|  |  |
| --- | --- |
| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | CH-04cDetermination of greenhouse gasstatus under New Source ReviewAir Quality Permit Program*Doc Type: Permit Application* |

**Instructions on page 2**

|  |  |  |  |
| --- | --- | --- | --- |
| 1a) AQ Facility ID number: |       | 1b) Agency Interest ID number: |       |
| 2) Facility name: |       |

3) Calculate the potential to emit (PTE) of greenhouse gases (GHG) emissions for your existing facility, before your proposed change, including the mass emissions of individual GHGs (columns a – f), the sum of the mass emissions of individual GHGs (column g), and the carbon dioxide equivalent (CO2e, column h). Refer to the Minnesota Pollution Control Agency (MPCA) GHG Emissions website at <https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations> for guidance in calculating the individual mass emissions and the CO2e. Complete your calculations on a spreadsheet; transfer the current PTE to Table 1 below, and include the editable calculation spreadsheet in your application package.

**Table 1**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a) | b) | c) | d) | e) | f) | g) | h) |
| Carbon dioxide (CO2)(tons per year [tpy]) | Methane (CH4)(tpy) | Nitrous oxide (N2O)(tpy) | Hydrofluoro-carbons (HFC)(tpy) | Perfluoro-carbons (PFC)(tpy) | Sulfur hexafluoride (SF6)(tpy) | Mass sum of GHGs(tpy) | Carbon dioxide equivalent (CO2e)(tpy) |
|       |       |       |       |       |       |       |       |

4) [Reserved]

5) [Reserved]

6) Use Table 2 to document the emissions increase for individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 2 if more than four units are affected. Summarize the total increases for each pollutant in Table 3. Attach your calculations (in both an editable spreadsheet format and a hard copy printout). Answer the question following Table 3.

**Table 2**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SI IDs:** |  |      |  |      |  |      |  |      |  |
| **Pollutant** | **Potential emissions (tpy)** | **Potential emissions (tpy)** | **Potential emissions (tpy)** | **Potential emissions (tpy)** | **Total(tpy)** |
| CO2 |       |       |       |       |       |
| CH4 |       |       |       |       |       |
| N2O |       |       |       |       |       |
| HFC |       |       |       |       |       |
| PFC |       |       |       |       |       |
| SF6 |       |       |       |       |       |
| CO2e |       |       |       |       |       |

[ ]  The project does not involve adding, modifying, replacing, or debottlenecking units that emit GHG. Done with this form. Return to the form that directed you here (form *CH-03* or *GI-09c*) and answer “no” to the question of whether the proposed change or modification is subject to regulation for GHG.

**Table 3 - Summary**

|  |  |
| --- | --- |
|  | **Potential emissions** |
| **Pollutant** | **(“Total” from Table 2) (tpy)** |
| CO2 |       |
| CH4 |       |
| N2O |       |
| HFC |       |
| PFC |       |
| SF6 |       |
| Total mass GHG(sum of above 6 numbers) |       |
| CO2e |       |

7) Is the number you entered for CO2e in Table 3 greater than or equal to 75,000 tpy?

[ ]  Yes. Go to question 8.

[ ]  No. Your proposed change is not Subject to Regulation for GHG under New Source Review. You are done with this form. If directed here by form GI-09C, return to the form and answer “No” to the question of whether the proposed change or modification is subject to regulation for GHG. If directed here by form CH-03, complete all applicable CH-04-series forms to determine NSR applicability and return to CH-03.

8) Are the total mass emissions (sum of the masses of the individual GHGs, excluding global warming potentials) in Table 3 greater than or equal to zero?

[ ]  Yes. Go to question 9.

[ ]  No. Your proposed change is not Subject to Regulation for GHG under New Source Review. You are done with this form. If directed here by form GI-09C, return to the form and answer “No” to the question of whether the proposed change or modification is subject to regulation for GHG. If directed here by form CH-03, complete all applicable CH-04-series forms to determine NSR applicability and return to CH-03.

9) On either form *CH-04a* or *CH-04b*, did you indicate that any pollutant is subject to prevention of significant deterioration program (PSD)?

[ ]  Yes. Your project is subject to regulation for GHG.

[ ]  No. Your project is not subject to regulation for GHG.

Instructions for form CH-04c

**1a) AQ Facility ID number --** Fill in your Air Quality (AQ) Facility Identification (ID) number. This is the first eight digits of the permit number for all permits issued under the operating permit program.

**1b) Agency Interest ID number --** Fill in your Agency Interest ID number. This is an ID number assigned to your facility through the Tempo database. If you don’t know this number, leave this line blank.

**2) Facility name --** Enter your facility name.

**3) Calculate the GHG PTE of the existing facility (Table 1) --** Potential to emit (PTE) is the capability at maximum design capacity to emit a pollutant, except as constrained by federally-enforceable conditions (which include the effect of installed air pollution control equipment and restrictions on the hours of operation, or the type or amount of material combusted, stored or processed). Do not take air pollution control equipment into account except as allowed by Minn. R. 7007.1200, subp. 2. You may not take credit for proposed or non-federally-enforceable pollution control equipment.

**4)** [Reserved]

**5)** [Reserved]

**6)** At the top of each column in Table 2, enter or select “EU” (emissions unit), “TK” (tank), “FS” (fugitive source), “CE” (control equipment), “EQUI” (Tempo designation for emission units and tanks), “FUGI” (Tempo designation for fugitive sources), or “TREA” (Tempo designation for control equipment) and enter the number as it exists in your current Part 70 permit.

In calculating the emissions increase from the proposed change or modification at the facility, you must calculate the potential emissions of the new, modified, or debottlenecked EU, TK, FS, CE, EQUI, FUGI, or TREA. For units with decreased emissions, mark the increase as 0 (i.e., do not include negative numbers). If more than four EU/TK/FS/CE/EQUI/FUGI/TREA are involved, you will have to create a duplicate of Table 2 and attach it to this form. Once you complete Table 2, transfer the total emissions for each pollutant to Table 3.

If the CO2e emissions you enter on Table 3 are less than 75,000 tpy, you are done with this form. Return to the form that directed you here (form *CH-04* or -*09C*) and answer “no” to the question of whether your proposed change or modification is subject to regulation for GHG.

If the CO2e emissions you enter on Table 3 are greater than or equal to 75,000 tpy, then you need to answer question 7.

**7,8) Summed mass emissions of individual GHGs.**

If the CO2e emissions on Table 3 are greater than or equal to 75,000 tpy, then you must also compare sum of the emissions of the other pollutants in Table 3 (CO2, CH4, N2O, HFC, PFC or SF6, without multiplying by global warming potentials) to the applicable threshold to zero. If the sum is greater than or equal to zero, then continue to question 9.

**9) Is the project subject to PSD for any pollutant other than GHGs?** Return to *CH-04a* or *CH-0b* to determine the response to this question.