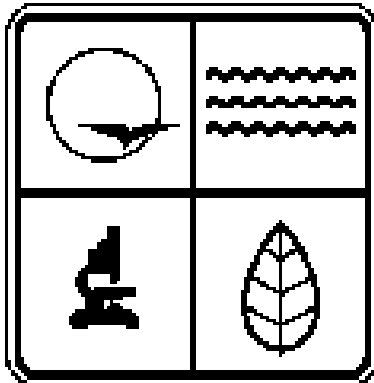


**Operating Permit  
Application**

**Instructions**

**2003**



Missouri Department of Natural Resources  
Air Pollution Control Program  
Post Office Box 176  
Jefferson City, Missouri 65102

Telephone: (573) 751-4817

# TABLE OF CONTENTS

<b>INTRODUCTION</b> .....	<b>5</b>
<b>SECTION A - GENERAL APPLICATION INFORMATION</b> .....	<b>7</b>
FORM OP-A01.00 GENERAL APPLICATION INFORMATION.....	7
Section 1. General Installation Information.....	7
Section 2. General Parent Company Information (if applicable).....	7
Section 3. Operating Permit Type.....	7
Potential to Emit, PTE.....	7
Potential to Emit Guidance.....	8
Treatment of Fugitive Emissions.....	9
Part 70 (Title V) Applicability.....	9
Missouri Deferral.....	11
Specific Part 70 (Title V) Operating Permit Type.....	11
Intermediate (synthetic minor or FESOP) Applicability.....	13
Specific Intermediate (synthetic minor or FESOP) Operating Permit Type.....	14
Basic State Applicability.....	14
Specific Basic State Operating Permit Type.....	15
FORM OP-A02.00 APPLICATION FOR AUTHORITY TO OPERATE.....	15
Section 1. Principal Product.....	15
Section 2. Installation's Processes.....	16
Section 3. Emission Inventory Questionnaire (EIQ) Submittal.....	16
Section 4. Operating Permit Application Form Inventory.....	16
<b>SECTION B - APPLICABLE REQUIREMENTS CHECKLIST</b> .....	<b>17</b>
FORM OP-B01.00 THROUGH FORM OP-B12.00 APPLICABLE REQUIREMENTS CHECKLIST.....	17
Local Agencies.....	19
State Enforceability versus Federal Enforceability.....	19
<b>SECTION C - INSIGNIFICANT ACTIVITIES</b> .....	<b>20</b>
FORM OP-C01.00 INSIGNIFICANT ACTIVITIES REQUIRED TO BE LISTED.....	20
Insignificant Activities.....	20
Activities Not Required To Be Listed.....	20
Emission Unit ID, Description and Potential Estimated Emissions.....	20
<b>SECTION D - EMISSION UNIT INFORMATION</b> .....	<b>21</b>
FORM OP-D01.00 EXISTING PLANT-WIDE PERMIT CONDITIONS.....	21
FORM OP-D02.00 PROPOSED PLANT-WIDE PERMIT CONDITIONS.....	21
FORM OP-D03.00 GENERAL EMISSION UNIT INFORMATION.....	22
Emission Unit ID, Emissions Inventory Questionnaire (EIQ) Reference Number, and Source Classification Code (SCC).....	22
Section 1. Emission Unit Description.....	22
Section 2. Associated Air Pollution Control Equipment.....	22
Section 3. Applicable Requirements.....	23
FORM OP-D03.10 BOILERS, FURNACES AND OTHER INDIRECT HEATING SOURCES.....	23
Emission Unit ID, Emissions Inventory Questionnaire (EIQ) Reference Number, and Source Classification Code (SCC).....	23
Section 1. Emission Unit Description.....	23
Section 2. Fuel Data.....	24
Section 3. Associated Air Pollution Control Equipment.....	24
Section 4. Applicable Requirements.....	24
FORM OP-D03.20 COMBUSTION TURBINES AND INTERNAL COMBUSTION ENGINES.....	24
Emission Unit ID, Emissions Inventory Questionnaire (EIQ) Reference Number, and Source Classification Code (SCC).....	25

Section 1. Emission Unit Description.....	25
Section 2. Fuel Data.....	25
Section 3. Associated Air Pollution Control Equipment.....	25
Section 4. Applicable Requirements.....	25
FORM OP-D03.30 SPRAY BOOTHS.....	25
Emission Unit ID, Emissions Inventory Questionnaire (EIQ) Reference Number, and Source Classification Code (SCC).....	26
Section 1. Emission Unit Description.....	26
Section 2. Coating Data.....	26
Section 3. Associated Air Pollution Control Equipment.....	26
Section 4. Applicable Requirements.....	26
FORM OP-D04.00 ALTERNATE OPERATING SCENARIO/VOLUNTARY CONDITIONS.....	27
Emission Unit ID, Emissions Inventory Questionnaire (EIQ) Reference Number, and Source Classification Code (SCC).....	27
Section 1. Alternate Operating Scenarios.....	27
Section 2. Voluntary Permit Conditions.....	28
FORM OP-D05.00 COMPLIANCE DETERMINATION METHODS.....	28
Emission Unit ID, Emissions Inventory Questionnaire (EIQ) Reference Number, and Source Classification Code (SCC).....	29
Section 1. Applicable Requirement.....	29
Section 2. Testing.....	29
Section 3. Monitoring.....	29
Section 4. Record Keeping.....	29
Section 5. Reporting.....	29
FORM OP-D06.00 THROUGH FORM OP-D06.05 CORE PERMIT REQUIREMENTS.....	29
Form OP-D06.00 Core Permit Requirements.....	30
Form OP-D06.01 Core Permit Requirements.....	30
Form OP-D06.02 Core Permit Requirements.....	30
Form OP-D06.03 Core Permit Requirements.....	30
Form OP-D06.04 Core Permit Requirements.....	30
Form OP-D06.05 Core Permit Requirements.....	31
<b>SECTION E - COMPLIANCE PLAN/STATUS.....</b>	<b>32</b>
FORM OP-E01.00 COMPLIANCE PLAN/STATUS.....	32
Section 1. Compliance status with all applicable requirements effective at the time of issuance.....	32
Section 2. Compliance status with all applicable requirements effective during the permit term.....	32
Section 3. Compliance status with enhanced monitoring and compliance certification.....	32
Section 4. Schedule for submission of compliance certification during the permit term.....	32
Section 5. Certification statement for Part 70 minor permit modifications.....	32
Section 6. Certification of compliance with all applicable requirements.....	33
<b>SECTION F - GENERAL COMMENTS.....</b>	<b>34</b>
FORM OP-F01.00 GENERAL COMMENTS.....	34
40 CFR Part 64 -- Compliance Assurance Monitoring (CAM).....	34
Purpose: [§64.3 and §64.7].....	34
Applicability: [§64.2(a)].....	34
Exemptions: [§64.2(b)].....	34
Monitoring Information Submittal Deadlines: [§64.5].....	35
Submittal Requirements: [§64.3 and §64.4].....	35
Approval of Monitoring: [§64.6].....	35
Operation of Approved Monitoring: [§64.7].....	36
Quality Improvement Plan (QIP): [§64.8].....	36
Reporting and Recordkeeping Requirements: [§64.9].....	37
Savings Provisions: [§64.10].....	37
Section 112(j) – “Maximum Achievable Control Technology (MACT) Hammer” – Equivalent Emission Limitation by Permit.....	38
Background.....	38
Requirements.....	39

Applicability: [§63.50(a)(2) and (a)(2)(i)].....	39
Submittal Requirements: [§63.53(b)].....	40
APPENDIX A.....	41
APPENDIX B.....	42
APPENDIX C.....	43
APPENDIX D.....	45
APPENDIX E.....	49
APPENDIX F.....	51
APPENDIX G.....	52
APPENDIX H.....	54
GLOSSARY.....	56

## Introduction

Missouri's Operating Permits Program includes two types of operating permits; *Part 70* operating permits and *Basic State* operating permits. The *Part 70 Operating Permit* for "Major Sources," satisfies the requirements of Title V of the 1990 Clean Air Act Amendments as set forth by the United States Congress to supplement the Clean Air Act. The operating permit rule includes provisions for an *Intermediate Operating Permit* for "Major Sources" that choose to volunteer for self-imposed emission limitations so a *Part 70* permit is not required. Finally, the rule includes provisions for *Basic State Operating Permits* for sources that are not classified as "Major Sources." This rule is set forth at MISSOURI STATE RULE 10 Code of State Regulations (CSR) 10-6.065 Operating Permits.

These instructions include guidance to help the installation determine which classification (or type) of operating permit is required.

Sources that are required to obtain an operating permit under 10 CSR 10-6.065 must complete all or part of the accompanying application forms. All applicants must:

1. Submit duplicate copies of the application.
2. Submit the appropriate filing fee. The department requires a permit application fee for all applications requiring an initial operating permit and all applications wanting to renew an existing operating permit. However, the department does not require a filing fee to amend or modify an existing operating permit. For guidance on determining the correct fee for your operating permit, go to <http://dnr.mo.gov/forms/air-operating-permit-fees.pdf>.
3. Provide all the necessary completed forms.
4. The responsible official signatures on Form OP-A01.00 and Form OP-E02.00 must be original (no copies) and signed in ink.
5. When required, provide a completed Emissions Inventory Questionnaire (EIQ) for the previous calendar year.

Installations subject to the requirement to obtain a *Part 70 Operating Permit* are required to file an initial permit application within 12 months following commencement of operations at the installation. A *Part 70 Operating Permit* is valid for five years from the date of issuance of the permit. Permit renewal applications must be filed no earlier than 18 months, but no later than six months prior to the expiration date of an existing operating permit.

Installations subject to the requirement to obtain an *Intermediate Operating Permit* or a *Basic State Operating Permit* are required to file an initial permit application/notification within 30 days following commencement of operations at the installation. *Intermediate Operating Permits* and *Basic Operating Permits* are valid for five years from the date of receipt or acceptance, whichever is later. A permit renewal application/notification must be filed at least six months prior to the expiration date of an existing operating permit.

Operating permit amendments must be filed promptly any time when it is determined that the operating permit notification contains incorrect, incomplete, false, or misleading information. Typically, amendments are filed when the installation adds or modifies emissions sources, or when new regulations are promulgated after the submittal of a permit notification.

Applications/notifications are incomplete unless all information requested is supplied. Failure to supply any additional information requested by the permitting authority may result in the loss of the application shield for *Part 70* sources, or the denial of the permit application for *Basic* or *Intermediate* sources.

A copy of Title 10, Division 10 Missouri Air Laws and Regulations can be obtained by contacting the Secretary of State's Office at (573) 751-4936. A copy is also available at <http://www.sos.state.mo.us/adrules/csr/current/10csr/10csr.asp>

Completed applications/notifications must be mailed to the Missouri Department of Natural Resources (Do not fax applications). However, if the installation submitting an operating permit application/notification is located in the cities of Kansas City, Springfield, or St. Louis, or the county of St. Louis, the installation must submit the operating permit application/notification directly to their respective local agency. For additional assistance or further questions, contact the appropriate authority:

1. Missouri Department of Natural Resources  
Air Pollution Control Program  
Operating Permit Unit  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: (573) 751-4817  
Fax: (573) 751-2706

Environmental Assistance Office (formerly Technical Assistance Program)  
(800) 361-4827

2. Missouri Department of Natural Resources Regional Offices

*Kansas City Regional Office*  
500 NE Colbern Road  
Lee's Summit, MO 64086-4710  
Telephone: (816) 622-7000  
Fax: (816) 622-7044

*Northeast Regional Office*  
1709 Prospect Drive  
Macon, MO 63552-2602  
Telephone: (660) 385-2129  
Fax: (660) 385-6398

*Southeast Regional Office*  
2155 North Westwood Blvd  
P.O. Box 1420  
Poplar Bluff, MO 63901-1420  
Telephone: (573) 840-9750  
Fax: (573) 840-9754

*Southwest Regional Office*  
2040 W. Woodland  
Springfield, MO 65807-5912  
Telephone (417) 891-4300  
Fax: (417) 895-4399

*St. Louis Regional Office*  
7545 S. Lindbergh, Suite 210  
St. Louis, MO 63125  
Telephone: (314) 416-2960  
Fax: (314) 416-2970

3. Local agencies

*City of St. Louis:*  
Division of Air Pollution Control  
1415 North 13<sup>th</sup> Street  
St. Louis, MO 63106  
Telephone: (314) 613-7300  
Fax: (314) 613-7275

*St. Louis County:*  
St. Louis County Department of Health  
Air, Land, & Water Branch  
Air Pollution Control Section  
111 South Meramec  
Clayton, MO 63105  
Telephone: (314) 615-8983  
Or (314) 615-8924

*City of Springfield:*  
Air Pollution Control Authority  
227 East Chestnut Expressway  
Springfield, MO 65802  
Telephone: (417) 864-1000  
Fax: (417) 864-1499

*Kansas City:*  
Kansas City Health Department  
Air Quality Section  
2400 Troost  
3<sup>rd</sup> Floor  
Kansas City, MO 64108  
Telephone: (816) 513-6314  
Fax: (816) 983-4475

## Section A - General Application Information

These forms are to request the general plant information and other related information for the installation subject to this specific permit application.

### FORM OP-A01.00 General Application Information

#### Section 1. General Installation Information.

Enter the Installation Name, FIPS Number (see Appendix A), Plant Number, Year Submitted, Street Address, County Name, Mailing Address, Phone Number, FAX Number, Senatorial District, Representative District, Contact Person, Contact Person Title and Contact Person E-mail.

Leave the Plant Number Blank, if the new installation has not been assigned a plant number by the Air Pollution Control Program. A Plant Number will be assigned upon receipt of the application.

#### Section 2. General Parent Company Information (if applicable).

Enter the Parent Company Name, Mailing Address, Parent Company Contact Person, Parent Company Contact Person Title, Parent Company Contact Person Phone number and Parent Company Contact Person E-mail.

#### Section 3. Operating Permit Type.

Check the appropriate application type.

The Missouri operating permit program consists of a two level permit program. Classification into a particular operating permit level depends on the installation's potential to emit. If the installation is a Part 70 installation, it can choose to obtain an Intermediate operating permit rather than a Part 70 permit.

1. Part 70 (Title V)
  - a) Intermediate (Synthetic Minor)
2. Basic State

In determining applicability of the operating permit program to the installation, only calculate the potential to emit for the possible "limiting pollutant;" the pollutant with the highest emissions from the installation with respect to Part 70 applicability thresholds. Be careful to note all the thresholds for all pollutants emitted by the installation. Hazardous air pollutants have relatively low annual emission thresholds, and can easily be overlooked when performing an initial assessment of an installation.

**Example:** The installation is tasked with determining if a Part 70 permit is required. The primary pollutant emitted is particulate matter; the installation also emits other criteria pollutants in lesser amounts. Only calculate the potential emissions of particulate matter with an aerodynamic diameter of less than ten microns (PM<sub>10</sub>) from the installation to address applicability of the Part 70 program. Do not spend the time and resources calculating Potential to Emit (PTE) for the other emissions.

#### Potential to Emit, PTE

Potential to emit is a means of comparing, for various source categories, sources of air pollution and for determining, for those source categories, whether the agency should be concerned (expressed through enforcement, permitting, and other agency activities) with the source. It is the best means currently available for putting dissimilar sources of air pollution on the same basis of review and concern, without regard to the particular category to which the source belongs. Potential emissions at an installation as defined in 10 CSR 10-6.020, *Definitions and Common Reference Tables*, shall be calculated based on the maximum annual-rated capacity of the installation, assuming continuous year-round operation.

Federally enforceable permit conditions limiting the type of materials combusted, or processed, operating rates, hours of operation or the application of air pollution control equipment shall be used in determining the annual potential.

A federally enforceable condition is any limitation or condition that is enforceable by the Administrator. It includes all New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPs), and Hazardous Air Pollutant (HAP) requirements, requirements within the state implementation plan (SIP), any Prevention of Significant Deterioration (PSD) or non-attainment review permits, and any existing construction or operating permits.

Since the construction permit rule is approved by the EPA as part of the Missouri SIP, limits on emissions, production, or the operation used to calculate construction permit emission limits are enforceable by the EPA. Note: the operating permit program does not replace the federal/state construction permit program for new and modified sources.

**Example:** An installation has two boilers. One was built in the 1950's and has not been modified. The boiler is only used occasionally throughout the year. The second was built in 1987 and obtained a construction permit limiting annual boiler hours to 5000. The potential to emit calculation for the first boiler will involve multiplying an emission factor by 8760 hours per year. The second boiler's calculation will multiply an emission factor by 5000 hours per year. Even though the first boiler does not run 8760 hours per year there are no federally enforceable permit conditions restricting the boiler from operating year round, therefore the potential to emit calculation must be evaluated based on continuous operation. Since the second boiler has a construction permit, any restrictions in the permit can limit the unit's potential to emit.

**Exempt** activities, listed in Appendix B are not required to be included in potential to emit calculations. **Insignificant** activities as identified on Form OP-C01.00 must be included in potential to emit calculations. Activities identified in Appendix C are not to be included in the potential to emit calculations.

### Potential to Emit Guidance

In calculating potential emissions, the installation may consider "inherent physical limitations" in potential to emit calculations. In other words, emissions which are constrained by process limitations rather than "maximum capacity" of the unit and process bottlenecks are considered "physical limitations" when calculating potential to emit.

**Example:** A paint spray gun has the potential to spray paint 8760 hours per year. However, the process that the spray gun supports, can paint at a maximum, only ten widgets per hour. Instead of basing criteria pollutants potential emissions on 8760 hours operation, the potential emissions can be based on the amount of paint it takes to paint ten widgets per hour annualized.

In calculating potential emissions from emergency generators, the installation may use 500 hours of operation annually for emergency generators whose sole function is to provide backup power. Be aware that an "emergency generator" is a generator whose sole function is to provide back-up power when electric power from the local utility is interrupted. It does not apply to peaking units at electric utilities, generators at industrial installations that typically operate at low rates but are not confined to emergency purposes, and it does not apply to any standby generator that is used during time periods when power is available from the utility.

For potential particulate emissions, be aware that the definition of regulated air pollutant under the operating permit program applies only to emissions of PM<sub>10</sub> (particulate matter with an aerodynamic diameter of less than ten microns), not particulate matter (PM) or total suspended particulate (TSPs).



## Treatment of Fugitive Emissions

Fugitive emissions are defined as those that cannot reasonably pass through a stack or vent. When determining Part 70 applicability, fugitive emissions are required to be included if any of the following criteria apply:

1. The source is within one of the source categories listed in 10 CSR 10-6.020(3)(B) Table 2, which includes any stationary source category that, as of August 7, 1980, is regulated under section 111 or 112 of the Act.  
**Example:** Subpart OOO, New Source Performance Standard for Non-Metallic Mineral Processing Plants, was promulgated in 1985. Therefore, non-metallic mineral processing plants do not include fugitives in potential to emit calculations. (Fugitive emissions from these sources must be listed in the application and included in the EIQ.)
2. The fugitive emissions occur within a building.
3. Any fugitive emissions of hazardous air pollutants (see Appendix D for a complete list of hazardous air pollutants).
4. Any fugitive emissions of NO<sub>x</sub> and VOCs in an ozone non-attainment area.

If none of the above criteria are applicable, fugitive emissions are not required to be included when determining **Part 70** applicability. However, all fugitive emissions must be included in PTE calculations when determining Basic State applicability. The emission limit established in an Intermediate operating permit application must include fugitive emissions only if the installation is required to count fugitive emissions in their PTE calculation (Part 70 Applicability).

## Part 70 (Title V) Applicability

The purpose of a Part 70 operating permit is to identify and record the existing substantive requirements applicable to regulated sources, and to assure compliance with these existing requirements. Accordingly, operating permits and their accompanying applications are vehicles for defining existing compliance obligations rather than for imposing new requirements or accomplishing other objectives. The operating permit then serves as a single document, for regulators, the public, and industry, which sets forth all of the applicable requirements.

An installation must obtain a Part 70 operating permit if:

1. The installation has potential emissions that are greater than or equal to 100 tons per year of any one of the criteria pollutants (listed below).
  - a) Particulate Matter with an aerodynamic diameter of less than 10 microns (PM<sub>10</sub>).
  - b) Sulfur Dioxide (SO<sub>x</sub>).
  - c) Nitrogen Oxide (NO<sub>x</sub>).
  - d) Volatile Organic Compounds (VOCs).
  - e) Carbon Monoxide (CO).
  - f) Lead (Pb). Lead compounds are classified a Hazardous Air Pollutants (HAPs) as referenced below in section (3.) and (4.).
2. The installation in an area that is classified as a non-attainment area, *and* potential emissions are above the "major source" threshold for the non-attainment area. The reason for this is that non-attainment areas may have substantially lower "major source" thresholds, depending on the *classification* of non-attainment area.

Area Non-attainment Classification	Major Source Thresholds
Marginal	100 tons per year
Moderate	100 tons per year
Serious	50 tons per year
Severe	25 tons per year
Extreme	10 tons per year

- a) A major source in ozone non-attainment areas has the potential to emit volatile organic compounds or nitrogen oxides above the major source threshold for the area's classification.
- b) A major source in ozone transport regions has the potential to emit 50 tons per year or more of volatile organic compounds.
- c) For a "serious" carbon monoxide non-attainment area, a major source is one that has the potential to emit of 50 tons per year or more of carbon monoxide.
- d) For a "serious" particulate matter with an aerodynamic diameter of less than ten microns (PM<sub>10</sub>) non-attainment area, a major source is one that has the potential to emit of 70 tons per year or more of PM<sub>10</sub>.

Currently the St. Louis area is classified as a *moderate* non-attainment area. That means the major source thresholds are identical to those for sources in an attainment area. If the St. Louis area is redesignated as a *serious* non-attainment area, the major source thresholds for VOC and NO<sub>x</sub> will fall to 50 tons per year. Installations in the St. Louis non-attainment area should keep this in mind when determining operating permit program applicability, especially if the Intermediate program is being considered.

- 3. The installation has potential emissions greater than or equal to ten tons per year of any individual hazardous air pollutant. Refer to Appendix D for a list of the hazardous air pollutants.
- 4. The installation has potential emissions greater than or equal to 25 tons per year of any combination of hazardous air pollutants. Refer to Appendix D for a list of the hazardous air pollutants.
- 5. The installation is subject to a standard under section 111 of the Clean Air Act. Section 111 corresponds to the New Source Performance Standards (NSPS) found in 40 CFR Part 60. These standards are adopted by reference at 10 CSR 10-6.070. The NSPS standards are established for new stationary sources of air pollution which "... may contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare." The Act requires that standards of performance for such sources reflect "... the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated." Refer to Form OP-B02.00.
- 6. The installation is subject to a standard under Section 112 of the Clean Air Act. Section 112 corresponds to the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) and the Hazardous Air Pollutant (HAP) requirements developed under 40 CFR Part 61 and Part 63. These standards are adopted by reference at 10 CSR 10-6.075 and 10 CSR 10-6.080. Appendix E contains a list of pollutants regulated under section 112(r), accidental release of certain hazardous air pollutants. An installation is not required to obtain a Part 70 permit solely because it is subject to rules or requirements under section 112(r) of the Act.
  - a) 40 CFR Part 61 NESHAPs
 

The NESHAPs program was established in the 1970 Clean Air Act Amendments when Congress first recognized that there were other pollutants, beyond the six criteria pollutants, which caused serious environmental and health impacts. In order for a NESHAP standard to be promulgated, EPA was required to prove that a specific pollutant posed a significant risk to public health nationally. This requirement led to years of litigation for each pollutant or source category which ultimately was regulated. As a result, EPA has promulgated rules for only seven pollutants and few source categories. Refer to Form OP-B04.00 for standards that have been promulgated. A source is not required to obtain a Part 70 permit solely because it is subject to 40 CFR 61.145, Emission Standard for Asbestos Demolition and Renovation.
  - b) 40 CFR Part 63 NESHAPs
 

The standards developed in Part 63 are referred to as Maximum Achievable Control Technology (MACT) standards. MACT is designed to require the maximum achievable degree of reduction of hazardous air pollutant emissions from major stationary sources with consideration of the economic, environmental,

and energy impacts of the control strategy. Refer to Form OP-B03.00 for a list of standards that have been promulgated or proposed.

7. The installation is an affected source under Title IV-acid rain (40 CFR Part 72 through Part 78). An affected source is any source that includes one or more emission units subject to emission reduction requirements or limitations contained in Title IV of the Act. The purpose of Title IV is to reduce acid deposition (acid rain) through nationwide reductions in annual emissions of sulfur dioxide and nitrogen oxides. The reduction for sulfur dioxide will total ten million tons per year, and for nitrogen oxides will total approximately two million tons per year. ***This primarily affects large utility company boilers.***
8. The installation has a solid waste incinerator subject to Section 129(e) of the Clean Air Act.
9. Other source categories that may be designated by the Administrator as a Part 70 source pursuant to 40 CFR 70.3.

### **Missouri Deferral**

An installation is classified as a “Basic State Installation” if it is subject to a standard or other requirement under section 111 or 112 of the Act (NSPS, NESHAP or MACT), regardless of the emission level, provided the US EPA Administrator has deferred a decision on whether the installation would be subject to Part 70, including area sources (except that a source is not required to obtain a permit solely because it is subject to a federal accidental release prevention requirements under section 112(r) of the Act).

**Example:** An installation having the potential to emit more than 40 tpy but less than 100 tpy of nitrogen dioxide is a “basic” installation. Or, small drycleaners using perchloroethylene that emit below De Minimis levels, would be an example of an installation subject to a federal HAP requirement (40 CFR Part 63, Subpart M), for which EPA deferred a decision on whether the installation would be Part 70. These installations are required to obtain a Basic State Operating Permit.

The NSPS, NESHAP or MACT must *specifically* say that EPA has deferred a decision on whether the installation would be Part 70 in order to require a Basic State Operating Permit. There are three possible scenarios:

1. EPA has specifically required sources subject to the NSPS, NESHAP or MACT to obtain a Part 70 Operating Permit in the rule. In this case, installations are required to obtain a Part 70 Permit regardless of their potential to emit. An example of this is the NSPS for landfills, 40 CFR Part 60, Subpart WWW.
2. EPA has specifically deferred a decision on whether the installation would be Part 70 in the rule. In this case, installations are required to obtain at least a Basic permit, regardless of their potential to emit. An example of this is the MACT for drycleaners, 40 CFR Part 63, Subpart M. Another example is non-major pre-1992 NSPS sources that are deferred until EPA does a rulemaking.
3. EPA has not made a decision either way. In this case, installations that emit below De Minimis levels for all criteria pollutants are not required to obtain an operating permit.

### **Specific Part 70 (Title V) Operating Permit Type.**

Check the appropriate specific application type.

1. **Initial.** If this is a first time operating permit application for this installation.
2. **Renewal.** If the operating permit issued to the company has expired or is about to expire (Submit renewal application at least 18 months but no later than six months before the actual expiration date). Provide the expiring permit or project number. Applications for permit renewals shall be subject to the same procedural requirements, including public participation, affected state review and the Administrator review, that apply to initial permit issuance. The permitting authority, in issuing a permit or renewal permit, may identify those portions that are proposed to be revised, supplemented or deleted.

In submitting an application for renewal of a Part 70 Operating Permit, the applicant may identify terms and conditions in the previous permit that should remain unchanged, and may incorporate by reference those portions of the existing permit (and the permit application and any permit amendment or modification applications) that describe products, processes, operations and emissions to which those terms and conditions apply. The applicant must identify specifically and list which portions of the previous permit or application, or both, are incorporated by reference.

3. **Off-Permit Change.** If a Part 70 Installation makes any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; The permittee may not change a permitted installation without a permit revision, if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
  - b) The permittee must provide contemporaneous written notice of the change to the permitting authority and to the administrator no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. of the code of state regulations. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
  - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes;
  - d) The permit shield shall not apply to these changes.The submittal of Form OP-A01.00 and Form OP-E01.00 with the written notice is sufficient for an Off-Permit Change request.

**Example:** An installation has added a piece of equipment that is subject to the process weight rule, 10 CSR 10-6.400. The emission unit is not subject to a Prevention of Significant Deterioration permit or a technology standard under 40 CFR Parts 60, 61 or 63. This installation would qualify for an off-permit change.

4. **Administrative Amendment.** If the revisions includes any of the following.
  - a) Corrects typographical errors;
  - b) Identifies a change in the name, address or phone number of any person identified in the permit, or provides a similar minor administrative change at the installation;
  - c) Requires more frequent monitoring or reporting by the permittee;
  - d) Allows for a change in ownership or operational control of an installation where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee must be submitted to the permitting authority;
  - e) Incorporates in the Part 70 Operating Permit the requirements of a unified construction permit issued by the permitting authority.

Acid rain provisions. For purposes of any acid rain portion of a Part 70 Operating Permit, administrative permit amendments shall be governed by rules promulgated under Title IV of the Act.

5. **Modifications.** A permit modification is any revision to a Part 70 Operating Permit that is not an administrative amendment defined by 10 CSR 10-6-065(6)(E)4. A permit modification for the purposes of the acid rain portion of the permit shall be governed by regulations promulgated under Title IV of the Act (40 CFR Part 72).

- a) **Minor Permit Modification.** If the modification involves changes to an installation that do not:
1. Violate any applicable requirement;
  2. Involve significant changes to monitoring, reporting or record keeping requirements in the permit;
  3. Require or change any case-by-case or source-specific determination contained in the permit, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
  4. Establish or change a permit term for which there is no corresponding underlying applicable requirement and which the source has assumed in order to avoid an applicable requirement to which it would otherwise be subject, such as a federally enforceable emissions cap voluntarily agreed to in order to avoid classification as a Title I modification or an alternative emissions limit approved pursuant to 112(i)(5) of the Act;
  5. Constitute a Title I modification; and
  6. Constitute a significant permit modification.

Notwithstanding subpart 10 CSR 10-6.060(6)(E)5.B.(1)(a) and 10 CSR 10-6.060(6)(E)5.C, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by EPA.

Each minor permit modification application must contain a certification by the responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and request that such procedures be used. This certification statement is contained on Form OP E01.00.

- b) **Significant Permit Modification.** If the revision is not a minor modification or administrative permit revision, it is a significant permit modification. This revision includes, but is not limited to, significant changes in monitoring, reporting or record keeping permit terms and any change in the method of measuring compliance with existing permit requirements. Criteria for determining whether a proposed change is significant shall include the magnitude of the change and the resulting impact on the environment.

**Example 1:** An installation is a major source for HAPs and is subject to a MACT source category that has not been promulgated by EPA – The installation is an 112(j) source that is required to submit a Part 2 application. The Part 2 application is considered a significant permit modification.

**Example 2:** An installation installs equipment that is subject to a Prevention of Significant Deterioration permit or a technology standard under Parts 60, 61, or 63 (Title I modification). The new construction permit is a significant modification and the installation is required to modify the operating permit within 12 months of commencing operations.

#### **Intermediate (synthetic minor or FESOP) Applicability**

Intermediate installations are Part 70 installations that become basic state installations based on their potential to emit by accepting the imposition of voluntarily agreed to federally-enforceable limitations on the type of materials combusted or processed, operating rates, hours of operation, or emission rates more stringent than those otherwise required by rule or regulation. Intermediate sources are also known as “synthetic minors” and the permit is sometimes referred to as a FESOP (Federally Enforceable State Operating Permit).

The applicant should seriously contemplate the decision to become an Intermediate source. After taking restrictions on potential to emit to become an Intermediate source, it could take

up to 18 months to process a request to obtain a Part 70 Operating Permit if the installation decided it could not meet such restrictions. Installations should not choose to become a “synthetic minor” unless they have evaluated the consequences. Each intermediate permit is subject to EPA review and public participation requirements.

After obtaining an Intermediate permit an installation that decides a Part 70 permit is required has two scenarios in which to increase the source’s potential to emit:

1. Use existing capacity (i.e. remove the voluntary limit that reduces potential emissions to below major source levels).
2. Construction or modification of the source.

In the first case, an owner or operator could not increase emissions until a Part 70 Operating Permit was obtained, which may take up to 18 months. In the second case, an applicant could apply for a construction permit, receive the permit, construct, operate for one year in accordance with the construction permit, then apply for a federal operating permit. A construction permit may take from three to six months to process.

An applicant of a federal operating permit program source that decides that they no longer want to be permitted under a Part 70 Operating Permit can apply for an Intermediate permit. The installation must submit an Intermediate permit application in order to obtain restrictions on potential to emit before the Part 70 Operating Permit terms would no longer be applicable to the source.

#### **Specific Intermediate (synthetic minor or FESOP) Operating Permit Type.**

Check the appropriate specific application type.

1. **Initial.** If this is a first time operating permit application for this installation.
2. **Renewal.** If the operating permit issued to the company has expired or is about to expire (Submit renewal application at least six months before actual expiration date). Include the expiring permit or project number. Applications for permit renewals shall be subject to the same procedural requirements, including public participation, EPA review, and affected state review, that apply to initial permit issuance.
3. **Amendment.** If at any time after an operating permit notification/application has been submitted or accepted by the permitting authority, an installation determines that the notification/application contains false, misleading, incorrect or incomplete information. Also, if an operating permit notification/application fails to include or inadequately implement any applicable requirement, including any new requirement promulgated after the permitting authority’s acceptance of the operating permit notification/application.

#### **Basic State Applicability**

A Basic State Operating Permit is required for the following sources.

1. Sources with existing potential emission greater than de minimis levels but less than major source thresholds. Refer to Appendix F for a list of the de minimis levels;
2. Sources that have emission levels less than de minimis but with an incinerator (non solid waste incinerator). An incinerator is defined as any article, machine, equipment, contrivance, structure or part thereof which is used to burn refuse or to process refuse material by burning other than open burning.
3. Sources subject to a NSPS standard (111). These sources will be required to obtain Part 70 permits when the Administrator subjects the installations to the requirements by rule.
4. Sources subject to a NESHAP or other HAP requirement (112, or MACT). These sources will be required to obtain a Part 70 Permit when the Administrator subjects the installations to the requirements by rule. These sources are not required to obtain a Part 70 permit solely because they are subject to Section 112(r) of the Act.

### Specific Basic State Operating Permit Type.

Check the appropriate specific application type.

1. **Initial.** If this is a first time operating permit application for this installation.
2. **Renewal.** If the operating permit issued to the company has expired or is about to expire (Submit renewal application at least six months before actual expiration date). Include the expiring permit or project number. Applications for permit renewals shall be subject to the same procedural requirements that apply to initial permit issuance.
3. **Amendment.** If at any time after an operating permit notification/application has been submitted or accepted by the permitting authority, an installation determines that the notification/application contains false, misleading, incorrect or incomplete information. Also, if an operating permit notification/application fails to include or inadequately implement any applicable requirement, including any new requirement promulgated after the permitting authority's acceptance of the operating permit notification/application.

### Section 4. Applicants Certification Statement.

Applicant's certification statement must be signed by the installation's **Responsible Official**. A responsible official is:

1. The president, secretary, treasurer or vice-president of a corporation in charge of a principal business function, or any other person who performs similar policy and decision-making functions for the corporation or a duly authorized representative of this person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either-
  - a) The facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding twenty-five million dollars (in second quarter 1980 dollars); or
  - b) The delegation of authority to his representative is approved in advance by the permitting authority.
2. A general partner in a partnership or the proprietor in a sole proprietorship.
3. Either a principal executive officer or a ranking elected official in a municipality, state, federal, or other public agency. For the purpose of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the operations of a principal geographic unit of the agency; or
4. The designated representative of an affected source insofar as actions, standards, requirements or prohibitions under Title IV of the Clean Air Act or the regulations promulgated under the Act are concerned or the designated representative for any purposes under Part 70.

Applications without a signed certification will be returned as incomplete. **Signing this document has serious legal implications – both civil and criminal.** Before signing, the installation's responsible official should be confident that the materials submitted are substantially correct and that the installation is in compliance with all applicable requirements included in the application.

### FORM OP-A02.00 Application for Authority to Operate

Enter the Installation Name, FIPS Number, Plant Number and Year Submitted consistent with Form OP-A01.00.

#### Section 1. Principal Product.

List the installation's principle product(s) and the first two digits of the Standard Industrial Classification (SIC) code(s). SIC is a designation system by the federal government.

1. Principal Product. The main product group the installation provides.  
**Example:** A car manufacturing plant's principal product would be automobiles
2. Two-Digit SIC Code. Enter the two-digit Major Group Standard Industrial Classification code as listed in Appendix G that corresponds to the primary economic activity of the installation. In most cases, all emissions units at an installation will directly or indirectly support a single economic activity as represented by a Major Group SIC code. It is possible for an installation to be engaged in more than one Major Group SIC code

activity. In such a case, the primary Major Group should be entered in this field, and any secondary Major Groups should be entered at the emission unit level.

**Example:** A cardboard manufacturer with a printing process will list printing SIC code 27.

## **Section 2. Installation's Processes.**

List any associated processes and the first two-digit SIC codes related to the principle product(s).

1. Processes. The processes associated with the installation.

**Example:** A metal fabrication shop processes may include arc welding, LPG torch cutting, solvent cleaning, and grinding wheels. The corresponding SIC code for each process would be 17 (Construction – Special Trade Contractors). This would also be the same SIC code for the principal product the installation provides.

## **Section 3. Emission Inventory Questionnaire (EIQ) Submittal.**

This questionnaire provides air pollution information about individual installations, and their emissions. This information is used by the MDNR to evaluate the emission history of specific installations and to provide a basis for general air pollution planning work.

Answer the question by checking the appropriate box. If the answered is no:

1. Submit one copy of the EIQ for previous calendar year with this application and;
2. In this section indicate in the number of each type EIQ form that is included as part of this application.

## **Section 4. Operating Permit Application Form Inventory.**

Complete this table by indicating the number of each type of application form indicated. Form OP-A01.00, Form OP-A02.00, Form OP-D06.00, Form OP-D06.01, Form OP-D06.02, Form OP-D06.03, Form OP-D06.04, Form OP-D06.05 and Form OP-E01.00 are not included on this table because only one submittal of each form is required per application.



## Section B - Applicable Requirements Checklist

These forms contain all requirements that are potentially applicable to an installation located in Missouri. Complete this section of forms for the installation. All Missouri air quality rules currently promulgated that could apply to an installation or any emission unit within the installation are listed on the Applicable Requirements Checklist. Under the Missouri Operating Permit Program, the owner/operator of an installation is required to identify in the permit application all applicable regulatory requirements (Federal, State, or Local) associated with the installation.

### FORM OP–B01.00 through FORM OP–B12.00 Applicable Requirements Checklist

The applicable requirements on Form OP-B01.00 through Form OP-B12.00 are state, federal and local regulations organized by geographical regulatory authority. Form B-01.00 contains the Chapter 6 state regulations that are applicable to sources throughout Missouri. Forms B-02.00, B-03.00 and B-04.00 contain applicable federal regulations. Forms B-05.00 through B-12.00 contain state and local regulations organized by geographical regulatory authority. The installation will have different applicable rules due to geographic location. Some Section B forms will not be required for all installations. See the table below to determine exactly which forms to submit.

Form	Requirements	Required by
Form OP-B01.00	Entire State	All installations.
Form OP-B02.00	Federal - NSPS	All installations subject to a New Source Performance Standard
Form OP-B03.00	Federal – MACT	All installations subject to a Maximum Achievable Control Technology Regulation.
Form OP-B04.00	Federal – NESHAP	All installations subject to a National Emission Standards for Hazardous Air Pollutants.
Form OP-B05.00	Kansas City Metropolitan	Installations located in Buchanan, Cass, Clay, Jackson, Platte or Ray county.
Form OP-B06.00	Kansas City Local Ordinances	Installations located in the city limits of Kansas City, MO.
Form OP-B07.00	Outstate Missouri	Installations <b>not</b> located in Buchanan, Cass, Clay, Franklin, Greene, Jackson, Jefferson, Platte, St. Charles, St. Louis, or Ray county, or the City of St. Louis.
Form OP-B08.00	Springfield – Greene County	Installations located in Greene county.
Form OP-B09.00	Springfield Local Ordinances	Installations located in the city limits of Springfield, MO.
Form OP-B10.00	St. Louis Metropolitan	Installations located in St. Louis, St. Charles, Jefferson, or Franklin county, or the City of St. Louis.
Form OP-B11.00	St. Louis County Local Ordinances	Installation located in St. Louis county.
Form OP-B12.00	St. Louis City Local Ordinances	Installations located in the City of St. Louis.

The first step in using these forms is to identify the appropriate forms to submit with the application. The following table provides an outline of which forms apply to an installation based on geographic location. All geographic locations are defined in the Glossary.

Geographic Location	Section B Forms Required
Outstate Missouri Area	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-07.00
Kansas City Metropolitan Area	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-05.00
City of Kansas City	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-05.00, B-06.00
Springfield - Greene County Area	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-08.00
City of Springfield	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-08.00, B-09.00
St. Louis Metropolitan Area	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-10.00
City of St. Louis	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-10.00, B-12.00
St. Louis County	B-01.00, B-02.00 <sup>1</sup> , B-03.00 <sup>2</sup> , B-04.00 <sup>3</sup> , B-10.00, B-11.00

<sup>1</sup>This form is only required when 10 CSR 10-6.070 is checked as applicable on Form OP-B01.00.

<sup>2</sup>This form is only required when 10 CSR 10-6.075 is checked as applicable on Form OP-B01.00.

<sup>3</sup>This form is only required when 10 CSR 10-6.080 is checked as applicable on Form OP-B01.00.

Once the installation has identified the appropriate Forms, for their respective areas, the installation needs to complete the applicable regulations on those forms.

Form OP-B01.00, Form OP-B05.00, Form OP-B07.00, Form OP-B08.00 and Form OP-B10.00 are separated into three sections: State Administrative Permit Requirements, Core Permit Requirements and Applicable Requirements.

- 1. State Administrative Permit Requirements.** This section of requirements identifies procedures/guidelines for the Air Pollution Control Program. These requirements do not require action by the installation. The reason code discussed below is J for all rules in this section.
- 2. Core Permit Requirements.** This section of requirements identifies requirements that are applicable to all installations in Missouri.
- 3. Applicable Requirements.** This section of requirements identifies all air quality regulations currently promulgated which are not core permit requirements that could apply to an installation or any emission unit within the installation.

Applicants must read through these requirements to verify the applicability of each regulation as well as to determine the compliance status with each requirement. For each rule that applies to the installation, the applicant should mark the YES column. If a rule does not apply, mark the NO column. Then, in the space next to the NO column, enter the reason the rule does not apply. The program has identified a list of common reasons a rule may not apply to a source. To indicate one of these reasons, the applicant should write the letter abbreviation for the appropriate reason in the REASON space on the form. Reason "K" is a generic flag that may be used if none of the other specific reasons adequately explains the non-applicability of the rule. If "K" is selected, the reason for the rule's non-applicability must be explained on Form OP-F01.00 General Comments.

Reasons Legend	
Letter	Reason
A	This pollutant is not emitted by the installation.
B	The installation is not in this source category.
C	The installation is not in a special control or non-attainment area.
D	The installation is not in this county or specific area.
E	The installation does not have this emissions unit.
F	The installation does not use this fuel type.
G	This rule does not apply because no changes have been made at the installation that would trigger these procedural requirements.
H	This method/procedure is not used by the installation.
I	<i>Reserved</i>
J	This rule is for administrative purposes.
K	Other (explain on Form OP-F01.00 General Comments).

### **Local Agencies**

The applicable requirement forms include the local regulations that apply to sources within the jurisdiction of the four (4) local air pollution control programs within the State. The local air agencies are Kansas City (Form OP-B06.00), Springfield (Form OP-B09.00), St. Louis County (Form OP-B11.00) and St. Louis City (Form OP-B12.00). The local regulations may also be federally enforceable if the regulation is contained in the State Implementation Plan (SIP). Any questions pertaining to the local agency rules should be addressed to the specific local agency.

### **State Enforceability versus Federal Enforceability**

The level of government (i.e., state, federal, or local) at which an air quality rule is enforced may vary. Below is a list of footnotes that classify which agency or agencies will enforce a particular regulation from section B.

1. Federal, State and Local Agency Enforceable Regulation
2. State and Local Agency Enforceable Regulation
3. Only Federally Enforced Regulation
4. Only Local Agency Enforced Regulation

Each installation is required to comply with all applicable requirements no matter at which level the regulation is enforceable.

1. Local Enforceable Rules. All rules that have been adopted by the Local Air Commission are local enforceable. The owner/operator may refer to the current version of the Local Agency Ordinances:
  - a) Kansas City Health Department, Air Quality Section, Chapter 8, Air Quality
  - b) City of Springfield, Air Pollution Control Authority, Chapter 2A, Air Pollution
  - c) St. Louis County Department of Health, Air, Land & Water Branch, Air Pollution Control Section Chapter 612 – Air Pollution Control Code
  - d) City of St. Louis, Division of Air Pollution Control, Ordinances 50163, 54699, 59270, 60023 and 60629
2. State Enforceable Rules. All rules that have been adopted by the Missouri Air Conservation Commission are state enforceable. The owner/operator may refer to the current version of the Missouri State Rules, Title 10 Division 10 (10 CSR 10), to reference the rule language that is state enforceable.
3. Federally Enforceable Rules. An applicable requirement may be federally enforceable if the regulation has been approved by the EPA as part of the State Implementation Plan (SIP) or have been finalized by EPA but not adopted by the State.











































































## Appendix G Continued

<b><u>Code</u></b>	<b><u>Major Group Title</u></b>
60	Depository institutions
61	Non-depository credit institutions
62	Security and commodity brokers, dealers, exchanges, and services
63	Insurance carriers
64	Insurance agents, brokers, and services
65	Real estate
67	Holding and other investment offices
70	Hotels, rooming houses, camps, and other lodging places
72	Personal services
73	Business services
75	Automotive repairs, services, and parking
76	Miscellaneous repair services
78	Motion pictures
79	Amusement and recreation services
80	Health services
81	Legal services
82	Educational services
83	Social services
84	Museums, art galleries, and botanical and zoological gardens
86	Membership organizations
87	Engineering, accounting, research, management, and related services
88	Private households
89	Miscellaneous services
91	Executive, legislative, and general government, except finance
92	Justice, public order, and safety
93	Public finance, taxation, and monetary policy
94	Administration of human resource programs
95	Administration of environmental quality and housing programs
96	Administration of economic programs
97	National security and international affairs
99	Non-classifiable establishments

## Appendix H

### Monitoring Parameters for Control Devices

This Appendix is meant to serve as a starting point for installations trying to determine what monitoring parameters are sufficient to show compliance. This is **not** a comprehensive list and the monitoring parameters are **not** mandatory. These are only suggestions of parameters the installation may want to examine for monitoring purposes when a control device is necessary to demonstrate compliance with an emission limitation.

#### Fabric Filters (Baghouses)

Fabric filters collect particles with sizes ranging from submicron to several hundred microns in diameter at efficiencies generally in excess of 99 percent. The layer of dust, or dust cake, collected on the fabric is primarily responsible for such high efficiency. The following operating parameter can be measured to ensure this efficiency:

1. Pressure drop across the filter system – Typical values of system pressure drop range from about 5 to 20 inches of water. Frequency of measurements can vary from continuous to daily, depending on the emission unit.

In addition to monitoring pressure drop, a compliance plan may include a schedule to semi-annually inspect the filter system for leaks, wear, or any abnormalities that could result in malfunction.

#### Scrubbers

Many types of scrubbers are used to control several different pollutants. The following is a brief summary of a few different scrubbers and the monitoring parameters associated with each:

Wet Scrubbers (spray towers, venturi scrubbers, impingement scrubbers, wet cyclonic scrubbers) for Particulate Control:

1. Pressure Drop across inlet and outlet ducts
2. Scrubbing Liquid flow rate
3. Scrubber exhaust temperature

Wet Scrubbers for SO<sub>2</sub> Control:

1. Scrubbing liquid pH
2. Scrubbing liquid flow rate

Spray Dryer for SO<sub>2</sub> Control:

1. Pressure Drop
2. Alkali solution concentration and flow rate

Packed Bed Scrubber for VOC Control:

1. Scrubbing liquid flow rate

Dry Scrubbers

1. Pressure Drop

#### Thermal Oxidizers

Thermal oxidizers are combustion systems that generally control VOC, CO, and volatile HAPs by combusting them to carbon dioxide (CO<sub>2</sub>) and water. Typical parameters that may be monitored to indicate proper operation include:

1. Waste gas temperature.
2. Incinerator combustion temperature.
3. Outlet CO concentration.
4. Outlet CO<sub>2</sub> or oxygen concentration.

## Appendix H Continued

### Catalytic Oxidizers

Catalytic oxidizers operate on the same principal as thermal oxidizers, except that a catalyst is used to increase the rate of the combustion reaction. Typical parameters that may be monitored to indicate proper operation include:

1. Temperature rise across catalyst bed.
2. Pressure drop across catalyst bed.
3. Outlet CO concentration.

### Electrostatic Precipitators

Electrostatic Precipitators (ESPs) can be used for the high efficiency collection of particulate matter. The following operating parameters can be measured to ensure this efficiency:

1. Primary and secondary voltage.
2. Primary and secondary current.
3. Sparking rate.
4. Number of fields on line.

An ESP can also have an operation and maintenance plan that includes the following:

1. Inspection of rapper operation.
2. T-R set operation.
3. Inspection of the ash removal system.
4. Each major unit overhaul which include:
  - a) Checking for correct plate electrode alignment.
  - b) Inspection of the condition collection surface fouling.
  - c) Checking mechanical condition of the T-R set and the inspection of the internal structural components.

Ranges and values for the parameters identified above can be determined from a performance test.

## Glossary

### **Allowable Emission Rate**

The emission rate calculated using the maximum rated capacity of the installation (unless the source is subject to enforceable permit conditions which limit the operating rate or hours of operation, or both) and the most stringent of the following:

1. emission limit established in any applicable emission control rule including those with a future compliance date,
2. the emission rate specified as a permit condition.

For example: An installation has an emission unit which has process inputs of 40 tons per hour along with potential PM<sub>10</sub> emissions of 50 pounds per hour. State Regulation 10 CSR 10-3.050, "Restriction of Emission of Particulate Matter From Industrial Processes", restricts the level of potential emission rate from a process with inputs of 40 tons per hour to a maximum of 42.5 pounds per hour. The 42.5 pound per hour value is said to be the allowable emission rate for this emission unit.

The installation, at a minimum, would have to restrict the potential emissions from the emission unit to a potential emission rate of 42.5 pounds per hour. The limitation on the potential emissions would have result from applying for some form of a "Federally Enforceable Condition" on the Emission Unit.

### **Application Shield**

For Part 70 installations, EPA and Missouri rules provide that once a complete (as well as timely) application has been filed, the applicant has an "application shield" from any claim that the installation is being operated without an issued operating permit. However, the application shield can be lost if, after a completeness determination had been made, the applicant fails to provide any reasonable requested additional information by a specified deadline.

### **Basic State Installation:**

An installation that has the potential to emit greater than de minimis levels of any criteria pollutant or is subject to any limitation, standard, or other requirement (regardless of emission rate) under section 111 or 112 (with the exception of 112(r)) of the Clean Air Act but does not meet the criteria for **Part 70 installations**.

### **CAS #:**

Chemical Abstract Service Registry Number.

### **CFR:**

Code of Federal Regulations.

### **Control Device:**

Equipment or process used to remove or prevent air contaminants from being emitted from an air pollution generating process.

### **CSR:**

Code of State Regulations.

### **Emission Factor:**

An average value that relates the quantity of a pollutant released to the atmosphere with the amount of activity associated with the process releasing that pollutant. Such factors can be used to estimate the emissions from various sources generating air pollution. An emission factor for natural gas combustion is 3.0 lbs of PM<sub>10</sub> per Million Cubic Feet (MMCF) of gas burned. An emission factor for a haul road can be 2.7 lbs. of PM<sub>10</sub> per Vehicle Miles Traveled (VMT).

### **Emission Point:**



Any specific point or area where an air pollutant is released from a process or operation into the ambient air.

Example: Suppose the first emission point at a facility is a 30 foot stack which emits pollutants from a boiler, the stack rather than the boiler could be labeled EP1. The boiler would be the process producing air pollutants, so an appropriate Source Classification Code (SCC) would be chosen to reflect that the boiler is one process under this emission point.

**Emission Unit:**

Any part or activity of an installation that emits or has the potential to emit any regulated air pollutant or any pollutant listed under section 112(b) of the Act (10 CSR 10-6.020). For the purposes of the operating permit application, an emission unit is a sub-point of an emission point from the Emissions Inventory Questionnaire.

For example, an EIQ for Facility B lists Emission Point 1 as a stack which emits pollutants from two boilers and a kiln. The three emission units are boiler 1, boiler 2, and the kiln.

**FIPS #:**

This is the first three digits of an identification number assigned to each installation in the Air Pollution Control Program (APCP) database. Each county within the state has been assigned a unique number by the federal government. Every installation in New Madrid county, for example, will be assigned a FIPS number of 143.

**Intermediate State Installation:**

An installation that would meet the emissions criteria for a **Part 70 installation**, except for the imposition of voluntarily agreed to **Federally-Enforceable Conditions** proposed in the operating permit application, that reduce its potential emissions below Part 70 levels.

**Installation:**

All emission point/unit operations that belong to the same industrial grouping (the same first two-digits of the SIC code) that are located on one or more contiguous or adjacent properties and are under the control of the same person (or persons under common control). This definition includes any activities that result in fugitive emissions, and any marine vessels emissions while docked at the installation. (As defined in 10 CSR 10 6.020)

**MHDR (Maximum Hourly Design Rate):**

Maximum Hourly Design Rate is the maximum throughput that could be processed in one hour of continuous operation by the equipment at this emission point. The throughput and MHDR must be expressed in the same SCC (Source Classification Code) units. If specific equipment information on the MHDR is not available, contact the Air Pollution Control Program for alternative methods to estimate the MHDR.

**Part 70 Installation:**

An installation that meets either a source category or the emission criteria in 10 CSR 10-6.065(1)(D). Part 70 installations are subject to all the Part 70 operating permit requirements found in Section (6) of 10 CSR 10-6.065. See Instructions for Section A for information on how to determine whether your facility is a Part 70 installation.

**Plant #:**

This is the last four digits of a seven digit identification numbers assigned to all installations in the APCP database. Each installation within a county has been assigned this unique identification number by the Air Pollution Control Program (APCP).

**SIC (Standard Industrial Classification):**

This is a designation system by the federal government. The Standard Industrial Classification was developed for use in the classification of establishments by type of activity in which they are engaged; for purposes of facilitating the collection, presentation, and analysis of data relating to establishments; and for promoting uniformity and comparability in the presentation of statistical data collected by various agencies of the United States Government, State agencies, trade

associations, and private research organizations. The SIC for *establishments* differ from a classification for *enterprises* (companies) or products. An enterprise consists of all establishments having more than 50% common direct or indirect ownership. The SIC is intended to cover the entire field of economic activities: agriculture, forestry, fishing, hunting, and trapping; mining; construction; manufacturing; transportation, communication, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; personal, business, professional, repair, recreation, and other services; and public administration.

**SCC (Source Classification Code):**

This is an eight digit number associated with a unique process from which air pollutants are emitted.

Example: A solvent-based paint applied in a paint booth could have an SCC of 4-02-001-01 or 4-02-001-02. Which of the two is appropriate would depend on the throughput units chosen. The throughput units for 4-02-001-01 are in tons of coating mix applied. Throughput units for 4-02-001-02 are in gallons of coating mix applied.