

Odor Standard Benefits and Drawbacks

Odor Standard / Approach	Description	Notable States/Cities Using Standard (Agencies interviewed by MAD bolded)	Benefits	Drawbacks
Dilution Threshold	Using a volume-based approach to odor, determining a violation to occur if odor is still detectable in ambient air after being diluted by a specific volume of air. The most commonly ratio used is 7:1. Currently is the most commonly used standard by agencies MAD interviewed.	Kentucky; Missouri; North Dakota; Nevada; San Francisco Bay Area, CA (also measures a concentration of chemical compounds in addition to a dilution threshold)	- Provides a broad standard that relies on a numeric measurement to enforce. - Measurement of this odor takes some subjectivity out of an inspection. - Facilities know how they would be regulated and can preemptively measure any odors they emit with the same tool.	- The tool primarily used to measure odor (Nasal Ranger) may not always have an accurate reading based on the topography of the area or subjectivity of the inspector. - A higher dilution threshold may still allow odor to persist in an area and not be considered a violation while a lower dilution threshold may put too many individuals or facilities in violation.
FIDOL	Creating an odor-based value based on frequency, intensity, duration, offensiveness, location.	Texas; Oregon (unclear if Oregon has FIDOL in their state regulation specifically or if it is just the method their agency uses to enforce)	Is a thorough standard in identifying characteristics of an odor that goes beyond a presence or a volume/concentration of an odor.	Not currently widely used – MAD was unable to speak with any agency that uses this method.
Number of complaints	An agency receiving a certain number of complaints about an odor-emitting source (such as a factory) within a designated time period.	Denver, CO (receiving five complaints within thirty days); San Luis Obispo, CA (three complaints within one month)	- An alternative approach to odor regulation that relies more on public reaction than the concentration or characteristics of an odor. - Can complement a broader standard as an ordinance –	MAD has heard this rule can turn into a witch hunt in interviews if it is unclear who is the emitter of an odor.

			Denver uses this ordinance in addition to Colorado's 7:1 dilution threshold which can address any odors that do not reach a 7:1 threshold but are still a nuisance to those in a city.	
Narrative Standard (no person shall emit an objectionable odor beyond their property line)	A standard prohibiting any emissions of odors by an individual. More commonly found in municipal codes than state regulations.	Louisville, KY ; Denton, TX; Hillside, IL; Delaware	• A clear standard that prohibits odor emission.	• Louisville expressed difficulty and frustration in enforcing this law, violations are tied up in court when a facility is notified of a violation.
EnviroSuite	EnviroSuite is a tool that monitors chemical compounds in the air in real time. These monitors can pick up and alert an agency when odorous chemical compounds such as hydrogen sulfide are emitted.	Des Moines, IA	• Provides real time updates to an agency when odorous compounds exceed a designated concentration. Tracks where the odors are emitted, their concentration, and when it occurred. • Does not require an inspector to go to the site of an odor emission which may be beneficial if the agency is hours away from a source – the odor may dissipate within that time frame.	• Only reads odorous compounds in the air like hydrogen sulfide, not odors. A standard built around this device would have to focus on a concentration of odorous compounds instead of odor itself. • May be difficult to regulate if there is a diversity of industries / odors that are emitted or if the odors emitted don't carry chemical compounds EnviroSuite can pick up.