Attachment H: Major Modification Determination Form

Applicant Name: _____

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the instructions (DEEP-NSR-INST-213) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete Attachment F: Premises Information Form (DEEP-NSR-APP-217) prior to completing this form. Complete this form if the proposed project will be located at an existing major stationary source.

Questions? Visit the Air Permitting web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Part I: Applicability

a. Indicate the pollutant(s) for which the premises is classified as a major stationary source prior to the processing of this application package (Part VII.A of Attachment F): _____

b. Indicate, in the table below, the pollutants the proposed project will emit: (Check all that apply)

List of Pollutants (Table 3a(k)-1)

Pollutant	Proposed Project Emits Pollutant?	Pollutant	Proposed Project Emits Pollutant?
CO	☐	Sulfuric Acid Mist	☐
NOx	☐	Fluorides	☐
SO_2	☐	Lead	☐
PM	☐	Mercury	☐
$PM_{2.5}$	☐	Municipal Waste Combustor Organics (measured as total tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans)	☐
PM_{10}	☐	Municipal Waste Combustor Metals (measured as particulate matter)	☐
VOC	☐		
H_2S	☐		
Total Reduced Sulfur (Including H_2S)	☐		

Complete Parts II through V of this form as applicable for those pollutants that are checked in Part I.b above.

Part II: Basis

Provide the following information to determine the 5-year contemporaneous period for the major modification review.

Proposed Project Commence Construction Date		
Five Years prior to the Proposed Commence Construction Date		**NOTE: Five years prior to the start of actual operation of the Proposed Project is the 5-year contemporaneous period for emissions increases and decreases to be used in Part IV of this form. Therefore, the 5-year contemporaneous period may shift if construction does not commence by the proposed construction date.**

Part III: Total Project Emissions Increase

Provide the following information for the total project. Calculate the *Total Project Emissions Increase* for the subject pollutant.

Pollutant	Total Proposed Project Emissions[1] (tpy)	Total 2-yr Actual Emissions, if modification (tpy)	Total Project Emissions Increase (tpy)
CO			
NOx (as an ozone precursor)			
NOx (as a $PM_{2.5}$ precursor)			
NOx (NOx NAAQS)			
SO_2 (as a $PM_{2.5}$ precursor)			
SO_2 (SO_2 NAAQS)			
PM			
$PM_{2.5}$			
PM_{10}			
VOC			
Hydrogen Sulfide (H_2S)			
Total Reduced Sulfur (Including H_2S)			
Reduced Sulfur Compound (including H_2S)			
Sulfuric Acid Mist			
Fluorides			
Lead			
Mercury			
Municipal Waste Combustor Organics (measured as total tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans)			
Municipal Waste Combustor Metals (Measured as particulate matter)			
Municipal Waste Combustor Acid Gases (Measured as sulfur dioxide and hydrogen chloride)			

[1]Proposed project emissions for:

- New units and existing emission units (excluding existing electric utility steam generating units), shall be the proposed allowable emissions as it is listed on *Attachment E: Unit Emissions Form* (DEEP-NSR-APP-212),
- Existing electric utility steam generating units, shall be the representative actual annual emissions of the unit. Representative actual annual emissions means the average rate at which the source is projected to emit a pollutant for the two year period following the proposed change.

The Proposed Project Emissions for existing electric utility steam generating units must be based on representative actual emissions projected for the two years immediately following the proposed modification. If another two year period was selected as the representative two year period for proposed project emissions above, select check box and submit written justification for using a alternative two year period as Attachment 213-A.	☐ Attachment 213-A
The Total 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, select check box and submit written justification for using a period other than the most recent two years of actual emissions as Attachment 213-B.	☐ Attachment 213-B

Part IV: Contemporaneous Creditable Emissions Increases and Decreases

Provide the following information for all contemporaneous creditable emissions increases and decreases during the 5-year contemporaneous period determined in Part II. Calculate the *Total Contemporaneous Increases/Decreases* for the subject pollutant and enter the results in Part V. Duplicate this page if necessary.

NOTE: For each electric utility steam generating unit, new actual emissions under this section shall be representative actual emissions for the unit if the change being documented did not occur more than two years prior to the current project. Representative actual emissions means the average rate at which the source is projected to emit a pollutant for the two year period following the contemporaneous change being documented here.

Change Type (NEW, MOD, REM, PBR, DB)	Equipment Description	License No. or Regulation	Date of Change	Pollutants (tpy)									
				New ACT	2-yr ACT	New ACT	2-yr ACT	New ACT	2-yr ACT	New ACT	2-yr ACT	New ACT	2-yr ACT
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			/ /										
			/ /										
			/ /										
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			/ /										
Totals (tpy)													
TOTAL CONTEMPORANEOUS INCREASES/DECREASES (tpy) (New ACT – 2-yr ACT)													

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, select check box and submit written justification for using a period other than two years of actual emissions immediately preceding the change as Attachment 213-C.	☐ Attachment 213-C

Part V: Emissions Summation

Add the *Total Project Emission Increase* value from Part III of this form to the *Total Contemporaneous Increases/Decreases* value from Part IV of this form to calculate the *Net Emissions Increase* for the subject pollutant.

Pollutant	Total Project Emissions Increase (tpy)	Total Contemporaneous Increases and/or Decreases	Net Emissions Increase	Significant Emission Rate Threshold (RCSA §22a-174-3a(k), Table 3a(k)-1)	Is NET EMISSIONS INCREASE equal to or greater than SIGNIFICANT EMISSION RATE THRESHOLD?
CO				100	☐ Yes ☐ No
NOx (as an Ozone precursor)				25	☐ Yes ☐ No
NOx (as a $PM_{2.5}$ precursor)				40	☐ Yes ☐ No
NOx (NOx NAAQS)				40	☐ Yes ☐ No
SO_2 (as a $PM_{2.5}$ precursor)				40	☐ Yes ☐ No
SO_2 (SO_2 NAAQS)				40	☐ Yes ☐ No
PM				25	☐ Yes ☐ No
$PM_{2.5}$				10	☐ Yes ☐ No
PM_{10}				15	☐ Yes ☐ No
VOC				25	☐ Yes ☐ No
Hydrogen Sulfide (H_2S)				10	☐ Yes ☐ No
Total Reduced Sulfur (including H2S)				10	☐ Yes ☐ No
Reduced Sulfur Compounds (include H2S)				10	☐ Yes ☐ No
Sulfuric Acid Mist				7	☐ Yes ☐ No
Fluorides				3	☐ Yes ☐ No
Lead				0.6	☐ Yes ☐ No
Mercury				0.1	☐ Yes ☐ No
Municipal Waste Combustor Organics (measured as total tetra through octachlorinated dibemnzo-p-dioxins and dibenzofurans)				$3.5x10^{-6}$	☐ Yes ☐ No
Municipal Waste Combustor Metals (measured as particulate matter)				15	☐ Yes ☐ No
Municipal Waste Combustor Acid Gases (measured as sulfur dioxide and hydrogen chloride)				40	☐ Yes ☐ No

If, in the table above, the answer in the last column is "No" for *all* pollutants: (Is net emissions increase equal to or greater than significant emission rate threshold?)

This project ***is not*** considered a major modification for any pollutant.

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

If, in the table above, the answer in the last column is "Yes" for *any* pollutant: (Is net emissions increase equal to or greater than significant emission rate threshold?)

This project ***is*** considered a major modification for each pollutant indicated as such above.

If this form indicates the proposed project is a major modification for NOx or VOC, complete *Attachment J: Non-Attainment Review Form* (DEEP-NSR-APP-215). If the net emissions increase for NOx 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).