



Dehydration of Waste Oil Achieved Without Heat

Problem

A recycler of waste crankcase oil in California had collected a large volume of detergent-washed tank bottoms, which had resisted separation for several months.

Solution

A newly developed product, RECOVEROL ECO* 3NH, was specifically developed to allow dehydration at ambient temperature. 3000 ppm was selected as the optimum concentration.

Results

6000 gallons of waste crankcase oil were analyzed at 45% BS&W, API 14°. ECO 3NH was injected at a concentration of 0.3% by volume during the transfer of the oil into a cone bottom tank equipped with a blade propeller. Sight-glass showed immediate color change from grey to red-black. Following chemical addition, the oil was transferred to a settling tank.

Within 4 hours the top oil was analyzed at 1% BS&W. After overnight settling, 41% of the total volume was drained as clear, oil-free water. In a deep cut, the BS&W was 4% and API 29°.

Success Hint

Thorough mixing, achieved by metering in the demulsifier into a transfer line, offered a rapid and homogeneous distribution of product, which in later operations, permitted dehydration at a lower chemical concentration.

**Trademark of Emulsions Control, Inc.*