



CASE HISTORY

Recovered hydrocarbon liquids provide \$400,000 in unexpected revenue during a 24-hour Ethylene Plant decontamination of benzene, LEL's, and unpleasant odors



Results Achieved

Within 24 hours all benzene / LEL levels were zero

Benzene and LEL levels in the API separator dropped

Eliminated unpleasant odors in process units when being drained to waste treatment

Chemicals Utilized

FQE® Solvent-H

FQE® LEL-V

FQE® Oil Degreaser

FQE® General Odor

A world scale olefins plant scheduled an outage to decontaminate its operating equipment prior to conducting maintenance work.

The site had used chemical additives in past outages and was dissatisfied for two main reasons: (1) LEL and benzene levels would rise once maintenance activities would commence which required re-steaming, and (2) the previous products would produce foam in waste treatment.

FQE® Chemicals had performed benzene encapsulation in other areas of the facility, the client requested we consider this application. The client's needs were to bring the LEL level below 2% and benzene concentration under 0.5 ppm, to have the units ready for hot work, not to impact waste water operations, and to accomplish the degassing / decontamination within 24 hours.

The process areas to be cleaned and decontaminated were the oil quench system, the water quench system, the depropanizer tower, and the caustic wash system. During a site visit and planning our staff, along with the client's engineers and operations personnel, determined chemistries and application methods to accomplish the client's goals.

Prior to our arrival, the client drained the hydrocarbons and used water to float any residual product. Our field crews arrived on site and introduced / circulated

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our chemical products. The chemical products were FQE Solvent-H and FQE Oil Degreaser. Different concentrations were used in each system.

Within 24 hours all benzene / LEL levels were zero. Maintenance activities were able to start immediately and were maintained as benzene / LEL levels did not rise. Upon draining the solution, the client was pleasantly surprised to find that not only did the solution not generate any foam, but benzene / LEL levels in the API separator also dropped, allowing faster flushing of other process units not in the cleaning circulation.

During our visit we also discovered that other process units were creating unpleasant odors when drained to waste treatment. The draining of these units had come to a complete halt, stopping turnaround activities in these areas. We delivered our FQE General Odor product which eliminated the odor and allowed the process to continue.

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