Greetings!

Odor Control System Design 201 - Beyond Initial Concepts

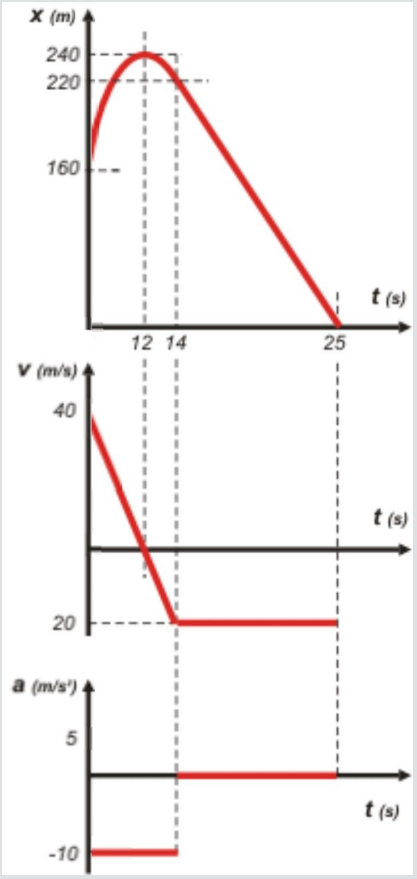
During a recent conversation with a client, I was asked, "***If the design odor concentration is 10 PPM H_2S, after system commissioning, how long will it take until the building doesn't smell anymore?***"

This seems like a relatively straight-forward question, but is indeed quite complex. **The following two issues must be addressed to respond to this inquiry:**

1. Simply because the design is based on H_2S, in actuality, H_2S is rarely the only odorous contaminant. Therefore, if a technology is chosen to remove H_2S, it may not remove other odorous compounds that were masked by the H_2S. Decayed cabbage and fish can smell just as bad as rotten eggs! The good news about Aerisa technology is that air ionization can address a broad range of contaminants. Click here for more information.

2. Very few odor control situations consist of an initial odor concentration with no subsequent odor generation. Consider the relationship you learned in your physics class: **Distance - Velocity - Acceleration** and its similarity to **Initial**

concentration - Odor generation rate - Change in rate of odor generation. When supplying highly-ionized air into a building, it may take a bit of time for the initial concentration (distance) to be addressed. During this time, not only must the Aerisa system address the initial concentration, but also any additional odor that is being generated (velocity). If the odor generation rate should increase (acceleration) during this initial treatment time, it may take longer yet to address what one might think to be the initial concentration. How long the Aerisa system (negative velocity) will take to satisfactorily treat the "initial concentration" is variable, but often is less than a few hours. However, the additional good news about Aerisa technology is that once it "catches up," air ions will build up over time in the application space **to proactively attack any subsequent odors as they are generated**. *Exhaust-only technologies can't make this preemptive treatment claim.*



There are several more issues to address the above, such as:

- Number of air changes designed per hour [*provides dilution!*]
- "That it doesn't smell anymore" **is not** a quantifiable design criterion [*who's doing the smelling and how?*]
- Proper locations for treated air evaluation [*where are you sampling?*]

These issues will be addressed in a future email.

ABOUT AERISA

Aerisa manufactures bipolar ionization technology that results in **dramatic air quality improvements** in a wide array of markets including industrial, institutional, commercial and residential. Aerisa successes are found in the most demanding applications, such as wastewater treatment, food processing, casino, athletic, and transportation. Contact Aerisa at 1-877-4-AERISA (23742) or visit www.aerisa.com.

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Check out our new website! www.aerisa.com

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