February 2, 2024

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

Re: Comment on U.S. Environmental Protection Agency's (EPA) Exceptional Events Documents and Tools, Docket # - EPA-HQ-OAR-2023-0586

Dear Administrator Regan:

We thank you for the opportunity to comment on EPA's newly developed exceptional events tools. The American Lung Association is dedicated to championing clean air for all, and we work to ensure that the air that people breathe is safe from harmful pollution. The visualization tools are incredibly useful to help quickly identify poor air quality days, determine how hazardous those days were to affected communities and understand air quality trends. The new tools will also facilitate data screening for state and local air agencies to determine the regulatory significance of certain air quality events in support of exceptional event demonstrations. As EPA works to finalize these tools, we offer the following comments and recommendations for improvement.

1. **Allow users to easily visualize affected exceptional events days.**

In the multi-year and single-year tile plots, users can choose to plot (1) all data, including any flagged exceptional events; (2) exclude flagged exceptional events data; or (3) exclude flagged exceptional events data, concurred by EPA. However, there is no option for users to easily visualize only days that have been flagged as exceptional events. EPA should add the option to plot flagged exceptional events data and indicate the status of that flag.

2. **Allow users to view all datasets in a single display.**

The multi-year and single-year tile plots are not designed to be simultaneously visible for the purposes of making comparisons between data sets (all data, including flagged exceptional events; data with exceptional events excluded; and data with exceptional events concurred by EPA excluded). All three charts should be *dynamically interchangeable on a single display* (i.e., without needing to hit a "Plot Data" button and without refreshing the screen). A simple "slider" or "toggle" function among these three sets of data would make it easier for users to visualize affected days. As indicated above, EPA should add an option to plot only data flagged as an exceptional event in this dynamic display and indicate the status of that flag. Moreover, EPA should enable users to download a CSV spreadsheet file with all four sets of data, including a column with only flagged exceptional event days and the status of that flag.

3. **Provide clear definitions of "flagged" events and "concurrence" on the Exceptional Events Analysis webpage.**

The language on the site needs some clarification, especially for the lay user. The webpage should include the following:
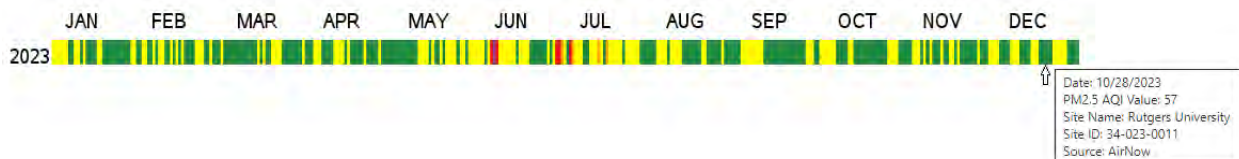
- A clear description of what constitutes a "flagged" event (e.g., is a formal application by an affected state through an exceptional event demonstration required before a day's data can be considered as "flagged?").
- A clear description what specific "concurrence" by EPA is required before data is excluded under the display rubric (e.g., does this require a formal concurrence by EPA with an affected state's exceptional event demonstration" before a day's data can be considered as "flagged, concurred by EPA?").
- If data is considered to be "flagged" and hence "excluded," then the methodology for determining what is posted for that day should be described and/or otherwise accessible to the user. For instance, if "maroon" (hazardous) data is excluded, is the day to be displayed as some other color or grayed out since the suspect data was excluded and nothing is available to replace it?

4. Enable users to download a table for the concentration map data.

We appreciate the facility to download CSV tables of the data for the multi-year and single-year tile plot. This feature should also be made available for the concentration map. The table should include the date, value, state name, monitor name and monitor ID for each point for the day.

5. Fix display error on the multi-year tile plot.

The multi-year tile plot is useful to visualize air quality trends and quickly identify bad air quality days. However, a long-standing "wonky" display problem with the multi-year tile plot is that the month labels don't always match the dates of the actual results. For example, this datum for an October date (PM2.5 in New York-Newark) incorrectly appears under the December label:

Whether the problem occurs appears to depend upon the user's screen zoom setting. EPA should fix this display issue to ensure that the data and the month labels are aligned independent of the user's screen zoom setting.

6. Fix error in the exceptional events design value tool.

When attempting to use the exceptional events design value tool, we are met with a notice that "an error has occurred." EPA should fix this error to ensure users can use the tool.

We appreciate the opportunity to provide input on these important new tools and look forward to seeing the finalized versions.

Signed,

American Lung Association