



ENVIRONMENTAL PROTECTION DIVISION

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Submitted by electronic email to: Goffman.Joseph@epa.gov; airtoxics@epa.gov

Joe Goffman

Principal Deputy Assistant Administrator Performing Delegated Duties of Assistant Administrator
Office of Air and Radiation
U. S. Environmental Protection Agency

Dear Mr. Goffman:

The Georgia Environmental Protection Division (GEPD) has reviewed the 2017 AirToxScreen files provided by the U. S. Environmental Protection Agency (EPA) on February 9, 2022, and the AirToxScreen Mapping Tool released on February 23, 2022. AirToxScreen is replacing the National Air Toxics Assessment (NATA). EPA's last NATA was released to the states and the public in August 2018 using 2014 emissions data as reported to EPA or as calculated by EPA. The NATA, and its successor, AirToxScreen, are EPA screening tools, used to identify which pollutants, emission sources, and places states may wish to study further to better understand any possible risks to public health from air toxics.

GEPD appreciates EPA's continued efforts to identify areas where air toxic emissions are of concern. However, GEPD continues to have some concerns with the 2017 AirToxScreen and EPA's process for releasing AirToxScreen, as noted below.

Ethylene Oxide Risks Identified in the 2017 AirToxScreen Have Been Addressed

Areas in Georgia potentially impacted by ethylene oxide emissions have already been addressed by GEPD¹. Four commercial sterilizers that use ethylene oxide to sterilize medical products ("commercial sterilizers"), one chemical manufacturer, and one warehouse storing medical products installed and began operating additional controls in 2020 and/or 2021 to reduce ethylene oxide emissions and address risk concerns. EPA should clearly communicate in its public materials that 2017 AirToxScreen does not account for the significant emission reductions that have occurred in Georgia and other states since 2017. The data visualization tool for AirToxScreen does include a statement; however, the AirToxScreen Excel and Access files and the February 18th EJ Screen release, which uses the same 2017 emissions data, do not. Specifics on those controls should be noted, particularly given the tool's primary purpose as a screening tool. Information on the new ethylene oxide emission controls in Georgia is shown in Table 1 below:

¹ GEPD also required additional emission controls at sources that were not identified in the NATA as sources to evaluate.

Table 1. Ethylene Oxide Emission Reductions in Georgia

Facility	County	Source Type	Additional Controls	Installed and Operational
Sterigenics	Cobb	Commercial Sterilizer	Second air pollution control device added to further control to control sterilization chamber emissions Indoor air controls ²	April 2020
BD Covington	Newton	Commercial Sterilizer	Indoor air controls ²	April 2020
BD Madison	Morgan	Commercial Sterilizer	Indoor air controls ²	June 2020
Sterilization Services of Georgia (SSG)	Fulton	Commercial Sterilizer	Back vent (also called chamber exhaust vent) controls ³	January 2020
			Indoor air controls ²	January 2021
Global Distribution Center	Newton	Warehouse	Indoor air controls (storage areas)	December 2020
Stepan	Barrow	Chemical Manufacturer	Rupture disks on all pressure relief valves in ethylene oxide service	June 2020

Risk Estimates For 2017 Are Being Released in 2022

The time lag between the emissions occurring (2017) and the release of AirToxScreen (2022) creates a communication challenge for states and EPA. EPA should clearly explain in its public materials why it takes so long for EPA to release this type of analysis, and why the **2017** AirToxScreen release is needed, given that states began addressing concerns about ethylene oxide emissions in **2018**, after EPA notified states of the potential risk concerns.

EPA’s Data and Assumptions Should Be Shared with States

GEPD acknowledges that EPA has worked to improve the emissions data used in its risk screening tools since the release of the 2014 NATA in 2018. For AirToxScreen, some corrected emissions data submitted by GEPD at EPA’s request was utilized. For the commercial sterilizers, however, EPA declined to accept GEPD data citing national consistency concerns. EPA should provide the states with the emissions data used to estimate risk in AirToxScreen, clearly identify the source of the emissions data (e.g., EPA calculation, TRI, ICR submittal, state data submittal, etc.), and share the EPA calculation methodology with the states. Specifically, GEPD urges EPA to share its new methodologies for estimating uncontrolled ethylene oxide emissions and ethylene oxide emissions occurring offsite, along with documentation of any new emission factors used in these methodologies. Also, AirToxScreen relies heavily on modeling assumptions. EPA should share their modeling files with the states, including input data, assumptions, and methods. States ability to partner with EPA in its public outreach on AirToxScreen is seriously hampered by this lack of supporting data.

² The indoor air controls capture and control emissions of ethylene oxide that may occur in the workspaces within the facility (drum storage areas, shipping areas, storage areas, or any facility areas through which sterilized product is moved)

³ BD Covington, BD Madison, and Sterigenics installed back vent emission controls after 2014 but prior to 2017.

AirToxScreen Should Address Background Concentrations of Ethylene Oxide

Since January 2020, EPA has required National Air Toxics Trends Sites and Urban Air Toxics Monitoring Program Sites to analyze for ethylene oxide to learn more about background concentrations of ethylene oxide. This data is reported to EPA's Air Quality System (AQS). AirToxScreen does not appear to include the risk associated with background ethylene oxide concentrations. EPA should explain in its public materials why it did not include background concentrations of ethylene oxide in its AirToxScreen risk estimates.

EPA Should Explain Formaldehyde Risk Estimates Due to Biogenic Sources and Secondary Formation

EPA should explain the modeled risk from formaldehyde in its public materials. Based on information provided to GEPD by your staff, the formaldehyde risk identified in AirToxScreen is mostly attributed to the "Secondary" emission source group, meaning that it's formed in the atmosphere through photochemical reactions. AirToxScreen estimates higher formaldehyde and secondary contributions across the southeast, including Georgia, due to biogenic⁴ emissions.

We look forward to continuing to partner with EPA on identifying and addressing health risks from air toxics. If you have any questions in follow-up to these comments, please contact me at karen.hays@dnr.ga.gov or 470-524-0680.

Sincerely,



Karen Hays
Chief, Air Protection Branch

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⁴ Biogenic emissions are emissions from natural sources (primarily trees)