Where should concerns about construction traffic be directed?

These questions/concerns should be directed to the respective local government. MDEQ has no authority to regulate traffic.

What are the public notification and participation requirements for data centers with respect to MDEQ?

- All air permits must undergo a 30-day public comment period before they can be issued. During that timeframe, individuals are invited to provide comments on proposed air permitting action(s) and may request a public hearing. The start of any 30-day public comment period is noticed through MDEQ's established electronic distribution system (email listserv and the MDEQ webpage) for draft permits.
- If a proposed data center needs a wastewater permit, a 30-day public notice will also be issued for that proposed permitting action.
- New water use permits or the renewal of such requires a minimum 10 day public notice period and a public hearing if deemed necessary.
- On projects with known significant public interest, MDEQ's Office of Community may assist to enhance public participation by mailing/emailing information directly to residents and interested parties within reasonable proximity to a proposed site.

WATER USE

How much water does a data center typically use?

- Data centers can require substantial volumes of water to cool computing equipment. Water is also required for electrical generation if such equipment is located onsite. Data center location, design and operation, technology usage, cooling strategies and other considerations can vary greatly for individual data centers. These considerations directly impact water use needs, making it difficult to predict, in general terms, water needs of a particular proposed data center.
- MDEQ is offering to meet with each local government where a data center is proposed to determine specific water use needs and plans for that location.
- Offsite power generation facilities often utilize water for cooling. New data centers utilizing electricity from an offsite source could increase a power generation facility's water demand. It should be noted that power generating facilities may be located in different geographic areas and may utilize a totally different water source than the data center that it services.

Are hazardous air pollutants typically associated with data center operations?

- Absent onsite power generation equipment, data center operations produce minimal air emissions.
- The most prominent hazardous air pollutants (HAPs) emitted from power generation are formaldehyde and nitrous oxide (NOX). Under normal circumstances (in which a data center is receiving power from a utility power plant/ "the grid"), the emergency engines only operate briefly for readiness checks.

How are the operating hours for a facility determined?

MDEQ would not have jurisdiction over a facility's operating hours except for how operations equate into air emissions. Air emissions limitations could potentially limit data centers' operating hours.

What can be done if a permit is issued, but citizens still have concerns or want to challenge the issuance?

Pursuant to Mississippi law and MDEQ administrative regulations, any party aggrieved by the issuance of an environmental permit has 30 days from the date of issuance of the permit to appeal the decision and request an evidentiary hearing before the Mississippi Environmental Quality Permit Board.

How should citizens report unusual, visible, or concerning environmental conditions at these facilities?

Citizens can use the MDEQ Complaint Hotline at 1-888-786-0661. Calls received outside of normal business hours are recorded and addressed the next business day.

Scan here for other information on permit applications, state regulations and contacts.

mdeq.ms.gov

MDEQ



DATA CENTER FREQUENTLY ASKED QUESTIONS

DATA CENTER ACTIVITIES

The Mississippi Department of Environmental Quality often receives questions from the public about data centers and our agency's role in the location and operation of such. This document is intended to answer some of those questions and provide a better understanding of MDEQ's responsibilities with respect to data centers.

mdeq.ms.gov

What exactly is a data center?

Data centers are networks of computer processors that form a physical infrastructure that supports digital functions, like cloud storage, end-user connectivity, and Artificial Intelligence computing.

What is MDEQ's role in locating data centers?

- MDEQ has no role in reviewing preliminary project proposals, site selection, or zoning decisions. These matters fall under the purview of local governments. While MDEQ has no jurisdiction over the location of data centers, other than any applicable buffers, MDEQ does encourage local officials and data center developers to consider locating data centers in areas zoned/designated for industrial activities and/or to consider brownfield redevelopment opportunities.
- MDEQ typically does not have information on the location of a proposed data center until an environmental permit application is received. At that time, the information is considered public and can be shared through a public record's request.
- Federal and state regulations address buffer distances for specific types of equipment that may be located at data centers. For instance, wastewater treatment equipment (e.g. lagoons, sedimentation ponds) and certain air emission control equipment (e.g. NOX reduction devices) must maintain specified buffer distances between the equipment and the nearest property line and/or occupied dwelling. It is MDEQ's role to ensure that applicable regulations, including mandatory buffer distance requirements for relevant permits, are imposed and enforced as mandated.

Since data centers use large amounts of energy, should I expect my power bill to increase?

- MDEQ has no jurisdiction over electricity rates. Rates charged by private utilities are regulated by the Public Service Commission and those questions/concerns should be addressed to the PSC.
- Data centers with onsite electricity generation capabilities typically require air emissions permits from MDEQ. These permits are not unlike any other air emissions permits for any industry engaged in regulated activity. MDEQ reviews permit applications for all regulated operations to ensure that air quality is maintained and that human health and the environment are protected.

Where should concerns about noise from a data center operating in my community be directed?

- The sole jurisdiction over noise-related issues lies with the local government. MDEQ has no authority to regulate noise.
- Data centers may produce some low-frequency noise (humming sound) associated with their cooling processes.
- Data centers generally do not produce other noises unless they have onsite electricity generation (turbines, emergency generators, etc.). Emergency generators typically only operate intermittently.

How will data centers affect the local water supply?

- Having an adequate water supply for the public is the highest priority. MDEQ regulations state that "Water permits for other beneficial uses may be denied or modified to ensure that present and future public supply needs can be met".
- MDEQ will monitor water use and water levels to ensure that adverse impacts to public water supplies are avoided and/or mitigated. It should be noted that there are various forms of water supply available to data centers as an alternative to local drinking water systems. MDEQ regulations also state that industrial users "may be required to investigate alternative supplies (such as surface water, aquifers with poorer water quality, or treated effluent from wastewater treatment plants). Industrial users may be required to use the lowest quality water available that will meet quality and quantity requirements for the intended use."
- MDEQ encourages local officials and/or data center developers to explore opportunities for the use of wastewater treatment plant effluent for cooling water. MDEQ also encourages the implementation of closed-loop cooling water systems (or other similar recycling technologies) to minimize the use of surface or ground water resources.
- Drinking water distribution systems are regulated by the Mississippi Department of Health and the PSC.

Can I expect my water bill to increase if a data center locates in my community?

Like electricity bills, MDEQ has no jurisdiction over water and/or sewer utility rates. Questions/concerns about these issues should be directed to the PSC, your utility provider(s), and/or the respective local government.

Water Discharge Management

What challenges do data centers present for publicly owned treatment works (POTW) sewage collection and treatment systems?

- Large volumes of cooling water discharges can hydraulically overload sewers and treatment plants.
- Elevated temperatures and chemical additives (biocides, corrosion inhibitors) could potentially interfere with biological treatment processes.
- Certain wastewater discharges into POTWs are regulated by MDEQ to ensure the system has both the capacity to transport and the capacity to treat wastewater, preventing adverse environmental impacts.

Do data centers offer any potential benefits to local water discharge management systems?

- Some data center facilities are partnering with local governments and utilizing their POTW effluent as a source of water for the data center. Reuse of POTW effluent, often referred to as "grey water," reduces the amount of treated wastewater discharged from the POTW into receiving streams and can, therefore, be environmentally beneficial for the receiving stream. "Grey water" reuse may help the POTW with permit compliance and could reduce operational expenses.
- Data centers may provide infrastructure contributions for a POTW's sewer collection and treatment system.

Can data center operations potentially lead to water pollution issues?

- Untreated or poorly managed discharges from industrial sources can introduce pollutants or high temperature wastewater into a POTW or receiving waterbody, which can cause damage or operational issues to a POTW's collection or treatment system. Pretreatment regulations and permits, administered by MDEQ, are designed to protect POTWs and keep harmful discharges out of the environment.
- In the event a data center proposed to discharge wastewater directly into a waterbody, like with any industry, a permit would be required with appropriate restrictions to protect human health and the environment.

Air Pollution

How does MDEQ ensure that the air quality around data centers is protected?

- It is MDEQ's responsibility to ensure that emissions from any facility do not contribute to a violation of the National Air Ambient Quality Standards (NAAQS), which were established (and routinely reviewed) by the U.S. Environmental Protection Agency to address the air quality and public health concerns.
- Any data center that intends to install stationary/permanent air emission sources on-site, including for emergency power generation (e.g., turbines; generator engines), is required to obtain a "Permit to Construct Air Emissions Equipment". This permit will encompass all applicable air emission limitations, monitoring requirements, and reporting requirements to ensure Mississippi's continued compliance with the NAAQS.
- Impact on air quality should only occur when on-site emergency engines are operated for power generation
- It is MDEQ's responsibility to ensure that the emissions from data center operations do not contribute to a violation of the NAAQS, accomplished through the issuance of applicable air permits with emission limitations.
- MDEQ conducts routine compliance inspections for permitted facilities and administers an enforcement program to deter permit noncompliance.