

NACAA AIR TOXICS COMMITTEE

Thursday, June 6, 2024 11:30 a.m. – 12:30 p.m. (Eastern Time) Via Zoom -- see below for access instructions

AGENDA

NACAA Only

- Welcome and Roll Call (10 minutes)
- Inverse Modeling of H₂S based on a Community Monitoring Network* Jay Olaguer (MI) (25 minutes)
- Discussion of Future NACAA Priorities for the Federal Air Toxics Program (10 minutes)
 Background Information: <u>NACAA's Recommendations to the Biden Administration in January 2021</u>
 (see especially p. 7, item h)
- Reactions/Feedback from NACAA Fumigation Webinar Held on May 21, 2024 (10 minutes)
- Other/New Business (5 minutes)
- Next call Thursday, August 1, 2024 at 11:30 a.m. 12:30 p.m. (Eastern time)

Join Zoom Meeting

https://us02web.zoom.us/j/85272360936

Meeting ID: 852 7236 0936

Passcode: 354854

YOU WILL BE REQUIRED TO USE THIS PASSCODE TO JOIN THE CALL

One tap mobile

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*Abstract: Inverse modeling of hydrogen sulfide (H₂S) was performed based on ambient air concentration data from a local electrochemical sensor network in Kalamazoo, Michigan, USA. This was to quantify H₂S emissions from a paper mill and wastewater treatment plant, as well as from other sources. The conclusions from this study are as follows. 1) Fugitive emissions of H₂S from individual sources within the two facilities range from a few pounds to over a thousand pounds per year. 2) Total emissions of H₂S from wastewater treatment exceed 1 US ton per year, more than ten times greater than total emissions from the paper mill. 3) Diesel engine emissions of H₂S are competitive with fugitive emissions but are generally more diffuse, except where unusual activities such as local traffic re-routing or dredging occur. Engine emissions of H₂S associated with railroad activities may also be important. 4) Under stable atmospheric conditions, maximum H₂S concentrations of 10-15 ppb may occur at the most intense local sources, while ambient concentrations above 1.4 ppb (an approximate threshold for long-term health effects) can persist up to about 1 km downwind of these sources. Unstable atmospheric conditions during the day will likely mitigate these exposures.