

chemical decontamination

The environmentally safe decontamination of refinery process units can present a challenge to many operators. Veolia Environmental Services offers an expert chemical decontamination service which brings significant cost savings and health & safety advantages

Veolia Environmental Services has developed a proven alternative to the 'steaming' of refinery process units that saves time, maximises efficiency and offers operators complete peace of mind.

A proven alternative

Chemical decontamination of refinery process units reduces the preparation time for entry compared to traditional steaming out and hydrocarbon flushing. The chemical washing procedure rapidly penetrates deposits and suspends them for flushing out of the system, providing cleaner internal conditions. At the same time, residual hydrocarbons

are captured and held in a temporary emulsion and transported away. Steaming alone cannot do this.

Saving you time and money

During major turnarounds, safe entry conditions for inspection and maintenance personnel are critical to the overall time-line. Chemical decontamination can provide clean, gas-free conditions, with no pyrophorics issues, that enable internal work, including 'hot work', to proceed rapidly.

Compared to steaming-out a time-saving of 1–2 days can be achieved on large vessels, which in turn produces significant cost savings for the refinery.

Health and safety benefits

Health and safety improvements are considerable as personnel exposure to Hydrogen Sulphide and hazardous L.E.L. conditions is eliminated. Pyrophoric deposits are neutralised and the potential for spontaneous fires removed, leaving cleaner internals which means safer working conditions for crews.

The Veolia Environmental Services decontamination process uses proven chemical technology that meets all current refinery regulations for vessel preparation, and is also biodegradable, minimising overall environmental impact.

Applications

Our chemical decontamination programmes are suited to most major refinery equipment, including but not limited to:

- Crude Units
- Vacuum Units
- Fluid Catalytic Crackers
- HDS Units
- Distillate Processing Units
- Amine Units
- Desalters
- Flare Systems
- Visbreakers
- Heat Exchangers
- Pipelines



the resources and expertise to
decontaminate
the largest systems operating
on oil refineries today

We provide bespoke solutions for every system; A typical procedure could involve circulating one or more aqueous solutions of the appropriate chemical product for a period of 6 – 8 hours while maintaining a temperature of 80 – 90°C. The solution operates at neutral pH and so no addition of acids or alkalis are normally required.

When pyrophoric deposits are suspected, then following the chemical wash or washes, a rinse stage will incorporate oxidation chemistry to completely react with the pyrophoric materials and render them harmless.

The Veolia procedure can be applied to individual vessels, towers, drums or exchangers, or to an entire processing unit as a single, complex 'loop'. We have the resources and expertise to decontaminate the largest systems operating on oil refineries today.



Expertise

When selecting a chemical decontamination contractor for a major outage, customers need to have confidence that the selected company has the resources in personnel and equipment, plus effective, proven chemistry, to deliver the results that will get the event off to a clean, safe, efficient start, on time and on budget. Veolia has all of the above resources, plus the support of the most experienced personnel in the chemical decontamination market on both sides of the Atlantic. The core Veolia team has worked successfully with all of the oil majors currently operating in the UK and the U.S.A. since the launch of the technology in the early 1990s.

A Dependable Service Partner

Veolia Environmental Services' industrial services arm operates from a network of regional depots in the UK. We can offer an impressive range of tailored solutions and services to many major industry sectors including:

- Shutdown Services
- Tank Cleaning
- Cold Cutting

To find out more please contact:

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