

# USED OIL RE-REFINING PLANT



## Resource Recovery |

**Country:** *United States*

**Key Benefits:** *Re-Refining Used Oil*

**Products:** *14m<sup>2</sup> LCI Vertical Thin Film Short Path Evaporator & Engineering of all Auxiliary Components (Ex. De-fueling System)*

## Background:

LCI Short Path Evaporators are successfully used to re-refine used oil. LCI Process Engineers met with the Client & assisted in development of the engineering package for the plant.



*LCI Short Path Evaporator*

## Problem:

The Client was already recycling used oil at their mid-west location & desired to install & operate a small scale used oil re-refining plant.

## LCI Solution:

LCI supplied a 14-square-meter short path evaporator for operation in a semi-batch mode. The evaporator features a stationary, removable entrainment separator, as well as hinged blades for product distribution on the heated wall. Rotor agitation keeps the walls clean & reduces fouling effects of even the dirtiest & most viscous oil bottoms.

Normal operating temperatures is ~650°F & pressure is ~2.5 to 3 Torr. Open design & internal condenser allows operation of very low internal pressure to process very high boilers.

## End Results:

The evaporator was shipped disassembled & LCI Mechanical Engineers supported the owner by being present & re-assembling the evaporator on-site.

Once the unit was mechanically complete, LCI Process Engineers returned to the plant & assisted during startup of the plant. LCI has visited the facility several times since construction to offer further assistance & support.

The plant has been in successful operation since August 2010. The LCI Thin Film Short Path Evaporator continues to operate at design capacity while delivering on-spec production.