

ENVIRONMENTAL RISK & PFAS LITIGATION CONFERENCE

The New York City Bar Association | June 16-17, 2026

Powering the Cloud, Managing the Risk: Environmental Exposures
and Insurance Implications of Data Center



Alanna Garrison, CSP, CIH, CHMM

Senior Consultant
EHS Services and Innovation
Antea Group
Cherry Hill, NJ



Kate Leisch

Vice President
Environmental Claims, Ascot
New York, NY



Ian A. Shavitz, Esq.

Lippes Mathias LLP
Washington, DC

About Us



Kate Leisch

Vice President
Environmental Claims
Ascot Group



Ian A. Shavitz

Partner and Executive
Committee Member
Lippes Mathias LLP

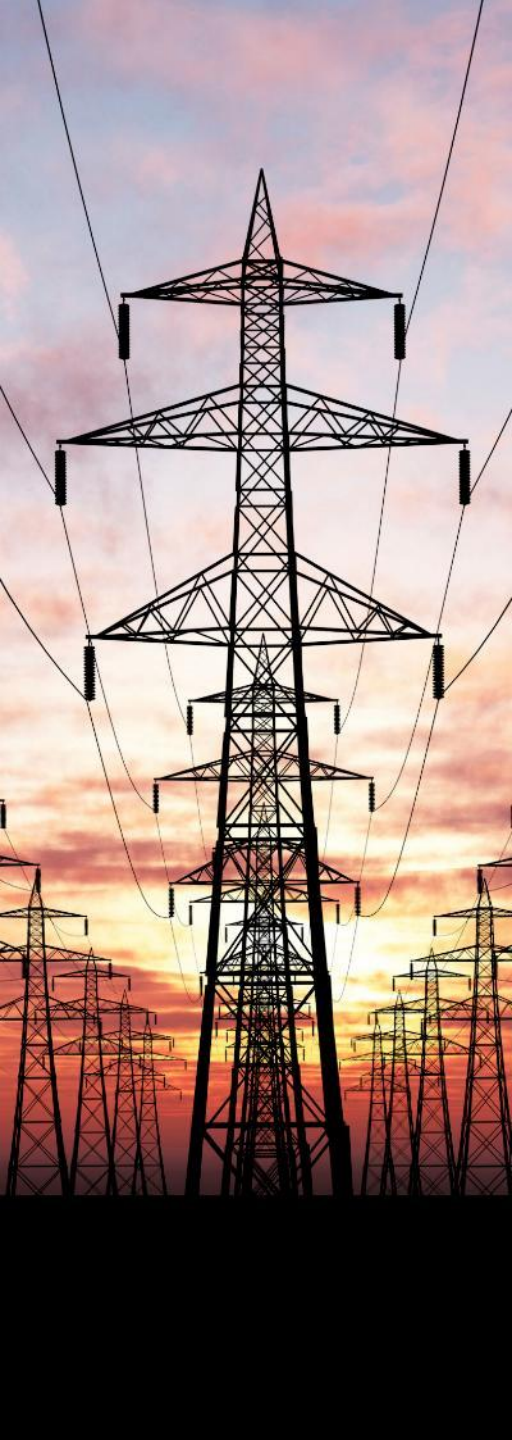


**Alanna Garrison, CIH, CSP,
CHMM**

Senior Consultant
Antea Group



Understanding today.
Improving tomorrow.

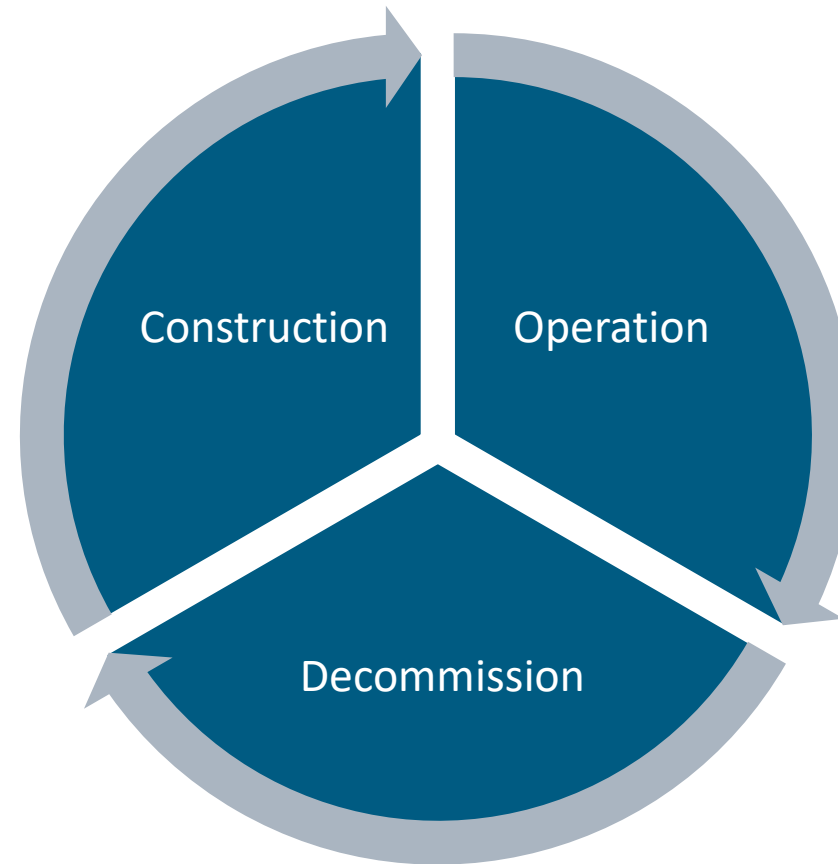


Data Center Impacts



- Acceleration due to AI technologies
- Global data center electricity usage is expected to nearly double from 536 terawatt-hours (TWh) in 2025 to approximately 1,065 TWh by 2030.
 - **Currently 2% of total worldwide electricity usage**
 - Need for new sources
 - Grid needs constant preventative maintenance
 - Alternative Energy (Solar, Wind, and Battery Storage) facing challenges

Environmental Risk



Understanding today.
Improving tomorrow.



Traditional Data Center Risks - Environmental

It Starts With Site Selection

Former industrial sites – a good starting point?



- Greenfields Versus Brownfields
 - Existing power
 - Zoning already in place
 - Existing connectivity or proximity to networks and/or fiber corridors
 - Faster entitlement in some jurisdictions
 - Lower land cost



Construction Risks



- Loss of Greenfield/Land Use
- Resource Depletion and Habitat Destruction
- Hazardous Waste Generation, Transportation and Disposal
- Water Consumption
- Storm Water Impacts
- Transportation Emissions (air, noise and vibration)
- Potential for Environmental Justice Concerns

Environmental and Permitting Legal Framework - Construction



- Construction
 - NEPA / State Mini-NEPAs (environmental impact reviews)
 - CWA Section 404 (wetlands/fill permits)
 - NPDES Construction Stormwater Permit
 - Endangered Species Act (Section 7 or 10)
 - Section 106 NHPA / State Analogs (historic / cultural resources)
 - Zoning / Conditional Use / Rezoning
 - Clean Air Act



Claims Concerns - Construction



- Property Development Stage
 - Historic usage
 - Site selection / historic contamination issues
 - Construction
 - General construction injuries
 - Stormwater runoff
 - Sediment discharges



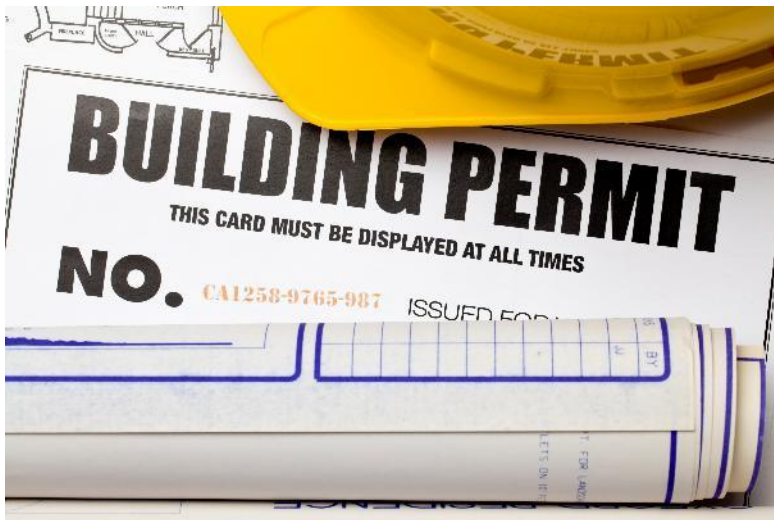


Operations Risks



- Enormous Energy Consumption
 - Potential Strain on Local Utilities
- High Water Usage
- Air Pollution
 - Emergency Generators and Greenhouse Gas Emissions
- Waste:
 - Electronic Waste (E-waste) Generation
 - Facility Maintenance Waste and Universal Waste
 - Packaging (from equipment) Waste
- Cooling Systems Creating Micro-Climates
- Noise and Light Pollution

Environmental and Permitting Legal Framework – Operations



- Clean Air Act permits (backup diesel generators — minor source, PSD/Title V)
- State Air Quality Permits (hours of operation limits, emissions monitoring)
- Water Supply and Use Permits (appropriation, groundwater withdrawal)
- Wastewater/Industrial Pretreatment Permits (cooling tower blowdown)
- NPDES Individual Permits (process water/cooling water discharge)
- Noise compliance (local ordinance, ongoing monitoring)



Claims Concerns - Operations



- **Permitting issues / Air emissions / odors –**
 - VOCs, Impact to environment/climate changes suits possible, third-party claims re: respiratory issues or nuisance
- **Wastewater**
 - Permitting issues
 - Discharges could have chemicals/dust/minerals, possible permit discharge claims/suits
- **Noise**
 - Nuisance claims and/or injury claims (emotional distress, headaches, etc.)
- **Backup power sources**
 - Claims could arise from spills/releases/fires from ASTs, USTs, lithium batteries
- **Fire risks**
 - Shelter in place/evacuation incidents.
 - PFAS - Slurry from the fire could have PFAS but even if not, it would likely have the lithium salts, metals, plastics.
 - Off-gassing/smoke – could cause internal issues with the data center and/or lead to third-party claims

Claims Concerns - Operations



- **Cooling systems**
 - Water cooling could present mold and legionella risks –
 - Refrigerant chemicals
- **Water drawdown issues**
 - Impacts to water chemistry/water quality, possible environmental damage claims
 - Possible scenarios may require drinking water treatment – could also lead to structural issues due to subsurface impacts/instabilities
- **Chemicals on site**
 - Water treatment chemicals used for corrosion control or biofilm prevention, ammonia, chlorine, solvents, degreasers – any present a risk of release/spill/ third-party injury due to exposure
- **Tenant vs Owners vs Operators**
 - Multiple entities involved with one site, plus any vendors they bring in/on to the site
- **Delivery/transportation/disposal**
 - Anything that goes to or comes from the site either in construction or during operations
- **Business Interruption Claims**
 - Many claims scenarios could also include a partial down time issue leading to business interruption claims and/or contractual liability claim

Decommissioning Risks

- Electronic Waste Generation
- Hazardous Waste Disposal
- De-installation and removal processes consume energy
- Physical Waste from Infrastructure
- Carbon Footprint of Disposal:
Landfilling or improper recycling of materials contributes to greenhouse gas emissions.



Claims Concerns - Decommissioning



- Once technology ages out and/or requires replacement:
 - Contamination issues from the prior operations
 - Improper waste management
 - Worker safety during demolition
 - Business continuity





Community and Regulatory Challenges / Risk Drivers



Water Resources

Data Center Water Use (Increasing With AI Growth)

- Direct Use – cooling, humidification, heat rejection, water treatment
 - Estimated US use = 73B gallons by 2028
 - Note: 2023 - 17B gallons
- Indirect Use – power generation
- **Water increasingly becoming a core siting constraint**

Solutions

- Legacy facilities typically water intensive (evaporative cooling)
- New facilities utilizing closed loop systems dramatically reducing water use

Community Awareness and Concerns

- Top issues:
 - Water supply and aquifer health
 - Power demand
 - Tax incentives
- Community demands for water use transparency
- Driving new zoning restrictions and moratoriums
- Drought resilience a growing point of conflict

On-Site Chemical Storage



Fuel for backup power supply

- Generally diesel
- Typically stored in ASTs (day tanks, generator belly tanks, bulk tanks)
- Hyperscale builds for AI driving increasing on-site storage volumes (1MM+ Gallons)

Mineral oil (transformers)

Cooling water treatment

- Biocides, acids/bases, glycols, corrosion inhibitors

Refrigerants/coolants

Alternative/emerging backup power supply options

- Hydrogen
- Nuclear
- On-site microgrid – natural gas turbines



Understanding today.
Improving tomorrow.

Battery Management and Monitoring



Battery System Failures

- Thermal runaway
- Fire suppression water contamination
- Heavy metals contamination
- HF gas generation (fluoride compounds)
- Contaminated debris disposal

Management and Prep

- Battery chemistry
- Fire suppression compatibility
- Isolation design
- Incident response planning

Monitoring via Real-Time Battery Management Systems

- Options are available to electronically / remotely monitor health of batteries

Fires and On-Site Suppression Systems



On-Site Suppression

- Legacy AFFF systems containing PFAS
- Clean agent systems have climate concerns and decomposition can create acid residues (e.g. hydrogen fluoride - HF)

Local Fire Department Response

- Typically use water, but could utilize AFFF containing PFAS



Contents of Fire Event Runoff

- Diesel
- Transformer oil
- Battery contaminants (metals, electrolyte residues)
 - Lithium salts
 - Metals (nickel, cobalt, manganese, etc.)
 - Fluoride compounds
- Combustion byproducts
- Soot and char
- PFAS (if mixed with foam)

Noise Pollution



Larger DCs being built closer to residential/mixed use area, rather than industrial parks and commercial corridors

Communities raising concerns over the constant “hum” from cooling/air handling systems, backup generators, transformer yards, or substations

Municipalities revising zoning rules to specifically address this “hum”

Noise modeling is becoming as important as traffic studies and stormwater studies in permitting

- Day vs Night

Community resistance materially affecting project approvals

Noise reduction options:

- Acoustic Screening
- Equipment design and orientation
- Insulation
- Larger setbacks

Catastrophic Failures



- Pre-planning is key to assure that small losses do not cascade, and large-scale emergency scenarios (such as major oil spill, runaway battery fires) can be managed to minimize losses.
 - Underwriting: for managing PFAS and other environmental risks, suggesting that insurers may require policyholders to implement proactive measures before issuing coverage.
 - Claims: prompt and redundant responses and key contractor agreements are in place to minimize damages

Potential for insurers to mandate certain risk management practices or documentation as a condition for issuing large insurance policies, ensuring that worst-case scenarios are anticipated and addressed

Legal Liabilities / Risks



Non-Environmental Opposition

Environmental laws as vehicles for legal challenges (for non-environmental opposition)

RCRA

Hazardous waste management for spent batteries, e-waste, coolants

CERCLA/Superfund

Strict, joint and several liability for brownfield sites and on-site releases

Clean Water Act

Cooling water discharge violations, stormwater noncompliance

Underground Storage Tanks

Diesel fuel storage leaks and groundwater contamination

Common Law Tort

Nuisance (noise, vibration), trespass, negligence, strict liability



Legal Challenges

Legal Theories Used to Challenge Data Centers



Zoning/Rezoning Procedural Challenges

Inadequate public notice, override of planning boards, failure to seek required reviews

Environmental Review Challenges (NEPA /Mini-NEPAs)

Abbreviated reviews, failure to disclose project information, understating impacts

Clean Air Act/Air Permit Challenges

Unpermitted operations, failure to conduct EJ cumulative impact analysis



Understanding today.
Improving tomorrow.

Legal Theories Used to Challenge Data Centers



Endangered Species Act Challenges

Species and habitat takes; Petitions to list species threatened by data center impacts

Special Use Permit Challenges

Procedural errors in permit issuance, FOIA violations

Public Records / Transparency Litigation

Forcing disclosure of water and energy data



Looking Forward

Lions and Tigers and Microgrids?



- Many data centers now contract with third-party energy firms to install and operate on-site microgrids, often using traditional fuel sources like gas or coal, to ensure reliable power during grid supply delays.
- While less common, some data centers are exploring solar installations on or adjacent to their properties. The industry is also considering small modular reactors (SMRs) as a potential large-scale solution for dedicated, reliable power.



Regulations to Watch



- Waste:
 - Organic waste collection
 - Zero-waste programs
 - Recycling requirements from the local authorities
 - Battery management/eWaste management
- Emergency generator emissions and tank management
- Local water restrictions and potable water challenges
- Potential decentralization of state requirements
- Redefining of the Waters of the United States



Understanding today.
Improving tomorrow.



Questions?