



***How does
FOG become
biofuel?***

Step 1: How is FOG captured?

Grease traps

- Trap FOG, separating it from waste water
- Two types: **Gravity** and **Hydromechanical**

Grease Recovery Units

- Are more efficient and require less maintenance
- REA's GRUs remove FOG directly from sewer lines, preventing blockages, which are costly to clean and cause environmental damage



(one of REA's GRUs!)



Step 2: From FOG to fuel

FOG, consisting of both yellow and brown grease, arrives at the Regional FOG Receiving facility



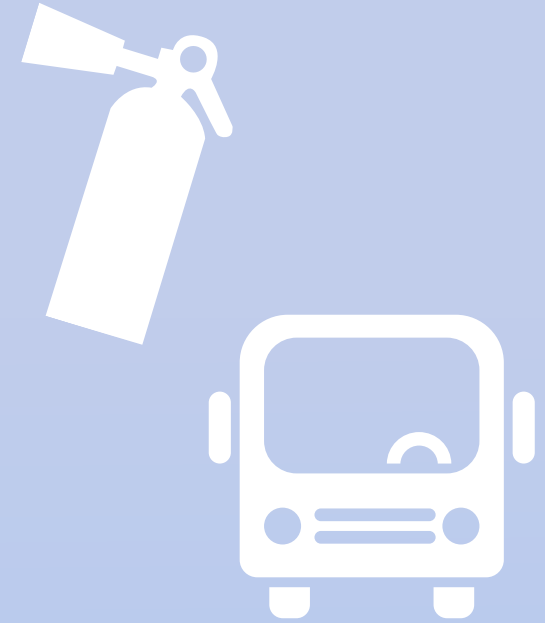
Here it is pre-treated, then decanted to eliminate water, before undergoing various chemical reactions



The final product is ASTM B100, which is **premium-grade biodiesel**

Step 3: How is biodiesel used?

In Danbury CT, the fuel produced by REA's FOG-To-Biodiesel system is used to power municipal operations like school buses and fire vehicles



Converting FOG waste to biofuel is beneficial as it **lowers the cost of FOG disposal/cleanup**, and **helps improve environmental damages**





Sources

<https://rea-systems.com/>

<https://primasupply.com/learn/article/buying-guides/grease-trap-101-types/28052>

https://www.researchgate.net/publication/334772933_Greater_New_Haven_Water_Pollution_Control_Authority_GNHWPCA_FOG_to_Biodiesel_Pilot_Facility_at_GNHWPCA's_East_Shore_WP_AF