QUEEN MARY

Crew Ensures First-Class Safety and Sustainability on the Queen Mary Hotel

RTI Restaurant Technologies, Inc.

THE QUEEN MARY

Results

- **Saving**: 25-30% saving on the cost of cooking oil
- **Saving**: Weekly oil usage is down 40%, saving thousands in annual oil costs
- **Sustainability**: No more cardboard and plastic containers; working toward LEED certification
- **Cleaner**: No more mess on the dock
- **Safety**: No more oil-related slips or falls
- **Efficiency**: The automated system provides dynamic routing and delivery
- **Food quality:** Improved food quality due to regularly filtering the oil

Crew Ensures First-Class Safety and Sustainability on the Queen Mary

The Queen Mary is a one-of-a-kind ship known for its history, luxury and world-class restaurants. Docked in Long Beach, Calif., the ship is a popular destination and event venue with unique stateroom accommodations.

Running the operation should be smooth sailing; but not long ago, if guests had looked beyond the art deco grandeur, they would have found problems below deck related to the kitchen plumbing system.

The hotel was experiencing clogged pipes in the kitchen, likely from used fryer oil being poured down the drain. This resulted in $100,000 worth of damage after the plumbing backed up into both the kitchen and grand salon, ruining the salon's dance floor and carpeting that had to be special-ordered from England.

The Queen Mary management solved this problem and prevented any future kitchen plumbing issues with a total oil management system from Restaurant Technologies Inc. (RTI) that improved cleanliness, safety and sustainability.

A World-Class Ocean Liner

The Queen Mary was the grandest ocean liner in the world when it departed Southampton, England, on May 27, 1936. Named for King George's wife, the vessel boasted five dining areas and lounges, two cocktail bars and swimming pools, a grand ballroom, squash court and small hospital. The rich and famous saw the luxury liner as the only civilized way to travel, and passengers included Bob Hope, Clark Gable, Winston Churchill, and the Duke and Duchess of Windsor.

But by World War II, the Queen Mary suspended travel carrying civilian passengers. It was transformed into a troopship, painted camouflage gray and was stripped of its luxurious amenities. Dubbed the "Gray Ghost" because of its stealth and stark color, the ship was the largest and fastest troopship to sail.

By the end of WWII, the Queen Mary was retrofitted and returned to its original glory, and resumed regular passenger service across the Atlantic. This continued for two more decades, until air travel signaled the end of an era. In 1967 the Queen Mary sailed its final cruise to Long Beach, where it has been docked ever since.

Making Provisions for Below Deck

Director of Facilities William Murray brought 30 years of kitchen and ship experience when he came from Norway to join the Queen Mary staff in 2014 to address maintenance issues in the kitchen.

"The drain backup occurred a month after I started working here, and I quickly learned that kitchen employees had no process in place for [used cooking] oil containment," said Murray. "As we used a hydro-jet to clean our main plumbing lines, huge chunks of used cooking oil came out. The system's used cooking oil traps were working, but it was evident that they weren't being maintained properly."

The problems with used cooking oil also extended outside the ship. There was a container located on the dock for employees to dump the oil. The protocol was that the hot oil would be drained and cooled – usually in an open bucket located in the corner of the kitchen. The oil would then need to be carried a couple hundred feet via stairs and outside to the container on the dock. It was messy and time-consuming. In fact, it was taking about an hour every other day.

"This was a cumbersome process, and the bucket was often bumped around during transport, spilling oil," Murray said. "Once the employee reached the dock, the oil collection container, which was located five feet off the ground, would be slid open and the oil would be poured into it. If oil wasn't spilled during the journey outside, it was spilled while it was poured. Either way, it caused a safety issue.

"To add to the mess, sometimes people would throw leftover food into the oil collection container after holding events on the wharf. The used cooking oil and the food would attract flies and raccoons. One night I went out there to dispose of the oil and eight raccoons were sitting on the container!"

That kind of situation is the reason why employees would often just skip this messy, time-consuming process and dump the used fryer oil down the drain. The oil filtering process wasn't executed any better, so the kitchen was going through oil faster than it should. For these reasons, Murray sought a new oil management system. He and the ship's executives hoped to eliminate the mess, logistics and safety hazards they were experiencing.

A Dream System for this Dreamliner

Murray learned about RTI while attending a trade show in November 2014; and after discussing the benefits of the system with the ship's chef, the Queen Mary staff placed the order. The oil management system was up and running within two months. Since then, the RTI system has helped the Queen Mary overcome its issues with cleanliness and safety while improving sustainability.

"After we cleared the plumbing and waste lines, RTI's system ensured we'd eliminated any future mess," said Murray. "The new oil management system is clean and easy. The RTI technician who designed and installed it was very thorough, despite the challenges that came from our being located on a ship. "The oil management system gives us end-to-end control over how the oil comes in and is disposed of. There are no more cardboard and plastic containers to deal with; and that means less handling for shipping and receiving and better sustainability. The system can be drained and filled while the oil is hot, so we no longer have to wait until it cools down. RTI just backs up the truck, picks up the old oil, fills the new oil and then they are gone. It works beautifully and eliminates the waste and mess on the dock. The improvements to food quality and the sustainability it brings were the icing on the cake."

Murray said the kitchen crew appreciates not having to use the stairs to transport oil, and there are no longer oil-related slips or falls.

"As we implemented this new system, we did extensive training so that everyone in the kitchen understood how it works," said Murray. "This project had high visibility because so much money was spent on repairs from the damage caused by the flooding to the kitchen and salon, so we are pleased with the success."

In addition to reducing the likelihood of repeat plumbing repairs, the Queen Mary has saved money on cooking oil.

"We have saved 25 to 30 percent on the cost of our oil," said Murray. "We are paying less per gallon because of the purchasing power from a larger pool of users. And we are getting additional use by regularly filtering the oil, which leads to less oil consumption. The system pays for itself."

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The kitchen staff also appreciates that the automated system provides dynamic routing and delivery so that they never have to be reminded to order more fryer oil. This process increases overall efficiency.

The system has helped the Queen Mary staff with sustainability goals as they apply for LEED (Leadership in Energy and Environmental Design) certification.

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"Before I joined the crew, we didn't have recycling programs in place. Now, in addition to the oil recycling, we participate in paper, glass and electronics recycling. We are currently working on LEED certification with our human resources and marketing teams; and we hope to advertise these programs on our website. What we are doing with RTI's oil management system is a big part of this," Murray said.

With RTI, the Queen Mary not only has better sustainability but also has improved its budget, food quality and safety. "As the director of facilities, it is my job to find and implement solutions that improve efficiency, promote safety and, whenever possible, create savings with technology," said Murray. "In this instance, we hit a homerun on all accounts. Our systems are functioning exactly as stated. Issues such as clogged drains have reduced dramatically, and it is a much safer solution for our crew members. We feel like we have a first-class process in place."

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FOOD QUALITY

EFFICIENCY

SAFETY

SUSTAINABILITY

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