

ProDecon® Case Study

UK Refinery



150m3 Desalter Decontamination



PROJECT HIGHLIGHTS

- ▶ 150M3 DESALTER DECONTAMINATION
- ▶ PRODECON DECON-88™ CHEMISTRY UTILISED
- ▶ 24HR DECONTAMINATION PROGRAMME ACHIEVED
- ▶ INTERNALS "THE CLEANEST THE CLIENT HAS SEEN"
- ▶ 70% REDUCTION OF THE EFFLUENT AND DEPOSITS

THE CHALLENGE

ProDecon was asked by a UK refinery to decontaminate a 150m3 Desalter system and return it to service in a strict timely manner, as the unit "Double Desalts" to avoid sending contaminated product to the CAT unit.

Furthermore it was requested to minimise the effluent generation from the process for offsite disposal. The deposits found in these systems consist of salts and silt, hydrocarbons including Benzene and a small amounts of Mercury. All these deposits need to be removed before man entry is allowed, especially Benzene and Mercury. The client demanded reduction of benzene below 0.5 ppm, Mercury to be below 0.03 ppm and hydrocarbons to be reduced to zero.

THE SOLUTION

The desalter was taken off line and ProDecon connected its specialised circulation equipment. Utilising our Decon-88™ chemistry, injection points were carefully selected to facilitate as much movement of the contaminant as possible.

ProDecon integrated temporary gas filtration to the process to ensure no toxic gases were released to the environment protecting all site personnel.

As per client's request to reduce the effluent from the process, ProDecon mixed the effluent generated intensively until homogenised and then pumped into a specially designed filtration arrangement. ProDecon's chemistry is biodegradable allowing the liquid phase to be separated and pumped away to the refinery's wastewater treatment plant. The solid deposits were then transferred for on-site landfill disposal.

THE RESULTS

ProDecon successfully completed the decontamination process in 24 hours, within the allowable timeframe. Sampling and testing proved the efficiency of decontamination. There was no gaseous release to atmosphere and man entry was able to proceed immediately. The internals were reported to be "the cleanest they had ever seen". Final desilting time was faster than planned due to the efficient removal of binding hydrocarbons by Decon-88™ and enhanced removal of solids during decontamination using ProDecon's circulation system.

ProDecon achieved 70% reduction of the effluent and deposits that needed to be disposed of. Minimising the need to man entry and physical works within the vessel greatly improved the safety of the overall project.

Avoiding toxic gas release to atmosphere through venting and waste minimisation through use of our biodegradable chemicals and water treatment system, reduced the environmental impact of the works.



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