**PLEASE DO NOT SEND A COPY OF THE INSTRUCTIONS IN WITH YOUR APPLICATION**

The information in this form will compare before and after emissions and provide a "Summary of Projected Change in Facility Wide Potential Emissions" calculated at maximum design capacity. This form must include a breakdown of potential emission rates at maximum design capacity for all equipment and processes that are being added, removed, or modified.

Additional tables or rows may be added to this form as needed by selecting the **“unprotect document”** or **“stop protection”** function. The location and use of this function varies depending on your version of Word. The forms **“protect document”** tool should then be reselected so that you may resume navigating through the forms with the “tab” key.

**Notes**

1. An alternative format may be submitted for the emissions information as long as it provides the same information required by this form.
2. Additional information shall be submitted via attachments and/or additional pages.
3. Full details regarding the calculation method and emission factors used shall be included. For example:
   1. If AP-42 is used, the version, chapter, table, equation, etc. shall be submitted.
   2. Sample calculations shall be attached. Assumptions, bottlenecks, etc. shall be fully explained.
   3. Supporting information such as manufacturer’s data shall be submitted.
   4. If the emissions are from a source test, details on the source test shall be supplied such as date of test, was the test approved by the Department, etc. If source test was not approved by Department, test details and results shall be submitted.
4. When multiple fuels are used, the worst-case fuel for each pollutant shall be utilized for calculating emissions and listed in the calculation method details. Include the percent of sulfur in the fuel and BTU content of fuel, when appropriate.
5. An electronic version of the spreadsheet with formulas utilized in calculating the emissions shall be provided.
6. Information regarding equipment that is being removed shall be submitted and emissions from this equipment shall be subtracted from prior to construction / modification emissions to calculate after construction / modification emissions.
7. Details on limits being taken for Potential to Emit (PTE) Emissions shall be provided, such as hours of operation, etc.
8. Emissions and Emission Point ID shall be included for all new equipment and processes, including exempt equipment and de minimis emissions.
9. If needed, a netting analysis shall be included as an attachment.
10. All emissions are to be documented on this form, including emissions not captured by control devices.

**Summary of Projected Change in Facility Wide Potential Emissions**

See notes a through j listed above for more information regarding emission calculations. Detailed calculations supporting the values entered will need to be submitted as an attachment to this form. Keep in mind any limitations imposed by equipment that may not allow for operation at maximum design capacity. These limitations must be fully explained. All potential emissions that are not captured or controlled need to be accounted for.

Please provide the information requested in this table.

*Pollutants*: For each pollutant listed in this table, provide the facility wide potential uncontrolled emissions, potential controlled emissions, and PTE emissions prior to construction / modification and after construction / modification. Include the name and Chemical Abstract Service Number (CAS #) for the Hazardous Air Pollutant with the highest potential emissions prior to construction / modification and after construction / modification.

South Carolina Air Pollution Control Regulation 61-62.1 - Definitions and General requirements, which can be found at <https://www.scdhec.gov/sites/default/files/Library/Regulations/R.61-62.1.pdf#page=3>, has the following definition of potential to emit:

Potential to Emit: "The maximum capacity of a source to emit a regulated pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a regulated pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a source."

*Emission Rates Prior to Construction / Modification (tons/year)*: These emissions are based on facility wide emissions prior to the construction or modification requested by the permit application. Include any changes in potential to emit since the last operating permit was issued, including emissions from any new exempt equipment installed or insignificant activities constructed after approval of any permit exemptions. If the facility does not emit a certain pollutant that is listed, enter N/A for not applicable.

*Uncontrolled (tons/year):* Uncontrolled emissions need to be given in units of tons/year and calculated at maximum design capacity without any type of controls while operating 8760 hours per year.

*Controlled (tons/year):* Controlled emissions need to be given in units of tons/year and calculated operating 8760 hours per year at maximum design capacity with control equipment operating.

*PTE (tons/year):* PTE emissions need to be given in units of tons/year and take into account any limits the facility has taken, such as hours of operation, etc.

*Emission Rates After Construction / Modification (tons/year)*: These emissions are based on facility wide emissions after completion of the project at maximum design capacity with worst case emissions. For each pollutant listed, facility wide potential emissions uncontrolled, controlled, and PTE after construction / modification are needed. If the facility does not emit a certain pollutant that is listed, enter N/A for not applicable. For any emission rates that will result in a decrease due to removal of individual equipment or processes, the emission rates after construction/modification value needs to take into account the deduction.

*Uncontrolled (tons/year):* Uncontrolled emissions need to be given in units of tons/year and calculated at maximum design capacity without any type of controls while operating 8760 hours per year.

*Controlled (tons/year):* Controlled emissions need to be given in units of tons/year and calculated operating 8760 hours per year at maximum design capacity with control equipment operating. If the facility is not equipped with control equipment, enter N/A for not applicable.

*PTE (tons/year):* PTE emissions need to be given in units of tons/year and take into account any limits the facility has taken, such as hours of operation, etc. If the facility has not taken any limits, enter N/A for not applicable.

**Potential Emissions Rates at Maximum Design Capacity**

This table is used to record potential emission rates from individual pieces of equipment or processes that are being proposed for addition, modification or removal. Please provide the values for potential uncontrolled, controlled, and PTE emissions for each new, modified or removed process source. If removal of individual equipment or processes is taking place, potential uncontrolled, controlled, and PTE emission rates need to be listed as negative values. Several identical tables are provided on this form to allow flexibility when listing all of the pollutants emitted from specific equipment or processes. To list all pollutants emitted, additional rows may be added to each table by using the tab key when the cursor is in the last cell of the bottom line, or by right clicking on the mouse and inserting a row. If you have more pieces of equipment or processes than the number of tables provided on this form, you may copy and paste additional tables or attach additional forms.

*Equipment/Process ID(s):* The equipment identification (tag number) for each new or modified piece of equipment or process source. Each piece of equipment or process should have its own unique ID (alpha-numeric). This is an ID designated by the facility, such as B1 for Boiler #1 or TANK1 for Tank #1. This ID number should be carried throughout the application whenever Equipment ID is requested.

*Emission Point ID(s):* Each point where a pollutant may exhaust at the equipment/process shall be identified with a unique number or label. Please use the same emission point ID that is used in your current air dispersion modeling scenario, if applicable. This ID number should be carried throughout the application whenever an emission point ID is requested.

*Pollutant and CAS Number:* List the pollutant name for which the emissions are calculated for each new or modified source. Include the Chemical Abstract Service Number (CAS #) for all of the Toxic Air Pollutants and/or Hazardous Air Pollutants.

*Calculation Method / Other Comments:* State the method or site the reference used to calculate emissions (i.e. AP-42, Chapter 11.19.2, Table 11.19.2-2, Crushed Stone Processing and Pulverized Mineral Processing, Engineering Calculations, Material Balance, quantity of raw materials, etc.). If Engineering Estimate is used as the calculation method, supporting documentation will need to be included.

*Uncontrolled Emission Rates (lbs/hr and tons/year):* Uncontrolled emissions need to be given in units of lbs/hr and tons/year and calculated at maximum design capacity without any type of controls while operating 8760 hours per year.

*Controlled Emission Rates (lbs/hr and tons/year):* Controlled emissions need to be given in units of lbs/hr and tons/year and calculated operating 8760 hours per year at maximum design capacity with control equipment operating. Include a detailed explanation of any limitations for the controlled or PTE emissions.

*PTE Emission Rates (lbs/hr and tons/year):* PTE emissions need to be given in units of lbs/hr and tons/year and take into account any limits the facility has taken, such as hours of operation, etc.

| **APPLICATION IDENTIFICATION**  *(Please ensure that the information list in this table is the same on all of the forms and required information submitted in this construction permit application package.)* | | |
| --- | --- | --- |
| Facility Name  *(This should be the name used to identify the facility)* | SC Air Permit Number (8-digits only)  *(Leave blank if one has never been assigned)*       - | Application Date |

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| --- | --- |
| **ATTACHMENTS**  *(Check all the appropriate checkboxes if included as an attachment)* | |
| Sample Calculations, Emission Factors Used, etc. | Detailed Explanation of Assumptions, Bottlenecks, etc. |
| Supporting Information: Manufacturer’s Data, etc. | Source Test Information |
| Details on Limits Being Taken for PTE Emissions | NSR Analysis |

| **SUMMARY OF PROJECTED CHANGE IN FACILITY WIDE POTENTIAL EMISSIONS**  (Calculated at maximum design capacity.) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Pollutants** | **Emission Rates Prior to**  **Construction / Modification (tons/year)** | | | **Emission Rates After**  **Construction / Modification (tons/year)** | | |
| **Uncontrolled** | **Controlled** | **PTE** | **Uncontrolled** | **Controlled** | **PTE** |
| Particulate Matter (PM) |  |  |  |  |  |  |
| Particulate Matter <10 Microns (PM10) |  |  |  |  |  |  |
| Particulate Matter <2.5 Microns (PM2.5) |  |  |  |  |  |  |
| Sulfur Dioxide (SO2) |  |  |  |  |  |  |
| Nitrogen Oxides (NOx) |  |  |  |  |  |  |
| Carbon Monoxide (CO) |  |  |  |  |  |  |
| Volatile Organic Compounds (VOC) |  |  |  |  |  |  |
| Lead (Pb) |  |  |  |  |  |  |
| Highest HAP Prior to Construction (CAS #:      ) |  |  |  |  |  |  |
| Highest HAP After Construction (CAS #:      ) |  |  |  |  |  |  |
| Total HAP Emissions\* |  |  |  |  |  |  |
| Include emissions from exempt equipment and emission increases from process changes that were exempt from construction permits.  (\*All HAP emitted from the various equipment or processes must be listed in the appropriate "Potential Emission Rates at Maximum Design Capacity" Table) | | | | | | |

| **POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Equipment ID / Process ID** | **Emission Point ID** | **Pollutants**  (Include CAS #) | **Calculation Methods / Limits Taken / Other Comments** | **Uncontrolled** | | **Controlled** | | **PTE** | |
| **lbs/hr** | **tons/yr** | **lbs/hr** | **tons/yr** | **lbs/hr** | **tons/yr** |
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