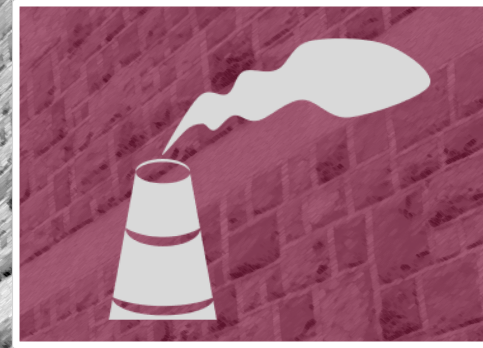




Emergency generators on college campuses

- What are the environmental compliance requirements?

Sheree Andrews
CUHMMC 2025



Emergency Generators - Basics



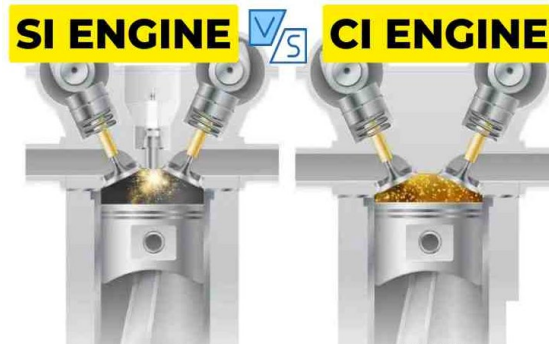
EPA Definition

<https://www3.epa.gov/ghgreporting/help/tool2014/definitions/emergency-generator.html>



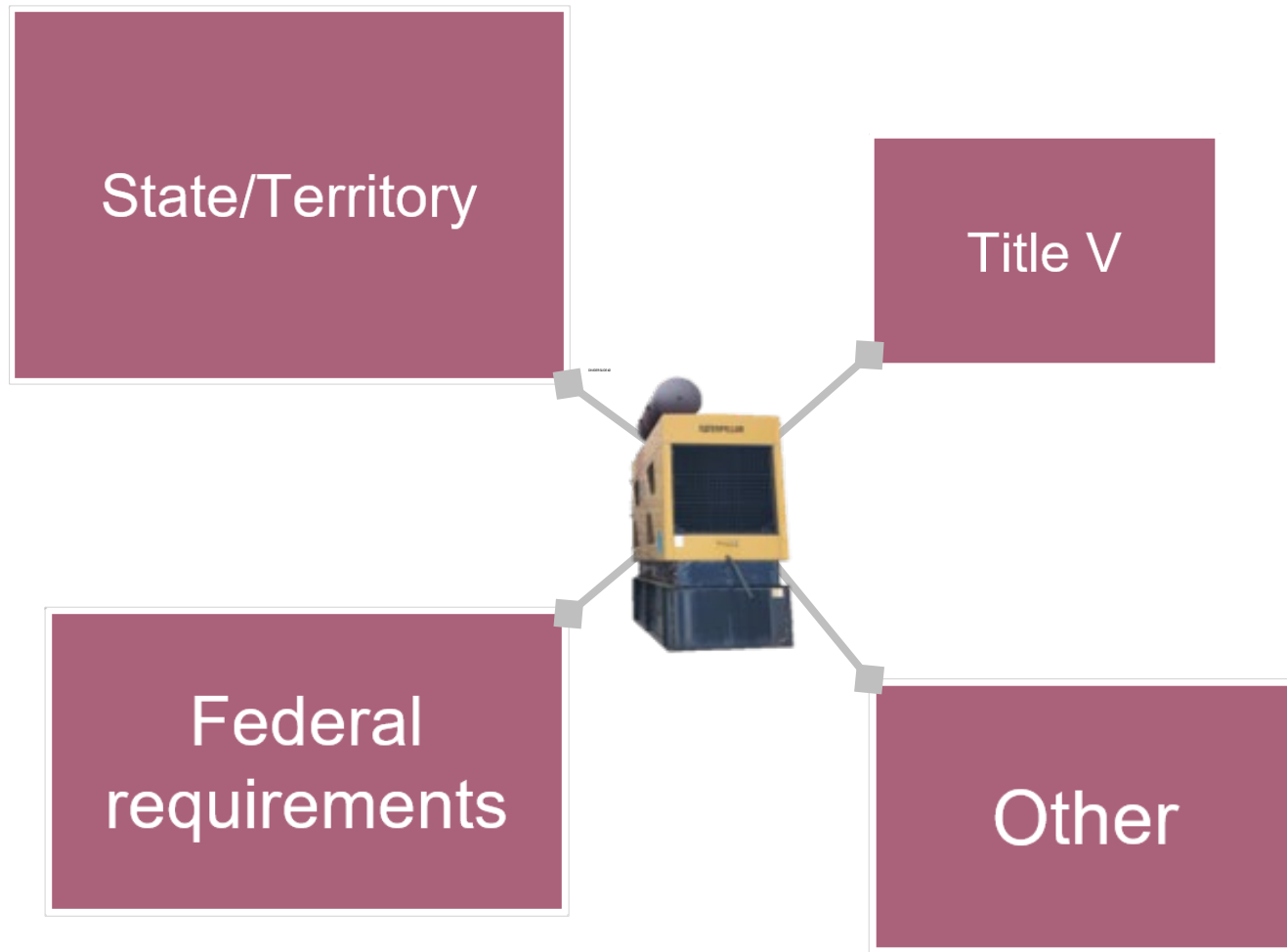
CI vs SI

- Compression ignition (CI) internal combustion engines (ICEs).
- Spark ignition (SI) ICEs



Year & Size

- Year (get that EPA certificate of conformity)
- Kilowatts (kW) and horsepower (hp)



Air Regulations – so many factors to consider...

1. CI vs SI
2. Size (kW or hp)
3. Major source vs area source

State/Territory

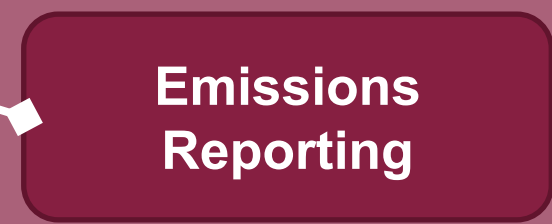
Matrix of State Requirements

<https://www.rila.org/retail-compliance-center/emergency-generator-permitting-matrix>

Jurisdiction	Permit Exemption	General Permit	Permit-by-rule	Construction/Operating Permit	Links
Alabama	Alabama Department of Environmental Management (ADEM) has not established a list of sources (type or size) that are exempt from permitting. The agency determines whether a permit is necessary on a case-by-case basis.	Not offered.	Not offered.	Permit applications must be submitted to ADEM at least 10 days before beginning installation. Operation may not begin until authorization is received from ADEM. <i>Regulation:</i> Ala. Admin Code r 335-3-14-.01 <i>Permit Application:</i> ADEM Form 107: Permit Application for Stationary Internal Combustion Engines	https://adem.alabama.gov/air/air-permitting
Alaska	Emergency generators may not require a permit based on emissions levels.	Not offered.	Emergency generators may operate under preapproved emissions limits (PAEL), which restrict the amount of diesel fuel the engine may burn. <i>Regulation:</i> 18 AAC 50.230	Owners and operators that cannot or choose not to use a permit exemption or a PAEL must obtain a construction permit before installing, modifying, or relocating any emergency generator. <i>Regulation:</i> 18 AAC 50.502 <i>Permit Application:</i> Construction and Minor Permit Applications	https://dec.alaska.gov/air/air-permit/
				Unless exempt or required to obtain a Class I (for major sources or Title V sources) or Class II (for source with the potential to emit	

Which applies to your new generator?

- Permitting exemption;
- General permit or permit by rule; or
- Construction and/or operating permit.

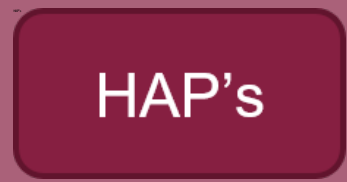


Major Sources:

- 10 tons per year or more of any single HAP
- 25 tons per year or more of any combination of HAPs
- 100 tons per year or more of any air pollutant

Vs

Area Sources (below above thresholds)





HAP's

Initial List of Hazardous Air Pollutants

https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications

An official website of the United States government [Here's how you know](#)

 **EPA** United States Environmental Protection Agency

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Initial List of Hazardous Air Pollutants with Modifications

Under the Clean Air Act, EPA is required to regulate emissions of hazardous air pollutants. This original list included 189 pollutants. Since 1990, EPA has [modified](#) the list through rulemaking to include 188 hazardous air pollutants.

CAS Number	Chemical Name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone



Title V Permitting

State permits/Federal
requirements integrated
into Title V



Permit Modification
minor vs major



Federal requirements overview –

RICE (Reciprocating Internal Combustion Engines)



NSPS FOR STATIONARY CI ICE-40 CFR 60, SUBPART IIII

- date
- emission standards
- max 100 hours



NSPS FOR STATIONARY SI ICE-40 CFR 60, SUBPART JJJJ

- date & horsepower
- emission standards
- written notification if over **500 hp**

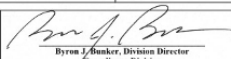


NESHAP FOR STATIONARY RICE—40 CFR 63, SUBPART ZZZZ

- Notification is required if more than **500 bhp** located at a major source of HAP emissions
- MACT Subpart ZZZZ



“Other” air regulation considerations:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 2023 MODEL YEAR CERTIFICATE OF CONFORMITY WITH THE CLEAN AIR ACT		OFFICE OF TRANSPORTATION AND AIR QUALITY ANN ARBOR, MICHIGAN 48105	
Certificate Issued To: DaeDong Corporation (U.S. Manufacturer or Importer)	Effective Date: 10/18/2022	 Byron J. Bunker, Division Director Compliance Division	Issue Date: 10/18/2022
Certificate Number: PDCL101.0D5G-002	Expiration Date: 12/31/2023		Revision Date: N/A
Model Year: 2023 Manufacturer Type: Original Engine Manufacturer Engine Family: PDCL101.0D5G	Mobile/Stationary Indicator: Both Emissions Power Category: S<=kW<19 Fuel Type: Diesel After Treatment Devices: No After Treatment Devices Installed Non-after Treatment Devices: Engine Design Modification		
Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Parts 60 and 1039, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Parts 60 and 1039 and produced in the stated model year. This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Parts 60 and 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Parts 60 and 1039. It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Parts 60 and 1039. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void <i>ab initio</i> for other reasons specified in 40 CFR Parts 60 and 1039. This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.			

EPA Certificate of Conformity

Maintenance

Metered Hours



Demand Response?



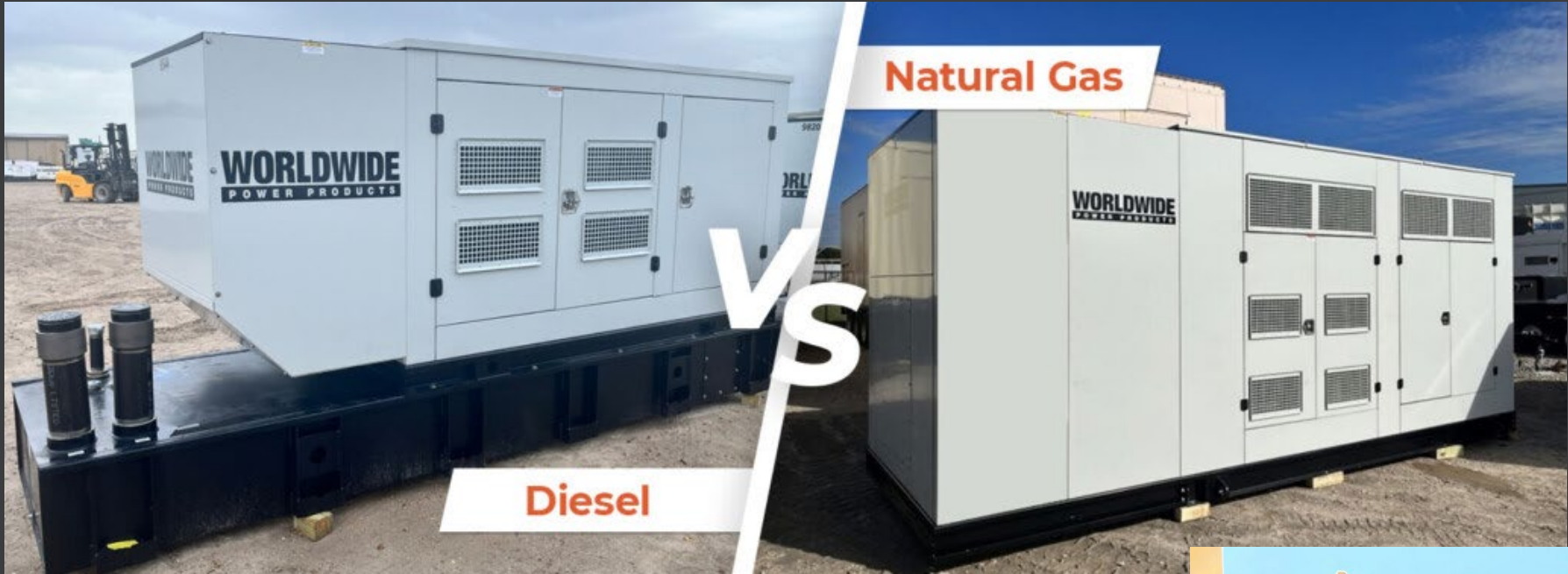
FUEL STORAGE

(diesel/gasoline only)

General
Information

SPCC
Requirements
40 CFR 112

State
Requirements





SPCC Requirements

40 CFR 112

The magic threshold is
1,320 gallons



How does your
college/university define
“facility?”

Does your new emergency generator trigger
SPCC or does this new unit need to be added to
existing SPCC plan?



EPCRA & Spill Reporting

- See 40 CFR 270
- Tier 2 annual reporting
- Spills – sheen on water, 25 gallons on land.

Mock Scenario #1

Springfield Community College - Illinois

- small academic building - replacing old generator with a 300 kW (402 hp) diesel emergency generator
- 300 gallon belly tank
- Currently main campus stores 1,200 gallons of petroleum
- Area source

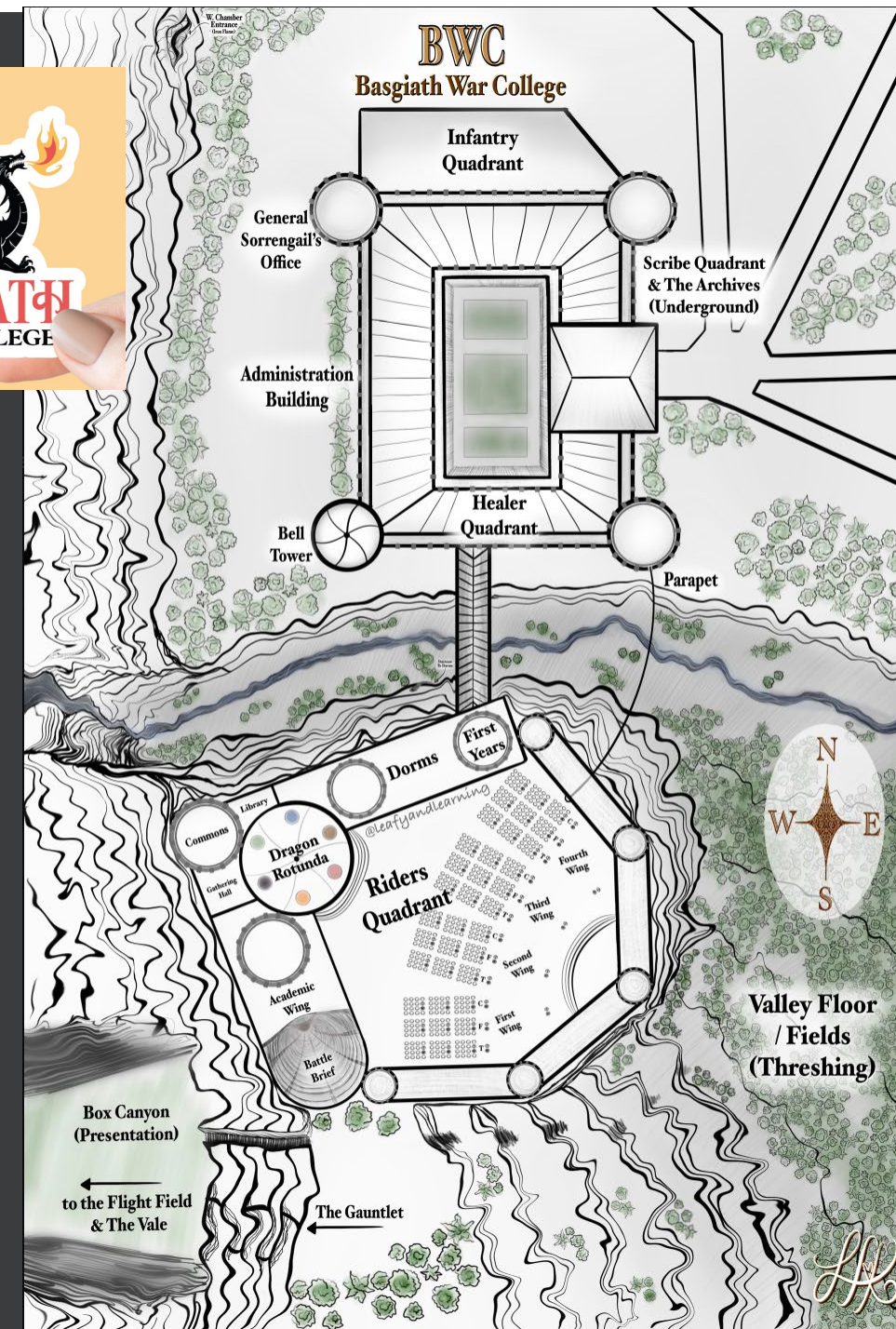


What do you recommend?

Mock Scenario #2

Basgiath War College

- New wing being added to Riders Quadrant with new 1350 kW (1810 hp) diesel emergency generator.
- 1,000 gallon belly tank
- Petroleum storage = Infantry (5,000 gallons), Scribe (2,000 gallons), Healer (5,000 gallons), Riders (1,000)
- One PE certified SPCC plan
- Major source, Title V



What do you recommend?