

OSHA Compliance in Data Centers: How EPA's Voluntary Wastewater Standards Could Trigger Mandatory Safety Obligations

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Key Takeaways

- **EPA is developing voluntary wastewater treatment standards for data centers.**
- **Voluntary adoption of these standards could trigger mandatory OSHA obligations, including HazCom, PPE and PSM requirements.**
- **Data center companies should engage environmental health safety (EHS) professionals and conduct a Job Hazard Analysis before implementing any treatment system.**

Data centers that adopt forthcoming voluntary wastewater treatment standards from the Environmental Protection Agency (EPA) will likely trigger mandatory OSHA compliance obligations – even though the EPA standards themselves are voluntary. Companies considering private on-site treatment facilities should evaluate their facilities for the health and safety requirements that follow.

EPA's Water Reuse Action Plan 2.0 (WRAP 2.0), released April 16, 2026, encourages the use of recycled water for data centers. Water reuse for data center cooling systems minimizes the amount of water required for operation but causes contaminants to become concentrated over time. While WRAP 2.0 does not yet include specific wastewater treatment standards for data centers, it outlines action plans to develop them.

Additionally, according to some reports, certain communities are requesting data center companies to voluntarily reduce water usage and/or provide private wastewater treatment facilities.

Adopting voluntary wastewater treatment standards or installing private on-site treatment systems will require handling chemical additives (such as chlorine-based disinfectants, pH-adjustment acids and bases, coagulants and anti-scalants), managing treatment residuals and protecting workers from potential chemical exposure during routine operations and maintenance. These operational changes trigger multiple health and safety obligations under the OSH Act.

The key point: ***While adopting EPA's proposed wastewater standards is voluntary, the resulting health and safety obligations may be mandatory.*** This article summarizes the OSHA obligations that data center companies should understand and provides practical steps for compliance.

What OSHA Obligations Will Be Triggered?

- ***Hazard Communication Standard (HazCom)*** requires employers whose employees are exposed to hazardous chemicals to implement a written hazard communication program, including maintaining Safety Data Sheets (SDS) for chemicals on site, ensuring proper container labeling and providing employee training on chemical hazards, protective measures

and emergency procedures. HazCom noncompliance has consistently ranked among OSHA's "Top 10" most cited violations.

- **Process Safety Management (PSM) standards** apply if a data center's treatment operations involve certain highly hazardous chemicals at or above threshold quantities (see [here](#)). PSM requires a comprehensive management program including process hazard analyses, written operating procedures, employee training, mechanical integrity programs, management of change procedures and emergency planning. While many data center wastewater treatment systems may not reach PSM thresholds, operators using large quantities of PSM-listed chemicals should consult OSHA requirements.
- **Personal Protective Equipment (PPE) standards** require employers to perform a hazard assessment of the workplace, identify and provide appropriate PPE, train employees for its proper use and care and maintain the workplace in serviceable condition. For employees handling treatment chemicals, required PPE typically includes chemical-resistant gloves, face shields or safety goggles, and respiratory protection, depending on the chemicals involved. OSHA requires employers to provide and pay for required PPE.
- **Recordkeeping and Reporting obligations** apply to chemical exposures resulting in injury or illness during wastewater treatment operations under OSHA's recordkeeping and reporting requirements.
- **General Duty Clause** requires every employer to furnish a workplace "free from recognized hazards that are causing or are likely to cause death or serious physical harm" to employees. Employers may be cited for violation of the General Duty Clause if: (1) the workplace condition presented a hazard, (2) the hazard was recognized, (3) the hazard was likely to cause serious physical harm and (4) there was a feasible method to eliminate or materially reduce the hazard. Data center companies should understand the hazards connected with wastewater treatment systems and ensure that feasible means for minimizing those hazards are implemented.

What Should Data Centers Consider in Evaluating OSHA Compliance?

Data center companies considering adoption of EPA's forthcoming voluntary wastewater treatment standards should consider the following to determine potential OSHA compliance requirements:

- **Engage EHS Professionals Early:** Involve environmental, health and safety professionals during the design phase to ensure that the treatment system is engineered and operated in a manner that satisfies all applicable OSHA requirements.
- **Conduct a Job Hazard Analysis (JHA) and Provide Appropriate PPE:** Before any treatment system goes online, perform a thorough JHA to identify all chemical, physical and biological hazards that employees may be exposed to during installation, operation and maintenance of the system. The JHA should address routine operations as well as non-routine tasks, such as chemical deliveries, system shutdowns and emergency spill response. The JHA should also include an assessment of appropriate PPE for treatment operations.
- **Update Hazard Communication Program:** Ensure that all treatment chemicals are inventoried, that current SDSs are readily accessible to employees, that chemical containers are properly labeled and that a written HazCom plan is in place that specifically addresses the new treatment operations.
- **Evaluate PSM Applicability:** Review all chemicals that will be used in the treatment process to assess whether PSM would be required. Consider engaging a qualified process safety engineer or consultant to make this determination. If PSM applies, begin developing the required process hazard analysis and supporting programs well in advance of operations.
- **Train Employees:** Ensure that all employees who will operate, maintain or work near the treatment system receive appropriate training on chemical hazards, SDS interpretation,

proper PPE use, emergency response procedures and any applicable OSHA standards before they begin work. Training should be documented and refreshed as appropriate.

Data center companies should understand that while adoption of EPA's expected wastewater treatment standards is voluntary, the resulting OSHA obligations are mandatory. Noncompliance with these health and safety requirements may result in OSHA citations and penalties. Data center companies considering adoption of EPA's standards can plan ahead to determine potential compliance obligations by engaging EHS professionals and conducting a Job Hazard Analysis before implementing any treatment system.