

# Updates to the Electronic Modeling Evaluation Workbooks (EMEWs)

## Updates to the EMEWs version 2.3

Updated Secondary Formation of PM<sub>2.5</sub> sheet to include MERP values based on the finalized EPA guidance dated April 30, 2019, "Guidance on the Development of MERPs as a Tier 1 Demonstration Tool for Ozone and PM<sub>2.5</sub> under the PSD Permitting Program."

Updated the Monitor Calculations sheet to include the option to report the use of a monitor located outside of Texas.

Updated NonSCREEN3 EMEW with expanded source input sheets:

- Point Source Parameters sheet now includes 1,000 entries
- Area Source Parameters sheet now includes 200 entries.
- Volume Source Calculations & Volume Source Parameters sheets now include 350 entries.
- Point + Flare Emissions sheet now includes 1,500 entries.
- Area Source Emissions sheet now includes 750 entries.
- Volume Source Emissions sheet now includes 750 entries.

Updated the Health Effect Modeling Results sheet to include columns to report GLCni locations.

Updated the Intermittent Sources sheet so that if a discrepancy of plus or minus 0.01 lb/hr is identified between the modeled emission rate and calculated emission rate, these cells will turn red. Previously, these cells would turn red if a discrepancy of 0.5 lb/hr was identified.

The Speciated Chemicals sheet was updated to the most recent Toxicology ESL List.

Updated all links for accessibility purposes.

Updated General Sheet to include instructions on how to submit modeling files.

Updated Monitor Calculation and Background Justification sheets to gray out when only Health Effects is selected on the Model Options sheet.

Updated NonSCREEN3 EMEW so that if the ISC or ISCPrime model is selected, the AERSURFACE section on the Model Options sheet will gray out.

Instructions and examples were updated as needed to provide more clarity, as well as minor text and formatting.

## Updates to the EMEWs version 2.2

### Formatting and Wording:

Updated the naming of the Internal Comments sections to be “Applicant Internal Comments” to be more clear with the intent of these extra columns.

Updated the General sheet to reference the new “Form PI-1 General Application” name instead of the previous name, NSR Application Workbook.

### Improvements to the EMEWs:

The Speciated Chemicals sheet was updated to the most recent Toxicology ESL List.

## Updates to the EMEWs version 2.1

### Formatting and Wording:

Updated printing requirements to note that printing the EMEW is not required for submitting to the Air Permits Division (APD); however, you may need to print it for sending to the regional offices, local programs, and for public access if notice is required.

Updated the acknowledgement statement to provide clarity that additional attachments can be provided.

Renamed the first sheet of the EMEWs to “General Information” to better align with the NSR Application Workbook naming convention. The table of contents was updated accordingly.

### Errors/Bugs Fixed:

The conditional formatting on the NAAQS-SPL Results sheet (NonSCREEN3 EMEW only) was fixed to correctly indicate when the Total GLCmax is over the NAAQS.

### Improvements to the EMEWs:

Added columns to each sheet for the applicant to use for internal notes and/or reviews. The information in this column should be deleted prior to submitting the workbook to APD.

Added an additional box at the bottom of the General Information sheet to allow the applicant to describe any additional attachments being provided that were not already listed.

Expanded several text boxes in the Model Options sheet to allow for more characters.

Updated the PM<sub>2.5</sub> tables in the Monitor Calculations sheet rounding to better align with the rules in 40 Code of Federal Regulations.

Add an extra column to the NonSCREEN3 EMEW Unit Impact Multipliers sheet to allow use of unit impact multipliers in microgram per cubic meter per ton per year ( $\mu\text{g}/\text{m}^3$  per tpy).

## Updates to the EMEWs version 2.0

### Formatting and Wording:

Both workbooks were updated for accessibility purposes including, but not limited to the following: Left alignment, consistent font size, and links made to be clickable.

Formatting was updated throughout the workbook by including additional conditional formatting and setting clear character limitations. Instructions and examples were updated as needed to provide more clarity.

The workbook now requires the user to acknowledge that the authorized TCEQ EMEW was used and the workbook was not altered, except for inputting the requested data.

### Errors/Bugs Fixed:

Several bug fixes/errors were corrected in the workbooks which include the following:

- Area Source Parameters (EPN and Model ID) were not carrying over to the Area Source Emissions Sheets. This has been corrected.
- In the Volume Source Calculation sheet, the Sigma Z calculation was not correctly applying building data, as applicable. In addition, the Sigma Y calculation for “Multiple Volumes: Separated Volume Sources” option was not calculated appropriately. These have both been updated.
- The release height in the Volume Source Calculation sheet was not carrying over correctly to the Volume Source Parameters sheet. This has been updated.
- The modeled emission rate entered in the Point+Flare Source Emissions, Area Source Emissions, and Volume Source Emissions sheets was not carrying over correctly to the Intermittent Emissions sheet if a source was selected to be intermittent. This has been updated.
- The Speciated Emissions sheet was duplicating Model IDs if a Model ID was entered multiple times for “Health Effect Pollutant.” This has been updated so that only one Model ID is carried over regardless how many times it is entered in the Point+Flare Source Emissions, Area Source Emissions, and Volume Source Emissions sheets.

### Improvements to the EMEWs:

- Additional downwash rows were added to the Building Downwash sheets. This allows for more downwash structures to be entered, if needed
- Addition of a new Secondary  $\text{PM}_{2.5}$  Calculations sheet. This sheet allows the user to provide the Modeled Emission Rate Precursor (MERPs) justification and calculations directly in the workbooks, eliminating one additional attachment that must be provided.

- As a result of having Secondary PM<sub>2.5</sub> calculations within the workbook, two new results tables were created in the NAAQS/SPL Modeling Results sheet to incorporate the secondary contribution of PM<sub>2.5</sub>. Based on information in the Secondary PM<sub>2.5</sub> Calculations sheet, the secondary contribution will automatically fill in the appropriate PM<sub>2.5</sub> results tables.
- In the NonSCREEN3 EMEW, an ozone monitor option has been added for analyses using a Tier 3 demonstration for NO<sub>2</sub>. Additionally, the Monitor Calculations sheet has been updated to include tables for information on the selected ozone monitor and metric used in the analysis.
- The emission sheets (Point+Flare Source Emissions, Area Source Emissions, and Volume Source Emissions) have been updated to limit drop down options based on the pollutant selected. For example, 3-hr SO<sub>2</sub> will only have NAAQS as an option, whereas, 1-hr SO<sub>2</sub> will have both State Property Line and NAAQS.
- Addition of a new Combined Emissions sheet to capture all inputs from the three emission sheets (Point+Flare Source Emissions, Area Source Emissions, and Volume Source Emissions). This sheet allows the user to see previously input emission information in one sheet that can be filtered to review the data.
- The Monitor Calculation sheets have been updated to remove specific years. The user will now provide the monitor years in the Background Justification sheet.
- Due to the possibility of needing a downwash structure to calculate the Sigma Z of a volume source but this structure not actually being needed in the downwash analysis, an additional option/spot has been added to the Building Downwash sheets.
  - For SCREEN3: a separate box for “Additional Information” was added to allow the user to indicate that downwash structure was not utilized in point/flare source modeling and was only utilized for volume source calculations.
  - For NonSCREEN3: an additional drop down for Building Type was added specific to downwash structure only needed for volume source calculations.
- The Speciated Chemicals sheet was updated to the most recent Toxicology ESL List.