DEQ response to Georgia-Pacific Toledo regarding ambient air monitoring at the onsite wastewater treatment ponds.

For the CAO Emissions Inventory, GP and NCASI developed emission estimates of hydrogen sulfide (H2S) from the wastewater treatment ponds using ambient monitoring data. In a March 24, 2025 letter, DEQ requested that GP Toledo perform liquid sampling of their wastewater treatment ponds to support development of H2S emission estimates using NCASI's H2SSIM model. During DEQ and GP Toledo's May 5, 2025 meeting at the facility, GP Toledo asked if DEQ would accept H2S emission estimates developed from additional ambient monitoring in lieu of the liquid sampling. DEQ has discussed GP Toledo's request internally. To approve an ambient air monitoring plan, DEQ would require additional information on the H2S monitors used onsite and a detailed Standard Operating Procedures (SOP) and Quality Assurance / Quality Control (QA/QC) plan. I am providing some additional information about these and some thoughts about what should be included in an ambient air monitoring plan below:

Monitors:

DEQ needs information on the H2S monitors used onsite, including make, model, and specification sheets so that DEQ can review the suitability of these monitors to collect accurate and sufficiently precise H2S data.

DEQ is unable at this time to make a determination of the total number of and placement of H2S monitors around the perimeter of the ponds. If GP elects to proceed with an ambient air monitoring plan, please include proposed number and placement of the monitors that would sufficiently capture maximum daily as well as average annual emissions from the ponds, including a downwind locations. Please employ meteorological data (such as the wind rose diagram provided with GP's short term NAAQS modeling protocol) to help with monitor placement and number proposals.

SOP and QA/QC Plan:

To develop an ambient air monitoring plan, DEQ would expect a detailed SOP as well as a QA/QC plan for calibrating and maintaining the H2S monitors as well as collecting and using the data from the monitors.

I have attached a copy of a Quality Assurance Project Plan (QAPP) which was developed by DEQ for ambient monitoring of criteria pollutants. I'm providing this as an example of DEQ's expectations regarding attention to detail that we would expect in to see in GP's SOP and QA/QC procedures for the ambient monitors. Specifically, DEQ would request Data Quality Objectives, instrument calibration and frequency, quality control, data validation and usability and in the resulting final report, documentation of all of these.

Consider the daily drift of the H2S monitors when developing the SOP and QA/QC plan. DEQ Lab's air monitoring group reviewed information on an Acrulog H2S PPB device that we believe is similar to those deployed at GP Toledo and noted that daily drift for this device is specified as 10 ppb. Given the data provided to DEQ already, we expect the monitors should receive daily zero/span verification (and adjustment if needed) of the devices than the quarterly calibrations noted in our May 5th meeting. This would ensure meaningful accuracy from day-to-day and data consistency.

H2S Emissions Estimates:

Include a write up of the proposed method to determine emissions rates from the ambient monitoring data. This should include at least the following:

- Proposed source of meteorological data not currently collected by the on-site weather station.
  - Outline all assumptions and justifications for these.
- Proposal for how to calculate maximum daily and annual average H2S emission rates.
- Any assumptions to be used and an engineering basis for these assumptions.

Alternatively, if GP should elect to proceed with the liquid sampling plan and use the H2SSIM model, DEQ is open to discussing alternate sampling locations for the ponds.