



WINTER 2018

from experience

environmental, health & safety edition

Mitigating Nuisance Odors

Nuisance odors are typically the result of volatile chemical emissions into the air that, while allowable under the permitting regulations, produce an offensive odor to people at the properties near the facility. If the odors become an infringement on the neighbor's enjoyment of their property or public areas, the odors are described as a nuisance impact.

Most states have regulations prohibiting odors that cause a nuisance impact. However, few states define what odor concentrations will be labeled a nuisance impact. It is therefore up to the facility to determine the potential odor impact of their emissions. It is normal to obtain an air pollution permit that will allow emissions of pounds per day and tons per year of volatile chemicals, but it is not always known if the dilute emissions (typically measured in parts per million) could cause an offensive odor at the properties nearby. Years ago, many facilities had a try-it-and-see approach. Now, computer models are used to estimate the odor potential.

In most cases, nuisance odor complaints from the public must be verified by a regulatory authority to be considered valid, especially where multiple facilities can be contributing. This involves the responsible agency (typically the state EPA) visiting the facility and sometimes measuring the odor levels by emissions modeling, sample collection, and sample analysis. If the agency verifies a nuisance level of odor, the facility can be required to mitigate the odors by use of air pollution control technologies or modification of the emission point, e.g., raise the stack height, increase air velocity, and/or relocate the stack to dilute the odor below detection levels at the property line.

Often, if this is the first complaint, the odor may be the result of a non-frequent event or equipment malfunction. In these cases, the facility may be asked to resolve the complaint by proving they are following manufacturers' recommendations for maintenance and operation by submitting an Operations & Maintenance (O&M) manual to the agency. Additional complaints will be investigated more intently.

Facilities that want to be known as "good neighbors" recognize their potential to emit odor early in the design effort and may voluntarily construct add-on control equipment like wet scrubbers to reduce their odor impact even if not required by regulation. This cost is not insignificant but if you know there is a reasonable possibility of odors from your process and neighbors are close, adding controls now may offset later litigation and retrofit costs. During design, Hixson recommends early involvement of an air pollution control technology supplier to determine potential odor impact and help select the most advantageous control technology.

experience in brief

As safety issues grow in complexity, today's safety professionals are tasked with greater challenges at every turn. The "[Certified Safety Professional \(CSP\)](#)" designation from the Board of Certified Safety Professionals (BCSP) is a recognition that a person has mastered the core competencies required for professional safety practice. BCSP credential holders are among the most highly trained, educated, and experienced individuals in the safety field. Hixson is pleased to announce that Hixson associate Wendell Turner has met the eligibility and experience requirements and passed a rigorous exam to earn the "Certified Safety Professional (CSP)" designation.

continuing education

Hixson associates regularly participate in continuing professional education events across the country. To learn more about the events listed below, e-mail Hixson at: info@hixson-inc.com

NAMI "Environmental Conference for Meat & Poultry Industry"
Atlanta, GA
January 2018

Southwest Ohio Water Environment Association (SWOWEA) "Annual Industrial Waste Seminar"
January 2018

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