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"Ask the Office of the Permit & Regulatory Ombudsman"

Issue Summary: Regulatory Requirement for Exhaust Stacks for Air Emissions

MassDEP's Office of Permit and Regulatory Ombudsman serves as a Point of Contact for raising issues about permitting or questions about how law, policy, and regulations are being applied across the agency. This summary provides information about an issue raised to the Office and should not be considered legal or consulting advice. Project proponents should consult the regulations and appropriate MassDEP Regional Office on how this information may apply to their specific projects.

Issue: Regulatory Provision Requiring Exhaust Stacks for Air Emissions

Inquiry: A wood products manufacturer inquired about the configuration of its dust capture system, which was designed so that filtered air would no longer be re-circulated to the interior of the facility but would be exhausted to the outside air. Because the new configuration created a potential for air pollution, MassDEP required a Limited Plan Application. As part of the LPA review, MassDEP required the addition of a vertical stack to ensure adequate dispersion of air emissions. The manufacturer contacted the Permit Ombudsman seeking assistance in identifying the regulatory basis for the requirement for a vertical stack, and whether this requirement was applied consistently by the agency in its air permitting across the state.

Regulatory Background: MassDEP's air pollution control regulations (310 CMR 7.00) require that MassDEP air pollution control plan approvals:

- Control and prevent conditions of air pollution (310 CMR 7.01(1): "No person owning, leasing, or controlling the operation of any air contamination source shall willfully, negligently, or through failure to provide necessary equipment or to take necessary precautions, permit any emission from said air contamination source or sources of such quantities of air contaminants which will cause, by themselves or in conjunction with other air contaminants, a condition of air pollution."
- Ensure compliance with the U.S. Environmental Protection Agency's (EPA) National Ambient Air Quality Standards

- Meet the requirements for Best Available Control Technology (BACT) [310 CMR 7.02(8)(a)], which "may include a design feature, equipment specification, work practice, operating standard, or combination thereof."

In addition, 310 CMR 7.02(3)(c) allows MassDEP to impose any "reasonable conditions" in a plan approval.

The use of a vertical stack to disperse air contaminants is a long-standing good engineering practice in air pollution control design. A vertical stack is noted as "good engineering practice" in the U.S. Clean Air Act, Title I, Part A, Section 123, Stack Heights[1] and is specifically mentioned in various sections of MassDEP's regulations (e.g., for emergency engines and turbines – see 310 CMR 7.26(42)(d)(4)a.ii. MassDEP and other regulatory agencies have long held that a vertical stack of sufficient design (e.g., height, flow rate) is a reasonable condition and appropriate engineering control for dispersing air contaminants.

Response: The Permit Ombudsman reviewed the correspondence between MassDEP and the manufacturer, as well as the applicable air pollution regulations, and convened discussions with the relevant air permitting staff and MassDEP managers The staff and managers confirmed that the regulatory justification for stack requirements is based in the Clean Air Act, various provisions of 310 CMR 7.00, MassDEP's Plan Approval template language[2], and other regulatory and industry guidance, and that MassDEP had applied stack requirements consistently statewide. The Office of the Ombudsman convened a conference call with the manufacturer's representative and the regional permit staff and discussed the engineering and regulatory basis for the vertical stack requirement, and the manufacturer included a vertical stack in the Plan Application.

[1] United States Clean Air Act § Title I, Part A, Section 123, Stack Heights (2004), 42 U.S.C. § 7243. For purposes of this section, good engineering practice means, with respect to stack heights, the height necessary to insure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain obstacles (as determined by the Administrator).

[2] *"The Permittee shall install and use an exhaust stack… on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically…."*