

Instructions for Attachment H: Major Modification Determination Forms

All applications for a permit to construct and operate a stationary source shall include the information listed in Regulations of Connecticut State Agencies (RCSA) section 22a-174-3a(c).

This form shall be completed to determine if the modification made to an existing major stationary source is a “*major modification*” as defined in RCSA section 22a-174-1.

If a particular item does not apply enter “N/A” (not applicable). If additional space is needed to answer a question in the application, attach separate sheet(s) as necessary, clearly identifying the applicant name, form name and Part number.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152 (between 8:30 AM and 4:30 PM, Monday through Friday).

Background

Complete *Attachment F: Premises Information Form* (DEEP-NSR-APP-217) prior to completing this form.

Unless the project for which the application is being submitted is itself a “*major stationary source*”, the owner or operator of an existing “*major stationary source*” as defined in RCSA section 22a-174-1 must complete and submit this supplemental application form as Attachment H with the *Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200). The information in this supplemental form will be used to determine if the modification made to an existing major stationary source is a “*major modification*” as defined in RCSA section 22a-174-1.

A major modification occurs if the proposed project emissions exceeds the significant emission rate threshold for any pollutant as listed in Table 3a(k)-1 of RCSA section 22a-174-3a(k) *and* the net emissions increase exceeds the significant emission rate threshold for any pollutant as listed in Table 3a(k)-1 of RCSA section 22a-174-3a(k).

Complete one form for each application package.

Instructions for Completing the Form - Attachment H: Major Modification Determination Form (DEEP-NSR-APP-213)

Applicant Name - Provide the applicant name as previously indicated on the *Permit Application for Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200).

Part I: Applicability

Premises Currently Major for Pollutant? - Indicate the pollutant(s) for which the premises is currently considered a major stationary source prior to the processing of this application package (Part VII.A of Attachment F).

Proposed Project Emits Pollutant? - Indicate the pollutant(s) emitted by the units included in this application package. Check all that apply.

Complete Parts II through V of this form for each of the pollutants that are checked in the table “List of Pollutants (Table 3a(k)-1)”.

Part II: Basis

Provide the following information to determine the 5-year contemporaneous period for the major modification review. The 5-year contemporaneous period may shift if construction does not commence by the proposed construction date.

Proposed Project Commence Construction Date
Enter the proposed scheduled commence construction date. This date should be reasonable to take into account the time needed to issue a final permit.

Five Years prior to the Proposed Commence Construction Date - Enter the date that is 5-years prior to the date entered in the *Proposed Project Commence Construction Date* field.

The 5-year contemporaneous period for emissions increases and decreases to be used in Part IV of this form shall be the period from 5-years prior to the proposed commence construction date to the start of actual operation of the proposed project.

Part III: Total Project Emissions Increase

Provide the following information for the total project being added and/or modified as a part of this application package.

Total Project Proposed Potential Emissions - Provide the proposed emission limit of the pollutant being evaluated in tons per year (tpy) for the project being proposed. This value can be obtained from *Attachment E: Unit Emissions Form* (DEEP-NSR-APP-212).

Total Project 2-yr Actual Emissions, if modification – Provide the average of the actual emissions of the pollutant being evaluated, in tons per year (tpy), for the two year period immediately preceding the proposed modification. For the purpose of this table, 2-yr actual emissions for a new unit are zero. If the most recent two year period was not selected as the representative two year period for actual emissions above, submit written justification for using a period other than the most recent two years of actual emissions as Attachment 213-A.

Total Project Emissions Increase - Provide the difference between the *Total Project Proposed Potential Emissions* and the *Total Project 2-yr Actual Emissions* for the project, in tons per year (tpy). For new sources this value will be the same as the *Total Project Proposed Potential Emissions*.

Significant Emissions Rate Threshold – the significant emissions rate threshold from [RCSA section 22a-174-3a\(k\), Table 3a\(k\)-1](#) are provided.

Is the total project emissions increase equal to or greater than the significant emission rate threshold? – Indicate “Yes” or “No”.

If “No”, the pollutant does not trigger a major modification and the major modification determination for this pollutant is complete.

For NO_x or VOC, if the premises is currently major for such pollutant, complete *Attachment J – Non-Attainment Review Form* to determine if the source is subject to non-attainment review.

If “Yes”, continue on to Parts IV through V for the subject pollutant.

Attachment 213-A - The *Total Project 2-yr Actual Emissions* must be based on actual emissions for the two years immediately preceding the proposed modification. New units would enter a “0” since they did not previously exist. If the most recent two year period was not selected as the representative two year period for actual emissions above, submit written justification for using a period other than the most recent two years of actual emissions as Attachment 213-A.

Part IV: Contemporaneous Creditable Emissions Increases and Decreases

NOTE: Emissions increases and decreases must be *creditable* and *enforceable* and are subject to review and approval by the DEEP.

To determine which emission changes are creditable, the following basic rules apply:

- An increase or decrease is creditable only if the relevant reviewing authority has not relied upon it in previously issuing a Prevention of Significant Deterioration of Air Quality (PSD) permit and the permit is in effect when the increase from the proposed modification occurs. A reviewing authority "relies" on an increase or decrease when, after taking the increase or decrease into account, it concludes in issuing a PSD permit that a project would not cause or contribute to a violation of a PSD increment or ambient standard.
- For pollutants with PSD increments (i.e., SO₂, particulate matter and NO_x), an increase or decrease in actual emissions which occurs before the baseline date in an area is creditable only if it would be considered in calculating how much of an increment remains available for the pollutant in question. An example of this situation is a 39 tpy NO_x emissions increase resulting from a new heater at a major source in 1987, prior to the NO_x increment baseline date. Because these emissions do not affect the allowable PSD increment, they need not be considered in 1990 when the source proposes another unrelated project. The new emissions level for the heater (up to 39 tpy) would be adjusted downward to the old level (zero) in the accounting exercise. Likewise, decreases which occurred before the baseline date was triggered cannot be credited after the baseline date. Such reductions are included in the baseline concentration and are not considered in calculating PSD increment consumption.
- A decrease is creditable only to the extent that it is "federally-enforceable" from the moment that the actual construction begins on the proposed modification to the source. The decrease must occur before the proposed emissions increase occurs. An increase occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period not to exceed 180 days.
- A decrease is creditable only to the extent that it has the same health and welfare significance as the proposed increase from the source.
- A source cannot take credit for a decrease that it has had to make, or will have to make, in order to bring an emissions unit into compliance.
- A source cannot take credit for an emissions reduction from potential emissions from an emissions unit which was permitted but never built or operated.

Provide the following information for *all* contemporaneous creditable emissions increases and decreases for each pollutant during the 5-year contemporaneous period as determined in Part II.

Change Type – Enter the type of change that caused or will cause an increase or decrease during the 5-year contemporaneous period. The change types are explained below:

- NEW** New unit added. Includes new units that obtained an individual permit, new units that were added and are operating under a permit by rule regulation in RCSA §§22a-174-3b, -3c, or -3d or a new unit that was added that did not meet permit applicability under RCSA 22a-174-3a.
- MOD** Modification of an existing unit. This includes any unit which triggered a modification.

REM Removal of a Unit. This includes any unit that was removed from the premises and where the removal will be federally enforceable on and after the date that construction begins on the proposed project. The actual reduction must take place before the date that the emissions increase from any of the new or modified emissions units occurs. (i.e. license revocation)

PBR Permit by Rule Conversion. This includes any unit which was previously covered by an individual permit or registration and such license was revoked to allow the source to operate under a permit by rule in RCSA §§22a-174-3b, -3c, or -3d.

DB De-Bottlenecked Units. This includes any existing unit which, as a result of the installation of the proposed project will increase its actual emissions.

Equipment Description - Provide the description for each unit that has been added or modified at the premises during the 5-year contemporaneous period designated in Part II and resulted in an emissions increase or decrease of the pollutant being evaluated. Do not include the proposed project for which this permit application is being submitted. List the equipment description from the permit. For other equipment, include the unit type, manufacturer and model number.

License or Regulation No. - If the unit holds, or once held a license (permit or registration) indicate the license number here. If the unit is permitted, indicate "P" and provide the permit number. If the unit is a registered source, indicate "R" and provide the registration number. If the unit is operating under a regulation, list the regulation. If the unit does not meet applicability under RCSA §22a-174-3a, then indicate "N/A". Examples: P 100-0043; RCSA §22a-174-3b(e).

Date of Change - Provide the date of the specified change during the 5-year contemporaneous period as follows:

- NEW Date license issued or date unit began operation for unpermitted sources.
- MOD Date of modification to an existing unit.
- REM Date license was revoked.
- PBR Date license was revoked in order for the source to operate under a permit by rule.
- DB Date de-bottlenecked units will increase actual emissions due to operation of proposed project.

Pollutant - Enter the pollutants that were answered "yes" in Part III of this form.

New Actual Emissions (New ACT) - Provide the new actual emissions immediately after the *Date of Change* for each change during the 5-year contemporaneous period as follows:

- NEW New ACT emissions immediately after the *Date of Change* are the unit's potential to emit or allowable emissions, if operating under a permit or regulation.
- MOD, PBR New ACT emissions immediately after the *Date of Change* are the unit's new potential to emit or allowable emissions, if operating under a permit or regulation, due to the change.
- REM New ACT emissions immediately after the *Date of Change* are "0" since the unit's license was revoked.
- DB New ACT emissions immediately after the *Date of Change* are the unit's expected

actual emissions due to the installation of the proposed project.

2-yr Actual Emissions (2-yr ACT) - Provide the baseline 2-year actual average emissions prior to the *Date of Change* for each change during the 5-year contemporaneous period as follows:

NEW 2-yr ACT emissions prior to the *Date of Change* are “0” since the unit did not exist prior to the date of change.

MOD,
REM,
PBR,
DB 2-yr ACT emissions prior to the *Date of Change* are the average emissions for the specified pollutant over the most recent 24 month period. If the unit being changed is a new unit with less than 24 months of actual emissions, the 2-yr ACT emissions shall be the unit’s potential emissions or permit allowable, if permitted.

Note: For a unit which was added and then removed within the same contemporaneous period, the 2-yr ACT emissions prior to the date of removal shall be the unit’s potential to emit or permit allowable, if permitted. This results in a net increase of “0” for the unit being added then removed during the same contemporaneous period.

Totals – Total both the New ACT and 2-yr ACT columns for each pollutant.

Total Contemporaneous Increases/Decreases - Provide the difference between the New ACT and 2-yr ACT emissions in tons per year (tpy) for each pollutant.

Attachment 213-B - The 2-yr ACT emissions for each unit listed in Part IV must be based on the average actual emissions for the two years immediately preceding the change. New units would enter a “0” since they did not previously exist. If the most recent two year period was not selected as the representative two year period for

actual emissions for any changed unit, check here and submit written justification for using a period other than two years of actual emissions immediately preceding the date of change as Attachment 213-B.

Part V: Emissions Summation

Pollutant - Enter the pollutants that were answered “yes” in Part III of this form.

Total Project Emissions Increase – Provide the total project emissions increase from Part III of this form.

Total Contemporaneous Increases/Decreases – Provide the total contemporaneous increases/decreases from Part IV of this form.

Net Emissions Increase – Calculate the net emissions increase by adding the Total Project Emission Increase value to the Total Contemporaneous Increases/Decreases value.

Significant Emissions Rate Threshold – Provide the significant emissions rate threshold from Part III of this form.

Is Net Emissions Increase equal to or greater than Significant Emission Rate Threshold? – Indicate if the net emissions increase value is equal to or greater than the significant emission rate threshold for the pollutant.

If “No” for all pollutants, this project is not considered a major modification for any pollutant.

For NO_x or VOC, if the premises is currently major for such pollutant, complete *Attachment J – Non-Attainment Review Form* to determine if the source is subject to non-attainment review.

If “Yes” for any pollutant, This project is considered a major modification for each pollutant indicated as such above.

For NO_x or VOC, complete *Attachment J: Non-Attainment Review Form* (DEEP-NSR-APP-215).

If the net emissions increase for NO_x is greater than 40 tpy, also complete *Attachment I: Prevention of Significant Deterioration of Air Quality (PSD) Program Form* (DEEP-NSR-APP-216).

For all other pollutants, complete *Attachment I: Prevention of Significant Deterioration of Air Quality (PSD) Program Form* (DEEP-NSR-APP-216).