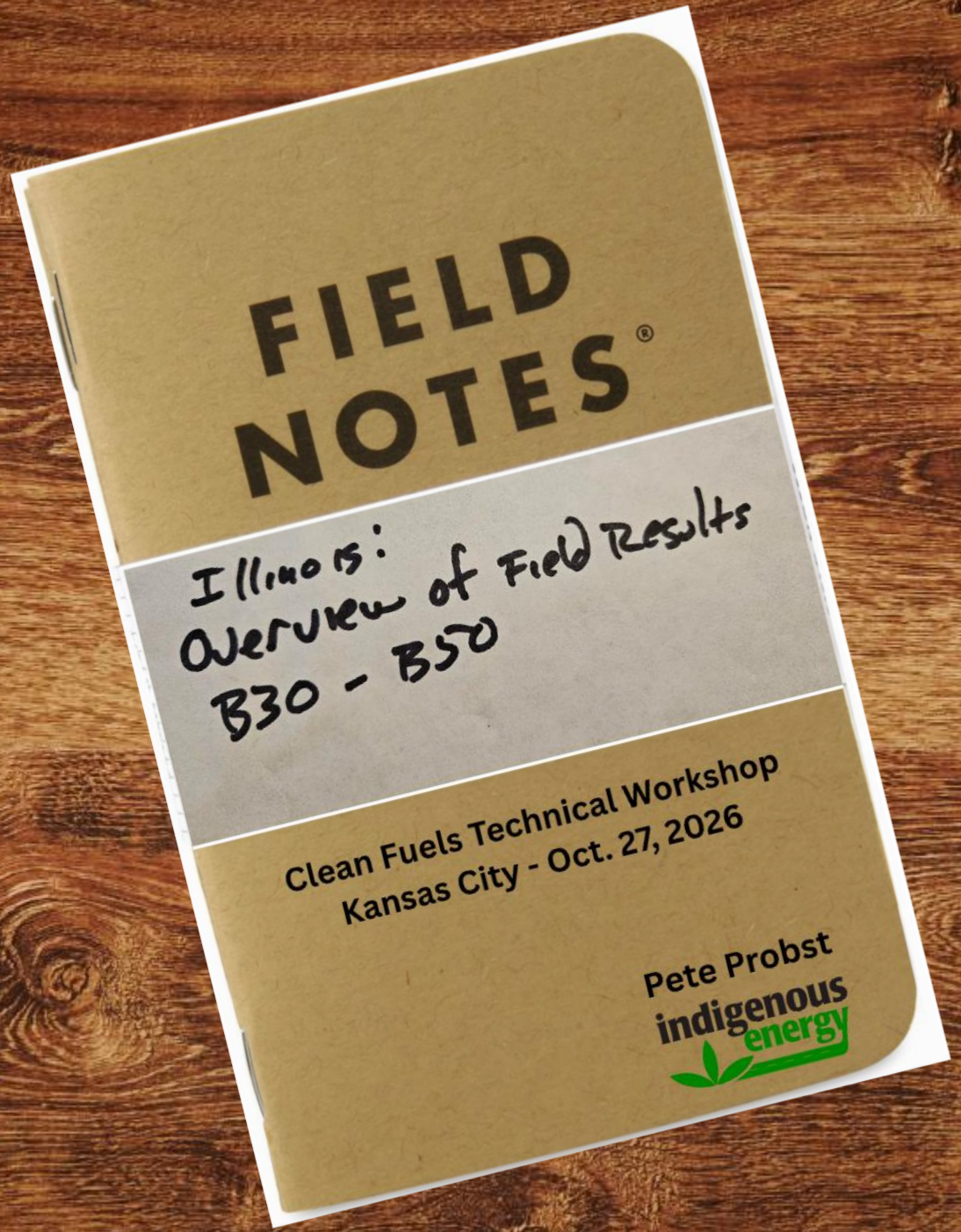

FIELD NOTES®
Illinois:
Overview of Field Results
B30 - B50
Clean Fuels Technical Workshop
Kansas City - Oct. 27, 2026
Pete Probst
indigenous energy

Personal Fleet: B20 – B70, B100/V100

STATUS: UNKNOWN



1979 Mercedes 300 TD
3.0L Inline 5 turbo diesel engine
B100, V100

STATUS: DAILY DRIVER



2015 VW SportWagen
2.0L TDI turbo diesel engine
B11 – B50

STATUS: DAILY DRIVER



2022 Silverado Pickup
3.0L Duramax diesel engine
B11 – B70

IL B20 Club

Founded in 2014, a partnership between the Illinois Soybean Association and the American Lung Association.
Funded by IL Soybean Association Checkoff Funding

B20 CLUB
An Illinois Green Fleet Partner
BIODIESEL

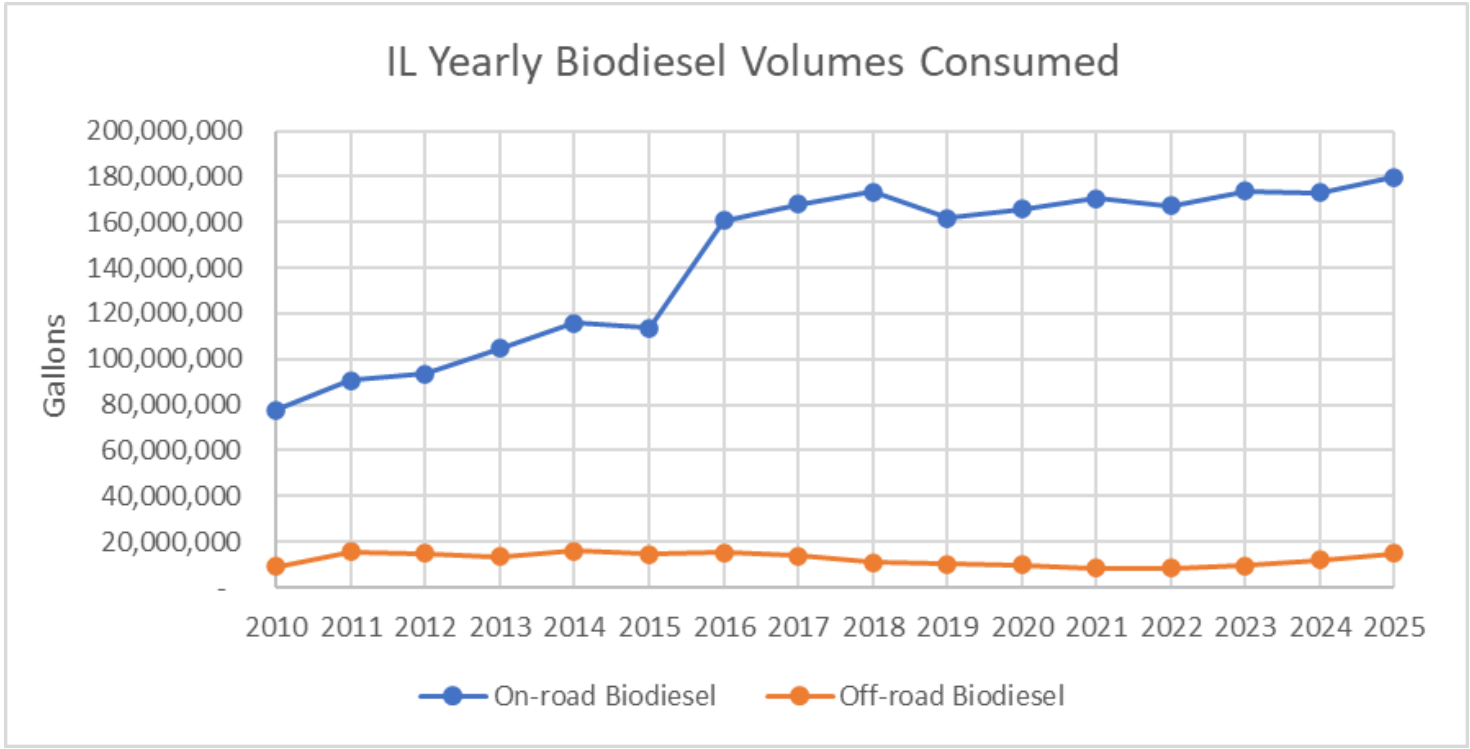
Members, Providers & Partners



Source: American Lung Association

Biodiesel Usage - Illinois

- Illinois has a sales tax exemption for biodiesel blends
- B19 minimum April 1st – Nov 30th
- B10 minimum Dec 1st to Mar 31st
- 6.25% sales tax is exempted
- $.21/gal until the end of the year
- 2024 biodiesel consumption:
- 185 million gallons
- 2025 biodiesel consumption:
- 195 million gallons (5% more than 2024)
- Average 2025 blend rate was 15.03%
- Around 85% of retailers sell the minimum threshold for the tax exemption



Source: IL Dept of Revenue, Indigenous Energy

Retail Survey Data Collection

Dispenser level data collection

A photo of the dispenser is taken and data points collected

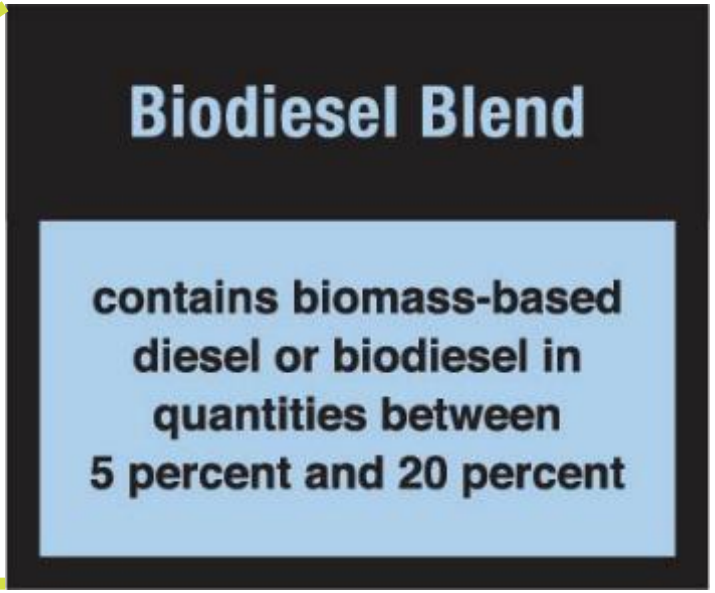


- Cold Weather Claims
- Biodiesel Blend Decal
- Auto or Truck Nozzle
- Diesel Price
- B100 fill lid

Annual retail surveys are conducted to determine pricing and availability of biodiesel blends in the marketplace

Biodiesel Visibility





Federal law states that this decal must be present when dispensing B5 – B20

Blends over B20 must be labeled specifically

Biodiesel Visibility





18% of stations surveyed sold over B5 blends but did not have the FTC decal

This station has “biodiesel blend” on their sign and the FTC sticker, but sold no biodiesel

Retail Survey – More Clues

Fill port lids

B100 lid indicates on-site blending





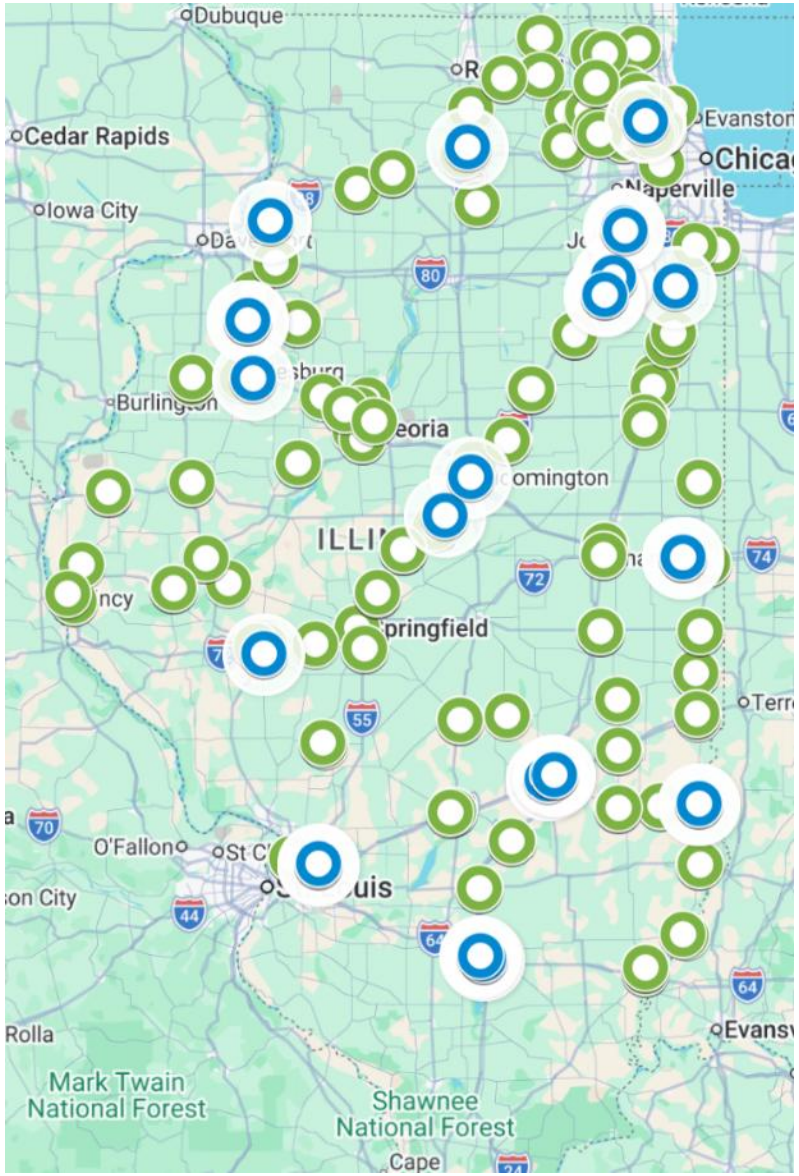
Biodiesel Retail Survey – Illinois 2026

Surveyed 260 stations

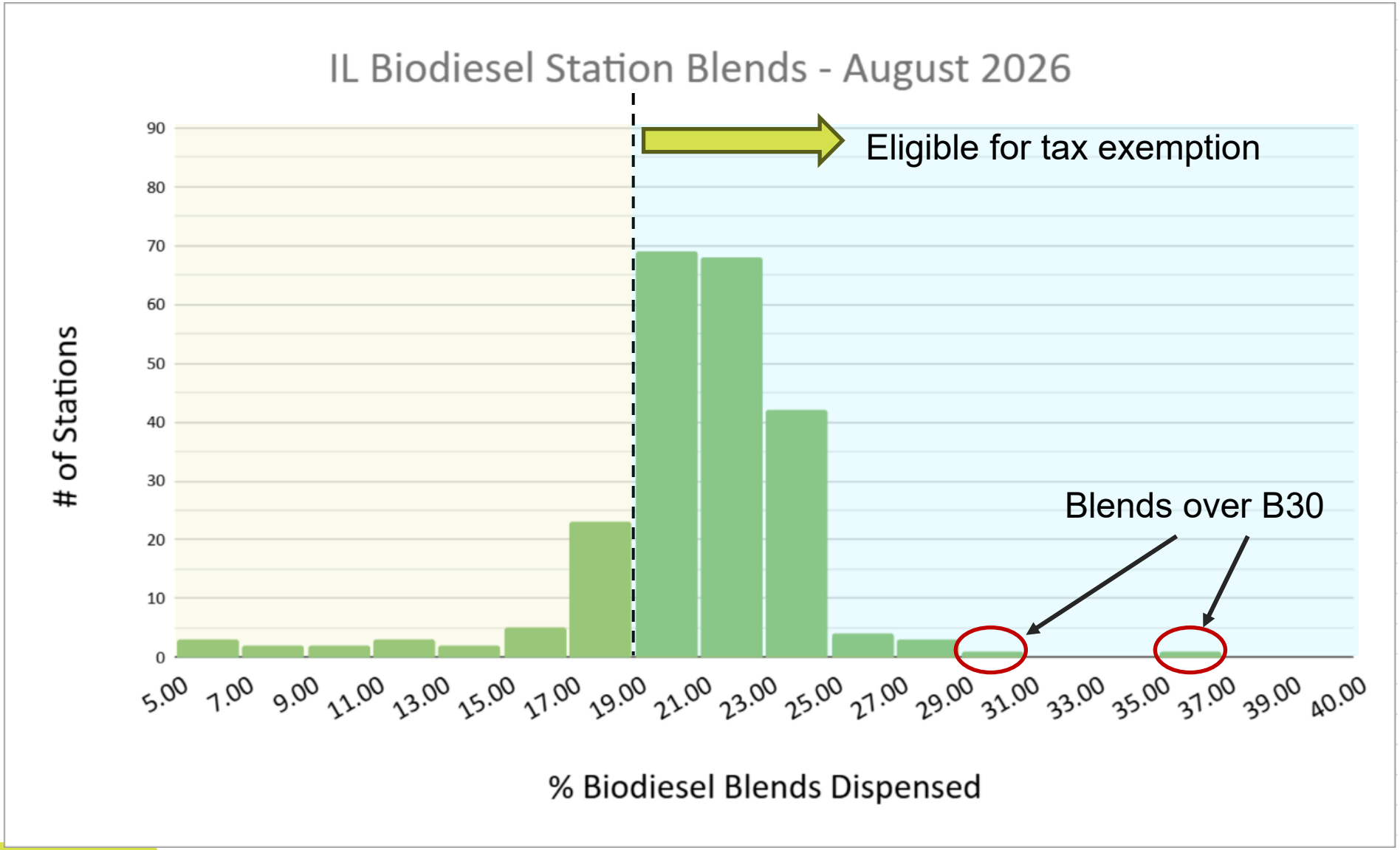
- 28 selling diesel (B0 – B5)
- 232 selling biodiesel (B6 – B35)

Blend detection via
InfraCal 2 Biodiesel Blend Analyzer





Biodiesel Retail Survey – Illinois 2026



Private Fleets: B20 + in unmodified vehicles

Marine Applications

ARTCo – Marine transport subsidiary of ADM

IL B20 Club Member

Produces biodiesel in their Mexico, MO plant

Operates 29 line-haul boats on the Mississippi River

Has been running B20-B30 in those vessels for years

Recently running B40 trials year-round in the same vessels

Runs B20 – B100 in 50 Optimus enabled over the road tank trucks



ArtCo's " American Pillar." Image provided by ADM.

Private Fleets: B20 + in unmodified vehicles

On-road/Off-road Applications

Chicago Park District

IL B20 Club Member

Purchases B99 and blends onsite

Operates 40 parks vehicles on B35 blends (heavy and light duty)

Operates 7 vehicles on B100 with Optimus systems installed





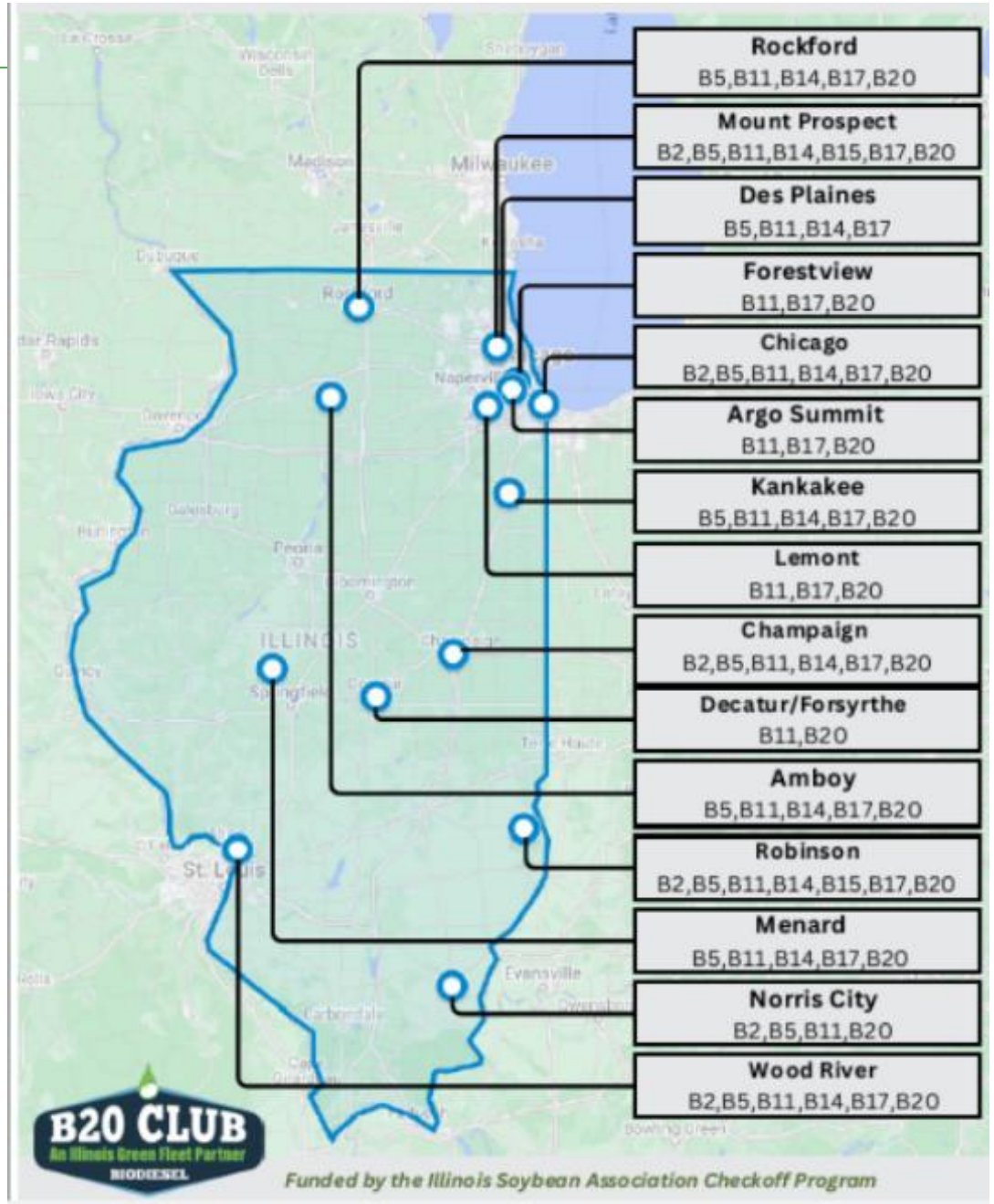


Biodiesel Procurement

OPIS pricing lists these terminals and biodiesel blends

Many municipalities use OPIS reporting for benchmark pricing in their contracts

Many distributors pull straight from the rack and don't have dedicated biodiesel storage for custom blends



Federal Requirements for B20+

The US EPA outlines specific compatibility requirements in 40 CFR § 280.32

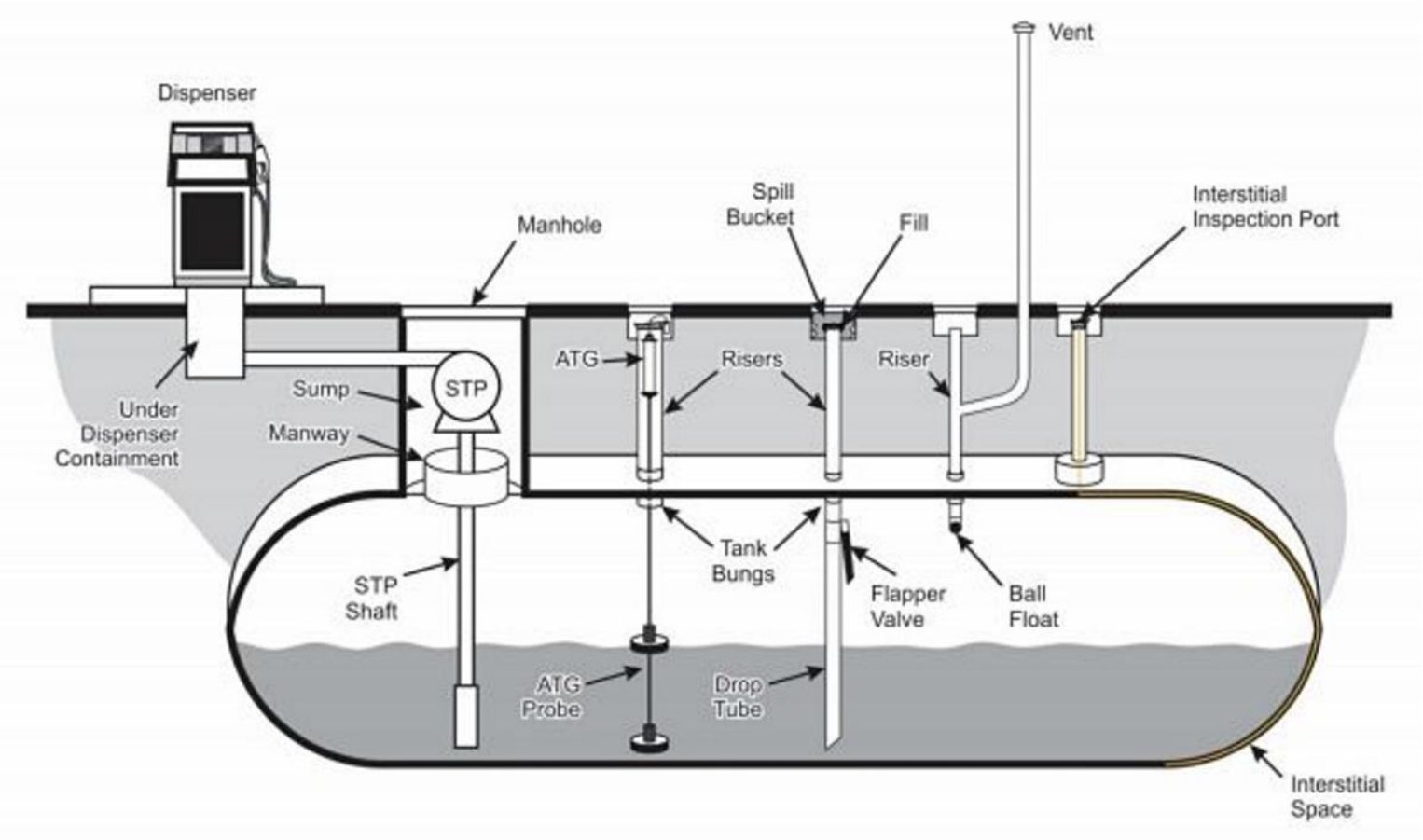
General Mandate (Paragraph a): *"Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system."*

The 20% Biodiesel Threshold (Paragraph b): Owners and operators must notify their implementing agency **at least 30 days prior** to switching to a regulated substance containing **greater than 20 percent biodiesel**.

If you store a blend higher than B20, paragraph (b)(1) specifically states you must demonstrate compatibility across the **entire UST system**, explicitly naming the following dispensing, storage, and monitoring components:

Tanks and **Piping**
Containment sumps
Pumping equipment (including submersible pumps and components inside dispensers)
Release detection equipment (probes, interstitial sensors)
Spill and overfill equipment

UST components



B20+ systems are relatively uncommon

Many UST contractors are unaware of biodiesel compatibility requirements

State Fire Marshalls inspect systems annually. IL State Fire Marshall follows EPA compatibility requirements

Some states like MN have a variance toolkit for B20+ approval of UST systems

Methods to Prove Compliance

Operators can satisfy the compatibility proof through one of two methods:

1. Certification or listing of the equipment by a nationally recognized, independent testing laboratory (such as Underwriters Laboratories).

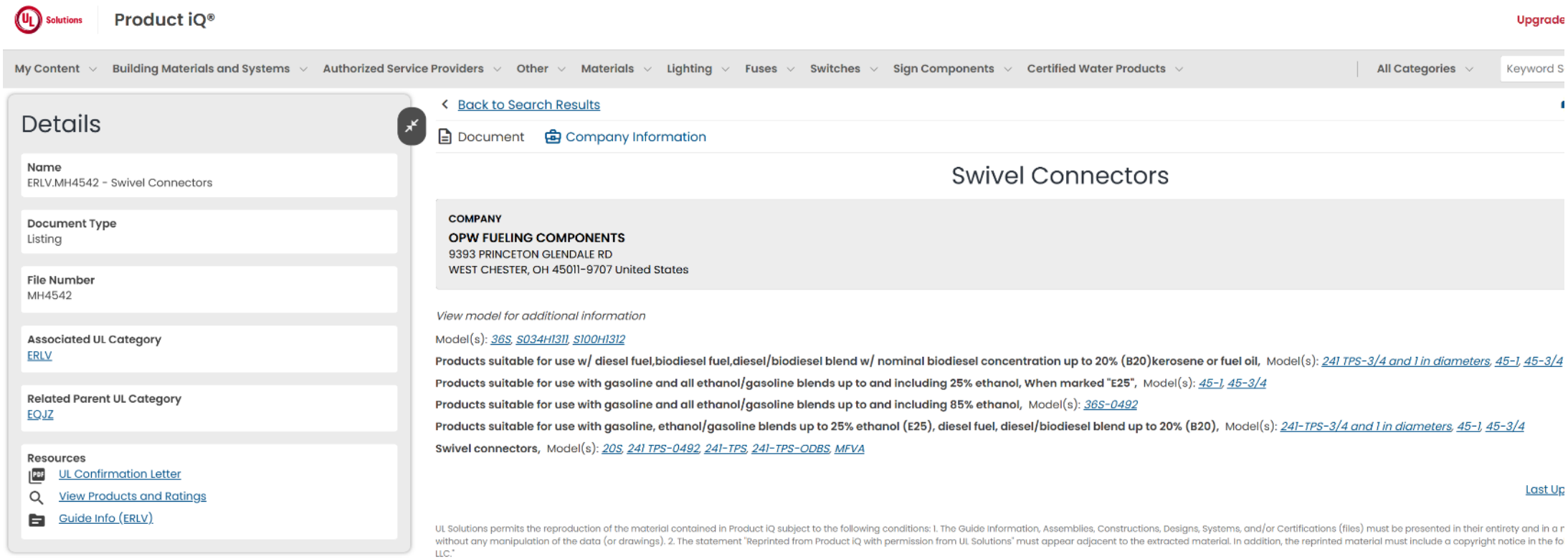
2. Equipment manufacturer approval, provided in writing, indicating an explicit affirmative statement of compatibility for that specific biodiesel blend.

All documentation and records verifying system compatibility must be maintained for as long as the UST system stores the biofuel blend

Compatibility Resources

UL certifications are available for free, Users must register for UL Solutions Product iQ

iq.ulprospector.com



Compatibility Resources

https://pei.org/resources/ust-component-compatibility-library

PEI maintains a list of compliance letters

Manufacturers submit voluntarily and not all compatible components may be listed

UST Component Compatibility Library

In 2015 EPA published guidance regarding compatibility of underground storage tank (UST) systems with biofuel blends. The guidance discusses how owners and operators who wish to store gasoline containing more than 10 percent ethanol or diesel containing more than 20 percent biodiesel in their UST systems may demonstrate compliance with the compatibility requirement in 40 CFR 280.32. Learn More

Underwriters Laboratory has developed a fuel compatibility tool to assist manufacturers and fueling stations to meet EPA, state and other code fuel compatibility requirements. UL Fuel Compatibility Tool

Compliance Letters by Manufacturer

Acterra

Bravo Systems

- Fittings
- Sumps

Brugg Pipesystems

Caribbean Tank Technologies

Morrison Bros.

- Ethanol
- Biodiesel

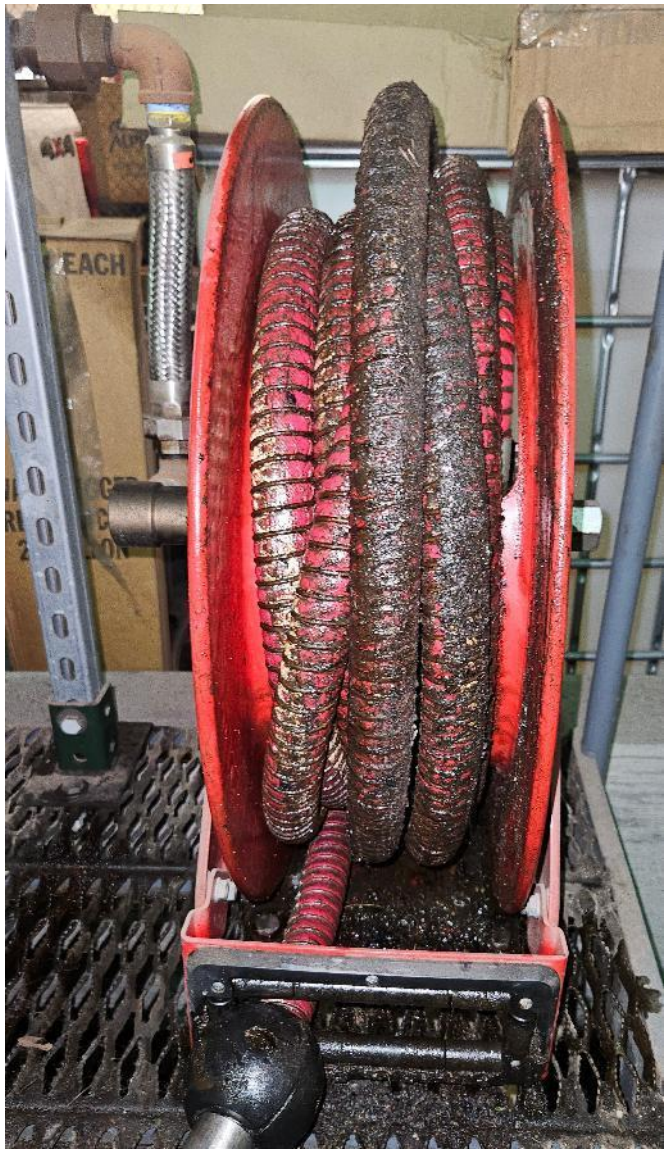
National Environmental Fiberglass

NOV Fiber Glass Systems

Nupi Americas

Example: Hose Challenges

- Manufacturer compatibility certification doesn't follow a standard.
- Hose vendors don't routinely stock specialty hoses.
- Custom orders require typically require a 100 foot minimum order.
- Breakaway valve and whip need to be rated for B20+



This "B100 compatible" hose started weeping fuel after 18 months of use. Purchase price $650 for a 35 foot hose

Research Suggestions

- Manufacturer self certification needs to follow rigorous testing and standards
- Increase UL listed components for B20+
- Training resources for UST contractors

THANKS FOR YOUR ATTENTION!

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