODEL	UNLOADED TRUCK WEIGHT (TONS) — WEIGHTED AVERAGE FOR FLEET

AVERAGE WEIGHT OF MATERIAL PER LOAD (TONS)	AVERAGE LOADED WEIGHT (TONS) — WEIGHTED AVERAGE FOR FLEET

3. MATERIAL HAULED

TYPE OF MATERIALS HAULED	ANNUAL AMOUNT HAULED (TONS)

4. CALCULATION OF ANNUAL VEHICLES MILES TRAVELED

ANNUAL VMT	$\text{Annual VMT} = \dfrac{2 \times (\text{Length of road}) \times (\text{Annual amount hauled})}{(\text{Average weight of material per load})}$

5. CALCULATION OF HAUL ROAD UNCONTROLLED EMISSION FACTOR

$PM_{2.5}$ Emission Factor	$0.15 \times \left(\dfrac{\text{Silt Content \%}}{12}\right)^{0.9} \times \left(\dfrac{\text{Unloaded truck weight + Loaded truck weight (tons)}}{6}\right)^{0.45} \times \left(\dfrac{365 - \text{Days of Rain}}{365}\right)$	$PM_{2.5}$ EMISSION FACTOR
PM_{10} Emission Factor	$1.5 \times \left(\dfrac{\text{Silt Content \%}}{12}\right)^{0.9} \times \left(\dfrac{\text{Unloaded truck weight + Loaded truck weight (tons)}}{6}\right)^{0.45} \times \left(\dfrac{365 - \text{Days of Rain}}{365}\right)$	PM_{10} EMISSION FACTOR

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.8 STORAGE PILE WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. STORAGE PILE INFORMATION

EMISSION UNIT NO.		SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	TYPE OF MATERIAL STORED
	ACTIVITY			
	WIND EROSION			

MOISTURE CONTENT (%) (DEFAULT = 0.7%)	AREA OF STORAGE PILE (ACRES)
SILT CONTENT(%) (DEFAULT = 1.6%)	RAW MATERIAL LOADING METHOD (CHECK ONE): ☐ Barge ☐ Rail ☐ Truck ☐ Conveyor ☐ Other (specify) _____
STORAGE DURATION (DAYS)	
ANNUAL AMOUNT STORED (TONS)	
MAXIMUM HOURLY AMOUNT STORED (TONS)	

RAW MATERIAL UNLOADING METHOD (CHECK ONE):
☐ Barge
☐ Rail
☐ Truck
☐ Conveyor
☐ Other (specify) _____

2. OTHER FACTORS AFFECTING EMISSION RATES

MEAN WIND SPEED (MPH) (DEFAULT = 10 MPH)	% OF TIME WIND > 12 MPH (DEFAULT = 32%)
DRY DAYS PER YEAR (DEFAULT = 260 DAYS)	VEHICLE ACTIVITY FACTOR (DEFAULT = 1.0)

4. STORAGE PILE EMISSION FACTOR CALCULATIONS

CALCULATION	FORMULA	RESULT
[3-A-1] Load In - Load Out Component (lb./ton)	0.0032 x .35 x (Mean wind speed / 5) ^1.3 / (Moisture content % / 2) ^1.4	
[3-A-2] Vehicle Activity Component (lb./ton)	0.05 x (Silt content % / 1.5) x (Dry days per year / 235) x Vehicle Activity Factor	
[3-A-3] Activity PM10 Emission Factor (lb./ton)	[3-A-1] Load In - Load Out Component + [3-A-2] Vehicle Activity Component	
[3-B] Wind Erosion PM10 Emission Factor (lb./acre-yr.)	0.85 x (Silt content % / 1.5) x (Storage duration (Days)) x (Dry days per year / 235) x (% of time wind >12 MPH /15)	

NOTE

If you use a Source Classification Code and emission factor from the list in the instructions for this form, make sure to complete Section 1, Storage Pile Information for each storage pile.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.9 STACK TEST/CONTINUOUS EMISSIONS MONITOR WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.	STACK NO.

TYPE	POLLUTANT TESTED	CAS NUMBER	
☐ CEM ☐ Stack test			Note: Use a separate worksheet for each pollutant tested.

1. EMISSION SOURCE INFORMATION

EQUIPMENT MAKE/MODEL

TYPE OF CONTROL DEVICE

LIMITATIONS ON EMISSIONS, PRODUCTION OR OPERATING TIME (IF ANY)

2. STACK TEST INFORMATION

TESTING FIRM NAME

TESTING FIRM ADDRESS	CITY	STATE	ZIP CODE + 4

EPA METHOD(S) USED	TEST DATE(S)	RESULTS	COMPLIANCE
			☐ Yes ☐ No

TEST TECHNIQUE (CHECK ONE)	LATEST CALIBRATION OF TESTING EQUIPMENT
☐ Operational Rate ☐ Maximum Design Rate ☐ Both	
AGENCY OBSERVING TEST (CHECK ONE)	NAME OF OBSERVER(S)
☐ EPA ☐ DNR ☐ Other	

3. CONTINUOUS EMISSION MONITORING INFORMATION

CONCENTRATION OF POLLUTANT	UNITS	FLOW RATE OF STACK	UNITS

LATEST CALIBRATION OF MONITOR	RESULTS OF CALIBRATION
MONITOR AVERAGING PERIOD	PERCENT MONITOR DOWN TIME

4. EMISSION FACTOR CALCULATION

EMISSION RATE	UNITS LBS./HR.	Note: Documentation should include summary page information from the test data to verify the emission and production rate.
PRODUCTION RATE	UNITS/HR.	

EMISSION FACTOR =
[{EMISSION RATE} / {PRODUCTION RATE}]

EMISSION FACTOR	UNITS

Enter the emission factor into the appropriate box in Section 5, Column 3 on Form 2.0.
If applicable, enter the control device type and control efficiency (%) in Section 5 on Form 2.0.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 2.T HAZARDOUS AIR POLLUTANT WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

EMISSION UNIT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG. NO.

Use this form to report any Hazardous Air Pollutant, or HAP, which is emitted in any amount greater than the chemical reporting levels per each emission unit. The instructions for this form provide a list of the HAPs regulated under the Clean Air Act. The amount emitted (Column 4) should be reported before control equipment reductions are applied. Provide documentation (other worksheets, etc.) if the amount in Column 3 does not equal the amount in Column 4. The HAP reporting levels per emission unit are as follows: Category 1 HAPs - sum of 20 pounds per year; All other HAPs - sum of 200 pounds per year.

1. HAP CHEMICAL	2. CAS NUMBER	3. AMOUNT USED OR HANDLED (LBS./YR.)	4. UNCONTROLLED AMOUNT EMITTED (LBS./YR.)	5. UNCONTROLLED EMISSIONS REPORTED AS VOC OR PM10 (LBS./YR.)	6. UNCONTROLLED EMISSIONS REPORTED AS HAPs (LBS./YR.)	7. HAP CONTROL DEVICE(S)	8. CONTROL EFFICIENCY (%)	9. CONTROLLED EMISSIONS REPORTED AS VOC OR PM10 (LBS./YR.)	10. CONTROLLED EMISSIONS REPORTED AS HAPs (LBS./YR.)
		HAP Emission Totals =	SUM (LBS./YR.)	SUM (LBS./YR.)				SUM (LBS./YR.)	SUM (LBS./YR.)

Uncontrolled HAP Emission Factor =	Sum of uncontrolled emissions reported as HAPs (Column 6 Total)/Annual Throughput (Form 2.0)	11. HAP EMISSION FACTOR	

Enter the HAP emission factor for all chemicals that are not reported as VOCs or PM10 from Block 11 above as the HAP Emission Factor in Section 5 on Form 2.0.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 3.0 EMISSIONS FEE CALCULATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. EMISSION UNIT NO. / SCC	Use one row to list the emissions from one emission unit. Sum the emissions in the page total box at the bottom of the column. If more than one page is needed, use the first row of the duplicated page to list the page totals from this page. Express figures in tons per year and round to two decimal places.								
	AIR POLLUTANT								
	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPs	$PM_{2.5}$	NH_3
PAGE TOTALS									

Note: Fill out the lower portion of this form one time only.

2. ACTUAL EMISSIONS (Use the sum of all page totals for each pollutant for actual emission figures below.)

	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPs	$PM_{2.5}$	NH_3
Total									

Copy the actual emissions from section 2 to the appropriate box(es) in the Total Plant Emissions Section of *Form 1.0 General Plant Information*.

3. CHARGEABLE EMISSIONS (Maximum 4,000 Tons/Yr. cap per pollutant)

Total					NO FEES FOR CO			NO FEES FOR $PM_{2.5}$	NO FEES FOR NH_3

4. SUM OF CHARGEABLE EMISSIONS SUBJECT TO FEES

Round chargeable emissions to the nearest whole ton. The minimum emission tonnage is one ton, and the maximum is 12,000 tons per year.	Tons/Yr.

5. TOTAL ANNUAL EMISSIONS FEE

Multiply the sum of chargeable emissions as calculated in section 4 by $40 and enter this amount in section 5. The minimum fee is $40.	$

6. ANNUAL EMISSIONS FEE REMITTED TO THE CITY OF KANSAS CITY OR ST. LOUIS COUNTY LOCAL AIR AGENCY

CHECK NUMBER	CHECK DATE	AMOUNT REMITTED IN CALENDAR YEAR OF RECORD

7. ANNUAL EMISSIONS FEE REMITTED TO THE STATE (SECTION 5 MINUS SECTION 6)

CHECK NUMBER	CHECK DATE	CHECK AMOUNT
		$

8. INCLUDE A CHECK FOR THE AMOUNT IN SECTION 7, PAYABLE TO THE MISSOURI AIR POLLUTION CONTROL PROGRAM.

Mail the check for the emissions fee to the State Air Agency listed on Form 1.0.

9. SEND THE COMPLETED QUESTIONNAIRE AND ANY SUPPORTING DOCUMENTATION TO THE AGENCY LISTED AT THE BOTTOM OF *FORM 1.0 GENERAL PLANT INFORMATION*.

Facilities within local air program jurisdiction only need to include copies of *Form 1.0 General Plant Information*, *Form 3.0 Emissions Fee Calculation* and *Form 4.0 Financial Cost Estimate* with the emissions fee check.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 3.0 PART 70 OPERATING PERMIT EMISSIONS FEE CALCULATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

Use one row to list the emissions from one emission unit. Sum the emissions in the page total box at the bottom of the column. If more than one page is needed, use the first row of the duplicated page to list the page totals from this page.
Express figures in tons per year and round to two decimal places.

1. EMISSION UNIT NO. / SCC	AIR POLLUTANT									
	PM_{10} FIL	SO_X	NO_X	VOC	CO	LEAD	HAPs	$PM_{2.5}$ FIL	NH_3	PM CON
PAGE TOTALS										

Note: Fill out the lower portion of this form one time only.

2. ACTUAL EMISSIONS (Use the sum of all page totals for each pollutant for actual emission figures below.)

	PM_{10} TOTAL	SO_X	NO_X	VOC	CO	LEAD	HAPs	$PM_{2.5}$ TOTAL	NH_3	PM CON
Total										Included in Total PM_{10} and $PM_{2.5}$

Copy the actual emissions from section 2 to the appropriate box(es) in the Total Plant Emissions Section of *Form 1.0 General Plant Information*.

3. CHARGEABLE EMISSIONS (Maximum 4,000 Tons/Yr. cap per pollutant.)

Total					**NO FEES FOR CO**			**NO FEES FOR $PM_{2.5}$**	**NO FEES FOR NH3**	PM CON is included in PM_{10} and $PM_{2.5}$

4. SUM OF CHARGEABLE EMISSIONS SUBJECT TO FEES

Round chargeable emissions to the nearest whole ton. The minimum emission tonnage is one ton, and the maximum is 12,000 tons per year.	

5. TOTAL ANNUAL EMISSIONS FEE

Multiply the sum of chargeable emissions as calculated in section 4 by $40 and enter this amount in section 5. The minimum fee is $40.	**$**

6. ANNUAL EMISSIONS FEE REMITTED TO THE CITY OF KANSAS CITY OR ST. LOUIS COUNTY LOCAL AIR AGENCY

CHECK NUMBER	CHECK DATE	AMOUNT REMITTED IN CALENDAR YEAR OF RECORD

7. ANNUAL EMISSIONS FEE REMITTED TO THE STATE (SECTION 5 MINUS SECTION 6)

CHECK NUMBER	CHECK DATE	CHECK AMOUNT
		$

8. INCLUDE A CHECK FOR THE AMOUNT IN SECTION 7, PAYABLE TO THE MISSOURI AIR POLLUTION CONTROL PROGRAM.

Mail the check for the emissions fee to the State Air Agency listed on *Form 1.0 General Plant Information*.

9. SEND THE COMPLETED QUESTIONNAIRE AND ANY SUPPORTING DOCUMENTATION TO THE AGENCY LISTED AT THE BOTTOM OF *FORM 1.0 GENERAL PLANT INFORMATION*.

Facilities within local air program jurisdiction only need to include copies of *Form 1.0 General Plant Information*, *Form 3.0 Emissions Fee Calculation* and *Form 4.0 Financial Cost Estimate* with the emissions fee check.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 3.0 CK CHARCOAL KILN EMISSIONS FEE CALCULATION

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

1. EMISSION UNIT NO

Use one row to list the emissions from one emission unit. Sum the emissions in the page total box at the bottom of the column. If more than one page is needed, use the first row of the duplicated page to list the page totals from this page. Express figures in tons per year and round to two decimal places.

SCC	**AIR POLLUTANT**								
	PM_{10}	**SO_X**	**NO_X**	**VOC**	**CO**	**LEAD**	**HAPs**	**$PM_{2.5}$**	**NH_3**
PAGE TOTALS									

Note: Fill out the lower portion of this form one time only.

2. ACTUAL EMISSIONS (Use the sum of all page totals for each pollutant for actual emission figures below.)

	PM10	**SO_X**	**NO_X**	**VOC**	**CO**	**LEAD**	**HAPs**	**PM2.5**	**NH_3**

Copy the actual emissions from section 2 to the appropriate box(s) in the Total Plant Emissions section of Form 1.0.

3. CHARGEABLE EMISSIONS (Maximum 4,000 Tons/Yr. cap per pollutant)

					NO FEES FOR CO			**NO FEES FOR PM2.5**	**NO FEES FOR NH3**

4. SUM OF EMISSIONS

Round figure to nearest ton per year — Tons/Yr.

5. TOTAL ANNUAL EMISSIONS FEE

Facilities that produce charcoal from wood are exempt from fees.

6. INCLUDE A CHECK FOR THE AMOUNT IN BOX 5, PAYABLE TO THE MISSOURI AIR POLLUTION CONTROL PROGRAM.

Mail the check for the emissions fee to the State Air Agency listed on Form 1.0.

7. SEND THE COMPLETED QUESTIONNAIRE AND ANY SUPPORTING DOCUMENTATION TO THE AGENCY LISTED AT THE BOTTOM OF FORM 1.0.

Facilities within local air program jurisdiction only need to include copies for Form 1.0, 3.0 and 4.0 with the emissions fee check.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
FORM 4.0 FINANCIAL COST ESTIMATE

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

The Missouri Air Conservation Law, Chapter 643, requires a financial cost estimate. The cost estimate is an evaluation of any additional costs of doing business attributable to the Federal Clean Air Act, as amended.

Calculate the cost and expenses incurred to complete the Emission Inventory Questionnaire, including the calculation of emission fees. If you hired an outside consultant, include the time and money charged to your company. Also include any cost incurred if you installed air pollution control equipment, any additional monitoring or testing expense or any additional personnel costs incurred to comply with the Missouri Air Conservation Law and the Federal Clean Air Act, as amended.

Be sure to use the codes found in the instructions: www.dnr.mo.gov/env/apcp/eiq/eiqinformation.htm .

	CATEGORY REPORTING	CODE FOR PERSONNEL OR EQUIPMENT	NUMBER OF EMPLOYEES	TOTAL NUMBER OF HOURS REQUIRED	COST PER HOUR	TOTAL COST
1.	EIQ reviewed and completed by company personnel (engineers, technical specialists, others).					
2.	EIQ completed by outside engineering consultants.					
3.	Pollution control equipment, monitoring, or testing (List items separately).					
4.	Estimate of the number of jobs added to implement the Federal Clean Air Act, as amended.					
5.	Personnel and other costs associated with complying with the Clean Air Act, as amended, not included above.					
	Total					

REMARKS

MO 780-1622 (12-09)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

EMISSIONS INVENTORY QUESTIONNAIRE, OR EIQ
DRY CLEANER - NON-CHLORINATED AND PETROLEUM BASED SOLVENTS

FIPS COUNTY NO.	PLANT NO.	COUNTY	EMISSION UNIT NO.	SCC	SEG. NO.	YEAR OF DATA

1. DRY CLEANER INFORMATION

FACILITY NAME	CONTACT PERSON NAME/TITLE	PHONE NUMBER WITH AREA CODE	FAX NUMBER WITH AREA CODE

STREET ADDRESS	CITY	STATE	ZIP CODE +4

MAILING ADDRESS (IF DIFFERENT FROM ABOVE)	CITY	STATE	ZIP CODE +4

2. PARENT COMPANY INFORMATION

PARENT COMPANY NAME	OWNER'S PHONE NUMBER WITH AREA CODE

STREET ADDRESS, P.O. BOX OR ROUTE NUMBER	FAX NUMBER WITH AREA CODE

CITY	STATE	ZIP CODE +4

3. MACHINE INFORMATION

NUMBER OF DRY TO DRY MACHINES	NUMBER OF TRANSFER MACHINES	TOTAL COMBINED DRYER CAPACITY
		Lbs.

4. SOLVENT DETAIL

SOLVENT TYPE (CHECK ONE)

☐ Stoddard ☐ Other (specify):

Calculate Solvent Use	Non-Chlorinated (Non-perc)
Gallons on hand from previous year	
Gallons brought on-site during calendar year (+)	
Unused gallons transferred off-site (-)	
Gallons on hand at end of calendar year (-)	
(a) Total gallons used during calendar year (=)	

5. CALCULATE GALLONS SOLVENT SHIPPED AS WASTE

Number of Filters	×	Conversion Factor (Default = 0.1)	=	**(b)**	Gallons of Sludge	×	0.1	=	**(c)**

6. CALCULATE AIR EMISSIONS FEE

$\frac{[a\text{-}b\text{-}c] \times \text{Solvent Density}}{2{,}000 \text{ pounds per ton}}$	Solvent Density lbs./gal. Stoddard: 6.316 Other:	**1.**	Tons/Yr.
One ton minimum used to calculate fees (See instructions for current fee schedule).	Tons/Yr. (rounded to the nearest whole number) × Emission Fee	**2.**	$

7. CERTIFICATION

The undersigned certifies that they have personally examined and are familiar with the information and statements contained herin and further certifies they believe this information is true, accurate and complete. The undersigned certifies that knowingly making a false statement or misrepresenting the facts presented in this document is a violation of state law.

PRINTED NAME AND TITLE OF PERSON COMPLETING FORM	SIGNATURE OF PERSON COMPLETING FORM	DATE

PRINTED NAME AND TITLE OF AUTHORIZED COMPANY REPRESENTATIVE	SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE	DATE

CHECK INFORMATION				OFFICE USE ONLY	
EMISSION FEE	CHECK AMOUNT	CHECK DATE	CHECK NO.	LOGGED IN BY	DATE RECEIVED