



**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES

**Mike Kehoe**  
Governor

**Kurt U. Schaefer**  
Director

July 31, 2026

Brandon Upchurch  
Chief Development Officer  
Independence Power Station 1  
21421 East Truman Road  
Independence, MO 64056

RE: New Source Review Permit - Project Number: 2026-02-035

Dear Brandon Upchurch :

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and your operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <https://dnr.mo.gov/about-us/division-environmental-quality/regional-office>. The online CAV request can be found at <https://dnr.mo.gov/compliance-assistance-enforcement/request-visit>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: <https://ahc.mo.gov/>.



Brandon Upchurch  
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Aysenur Argut Reed, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

A handwritten signature in blue ink, appearing to read "S. Heckenkamp".

Susan Heckenkamp  
New Source Review Unit Chief

SH:arah

Enclosures

c: Kansas City Regional Office  
PAMS File: 2026-02-035

Permit Number: 072026-012

## MISSOURI AIR CONSERVATION COMMISSION

### PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 072026-012

Project Number: 2026-02-035  
Installation Number: 095-0431

Owner or Operator: IPP Truman LLC

Owner or Operator Address: 4851 Lyndon B. Johnson Freeway, Dallas, TX 75244

Installation Name: Independence Power Station 1

Installation Address: 21421 East Truman Road , Independence, MO 64056

Location Information: Jackson County, S04, T49N, R31W

Application for Authority to Construct was made for:

Installation of fifteen (15) 17.8 MW simple cycle combustion turbines, a fuel gas heater and an emergency generator. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

---

☐ Standard Conditions (on reverse) are applicable to this permit.

☒ Standard Conditions (on reverse) and Special Conditions are applicable to this permit.



---

Director or Designee  
Department of Natural Resources

July 31, 2026

---

Effective Date

## STANDARD CONDITIONS:

The permit will become invalid if construction or modification work is not commenced within two years from the date of permit issuance or if work is suspended for more than 18 months and if— (I) The delay was reasonably foreseeable by the owner or operator at the time the permit was issued; (II) The delay was not due to an act of God or other conditions beyond the control of the owner or operator; or (III) Failure to consider the permit invalid would be unfair to other potential applicants. The permittee shall notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification has not begun in the two years since permit issuance or if construction or modification is suspended for one year or more. An installation may request an extension for starting construction related to the permit in accordance with provisions stated in 10 CSR 10-6.060(3)(I). The extension request must be submitted to the permitting authority at a minimum of thirty (30) days prior to the date when the permit will become invalid.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program and the Department's regional office responsible for the area for which you are located in within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

Contact Information:  
Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
(573) 751-4817

The regional office information can be found at the following website:  
<https://dnr.mo.gov/about-us/division-environmental-quality/regional-office>

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

---

*The special conditions listed in this permit were included based on the authority granted to the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (3)(E). "Conditions required by permitting authority."*

Independence Power Station 1  
Jackson County, S04, T49N, R31W

1. Control Device Requirement -Selective Catalytic Reduction (SCR)
  - A. The permittee shall control NO<sub>x</sub> emissions from each combustion turbines using a selective catalytic reduction (SCR).
  - B. The SCR shall be installed, operated, and maintained in accordance with the manufacturer's specifications to meet the emission limitation specified in Special Condition 6.
2. Control Device Requirement - Oxidation Catalysts
  - A. The permittee shall control CO and VOC emissions from each combustion turbines using oxidation catalysts.
  - B. The oxidation catalysts shall be installed, operated, and maintained in accordance with the manufacturer's specifications.
3. Continuous Emission Monitoring System (CEMS) Requirements
  - A. The permittee shall install, calibrate, maintain, and operate continuous monitoring systems, and record the output of the systems, for measuring NO<sub>x</sub> and CO emissions discharged to the atmosphere. These systems shall be placed in an appropriate location on each combustion turbine engine's flue gas exhaust such that accurate readings are possible.
  - B. The NO<sub>x</sub> CEMS shall be installed and operated according to the guidelines in 40 CFR Part 75 – including the Subpart D *Missing Data Substitution Procedures*.
  - C. The CO CEMS shall comply with all the requirements applicable to NO<sub>x</sub> CEMS in 40 CFR Part 75 – including the Subpart D *Missing Data Substitution Procedures*, with the following exceptions:
    - 1) RATA testing shall be conducted using EPA Test Method 10 for CO instead of EPA Test Method 7E for NO<sub>x</sub>.
    - 2) The relative accuracy of the CO CEMS shall meet Performance Specification 4A, Section 13.2 of NSPS Appendix B instead of 40 CFR Part 75 Appendix A.
    - 3) The measurement span value of the CO CEMS shall not exceed 175 ppm.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

---

4. Fuel Requirement for the Combustion Turbines
  - A. The permittee shall burn only natural gas in their combustion turbines (EP-01 through EP-15).
  - B. Natural gas shall have a sulfur content less than 0.5 grains sulfur per 100 standard cubic feet.
  - C. The permittee shall demonstrate compliance with Special Condition 4. A. by obtaining records of the fuel's sulfur content from the vendor for each shipment of fuel received or by testing each shipment of fuel for the sulfur content in accordance with the method described in 10 CSR 10-6.040 Reference Methods.
  - D. The permittee shall keep the records required by Special Condition 4.C. and make them available for Department of Natural Resources' employees upon request.
5. Operational Limitation – Emergency Generator (EP-GEN1)
  - A. The permittee shall not operate the emergency engine more than a total of 24 hours for the purpose of planned, routine testing or maintenance in any consecutive 12-month period.
  - B. The permittee shall only operate the emergency engine for the purpose of planned, routine testing or maintenance between 9:00 am and 4:00 pm. The operation of the emergency power generating engines during unplanned, non-routine maintenance events or an emergency has no time-of-day restriction.
  - C. Attachment A or an equivalent form, such as electronic forms, approved by the Air Pollution Control Program, shall be used to demonstrate compliance with Special Condition 5. A.
  - D. EP-GEN1 is limited to providing electrical power or mechanical work during an emergency situation for the duration of time that the outage is entirely beyond the control of the permittee. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.
  - E. The emergency power generating engine cannot be used to generate income for the facility to supply power to the electric grid or otherwise supply nonemergency power as part of a financial arrangement with another entity. The permittee shall not operate any emergency power generating engine as a peak shaving unit.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

---

- F. EP-GEN1 shall only be operated for testing and maintenance and during emergency situations.
- G. EP-GEN1 shall be installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions. The permittee may only change emission-related engine settings that are permitted by the manufacturer.
- H. The permittee shall burn exclusively ultra-low sulfur diesel with a sulfur content of less than 0.0015 wt% (15 parts per million by weight) in their emergency power generating engine.
  - 1) The permittee shall demonstrate compliance with Special Condition 5.H by obtaining records of the fuel's sulfur content from the vendor for each shipment of fuel received or by testing each shipment of fuel for the sulfur content in accordance with the method described in 10 CSR 10-6.040 Reference Methods.
  - 2) The permittee shall keep the records required by Special Condition 5.H.1) and make them available for Department of Natural Resources' employees upon request.
- 6. NOx Modeling Limits for Combustion Turbines
  - A. The permittee shall emit no more than 2.80 lb/hr NOx (averaged over 1-hour) from each of the combustion turbine.
  - B. Compliance with Special Condition 6. A. shall be verified by using NOx CEMS.
- 7. Annual Emission Compliance for Combustion Turbines
  - A. The permittee shall emit no more than 8.9 tons of NOx per rolling consecutive 12-month period and 5.1 tons of CO per rolling consecutive 12-month period from each of the combustion turbines.
  - B. Compliance with Special Condition 7.A. shall be maintained by using NOx and CO CEMS.
  - C. Attachment B and Attachment C or an equivalent form, such as electronic forms, approved by the Air Pollution Control Program, shall be used to demonstrate compliance with Special Condition 7. A.
- 8. CO Hourly Emission Limits for Combustion Turbines
  - A. The permittee shall emit no more than 2 ppmvd CO (at 15% O<sub>2</sub>)
  - B. Compliance with Special Condition 8.A shall be maintained by using the CO CEMS and averaging over a 1-hour period.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

---

9. VOC Hourly Emission Limits for Combustion Turbines
  - A. The permittee shall emit no more than 3 ppmvd VOC (at 15% O<sub>2</sub>) averaged over 3 1-hour tests.
  - B. Compliance with Special Condition 11 shall be done through stack testing for VOC.
10. Ambient Impact Analysis Requirements

The permittee shall notify the Air Pollution Control Program before initial startup of any modifications to the facility design that could impact the release parameters or point source emission rates as specified in the memorandums from the Modeling Unit titled, "Ambient Air Quality Impact Analysis (AAQIA) for Independence Power Station 1 (June 2026) and listed in Appendix A this permit. If the Air Pollution Control Program determines that the changes are significant, the permittee shall submit an updated AAQIA to the Air Pollution Control Program that continues to demonstrate compliance with the NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> NAAQS and Acrolein and PAH RALs.
11. Record Keeping and Reporting Requirements
  - A. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
  - B. The permittee shall report no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of an emission limitation imposed by this permit.
  - C. The permittee shall report no later than 10 days after records indicate an exceedance of any process limitations, such as a minimum temperature, pressure drop outside manufacturer range, etc.
  - D. The reports of emission limit exceedances and deviations from requirements shall be sent to the Air Pollution Control Program's Compliance/Enforcement Section:
    - 1) By mail at P.O. Box 176 Jefferson City, MO 65102 **and** by email at [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov); **or**
    - 2) By any other means that comply with 40 CFR Part 3.
12. Performance Testing Requirements – Combustion Turbines
  - A. To verify the emission rates for PM<sub>10</sub> and PM<sub>2.5</sub>, VOC and formaldehyde, the permittee shall conduct one-time verification testing on two of the combustion turbines and consider the results representative for all the remaining engines. Testing shall be performed at greater than 90% load.
    - 1) Testing shall consist of at least three one-hour runs.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

---

- 2) If the emission rates exceed any of the following values the permittee shall submit an application to amend this permit with the updated emission rates and an updated ambient impact analysis. The application shall be submitted within 90 days from the date the permittee receives the results of the non-compliant performance test.
  - a) PM<sub>10</sub>, filterable + condensable: 1.13 lb/hr (average of 3 1-hour tests)
  - b) PM<sub>2.5</sub>, filterable + condensable: 1.13 lb/hr (average of 3 1-hour tests)
  - c) VOC<sup>1</sup>: 0.55 lb/hr and 3 ppmvd (at 15% O<sub>2</sub>) (average of 3 1-hour tests)
  - d) Formaldehyde: 0.019 lb/hr (average of 3 1-hour tests)
- B. These tests shall be performed no later than 60 days after commissioning the first turbine at the installation, but not later than 180 days after an initial commissioning period for the turbine, which includes all readiness testing, adjustments, and tuning necessary to ensure the turbines and control measures operate properly.
- C. A completed Proposed Test Plan shall be submitted to the Air Pollution Control Program at least 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.
- D. One electronic copy of a written report of the performance test results shall be submitted to [StackTesting@dnr.mo.gov](mailto:StackTesting@dnr.mo.gov) within 60 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.
- E. The test report is to fully account for all operational and emission parameters addressed in the permit conditions for each test run, including the following:
  - 1) Indication of turbine(s) being tested
  - 2) Indication of fuel being combusted
  - 3) Indication of load, in megawatts
  - 4) Indication of heat input, in MMBtu/hr
  - 5) Indication of ambient temperature

<sup>1</sup>VOC testing shall be conducted according to EPA Test Method 25A and VOC mass emissions shall be calculated using ppmvd as methane.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2026-02-035  
Installation ID Number: 095-0431  
Permit Number: 072026-012

Installation Address:

Independence Power Station 1  
21421 East Truman Road  
Independence, MO 64056

Owner or Operator:

IP Truman LLC  
4851 Lyndon B. Johnson Freeway  
Dallas, TX 75244

Jackson County, S04, T49N, R31W

REVIEW SUMMARY

- The permittee has applied for authority to install fifteen (15) Solar Titan 130 simple cycle combustion turbines rated at 17.8 MW each, a fuel gas heater and an emergency generator.
- The application was deemed complete on February 23, 2026.
- HAP emissions are emitted from the combustion of natural gas from the combustion turbines and fuel heaters, as well as diesel from the emergency generator and fuel gas heater.
- 40 CFR 60 Subpart KKKKa, "Standards of Performance for Stationary Combustion Turbines" applies to the combustion turbines.
- 40 CFR Part 60, Subpart TTTTa, *Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units* does not apply to the combustion turbines.
- 40 CFR Part 60, Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* applies to the emergency generator.
- 40 CFR Part 63, Subpart ZZZZ - *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* applies to the emergency generator. If the NSPS IIII requirements are met, then no further requirements apply under the MACT.
- 40 CFR Part 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines* does not apply to the new combustion turbines and support systems as they were not installed between October 3, 1977 and February 18, 2005.

- 40 CFR 63 Subpart YYY, “National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines”, does not apply to the installation because it is not a major source of HAP.
- Selective catalytic reduction (SCR) is being used to control NO<sub>x</sub> emissions and oxidation catalysts are being used to control CO, VOC, and HAP emissions from the combustion turbines.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, and NO<sub>x</sub> are above de minimis levels.
- This installation is located in Jackson County, an attainment/unclassifiable area for all criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation is classified as item number 27. Any other stationary source category which, as of August 7, 1980, is being regulated under §111 or §112 of the Act, because combustion turbines were being regulated at that time under 40 CFR Part 60, Subpart GG - *Standards of Performance for Stationary Combustion Turbines*; therefore, fugitive emissions are counted toward major source applicability. The installation's major source level is 250 tons per year for all criteria pollutants.
- Ambient air quality modeling was performed to determine the ambient impact of PM<sub>10</sub>, PM<sub>2.5</sub>, and NO<sub>x</sub>, and hazardous air pollutants acrolein and PAH.
- Emissions testing is required for the equipment as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- The installation must obtain an operating permit. The installation must submit one of the following:
  - An initial Intermediate Operating Permit application within 90 days of commencement of operations per 10 CSR 10-6.065(4)(B)1.A(I)(a).
  - An initial Part 70 Operating Permit application within one year of commencement of operations per 10 CSR 10-6.065(5)(B)1.A(II)
- Approval of this permit is recommended with special conditions.

## INSTALLATION / PROJECT DESCRIPTION

Independence Power Partners (IPP) Truman LLC is proposing to construct a new natural gas-fired electric generating facility at 21200 East Truman Road, Independence, Missouri at the location of the former Independence Power and Light's (IPL) Little Blue Valley coal-fired electric generating facility. The generating facility is named

Independence Power Station 1 (IPS1). It is being constructed as part of Phase 1 of the redevelopment of the IPL Little Valley Property.

Independence Power Station 1 will consist of fifteen (15) Solar Titan 130 simple cycle combustion turbine generators rated at a nominal gross output of 17.8 MW each (total of 267.5 MW). Each of the combustion turbine generators are equipped with Solar's Dry-Low NO<sub>x</sub> combustor technology, and the combustion turbines will operate with selective catalytic reduction (SCR) to minimize the formation of NO<sub>x</sub> emissions, as well as oxidation catalysts for the control of CO and VOC emissions. The combustion turbines will utilize pipeline natural gas as the only fuel source. The maximum heat input rate based on the higher heating value (HHV) of natural gas is 171 MMBtu/hr.

In addition to fifteen combustion turbines, the facility will also include one natural gas fired 9.90 MMBtu/hr fuel gas heater, and one 500Kw diesel-fired emergency generator. The heater will heat the incoming fuel gas prior to combustion in the turbine.

## EMISSIONS/CONTROLS EVALUATION

### **Combustion Turbines**

The combustion turbine calculations are based on the following operating conditions:

- The turbines will operate with SCRs that can achieve 2.5 ppm NO<sub>x</sub> at 15% O<sub>2</sub>.
- The turbines will operate with oxidation catalysts that can achieve 2 ppm CO and 3 ppm VOC at 15% O<sub>2</sub>.
- The turbines will operate continuously, with up to 30 startup events per year.
- The turbines will only operate on natural gas.

### NO<sub>x</sub>, CO, VOC Emissions

Hourly steady state NO<sub>x</sub>, CO and VOC emissions for different ranges of operating loads and a range of ambient conditions for natural gas combustion were provided by Solar and Energy Link. The emission rates include the operation of SCR and oxidation catalyst. The highest hourly rate corresponds to -4 F<sup>0</sup> at 100% load.

### Startup and Shutdown Events

Solar provided emission data associated with a conventional startup and shutdown for NO<sub>x</sub>, CO and VOC. Solar has indicated that a conventional startup event takes approximately 27 minutes and shutdown event takes 10 minutes, meaning that the events can occur within the same hour. See Table 1 and Table 2 below for the summary of the vendor data for the startup and shutdown events and maximum hourly rates at 100% load. The NO<sub>x</sub> hourly maximum emission rate of 2.80 lb/hr is used for NO<sub>x</sub> modeling, and the facility will utilize CEMS to verify the NO<sub>x</sub> hourly modeled emission rate per Special Condition 6.

**Table 1 - Manufacturer provided startup and shutdown events**

|                      | Duration (min) | NOx (lb/event) | CO (lb/event) | VOC (lb/event) |
|----------------------|----------------|----------------|---------------|----------------|
| Conventional Startup | 27             | 1              | 24            | 6              |
| Shutdown             | 10             | 1              | 26            | 6              |

**Table 2 - Solar T 130 Combustion Turbine NOx, CO and VOC Maximum Hourly Rates**

| Pollutant | Startup Event<br>(27 minutes)<br>(lb/event) | Steady State<br>Operation<br>(23 minutes)<br>(lb/event) | Shutdown Event<br>(10 minutes)<br>(lb/event) | Hourly Total<br>(lb/hr) |
|-----------|---------------------------------------------|---------------------------------------------------------|----------------------------------------------|-------------------------|
| NOx       | 1                                           | 0.80                                                    | 1                                            | 2.80                    |
| CO        | 24                                          | 0.38                                                    | 26                                           | 50.39                   |
| VOC       | 6                                           | 0.22                                                    | 6                                            | 12.22                   |

For annual potential emissions, NOx, CO and VOC are based on 8,760 hours per year, assuming 30 hours per year will include startup and shut-down events, and remainder of the 8,760 hours is based on the steady state PTE. See Table 3 below each combustion turbine's annual NOx, CO and VOC PTE. The facility is required to demonstrate compliance with NOx and CO annual emissions per turbine utilizing the NOx and CO CEMS per Special Condition 7.

**Table 3- NOx, CO, and VOC Annual Emissions for each Solar T130 turbine**

| Emission Case                   | Portion      | Duration in 1 hr (min) | Number of Startup (#/year) | Number of Shutdown (#/year) | Portion Time (hr/year) | Nox (lb/yr) | CO (lb/yr) | VOC (lb/yr) |
|---------------------------------|--------------|------------------------|----------------------------|-----------------------------|------------------------|-------------|------------|-------------|
| Startup                         | Startup      | 27                     | 30                         | N/A                         | 13                     | 30          | 720        | 180         |
| Shutdown                        | Shutdown     | 10                     | N/A                        | 30                          | 5                      | 30          | 780        | 180         |
| Winter Case Steady at 100% Load | Steady State | 23                     | N/A                        | N/A                         | 8742                   | 17,820      | 8,678      | 4,835       |
| Annual Emissions (lb/yr)        |              |                        |                            |                             |                        | 17,880      | 10,178     | 5,195       |
| Annual Emission (tpy)           |              |                        |                            |                             |                        | 8.9         | 5.1        | 2.6         |

#### PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SOx, and HAPs

The emission rates for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SOx and HAPs were not supplied by the vendor. As a result, the emission factors used in the analysis for these pollutants were obtained from the EPA document AP-42, Compilation of Air Pollutant Emission Factor, Fifth Edition, Section 3.1 "Stationary Gas Turbines" (April 2000)

- The facility wide PM<sub>10</sub> and PM<sub>2.5</sub> PTEs are above de minimis level, thus PM<sub>10</sub> and PM<sub>2.5</sub> modeling is required. The facility is required to conduct one time stack testing to verify modeling emission rates per Special Condition 10.
- SO<sub>2</sub> was calculated from sulfur content and mass balance.
- Formaldehyde potential emissions were based upon the MACT YYYY limit, which is conservative and does not apply to combustion turbines. Per AP-42, Section 3.1 "(April 2000), oxidation catalysts provide 85-90 percent control on emissions of formaldehyde and similar control efficiencies for other organic HAPs. Conservatively A 50% control efficiency was applied to the MACT YYYY

limit derived emission rate. The facility is required to verify the formaldehyde emission rate per Special Condition 12.

- All other HAPs were obtained from the AP-42, Section 3.1 “(April 2000) and a 35% control efficiency is applied for the organic HAPs. Acrolein and PAH emissions were above their respective SMAL, thus required modeling. Both HAPs are modeled below the RALs.

### Emergency Generator (EP-GEN1)

The PTE for the emergency generator is based on the maximum capacity of the diesel engine and emission factors from EPA document AP-42Section 3.4, (April 2025) for all the pollutants. The calculations assume a maximum of 500 hours per year of operation that include emergency and maintenance and readiness testing per EPA’s guidance document *Calculating Potential to Emit (PTE) for Emergency Generators* (September 6, 1995). Special Conditions 5.A and 5.B limit the planned, routine testing or maintenance to 24 hours per engine per year and time of the day of these activities to between 9:00 am to 4:00 pm so emergency generator can be viewed as an intermittent source for modeling purposes. As such 1-hour NO<sub>x</sub> modeling will not be required for the emergency generator.

### Natural Gas-Fired Fuel Gas Heater

Emissions from the natural gas-fired fuel gas heater were determined using emission factors from AP-42 Section 1.4 “Natural Gas Combustion” (July 1998).

Table 4 provides an emissions summary for this project. Since this is a new installation, there are no existing emissions. Potential emissions of the project represent the potential of the new equipment, assuming continuous operation of 8760 hours for combustion turbines and the fuel heater, and 500 hours for the emergency generator per year.

**Table 4: Emissions Summary (tpy)**

| Pollutant         | Regulatory<br><i>De Minimis</i><br>Levels | Existing<br>Potential<br>Emissions | Existing Actual<br>Emissions<br>(2025 EIQ) | Potential<br>Emissions<br>Installation |
|-------------------|-------------------------------------------|------------------------------------|--------------------------------------------|----------------------------------------|
| PM                | 25.0                                      | N/A                                | N/A                                        | 21.8                                   |
| PM <sub>10</sub>  | 15.0                                      | N/A                                | N/A                                        | 74.8                                   |
| PM <sub>2.5</sub> | 10.0                                      | N/A                                | N/A                                        | 74.8                                   |
| SO <sub>x</sub>   | 40.0                                      | N/A                                | N/A                                        | 31.6                                   |
| NO <sub>x</sub>   | 40.0                                      | N/A                                | N/A                                        | 140.4                                  |
| VOC               | 40.0                                      | N/A                                | N/A                                        | 39.3                                   |
| CO                | 100.0                                     | N/A                                | N/A                                        | 81.00                                  |
| HAPs              | 10.0/25.0                                 | N/A                                | N/A                                        | 3.64                                   |
| Formaldehyde      | 2.00/10.00                                | N/A                                | N/A                                        | 1.24                                   |
| Acrolein          | 0.04/10                                   | N/A                                | N/A                                        | 0.05                                   |
| PAH               | 0.01/10                                   | N/A                                | N/A                                        | 0.02                                   |

N/A = Not Applicable; N/D = Not Determined

## PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM<sub>10</sub>, PM<sub>2.5</sub> and NO<sub>x</sub> are above de minimis levels. Acrolein and PAH emissions are above their SMAL levels.

## APPLICABLE REQUIREMENTS

Independence Power Station 1 shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

### GENERAL REQUIREMENTS

- *Operating Permits*, 10 CSR 10-6.065
- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

### SPECIFIC REQUIREMENTS

- 40 CFR Part 60, Subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* applies to the emergency generator.
- 40 CFR Part 60, Subpart KKKKa - *Standards of Performance for Stationary Combustion Turbines* applies to the turbines.
- 40 CFR Part 63, Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating internal Combustion Engines* applies to the emergency generator. If the NSPS IIII requirements are met, then no further requirements apply under the MACT.

## OTHER DETERMINATIONS

- 40 CFR Part 60, Subpart TTTTa - *Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units* does not apply to the turbines because each turbines' base load rating is less than 250 MMBtu/hr.
- 40 CFR Part 63, Subpart YYYY - *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines* does not apply because the installation is not a major source of HAP.

## AMBIENT AIR QUALITY IMPACT ANALYSIS

Ambient air quality modeling was performed to determine the ambient impact of NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Acrolein, and PAH. Modeling was performed due to potential emissions of NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> exceeding their respective de minimis level and due to potential emissions of Acrolein and PAH exceeding their respective SMAL. The modeling procedures utilized followed current air quality modeling guidelines as contained within 40 CFR Part 51 Appendix W. AERMOD Version 24142 was used to evaluate compliance with the 1-hr, 8-hr, 24-hr, and annual air quality standards based upon the, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, and HAP emissions that result from the operations at the Independence Power Station 1.

Multiple modeling scenarios were conducted for each fuel, 100% load, 80% load, and 50% load.

To determine if a full impact model analysis is necessary, a facility must complete a preliminary model analysis. If the model predicts the high first high to be below the thresholds outlined in 10 CSR 10-6.060(5)(F)3 Table 1, no further analysis is necessary, and the modeling study can be deemed complete provided it follows the EPA's minimum modeling requirements. Table 5 summarizes the results of the preliminary model analysis.

**Table 5: Preliminary Model Results (µg/m<sup>3</sup>)**

| Pollutant         | Maximum Preliminary Modeled Impact from all scenarios | Significant Impact Level | Averaging Period |
|-------------------|-------------------------------------------------------|--------------------------|------------------|
| NO <sub>x</sub>   | <b>49.539</b>                                         | 7.52                     | 1-hr             |
| NO <sub>x</sub>   | <b>1.567</b>                                          | 1                        | Annual           |
| PM <sub>10</sub>  | <b>5.77</b>                                           | 5                        | 24-hr            |
| PM <sub>2.5</sub> | <b>5.247</b>                                          | 1.2                      | 24-hr            |
| PM <sub>2.5</sub> | <b>0.726</b>                                          | 0.13                     | Annual           |

The preliminary model predicted concentrations for the 1-hr and annual NO<sub>x</sub> standards, 24-hr PM<sub>10</sub> standard, and 24-hr and annual PM<sub>2.5</sub> standards were above their respective significance levels, thereby triggering a full impact analysis for these standards. The results of the full analysis are summarized below in Table 6.

**Table 6: Full Impact Analysis Results ( $\mu\text{g}/\text{m}^3$ )**

| Pollutant         | Maximum Modeled Impact from all scenarios | NAAQS  | Time Period |
|-------------------|-------------------------------------------|--------|-------------|
| NO <sub>x</sub>   | <b>1175</b>                               | 188.68 | 1-hr        |
| NO <sub>x</sub>   | 69.36                                     | 100    | Annual      |
| PM <sub>10</sub>  | <b>1131.60</b>                            | 150    | 24-hr       |
| PM <sub>2.5</sub> | <b>138.65</b>                             | 35     | 24-hr       |
| PM <sub>2.5</sub> | <b>24.09</b>                              | 9      | Annual      |

The full impact analysis resulted in several receptors reporting violations of the NAAQS for the 1-hr NO<sub>x</sub> standard, 24-hr PM<sub>10</sub> standard, and 24-hr and annual PM<sub>2.5</sub> standards. According to EPA guidance, if it can be demonstrated that the facility has insignificant impacts at violating receptors (at the time of the predicted violation), approval of the analysis can be provided.

**Table 7: Receptor Analysis Results ( $\mu\text{g}/\text{m}^3$ )**

| Pollutant         | Maximum Modeled Impact on a Violating Receptor | Significant Impact Level | Time Period |
|-------------------|------------------------------------------------|--------------------------|-------------|
| NO <sub>x</sub>   | 0.245                                          | 7.52                     | 1-hr        |
| PM <sub>10</sub>  | 4.35                                           | 5                        | 24-hr       |
| PM <sub>2.5</sub> | 0.34                                           | 1.2                      | 24-hr       |
| PM <sub>2.5</sub> | 0.12                                           | 0.13                     | Annual      |

The impact that the facility had on each violating receptor paired in time and space was less than the significant impact levels; as such, no further evaluation is necessary.

Table 8 summarizes the results of the risk assessment level compliance demonstration.

**Table 8: Risk Assessment Results ( $\mu\text{g}/\text{m}^3$ )**

| HAP      | Modeled Impact | Risk Assessment Level | Averaging Period |
|----------|----------------|-----------------------|------------------|
| Acrolein | 0.0041         | 6.9                   | 24-hr            |
| Acrolein | 0.00062        | 0.02                  | Annual           |
| PAH      | 0.00802        | 0.16                  | 24-hr            |
| PAH      | 0.00076        | 0.016                 | Annual           |

The predicted concentrations for each HAP were below their respective risk assessment levels; as such, no further analysis is required for these HAPs.

### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 20, 2026, received February 23, 2026, designating IP Truman LLC as the owner and operator of the installation.

**Attachment A**  
**Testing and Maintenance Hours of Operation Tracking Sheet**  
**for Emergency Power Generator (EP-GEN1)**  
**Independence Power Station 1**  
**Project Number: 2026-02-035**  
**Permit number: 072026-012**

**Site Address:** 21421 East Truman Road Independence, MO 64056  
**Site County:** Jackson County

This sheet covers Emergency Power Generator EP-GEN1 for \_\_\_\_\_  
 (Generator ID Number) (Year)

| Month          | Hours of Testing and Maintenance Operation for the Month <sup>1</sup> | 12-Month Total Hours of Testing and Maintenance Operation <sup>2</sup>   |
|----------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------|
| <i>Example</i> | <i>0.22</i>                                                           | <i>0.22 + hours of testing and maintenance in the 11 previous months</i> |
| January        |                                                                       |                                                                          |
| February       |                                                                       |                                                                          |
| March          |                                                                       |                                                                          |
| April          |                                                                       |                                                                          |
| May            |                                                                       |                                                                          |
| June           |                                                                       |                                                                          |
| July           |                                                                       |                                                                          |
| August         |                                                                       |                                                                          |
| September      |                                                                       |                                                                          |
| October        |                                                                       |                                                                          |
| November       |                                                                       |                                                                          |
| December       |                                                                       |                                                                          |

<sup>1</sup>Record the total length of time in hours that this generator was operated for testing or maintenance in the month.

<sup>2</sup>Add the monthly hours of testing and maintenance to the sum of the monthly testing and maintenance from the previous eleven months. A total of less than 24 hours is necessary for compliance.

## Attachment B – Annual Turbine NOx Limit Compliance Worksheet

(Duplicate this form as needed)

**Site Address:** 21421 East Truman Road Independence, MO 64056

**Site County:** Jackson County

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
(month, year) (month, year)

Turbine ID: \_\_\_\_\_

| Column A                | Column B                | Column C                                 | Column D         |
|-------------------------|-------------------------|------------------------------------------|------------------|
| Month/Year<br>(MM/YYYY) | NOx Emissions<br>(tons) | 12-Month Rolling NOx<br>Emissions (tons) | Compliant? (Y/N) |
| Example: 01/2052        | 2.2                     | 2.3 + previous 11 months                 |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |

**Instructions:**

- Compliance with NOx emission limits shall be demonstrated separately for each turbine (duplicate the form as needed).
- From CEMS data calculate the total NOx Emissions for the month for the specified turbine using all valid NOx data for the month. Total monthly NOx emissions shall include emissions from all modes of operation.
- Total the NOx emissions for the current month in Column B with the NOx emissions for the previous 11 months and enter into Column C.
- Indicate compliance status in Column D. Rolling 12-month NOx emissions of **less than 8.9 tons per year** for each turbine demonstrates compliance.

# Attachment C – Annual Turbine CO Limit Compliance Worksheet

(Duplicate this form as needed)

**Site Address:** 21421 East Truman Road Independence, MO 64056

**Site County:** Jackson County

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
(month, year) (month, year)

Turbine ID: \_\_\_\_\_

| Column A                | Column B                | Column C                                 | Column D         |
|-------------------------|-------------------------|------------------------------------------|------------------|
| Month/Year<br>(MM/YYYY) | NOx Emissions<br>(tons) | 12-Month Rolling NOx<br>Emissions (tons) | Compliant? (Y/N) |
| Example: 01/2052        | 1.2                     | 1.2 + previous 11 months                 |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |
|                         |                         |                                          |                  |

**Instructions:**

- Compliance with CO emission limits shall be demonstrated separately for each turbine (duplicate the form as needed).
- From CEMS data calculate the total CO Emissions for the month for the specified turbine using all valid CO data for the month. Total monthly CO emissions shall include emissions from all modes of operation.
- Total the CO emissions for the current month in Column B with the CO emissions for the previous 11 months and enter into Column C.
- Indicate compliance status in Column D. Rolling 12-month CO emissions of **less than 5.1 tons per year** for each turbine demonstrates compliance.

**APPENDIX A**  
**Independence Power Partners - Point Source Emission Rates and Stack Parameters**

| EP ID                 | Model Type | Modeling Description | Emission Rate (lb/hr) | Height (meters) | Temperature (degrees K) | Velocity (meters/sec) | Diameter (meters) |
|-----------------------|------------|----------------------|-----------------------|-----------------|-------------------------|-----------------------|-------------------|
| NOx                   |            |                      |                       |                 |                         |                       |                   |
| 1-Hour, 100% Load     |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-15 | Point      | Combustion Turbine   | 2.80                  | 18.29           | 709.26                  | 22.25                 | 2.74              |
| H-1                   |            | Fuel Gas Heater      | 0.97                  | 4.57            | 988                     | 16.34                 | 0.43              |
| 1-Hour, 80% Load      |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-15 | Point      | Combustion Turbine   | 2.70                  | 18.29           | 699.82                  | 19.20                 | 2.74              |
| H-1                   |            | Fuel Gas Heater      | 0.97                  | 4.57            | 533.15                  | 16.34                 | 0.43              |
| 1-Hour, 50% Load      |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-15 | Point      | Combustion Turbine   | 2.56                  | 18.29           | 722.034                 | 15.85                 | 2.74              |
| H-1                   |            | Fuel Gas Heater      | 0.97                  | 4.57            | 533                     | 16.34                 | 0.43              |
| Annual, 100% Load     |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-15 | Point      | Combustion Turbine   | 2.04                  | 18.29           | 709.26                  | 22.25                 | 2.74              |
| H-1                   |            | Fuel Gas Heater      | 0.97                  | 4.57            | 533.15                  | 16.34                 | 0.43              |
| Gen-1                 | Point      | Emergency Generator  | 0.46                  | 7.62            | 988                     | 52.47                 | 0.20              |
| Annual, 80% Load      |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-15 | Point      | Combustion Turbine   | 1.79                  | 18.29           | 699.82                  | 19.20                 | 2.74              |
| H-1                   |            | Fuel Gas Heater      | 0.97                  | 4.57            | 533.15                  | 16.33                 | 0.43              |
|                       |            |                      |                       |                 |                         |                       |                   |
| Gen-1                 | Point      | Emergency Generator  | 0.46                  | 7.62            | 988                     | 52.47                 | 0.20              |
| Annual, 50% Load      |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-1  | Point      | Combustion Turbine   | 1.45                  | 18.29           | 722.04                  | 19.20                 | 2.74              |
| H-1                   |            | H-1                  | 0.97                  | 4.57            | 533.15                  | 16.34                 | 0.43              |
| Gen-1                 |            | Emergency Generator  | 0.46                  | 7.62            | 988                     | 52.47                 | 0.20              |
| PM10                  |            |                      |                       |                 |                         |                       |                   |
| 24-Hour, 100%         |            |                      |                       |                 |                         |                       |                   |
| CTG -1 through CTG-1  | Point      | Combustion Turbine   | 1.13                  | 18.29           | 709.26                  | 22.25                 | 2.74              |
| H-1                   |            | H-1                  | 0.07                  | 4.57            | 533.15                  | 16.34                 | 0.426             |

|                           |       |                     |       |       |        |       |       |
|---------------------------|-------|---------------------|-------|-------|--------|-------|-------|
| Gen-1                     |       | Emergency Generator | 0.46  | 7.62  | 988    | 52.47 | 0.20  |
| 24-Hour, 80%              |       |                     |       |       |        |       |       |
| CTG -1 through CTG-1      | Point | Combustion Turbine  | 0.95  | 18.29 | 699.82 | 19.20 | 2.74  |
| H-1                       |       | H-1                 | 0.07  | 4.57  | 533.15 | 16.34 | 0.426 |
| Gen-1                     |       | Emergency Generator | 0.25  | 7.62  | 988    | 52.47 | 0.20  |
| 24-Hour, 50%              |       |                     |       |       |        |       |       |
| CTG -1 through CTG-1      | Point | Combustion Turbine  | 0.73  | 18.29 | 722.04 | 15.85 | 2.74  |
| H-1                       |       | H-1                 | 0.07  | 4.57  | 533.15 | 16.37 | 0.426 |
| Gen-1                     |       | Emergency Generator | 0.25  | 7.62  | 988    | 52.47 | 0.20  |
| PM2.5                     |       |                     |       |       |        |       |       |
| 24-Hour, Annual 100% Load |       |                     |       |       |        |       |       |
| CTG -1 through CTG-1      | Point | Combustion Turbine  | 1.13  | 18.29 | 709.26 | 22.25 | 2.74  |
| H-1                       |       | H-1                 | 0.07  | 4.57  | 533.15 | 16.37 | 0.426 |
| Gen-1                     |       | Emergency Generator | 0.25  | 7.62  | 988    | 52.47 | 0.20  |
| 24-Hour, Annual 80% Load  |       |                     |       |       |        |       |       |
| CTG -1 through CTG-1      | Point | Combustion Turbine  | 0.95  | 18.29 | 699.82 | 19.20 | 2.74  |
| H-1                       |       | H-1                 | 0.07  | 4.57  | 533.15 | 16.37 | 0.426 |
| Gen-1                     |       | Emergency Generator | 0.25  | 7.62  | 988    | 52.47 | 0.20  |
| 24-Hour, Annual 50% Load  |       |                     |       |       |        |       |       |
| CTG -1 through CTG-1      | Point | Combustion Turbine  | 0.734 | 18.29 | 722.04 | 15.85 | 2.74  |
| H-1                       |       | H-1                 | 0.07  | 4.57  | 533.15 | 16.34 | 0.426 |
| Gen-1                     |       | Emergency Generator | 0.25  | 7.62  | 988    | 52.47 | 0.20  |

## APPENDIX B

### Abbreviations and Acronyms

|                                                          |                                                                                                |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>%</b> ..... percent                                   | <b>Mgal</b> ..... 1,000 gallons                                                                |
| <b>°F</b> ..... degrees Fahrenheit                       | <b>MW</b> ..... megawatt                                                                       |
| <b>acfm</b> ..... actual cubic feet per minute           | <b>MHDR</b> ..... maximum hourly design rate                                                   |
| <b>BACT</b> ..... Best Available Control Technology      | <b>MMBtu</b> .... Million British thermal units                                                |
| <b>BMPs</b> ..... Best Management Practices              | <b>MMCF</b> ..... million cubic feet                                                           |
| <b>Btu</b> ..... British thermal unit                    | <b>MSDS</b> ..... Material Safety Data Sheet                                                   |
| <b>CAM</b> ..... Compliance Assurance Monitoring         | <b>NAAQS</b> ... National Ambient Air Quality Standards                                        |
| <b>CAS</b> ..... Chemical Abstracts Service              | <b>NESHAPs</b> National Emissions Standards for Hazardous Air Pollutants                       |
| <b>CEMS</b> ..... Continuous Emission Monitor System     | <b>NO<sub>x</sub></b> ..... nitrogen oxides                                                    |
| <b>CFR</b> ..... Code of Federal Regulations             | <b>NSPS</b> ..... New Source Performance Standards                                             |
| <b>CO</b> ..... carbon monoxide                          | <b>NSR</b> ..... New Source Review                                                             |
| <b>CO<sub>2</sub></b> ..... carbon dioxide               | <b>PM</b> ..... particulate matter                                                             |
| <b>CO<sub>2e</sub></b> ..... carbon dioxide equivalent   | <b>PM<sub>2.5</sub></b> ..... particulate matter less than 2.5 microns in aerodynamic diameter |
| <b>COMS</b> ..... Continuous Opacity Monitoring System   | <b>PM<sub>10</sub></b> ..... particulate matter less than 10 microns in aerodynamic diameter   |
| <b>CSR</b> ..... Code of State Regulations               | <b>ppm</b> ..... parts per million                                                             |
| <b>dscf</b> ..... dry standard cubic feet                | <b>PSD</b> ..... Prevention of Significant Deterioration                                       |
| <b>EQ</b> ..... Emission Inventory Questionnaire         | <b>PTE</b> ..... potential to emit                                                             |
| <b>EP</b> ..... Emission Point                           | <b>RACT</b> ..... Reasonable Available Control Technology                                      |
| <b>EPA</b> ..... Environmental Protection Agency         | <b>RAL</b> ..... Risk Assessment Level                                                         |
| <b>EU</b> ..... Emission Unit                            | <b>SCC</b> ..... Source Classification Code                                                    |
| <b>fps</b> ..... feet per second                         | <b>scfm</b> ..... standard cubic feet per minute                                               |
| <b>ft</b> ..... feet                                     | <b>SDS</b> ..... Safety Data Sheet                                                             |
| <b>GACT</b> ..... Generally Available Control Technology | <b>SIC</b> ..... Standard Industrial Classification                                            |
| <b>GHG</b> ..... Greenhouse Gas                          | <b>SIP</b> ..... State Implementation Plan                                                     |
| <b>gpm</b> ..... gallons per minute                      | <b>SMAL</b> ..... Screening Model Action Levels                                                |
| <b>gr</b> ..... grains                                   | <b>SO<sub>x</sub></b> ..... sulfur oxides                                                      |
| <b>GWP</b> ..... Global Warming Potential                | <b>SO<sub>2</sub></b> ..... sulfur dioxide                                                     |
| <b>HAP</b> ..... Hazardous Air Pollutant                 | <b>SSM</b> ..... Startup, Shutdown & Malfunction                                               |
| <b>hr</b> ..... hour                                     | <b>tph</b> ..... tons per hour                                                                 |
| <b>hp</b> ..... horsepower                               | <b>tpy</b> ..... tons per year                                                                 |
| <b>lb</b> ..... pound                                    | <b>VMT</b> ..... vehicle miles traveled                                                        |
| <b>lbs/hr</b> ..... pounds per hour                      | <b>VOC</b> ..... Volatile Organic Compound                                                     |
| <b>MACT</b> ..... Maximum Achievable Control Technology  |                                                                                                |
| <b>µg/m<sup>3</sup></b> ..... micrograms per cubic meter |                                                                                                |
| <b>m/s</b> ..... meters per second                       |                                                                                                |

## Appendix B: Air Pollution Control Program

### Table of Hazardous Air Pollutants and Screening Model Action Levels, (Rev. 19, 9/24/2025)

| Chemical                    | CAS #      | SMAL<br>(tons/yr) | Group<br>ID | VOC | PM | Chemical                            | CAS #     | SMAL<br>(tons/yr) | Group<br>ID | VOC | PM | Chemical                                      | CAS #    | SMAL<br>(tons/yr) | Group<br>ID | VOC | PM |
|-----------------------------|------------|-------------------|-------------|-----|----|-------------------------------------|-----------|-------------------|-------------|-----|----|-----------------------------------------------|----------|-------------------|-------------|-----|----|
| ACETALDEHYDE                | 75-07-0    | 9                 |             | Y   | N  | CARBARYL                            | 63-25-2   | 10                | V           | Y   | Y  | DICHLOROPROPENE, [1,3-]                       | 542-75-6 | 1                 |             | Y   | N  |
| ACETAMIDE                   | 60-35-5    | 1                 |             | Y   | N  | CARBON DISULFIDE                    | 75-15-0   | 1                 |             | Y   | N  | DICHLORVOS                                    | 62-73-7  | 0.2               |             | Y   | N  |
| ACETONITRILE                | 75-05-8    | 4                 |             | Y   | N  | CARBON TETRACHLORIDE                | 56-23-5   | 1                 |             | Y   | N  | DIETHANOLAMINE                                | 111-42-2 | 5                 |             | Y   | N  |
| ACETOPHENONE                | 98-86-2    | 1                 |             | Y   | N  | CARBONYL SULFIDE                    | 463-58-1  | 5                 |             | Y   | N  | DIETHYL SULFATE                               | 64-67-5  | 1                 |             | Y   | N  |
| ACETYLAMINOFLUORINE, [2-]   | 53-96-3    | 0.005             | V           | Y   | Y  | CATECHOL                            | 120-80-9  | 5                 |             | Y   | N  | DIETHYLENE GLYCOL MONOBUTYL ETHER             | 112-34-5 | 5                 | P           | Y   | N  |
| ACROLEIN                    | 107-02-8   | 0.04              |             | Y   | N  | CHLORAMBEN                          | 133-90-4  | 1                 |             | Y   | Y  | DIMETHOXYBENZIDINE, [3,3-]                    | 119-90-4 | 0.1               | V           | Y   | Y  |
| ACRYLAMIDE                  | 79-06-1    | 0.02              |             | Y   | N  | CHLORDANE                           | 57-74-9   | 0.01              |             | Y   | Y  | DIMETHYL BENZIDINE, [3,3-]                    | 119-93-7 | 0.008             | V           | Y   | Y  |
| ACRYLIC ACID                | 79-10-7    | 0.6               |             | Y   | N  | CHLORINE                            | 7782-50-5 | 0.1               |             | N   | N  | DIMETHYL CARBAMOYL CHLORIDE                   | 79-44-7  | 0.02              |             | Y   | N  |
| ACRYLONITRILE               | 107-13-1   | 0.3               |             | Y   | N  | CHLOROACETIC ACID                   | 79-11-8   | 0.1               |             | Y   | N  | DIMETHYL FORMAMIDE                            | 68-12-2  | 1                 |             | Y   | N  |
| ALLYL CHLORIDE              | 107-05-1   | 1                 |             | Y   | N  | CHLOROACETOPHENONE, [2-]            | 532-27-4  | 0.06              |             | Y   | N  | DIMETHYL HYDRAZINE, [1,1-]                    | 57-14-7  | 0.008             |             | Y   | N  |
| AMINOBIHENYL, [4-]          | 92-67-1    | 1                 | V           | Y   | N  | CHLOROBENZENE                       | 108-90-7  | 10                |             | Y   | N  | DIMETHYL PHTHALATE                            | 131-11-3 | 10                |             | Y   | N  |
| ANILINE                     | 62-53-3    | 1                 |             | Y   | N  | CHLOROBENZILATE                     | 510-15-6  | 0.4               | V           | Y   | Y  | DIMETHYL SULFATE                              | 77-78-1  | 0.1               |             | Y   | N  |
| ANISIDINE, [ORTHO-]         | 90-04-0    | 1                 |             | Y   | N  | CHLOROFORM                          | 67-66-3   | 0.9               |             | Y   | N  | DIMETHYLAMINOAZOBENZENE, [4-]                 | 60-11-7  | 1                 |             | Y   | N  |
| ANTHRACENE                  | 120-12-7   | 0.01              | V           | Y   | N  | CHLOROMETHYL METHYL ETHER           | 107-30-2  | 0.1               |             | Y   | N  | DIMETHYLANILINE, [N-N-]                       | 121-69-7 | 1                 |             | Y   | N  |
| ANTIMONY COMPOUNDS          |            | 5                 | H           | N   | Y  | CHLOROPRENE                         | 126-99-8  | 1                 |             | Y   | N  | DINITRO-O-CRESOL, [4,6-] (Note 6)             | 534-52-1 | 0.1               | E           | Y   | Y  |
| ANTIMONY PENTAFLUORIDE      | 7783-70-2  | 0.1               | H           | N   | Y  | CHROMIUM (VI) COMPOUNDS             |           | 0.002             | L           | N   | Y  | DINITROPHENOL, [2,4-]                         | 51-28-5  | 1                 |             | Y   | N  |
| ANTIMONY POTASSIUM TARTRATE | 28300-74-5 | 1                 | H           | N   | Y  | CHROMIUM COMPOUNDS                  |           | 5                 | L           | N   | Y  | DINITROTOLUENE, [2,4-]                        | 121-14-2 | 0.02              |             | Y   | N  |
| ANTIMONY TRIOXIDE           | 1309-64-4  | 1                 | H           | N   | Y  | CHRYSENE                            | 218-01-9  | 0.01              | V           | Y   | N  | DIOXANE, [1,4-]                               | 123-91-1 | 6                 |             | Y   | N  |
| ANTIMONY TRISULFIDE         | 1345-04-6  | 0.1               | H           | N   | Y  | COBALT COMPOUNDS                    |           | 0.1               | M           | N   | Y  | DIPHENYLHYDRAZINE, [1,2-]                     | 122-66-7 | 0.09              | V           | Y   | Y  |
| ARSENIC COMPOUNDS           |            | 0.005             | I           | N   | Y  | COKE OVEN EMISSIONS                 | 8007-45-2 | 0.03              | N           | Y   | N  | DIPHENYLMETHANE DIISOCYANATE, [4,4-]          | 101-68-8 | 0.1               | V           | Y   | N  |
| ASBESTOS                    | 1332-21-4  | 0                 | A           | N   | Y  | CRESOL, [META-]                     | 108-39-4  | 1                 | B           | Y   | N  | EPICHLOROHYDRIN                               | 106-89-8 | 2                 |             | Y   | N  |
| BENZ(A)ANTHRACENE           | 56-55-3    | 0.01              | V           | Y   | N  | CRESOL, [ORTHO-]                    | 95-48-7   | 1                 | B           | Y   | N  | ETHOXYETHANOL, [2-]                           | 110-80-5 | 10                | P           | Y   | N  |
| BENZENE                     | 71-43-2    | 2                 |             | Y   | N  | CRESOL, [PARA-]                     | 106-44-5  | 1                 | B           | Y   | N  | ETHOXYETHYL ACETATE, [2-]                     | 111-15-9 | 5                 | P           | Y   | N  |
| BENZIDINE                   | 92-87-5    | 0.0003            | V           | Y   | N  | CRESOLS (MIXED ISOMERS)             | 1319-77-3 | 1                 | B           | Y   | N  | ETHYL ACRYLATE                                | 140-88-5 | 1                 |             | Y   | N  |
| BENZO(A)PYRENE              | 50-32-8    | 0.01              | V           | Y   | N  | CUMENE                              | 98-82-8   | 10                |             | Y   | N  | ETHYL BENZENE                                 | 100-41-4 | 10                |             | Y   | N  |
| BENZO(B)FLUORANTHENE        | 205-99-2   | 0.01              | V           | Y   | N  | CYANIDE COMPOUNDS                   |           | 0.1               | O           | Y   | N  | ETHYL CHLORIDE                                | 75-00-3  | 10                |             | Y   | N  |
| BENZO(K)FLUORANTHENE        | 207-08-9   | 0.01              | V           | Y   | N  | DDE                                 | 72-55-9   | 0.01              | V           | Y   | Y  | ETHYLENE GLYCOL                               | 107-21-1 | 10                |             | Y   | N  |
| BENZOTRICHLORIDE            | 98-07-7    | 0.006             |             | Y   | N  | DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)  | 117-81-7  | 5                 |             | Y   | N  | ETHYLENE GLYCOL MONOBUTYL ETHER<br>(Delisted) | 111-76-2 |                   |             |     |    |
| BENZYL CHLORIDE             | 100-44-7   | 0.1               |             | Y   | N  | DIAMINOTOLUENE, [2,4-]              | 95-80-7   | 0.02              |             | Y   | N  | ETHYLENE GLYCOL MONOHEXYL ETHER               | 112-25-4 | 5                 | P           | Y   | N  |
| BERYLLIUM COMPOUNDS         |            | 0.008             | J           | N   | Y  | DIAZOMETHANE                        | 334-88-3  | 1                 |             | Y   | N  | ETHYLENE IMINE [AZIRIDINE]                    | 151-56-4 | 0.003             |             | Y   | N  |
| BERYLLIUM SALTS             |            | 2E-05             | J           | N   | Y  | DIBENZ(A,H)ANTHRACENE               | 53-70-3   | 0.01              | V           | Y   | N  | ETHYLENE OXIDE                                | 75-21-8  | 0.1               |             | Y   | N  |
| BIPHENYL, [1,1-]            | 92-52-4    | 10                | V           | Y   | N  | DIOXINS/FURANS                      |           | 6E-07             | D,V         | Y   | N  | ETHYLENE THIOUREA                             | 96-45-7  | 0.6               |             | Y   | Y  |
| BIS(CHLOROETHYL)ETHER       | 111-44-4   | 0.06              |             | Y   | N  | DIBENZOFURAN                        | 132-64-9  | 5                 | V           | Y   | N  | FORMALDEHYDE                                  | 50-00-0  | 2                 |             | Y   | N  |
| BIS(CHLOROMETHYL)ETHER      | 542-88-1   | 0.0003            |             | Y   | N  | DIBROMO-3-CHLOROPROPANE, [1,2-]     | 96-12-8   | 0.01              |             | Y   | N  | GLYCOL ETHER (ETHYLENE GLYCOL<br>ETHERS)      |          | 5                 | P           | Y   | N  |
| BROMOFORM                   | 75-25-2    | 10                |             | Y   | N  | DIBROMOETHANE, [1,2-]               | 106-93-4  | 0.1               |             | Y   | N  | GLYCOL ETHER (DIETHYLENE GLYCOL<br>ETHERS)    |          | 5                 | P           | Y   | N  |
| BROMOMETHANE                | 74-83-9    | 10                |             | Y   | N  | DIBUTYL PHTHALATE                   | 84-74-2   | 10                |             | Y   | Y  | HEPTACHLOR                                    | 76-44-8  | 0.02              |             | Y   | N  |
| BROMOPROPANE [1-]           | 106-94-5   | 10                |             | Y   | N  | DICHLOROBENZENE, [1,4-]             | 106-46-7  | 3                 |             | Y   | N  | HEXACHLOROBENZENE                             | 118-74-1 | 0.01              |             | Y   | N  |
| BUTADIENE, [1,3-]           | 106-99-0   | 0.07              |             | Y   | N  | DICHLOROBENZIDENE, [3,3-]           | 91-94-1   | 0.2               | V           | Y   | Y  | HEXACHLOROBUTADIENE                           | 87-68-3  | 0.9               |             | Y   | N  |
| BUTOXYETHANOL ACETATE, [2-] | 112-07-2   | 5                 | P           | Y   | N  | DICHLOROETHANE, [1,1-]              | 75-34-3   | 1                 |             | Y   | N  | HEXACHLOROCYCLOHEXANE, [ALPHA-]               | 319-84-6 | 0.01              | F           | Y   | N  |
| BUTYLENE OXIDE, [1,2-]      | 106-88-7   | 1                 |             | Y   | N  | DICHLOROETHANE, [1,2-]              | 107-06-2  | 0.8               |             | Y   | N  | HEXACHLOROCYCLOHEXANE, [BETA-]                | 319-85-7 | 0.01              | F           | Y   | N  |
| CADMIUM COMPOUNDS           |            | 0.01              | K           | N   | Y  | DICHLOROETHYLENE, [1,1-]            | 75-35-4   | 0.4               |             | Y   | N  | HEXACHLOROCYCLOHEXANE, [DELTA-]               | 319-86-8 | 0.01              | F           | Y   | N  |
| CALCIUM CYANAMIDE           | 156-62-7   | 10                |             | Y   | Y  | DICHLOROMETHANE                     | 75-09-2   | 10                |             | N   | N  | HEXACHLOROCYCLOHEXANE,<br>[TECHNICAL]         | 608-73-1 | 0.01              | F           | Y   | N  |
| CAPROLACTAM (Delisted)      | 105-60-2   |                   |             |     |    | DICHLOROPHENOXY ACETIC ACID, [2,4-] | 94-75-7   | 10                | C           | Y   | Y  | HEXACHLOROCYCLOPENTADIENE                     | 77-47-4  | 0.1               |             | Y   | N  |
| CAPTAN                      | 133-06-2   | 10                |             | Y   | Y  | DICHLOROPROPANE, [1,2-]             | 78-87-5   | 1                 |             | Y   | N  | HEXACHLOROETHANE                              | 67-72-1  | 5                 |             | Y   | N  |

## Appendix B: Air Pollution Control Program

### Table of Hazardous Air Pollutants and Screening Model Action Levels, (Rev. 19, 9/24/2025)

| Chemical                               | CAS #      | SMAL<br>(tons/yr) | Group<br>ID | VOC | PM | Chemical                              | CAS #     | SMAL<br>(tons/yr) | Group<br>ID | VOC | PM |
|----------------------------------------|------------|-------------------|-------------|-----|----|---------------------------------------|-----------|-------------------|-------------|-----|----|
| HEXAMETHYLENE,-1,6-DIISOCYANATE        | 822-06-0   | 0.02              |             | Y   | N  | PENTACHLORONITROBENZENE               | 82-68-8   | 0.3               |             | Y   | N  |
| HEXAMETHYLPHOSPHORAMIDE                | 680-31-9   | 0.01              |             | Y   | N  | PENTACHLOROPHENOL                     | 87-86-5   | 0.7               |             | Y   | N  |
| HEXANE, [N-]                           | 110-54-3   | 10                |             | Y   | N  | PHENOL                                | 108-95-2  | 0.1               |             | Y   | N  |
| HYDRAZINE                              | 302-01-2   | 0.004             |             | N   | N  | PHENYLENEDIAMINE, [PARA-]             | 106-50-3  | 10                |             | Y   | N  |
| HYDROGEN CHLORIDE                      | 7647-01-0  | 10                |             | N   | N  | PHOSGENE                              | 75-44-5   | 0.1               |             | Y   | N  |
| HYDROGEN FLUORIDE                      | 7664-39-3  | 0.1               |             | N   | N  | PHOSPHINE                             | 7803-51-2 | 5                 |             | N   | N  |
| HYDROQUINONE                           | 123-31-9   | 1                 |             | Y   | N  | PHOSPHOROUS (YELLOW OR WHITE)         | 7723-14-0 | 0.1               |             | N   | N  |
| INDENO(1,2,3CD)PYRENE                  | 193-39-5   | 0.01              | V           | Y   | N  | PHTHALIC ANHYDRIDE                    | 85-44-9   | 5                 |             | Y   | N  |
| ISOPHORONE                             | 78-59-1    | 10                |             | Y   | N  | POLYCYCLIC ORGANIC MATTER             |           | 0.01              | V           | Y   | N  |
| LEAD COMPOUNDS                         |            | 0.01              | Q           | N   | Y  | PROPANE SULTONE, [1,3-]               | 1120-71-4 | 0.03              |             | Y   | Y  |
| LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]  | 58-89-9    | 0.01              | F           | Y   | N  | PROPIOLACTONE, [BETA-]                | 57-57-8   | 0.1               |             | Y   | N  |
| MALEIC ANHYDRIDE                       | 108-31-6   | 1                 |             | Y   | N  | PROPIONALDEHYDE                       | 123-38-6  | 5                 |             | Y   | N  |
| MANGANESE COMPOUNDS                    |            | 0.8               | R           | N   | Y  | PROPOXUR [BAYGON]                     | 114-26-1  | 10                |             | Y   | Y  |
| MERCURY COMPOUNDS                      |            | 0.01              | S           | N   | N  | PROPYLENE OXIDE                       | 75-56-9   | 5                 |             | Y   | N  |
| METHANOL                               | 67-56-1    | 10                |             | Y   | N  | PROPYLENEIMINE, [1,2-]                | 75-55-8   | 0.003             |             | Y   | N  |
| METHOXYCHLOR                           | 72-43-5    | 10                | V           | Y   | Y  | QUINOLINE                             | 91-22-5   | 0.006             |             | Y   | N  |
| METHOXYETHANOL, [2-]                   | 109-86-4   | 10                | P           | Y   | N  | QUINONE                               | 106-51-4  | 5                 |             | Y   | N  |
| METHYL CHLORIDE                        | 74-87-3    | 10                |             | Y   | N  | RADIONUCLIDES                         |           | Note 1            | Y           | N   | Y  |
| METHYL ETHYL KETONE (Delisted)         | 78-93-3    |                   |             |     |    | SELENIUM COMPOUNDS                    |           | 0.1               | W           | N   | Y  |
| METHYL HYDRAZINE                       | 60-34-4    | 0.06              |             | Y   | N  | STYRENE                               | 100-42-5  | 1                 |             | Y   | N  |
| METHYL IODIDE                          | 74-88-4    | 1                 |             | Y   | N  | STYRENE OXIDE                         | 96-09-3   | 1                 |             | Y   | N  |
| METHYL ISOBUTYL KETONE                 | 108-10-1   | 10                |             | Y   | N  | TETRACHLORODIBENZO-P-DIOXIN,[2,3,7,8] | 1746-01-6 | 6E-07             | D,V         | Y   | Y  |
| METHYL ISOCYANATE                      | 624-83-9   | 0.1               |             | Y   | N  | TETRACHLOROETHANE, [1,1,2,2-]         | 79-34-5   | 0.3               |             | Y   | N  |
| METHYL METHACRYLATE                    | 80-62-6    | 10                |             | Y   | N  | TETRACHLOROETHYLENE                   | 127-18-4  | 10                |             | N   | N  |
| METHYL TERT-BUTYL ETHER                | 1634-04-4  | 10                |             | Y   | N  | TITANIUM TETRACHLORIDE                | 7550-45-0 | 0.1               |             | N   | N  |
| METHYLCYCLOPENTADIENYL MANGANESE       | 12108-13-3 | 0.1               | R           | N   | Y  | TOLUENE                               | 108-88-3  | 10                |             | Y   | N  |
| METHYLENE BIS(2-CHLOROANILINE), [4,4-] | 101-14-4   | 0.2               | V           | Y   | Y  | TOLUENE DIISOCYANATE, [2,4-]          | 584-84-9  | 0.1               |             | Y   | N  |
| METHYLENEDIANILINE, [4,4-]             | 101-77-9   | 1                 | V           | Y   | N  | TOLUIDINE, [ORTHO-]                   | 95-53-4   | 4                 |             | Y   | N  |
| METHYLNAPHTHALENE, [2-]                | 91-57-6    | 10                | V           | Y   | N  | TOXAPHENE                             | 8001-35-2 | 0.01              |             | Y   | N  |
| MINERAL FIBERS                         |            | 0                 | T           | N   | Y  | TRICHLOROBENZENE, [1,2,4-]            | 120-82-1  | 10                |             | Y   | N  |
| NAPHTHALENE                            | 91-20-3    | 10                | V           | Y   | N  | TRICHLOROETHANE, [1,1,1-]             | 71-55-6   | 10                |             | N   | N  |
| NAPHTHYLAMINE, [ALPHA-]                | 134-32-7   | 0.01              | V           | Y   | N  | TRICHLOROETHANE, [1,1,2-]             | 79-00-5   | 1                 |             | Y   | N  |
| NAPHTHYLAMINE, [BETA-]                 | 91-59-8    | 0.01              | V           | Y   | N  | TRICHLOROETHYLENE                     | 79-01-6   | 10                |             | Y   | N  |
| NICKEL CARBONYL                        | 13463-39-3 | 0.1               | U           | N   | Y  | TRICHLOROPHENOL, [2,4,5-]             | 95-95-4   | 1                 |             | Y   | N  |
| NICKEL COMPOUNDS                       |            | 1                 | U           | N   | Y  | TRICHLOROPHENOL, [2,4,6-]             | 88-06-2   | 6                 |             | Y   | N  |
| NICKEL REFINERY DUST                   |            | 0.08              | U           | N   | Y  | TRIETHYLAMINE                         | 121-44-8  | 10                |             | Y   | N  |
| NICKEL SUBSULFIDE                      | 12035-72-2 | 0.04              | U           | N   | Y  | TRIFLURALIN                           | 1582-09-8 | 9                 |             | Y   | Y  |
| NITROBENZENE                           | 98-95-3    | 1                 |             | Y   | N  | TRIMETHYLPENTANE, [2,2,4-]            | 540-84-1  | 5                 |             | Y   | N  |
| NITROBIPHENYL, [4-]                    | 92-93-3    | 1                 | V           | Y   | N  | URETHANE [ETHYL CARBAMATE]            | 51-79-6   | 0.8               |             | Y   | N  |
| NITROPHENOL, [4-]                      | 100-02-7   | 5                 |             | Y   | N  | VINYL ACETATE                         | 108-05-4  | 1                 |             | Y   | N  |
| NITROPROPANE, [2-]                     | 79-46-9    | 1                 |             | Y   | N  | VINYL BROMIDE                         | 593-60-2  | 0.6               |             | Y   | N  |
| NITROSODIMETHYLAMINE, [N-]             | 62-75-9    | 0.001             |             | Y   | N  | VINYL CHLORIDE                        | 75-01-4   | 0.2               |             | Y   | N  |
| NITROSOMORPHOLINE, [N-]                | 59-89-2    | 1                 |             | Y   | N  | XYLENE, [META-]                       | 108-38-3  | 10                | G           | Y   | N  |
| NITROSO-N-METHYLUREA, [N-]             | 684-93-5   | 0.0002            |             | Y   | N  | XYLENE, [ORTHO-]                      | 95-47-6   | 10                | G           | Y   | N  |
| OCTACHLORONAPHTHALENE                  | 2234-13-1  | 0.01              | V           | Y   | N  | XYLENE, [PARA-]                       | 106-42-3  | 10                | G           | Y   | N  |
| PARATHION                              | 56-38-2    | 0.1               |             | Y   | Y  | XYLENES (MIXED ISOMERS)               | 1330-20-7 | 10                | G           | Y   | N  |
| PCB [POLYCHLORINATED BIPHENYLS]        | 1336-36-3  | 0.009             | X           | Y   | Y  |                                       |           |                   |             |     |    |

| Legend |               |                                      |
|--------|---------------|--------------------------------------|
| Group  | Notes         | Aggregate Group Name                 |
| A      | 2 , 5         | Asbestos                             |
| B      | 2 , 5         | Cresols/Cresylic Acid (isomers       |
| C      | 6             | 2,4 - D, Salts and Esters            |
| D      | 10            | Dibenzofurans, Dibenzodioxins        |
| E      | 6             | 4, 6 Dinitro-o-cresol, and Salts     |
| F      | 3 , 5         | Lindane (all isomers)                |
| G      | 5 , 12        | Xylenes (all isomers and             |
| H      | 2 , 4         | Antimony Compounds                   |
| I      | 2 , 4 , 18    | Arsenic Compounds                    |
| J      | 2 , 4         | Beryllium Compounds                  |
| K      | 2 , 4         | Cadmium Compounds                    |
| L      | 4 , 11        | Chromium Compounds                   |
| M      | 2 , 4         | Cobalt Compounds                     |
| N      | 2 , 5         | Coke Oven Emissions                  |
| O      | 7 , 16        | Cyanide Compounds                    |
| P      | 3 , 5         | Glycol Ethers                        |
| Q      | 2 , 4 , 8     | Lead Compounds (except               |
| R      | 2 , 4         | Manganese Compounds                  |
| S      | 2 , 4         | Mercury Compounds                    |
| T      | 1 , 2 , 5, 22 | Fine Mineral Fibers                  |
| U      | 2 , 4         | Nickel Compounds                     |
| V      | 3 , 5         | Polycyclic Organic Matter            |
| W      | 2 , 4         | Selenium Compounds                   |
| X      | 10            | Polychlorinated Biphenyls (Aroclors) |
| Y      | 2 , 9, 24     | Radionuclides                        |

## Appendix B: Air Pollution Control Program

### Table of Hazardous Air Pollutants and Screening Model Action Levels, (Rev. 19, 9/24/2025)

#### Notes

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                   |                             |                           |         |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|-----------------------------|---------------------------|---------|
| Note 1               | Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |                   |                             |                           |         |
| Note 2               | Emissions of compounds in this aggregate group are combined for comparison to the Major Source Thresholds. Except for those compounds specifically listed, emissions of compounds in this aggregate group are also combined for comparison to the SMALs and RALs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                   |                             |                           |         |
| Note 3               | Emissions of compounds in this aggregate group are combined for comparison to the Major Source Thresholds but are not combined for comparison to the SMALs and RALs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |                   |                             |                           |         |
| Note 4               | The total mass of the compound is used to determine emissions for comparison to the Major Source Thresholds. The mass of the metal portion of the compound is used to determine emissions for comparison to the SMALs and RALs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                   |                             |                           |         |
| Note 5               | The total mass of the compound is used to determine emissions for comparison to the SMALs, RALs, and Major Source Thresholds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                   |                             |                           |         |
| Note 6               | The total mass of the compound is used to determine emissions for comparison to the Major Source Thresholds. For these compounds, emissions within the same aggregate group are combined for comparison to the SMALs and RALs, and the 2,4-D portion of 2,4-D Salts and Esters and the Dinitro-ortho-cresol (DNOC) portion of 4,6 Dinitro-o-cresol Salts are used to determine emissions for comparison to the SMALs and RALs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                   |                             |                           |         |
| Note 7               | The total mass of the compound is used to determine emissions for comparison to the Major Source Thresholds. Except for those compounds specifically listed, emissions of cyanide compounds are combined and the mass of the cyanide portion (-C≡N) of the compound is used to determine emissions for comparison to the SMALs and RALs. For those compounds specifically listed in the table, emissions are not combined and the total mass of the compound is used for comparison to the SMALs and RALs.                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                   |                             |                           |         |
| Note 8               | Elemental lead is not considered a hazardous air pollutant. However, the lead portion of lead compounds (in addition to elemental lead) is considered a criteria pollutant and should be included in the lead criteria pollutant potential emissions calculations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                   |                             |                           |         |
| Note 9               | The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                   |                             |                           |         |
| Note 10              | The RAL units for Dibenzodioxins/Dibenzofurans (Dioxins/Furans) and Polychlorinated biphenyls (PCBs) are picograms per cubic meter (pg/m³).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                   |                             |                           |         |
|                      | For comparison to the Major Source Threshold combine emissions within each aggregate group and use the total mass of each compound.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                   |                             |                           |         |
|                      | For comparison to the SMAL and RAL, emissions of polychlorinated dibenzodioxins & polychlorinated dibenzofurans (PCDD/PCDF) and polychlorinated biphenyls (PCB) are scaled according to the toxic equivalency factor method and then combined for comparison to the SMAL and RAL:<br>For comparison to the SMAL:<br>1) scale the annual emissions of each PCDD/PCDF and PCB by its respective toxic equivalency factor (TEF)<br>2) after the emissions are scaled, combine them into a single potential annual emissions (tons/year) for comparison to the SMAL<br><br>For comparison to the RAL:<br>1) scale the annual emissions of each PCDD/PCDF and PCB by its respective toxic equivalency factor (TEF)<br>2) after the emissions are scaled, combine them into a single emission rate (lb/hr) or (grams/second) for modeling<br>3) the resulting ambient concentration is compared to the RALs for Dioxins/Furans |                      |                   |                             |                           |         |
|                      | <u>Toxic Equivalency Factors for PCDD, PCDF, and PCB compounds</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                   |                             |                           |         |
|                      | PCDDs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TEF                  | PCDFs             | TEF                         | PCBs                      | TEF     |
|                      | 2,3,7,8-TCDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.0                  | 2,3,7,8-TCDF      | 0.1                         | 3,3',4,4'-TCB (77)        | 0.0001  |
|                      | 1,2,3,7,8-PeCDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.0                  | 1,2,3,7,8-PeCDF   | 0.03                        | 3,4,4',5-TCB (81)         | 0.0003  |
|                      | 1,2,3,4,7,8-HxCDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.1                  | 2,3,4,7,8-PeCDF   | 0.3                         | 3,3',4,4',5-PeCB (126)    | 0.1     |
|                      | 1,2,3,7,8,9-HxCDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.1                  | 1,2,3,4,7,8-HxCDF | 0.1                         | 3,3',4,4',5,5'-HxCB (169) | 0.03    |
|                      | 1,2,3,6,7,8-HxCDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.1                  | 1,2,3,7,8,9-HxCDF | 0.1                         | 2,3,3',4,4' PeCB (105)    | 0.00003 |
| 1,2,3,4,6,7,8-HpCDD  | 0.01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1,2,3,6,7,8-HxCDF    | 0.1               | 2,3,4,4',5 PeCB (114)       | 0.00003                   |         |
| 1,2,3,4,6,7,8,9-OCDD | 0.0003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2,3,4,6,7,8-HxCDF    | 0.1               | 2,3',4,4',5 PeCB (118).     | 0.00003                   |         |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1,2,3,4,6,7,8-HpCDF  | 0.01              | 2',3,4,4',5 PeCB (123)      | 0.00003                   |         |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1,2,3,4,7,8,9-HpCDF  | 0.01              | 2,3,3',4,4',5-HxCB (156)    | 0.00003                   |         |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1,2,3,4,6,7,8,9-OCDF | 0.0003            | 2,3,3',4,4',5-HxCB (157)    | 0.00003                   |         |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                   | 2,3',4,4',5,5'-HxCB (167)   | 0.00003                   |         |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                   | 2,3,3',4,4',5,5'-HpCB (189) | 0.00003                   |         |
| Note 11              | Emissions of compounds in this aggregate group are combined for comparison to the Major Source Thresholds. Chromium (VI) compounds, also known as hexavalent chromium compounds, are combined for comparison to the SMAL and RALs for Chromium (VI) compounds. Chromium Compounds of all other oxidation states [i.e. excluding Chromium (VI) Compounds] are combined for comparison to the SMALs and RALs for Chromium Compounds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                   |                             |                           |         |
| Note 12              | Emission of all isomers of Xylenes are combined for comparison to the Major Source Thresholds. Although each isomer is specifically listed, they are not evaluated separately. Emissions of all isomers are combined and compared to the SMAL and RALs for any of the listed isomers as they are all the same                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                   |                             |                           |         |
| Note 13              | The RAL units for asbestos are fibers/mL (or fibers per cm³).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                   |                             |                           |         |

## Appendix B: Air Pollution Control Program

### Table of Hazardous Air Pollutants and Screening Model Action Levels, (Rev. 19, 9/24/2025)

|         |                                                                                                                                                                                                                                                                                                                                                                                               |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note 14 | The RAL units for Nitroso-N-Methylurea, [N-] (CAS # 684-93-5) are nanograms per cubic meter (ng/m <sup>3</sup> ).                                                                                                                                                                                                                                                                             |
| Note 15 | The 1-hour RAL for Dichloroethylether (CAS # 111-44-4) is 0.287 milligrams per cubic meter (mg/m <sup>3</sup> ).                                                                                                                                                                                                                                                                              |
| Note 16 | The 1-hour RAL for Cyanide Compounds is 11 milligrams per cubic meter (mg/m <sup>3</sup> ).                                                                                                                                                                                                                                                                                                   |
| Note 17 | The acute RAL for Hydrogen Fluoride (CAS # 7664-39-3) for an exposure period between one and 14 days is 16 micrograms per cubic meter (µg/m <sup>3</sup> ).                                                                                                                                                                                                                                   |
| Note 18 | The 4-hour RAL for Arsenic Compounds is 0.19 micrograms per cubic meter (µg/m <sup>3</sup> ).                                                                                                                                                                                                                                                                                                 |
| Note 19 | The 1-hour RAL for hydrogen chloride is 2,100 micrograms per cubic meter (µg/m <sup>3</sup> ).                                                                                                                                                                                                                                                                                                |
| Note 20 | X'CN where X = H' or any other group where a formal dissociation may occur.<br>(For example KCN or Ca(CN) <sub>2</sub> )                                                                                                                                                                                                                                                                      |
| Note 21 | Glycol ethers include mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH <sub>2</sub> CH <sub>2</sub> ) <sub>n</sub> -OR'.<br>Where:<br>n = 1, 2, or 3;<br>R = alkyl C7 or less; or<br>R = phenyl or alkyl substituted phenyl;<br>R' = H or alkyl C7 or less; or<br>OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate. |
| Note 22 | Fine mineral fibers include mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.                                                                                                                                                                                       |
| Note 23 | POM includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.                                                                                                                                                                                                                                                                |
| Note 24 | Radionuclides are a type of atom which spontaneously undergoes radioactive decay.                                                                                                                                                                                                                                                                                                             |

### Column Identifiers

| Column Name | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chemical    | As identified in section 112(b)(1) of the Clean Air Act Amendments of 1990, the name used in the Air Pollution Control Program's (APCP) Chemical Database to identify a Hazardous Air Pollutant (HAP) or an aggregate group of HAPs. The table lists HAPs in alphabetical order.                                                                                                                                                                                                                                                                                                                                                                             |
| CAS #       | The Chemical Abstracts Service (CAS) registry number for the HAP. In most instances, an aggregate group of HAPs does not have a CAS number because the purpose of a CAS number is to identify a specific chemical or compound.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| SMAL        | Screening Model Action Level (SMAL) is the emission threshold level for modeling HAPs, as referenced in the Missouri Code of State Regulations (CSR) 10 CSR 10-6.060 (5)(F). The SMAL is also the emission threshold level for construction permit exemptions as referenced in 10 CSR 10-6.061 (3) (A) 3. B. Units are in tons per year except where noted.                                                                                                                                                                                                                                                                                                  |
| Group ID    | A value in this column indicates that the compound is classified as an aggregate group HAP. Emissions of compounds that are in the same aggregate group must be counted together.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| VOC         | If the value is Y, the HAP is classified as a Volatile Organic Compound (VOC) as defined in 10 CSR 10-6.020 (2) (V) 7. <i>Volatile Organic Compounds</i> (VOC). If the value is N, the HAP is not classified as a VOC. Emissions of HAPs that are also VOCs are counted in the emissions potential for both HAPs and VOCs. VOC classification was determined based on guidance in a memo from the chief of the Air Permits and Compliance Branch of EPA Region VII to the director of the Air Pollution Control Program dated, April 18, 1996 and received, April 22, 1996.                                                                                  |
| PM          | If the value is Y, the HAP is classified as particulate matter less than or equal to 10 microns in diameter (PM <sub>10</sub> ) as defined in 10 CSR 10-6.020(2)(P)5.A(II)PM <sub>10</sub> . If the value is N, the HAP is not classified as a PM <sub>10</sub> . Emissions of HAPs that are also PM <sub>10</sub> are counted in the emissions potential for both HAPs and PM <sub>10</sub> . PM <sub>10</sub> classification was determined based on guidance in a memo from the chief of the Air Permits and Compliance Branch of EPA Region VII to the director of the Air Pollution Control Program dated, April 18, 1996 and received, April 22, 1996. |
|             | More information on aggregate group HAPs can be found at this EPA website. <a href="https://www.epa.gov/title-v-operating-permits/guidance-major-source-determination-certain-hazardous-air-pollutants">https://www.epa.gov/title-v-operating-permits/guidance-major-source-determination-certain-hazardous-air-pollutants</a>                                                                                                                                                                                                                                                                                                                               |
|             | A comprehensive list of glycol ethers can be found at this EPA website. <a href="https://guideme.epa.gov/ords/guideme_ext/f?p=guideme%3Aagd-title%3A%3A%3A%3Atitle%3Aglycol_ETHERS">https://guideme.epa.gov/ords/guideme_ext/f?p=guideme%3Aagd-title%3A%3A%3A%3Atitle%3Aglycol_ETHERS</a>                                                                                                                                                                                                                                                                                                                                                                    |
|             | More information on HAPs can be found at this EPA website. <a href="https://www.epa.gov/haps">https://www.epa.gov/haps</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |