THE TOWN OF LYSANDER

Lysander Data Center Advisory Committee Meeting

November 20th, 2026

Other Pollution Concerns from the spreadsheet

• Generator Air Pollution		3.1
• Other Air Pollution	2.4	
• eWaste from the site		2.1
• Diesel Storage for generators	1.9	
• Spent fuel rods storage/transport	2.2	

Diesel Storage

Diesel Storage

- We've already recommended that a hyper-scale data center use sodium-ion based battery backup and natural gas generators for backup power, so that use should not have any diesel storage
- However, smaller scale industrial users may have diesel generators now or in the future.
  - Individual units over 100 kW trigger New York State Department of Environmental Conservation (DEC) air permit review.
  - Federal EPA rules restrict non-emergency runtime (such as testing and maintenance) to 100 hours per year and apply tiered emissions standards
  - All sound and emissions rules previously discussed should still apply
  - The previously discussed aquifer overlay, wellhead and wetlands setback recommendations should also apply



Image source: amarillotanks.com

Diesel Storage

- **Recommend a three tiered approach:**

  •These tiered gallon limits apply to the combined total of all tanks on a single tax parcel or campus, including any generator “Belly Tanks”

  •A facility cannot bypass a gallon cap with multiple smaller tanks.

- **Tier 1**

  •By-Right / Standard Site Plan Approval (Up to 5,000 Gallons Total):

  •A typical non-data center industrial facility (light manufacturing, warehousing, or food/cold storage) uses a 500 kW to 1,500 kW backup generator, which burns roughly 35 to 105 gallons per hour at full load. A 2,500 to 5,000 gallon cap provides 24 to 72 hours of uninterrupted emergency runtime

  •Regulatory alignment: Sits comfortably above the NYSDEC registration threshold (1,100 gallons) and federal SPCC threshold (1,320 gallons), ensuring state and federal oversight already applies, while keeping volumes small enough to manage easily on-site

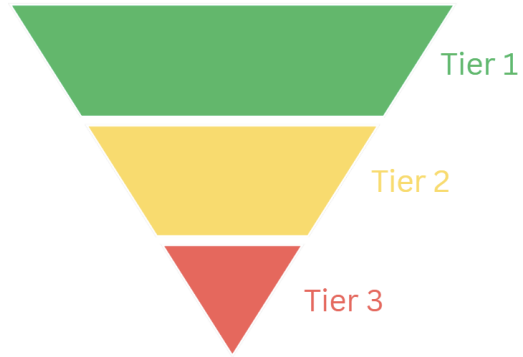


Image source: Dover, NH School District

Diesel Storage

- **Tier 2**
  - Special Use Permit Required (5,001 to 10,000 Gallons Total):
  - Why this range: Accommodates heavy manufacturing or critical infrastructure (pharmaceutical, medical, or continuous-process plants) that can demonstrate a documented operational need for >72 hours of backup power.
  - Conditions: Require Planning Board Special Use Permit approval, proof of critical-load calculations, mandatory dual-wall UL-2085 protected tanks, and strict environmental buffers

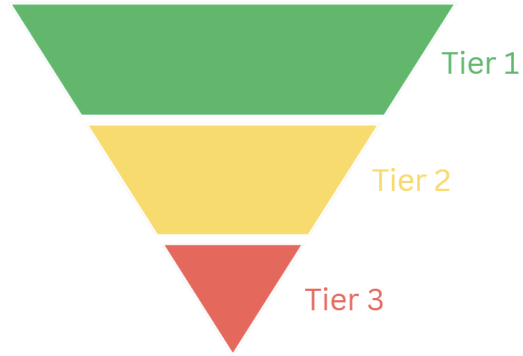


Image source: Dover, NH School District

Diesel Storage

- **Tier 3**
  - Hard Ceiling / Prohibited Above 10,000 Gallons
  - Why this range: Other New York towns (such as Elma at 12,000 gallons and Manorhaven at 15,000 gallons) use this ceiling to prevent industrial sites from operating de facto bulk fuel depots.
  - Setting our hard cap at 10,000 gallons (with a narrow variance/waiver path only for public utilities or hospitals) cleanly separates standard industrial users from bulk fuel terminals and data-center-scale power plants

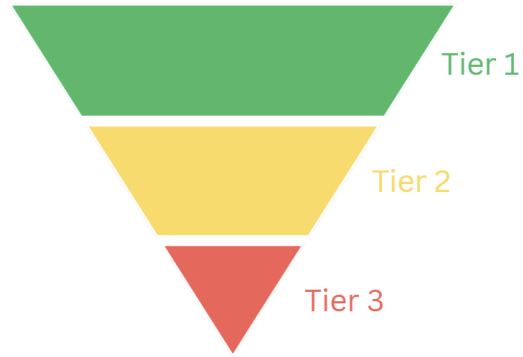


Image source: Dover, NH School District

Diesel Storage

- Other recommendations:
  - Require Fueling Apron / Delivery Spill Control
    - Most spills happen during tanker deliveries rather than static storage
    - Require an impervious, curbed fueling pad and stormwater shutoff valves to protect nearby wetlands and storm drains during refills
  - Prohibit New Underground Storage Tanks (USTs) for Backup Generators
    - Leaking tanks are a leading source of long-term groundwater contamination because slow leaks go unnoticed underground.
    - Recommend requiring all new industrial backup diesel tanks to be above ground so visual inspections can catch weeping joints or corrosion immediately.



Image source: jacobusenergy.com

Diesel Storage

- Require Double-Walled Tanks with Interstitial Monitoring and venting
  - Mandate UL-142 or UL-2085 double-walled tanks with continuous electronic interstitial leak detection (sensors between the inner and outer walls) wired to an audible/visual alarm and facility monitoring system.
  - Update Lysander's Secondary Containment Threshold
    - With the double wall requirement above, this is now tertiary containment
    - Currently, Town Code § 320-51 only triggers local 150% diking requirements at 10,000 gallons or more regardless of overlay.
    - Lower this trigger to 1,100 gallons, matching NYSDEC's Petroleum Bulk Storage (PBS) threshold
    - Require for legacy fuel storage tanks without double walled design
    - Require for all tanks in an aquifer overlay, and within any wetland or wellhead setback
    - Specify impervious, chemically resistant concrete or steel containment, explicitly banning earthen/clay dikes, which can allow diesel to leach into sandy soils

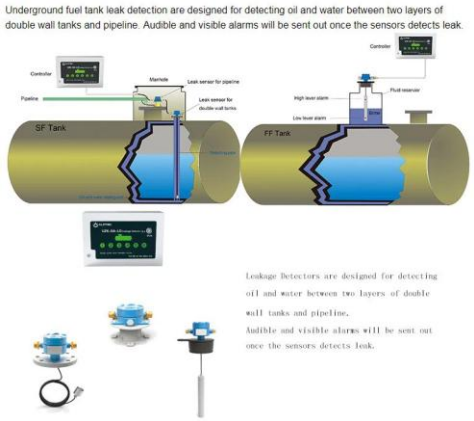


Image source: jianshen-tank.com

Diesel Storage

- Other recommendations:
  - Roofing/canopy covers over outdoor aboveground tanks.
    - Why it matters: Without a roof over an open dike, rainwater fills the containment basin—forcing facility operators to periodically drain that water out.
    - If a slow drip occurred inside the dike, draining rainwater flushes dissolved hydrocarbons directly into the ground or storm drains.
    - A canopy keeps secondary containment dry and eliminates contaminated stormwater discharge.
  - Piping & Anti-Siphon Rules
    - Require all fuel supply and return lines between the tank and generator to be aboveground or routed inside double-walled containment piping with leak sensors.
    - Mandatory anti-siphon valves on all tank outlets so a damaged pipe cannot gravity-drain the entire tank.
    - Require “Top Only” connections
    - Require Overfill Prevention



Image source: emilianaserbatoi.com

Diesel Storage

- **Fleet Refueling** - Due to higher frequency of fueling activity, dispensing risks, and the increased likelihood of accidental impacts, the additional recommendations are suggested:

  - Enlarge & Grade the Apron: Require a larger, curbed, non-porous concrete dispensing pad sized to catch spills under the dispenser island and the parked vehicle refueling zone

  - Oil-Water Separator: Mandate that any stormwater or washdown runoff from the fueling pad route through an approved oil-water separator (or dead-end holding sump) before entering the site's stormwater system

  - Clear Turning Radii: Require site plans to prove that semi-trucks can enter and exit the fueling lane without backing up near the tank or dispenser.

  - Prohibit Routine Wet-Hosing: Routine mobile fleet refueling (wet-hosing) is prohibited (or requires a Special Use Permit and a dedicated, curbed, oil-water-separated refueling pad), preventing businesses from circumventing the tank ordinance with daily fuel trucks



Image source: bouncie.com

Diesel Storage

- **Fleet Refueling** – The following rules are already covered under NY State Fire Code:

  •Remote Emergency Shutoff: Require a clearly marked, accessible emergency electrical shutoff switch located 20 to 100 feet from the dispenser island so an attendant or first responder can kill power to the pumps immediately during a spill or fire

  •Breakaway Couplings & Auto-Shutoff Nozzles: Require UL-listed dry-breakaway couplings on dispenser hoses (so if a driver pulls away with the nozzle attached, both ends snap shut immediately without spilling) and automatic shutoff nozzles without latch-open clips

  •Mandatory Heavy Bollards: Require concrete-filled steel bollards (minimum 6-inch diameter, spaced no more than 4 feet apart) completely surrounding both the tank and the dispenser island



Image source: bouncie.com

Spent Fuel Rods

Spent Fuel Rods

- Background:
  - Per Previous discussion, SMR and MMR technology are rapidly developing and it's technically possible that the town may get an application for a reactor in the next five to ten years
  - Today, there is no federal permanent nuclear waste repository
  - If a microreactor vendor goes bankrupt, delays building its refurbishment plant, or hits a transport bottleneck, the spent fuel remains stranded on the industrial parcel indefinitely under NRC license

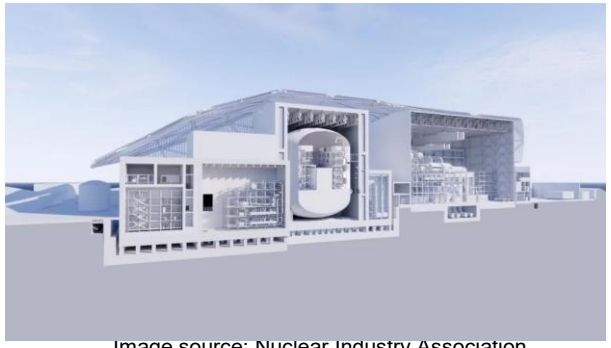


Image source: Nuclear Industry Association

Spent Fuel Rods

- Background:

  •While the spent fuel from MMR's is technically recyclable, there are no nuclear fuel recycling plants currently in operation

  •NY Law prevents town-wide bans of legally permissible commercial and industrial uses unless the ban is in accordance with a well-considered Comprehensive Plan, and bears a substantial relation to public health, safety, and welfare (such as protecting mapped Primary/Principal Aquifers, wetlands, and river corridors)

  •NY Public Service Law Article 10 (which governs major electric generating facilities > 25MW) allows the State Siting Board, or the NYPA to override local zoning laws if it finds a local ban is "unreasonably burdensome" in light of state energy needs

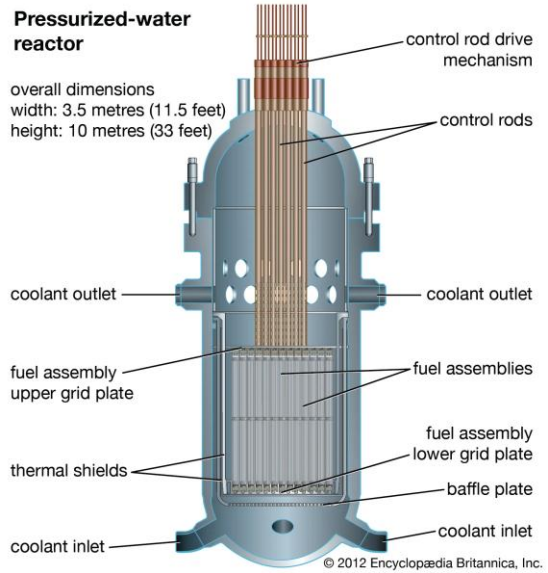


Image source: britanica.com

Spent Fuel Rods

- Recommendations Phase 1 (today):
  - Exclude nuclear fission reactors (< 25 MW) from permitted Industrial District uses
  - Establish aquifer and sensitive use buffers:
    - Ban all fission reactors within XXXX feet of the aquifer overlay, protected wetlands, wildlife management areas, river corridors, etc.
    - Ban all fission reactors within XXXX feet of schools, churches, senior centers, playgrounds, hospitals, and densely populated centers.
  - Specifically ban stand alone Spent Fuel Storage Installations (ISFSIs) and stand alone outdoor hazardous/radioactive storage yards so we don't become a nuclear repository for other locations

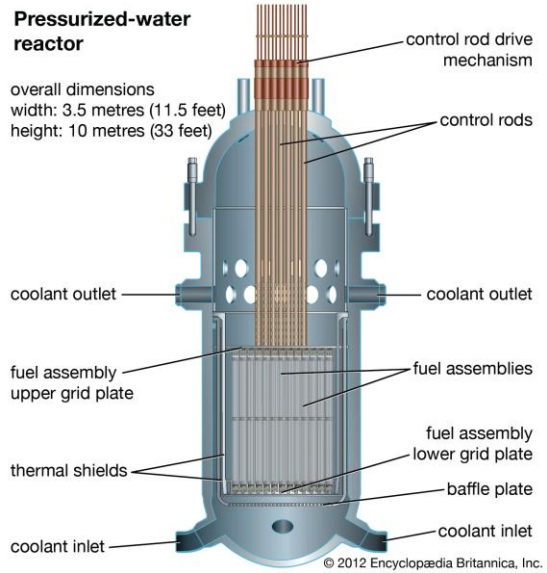


Image source: britanica.com

Spent Fuel Rods

- Recommendations: Phase 1 (continued):
  - Specifically ban the import of spent nuclear fuel from other sites for local storage
  - If a ≥ 25 MW facility is proposed under State jurisdiction today, or during phase 2
    - The Town Board must immediately invoke Intervenor Funding to demand that the State Siting Board enforce Lysander's aquifer setbacks, dry-cooling mandates, and wet-pool prohibitions as substantive local laws
    - Require a Host Community Benefit agreement
    - Require an Emergency Services Agreement before any local road or utility connections are granted.

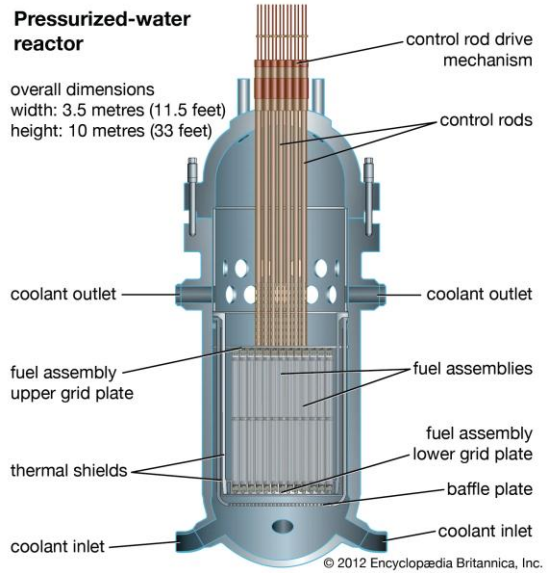


Image source: britanica.com

Spent Fuel Rods

- Recommendations: Phase 1 (continued):
  - Require any applicant to submit a Heavy-Haul and Transportation Management Plan for the transport of nuclear materials including waste
    - Restricted strictly to designated state arterial truck routes, and avoiding local population centers
    - Prohibiting nuclear module transport on local residential town roads
    - Requiring applicant-funded bridge/pavement reinforcement as needed



Image source: nanonuclearenergy.com

Spent Fuel Rods

- Recommendations: Phase 2 (Future, once a federal repository or active spent nuclear fuel recycling become a reality):
  - Re-evaluate the ban on reactors < 25 MW considering new technology and off-site storage options
  - Require a special use permit for any site outside of the sensitive use buffers that:
    - Specifies spent fuel is to be removed from the site, not stored locally
    - Requires binding contractual proof of an actively operating, federally licensed off-site recycling or permanent disposal facility that will accept the spent core upon cooldown
    - Requires decommissioning rules similar to those previously discussed

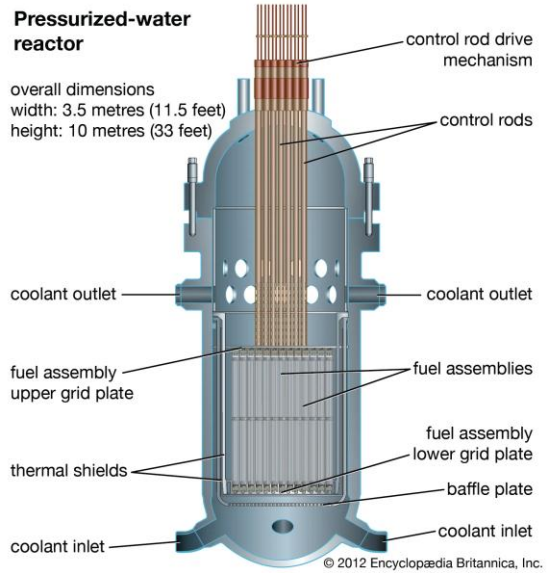


Image source: britanica.com

Next Steps

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- No meeting next week – Thanksgiving
- After that, begin discussing community impacts
  - What did we miss?
  - What needs clarification?

Thank You