



Ferrous Protection have been recognised as a leading supplier of specialist bulk storage tank lining and industrial painting solutions since the early 1980s. Even in our early years, we saw technical innovation as an essential tool in achieving our ambition of leading the corrosion protection industry as we spearheaded the drive to bring solvent free epoxies into mainstream tank lining in the UK.

Since then, we have worked with a wide variety of customers in most continents across the globe to protect their bulk storage assets and associated infrastructure from corrosion and chemical attack; from small manufacturing and chemical process plants to tank farms and international oil and energy companies.

Here comes the exciting news – we have now joined forces with Qualitech Environmental Services who are one of the UK's leading tank cleaning and waste management companies. Qualitech are well known in the industry for delivering customer focused waste management and effective tank cleaning solutions with capability to clean anything from septic tanks to large petroleum storage tanks.

What does this merger mean for the customer? Well, there are two main benefits on offer:



- 1. We are not a 'jack of all trades', we are two specialist companies combined meaning our customers can take advantage of having multiple areas of expertise all under one roof. The benefits here are significant cost and time efficiencies and improved quality associated with being able to share and apply that specialist knowledge internally.
- 2. Having the full project (from tank cleaning and waste removal, through to inspection and repairs, surface preparation, tank lining, re-inspection and handover), all under one roof can cut down on the administration cost, providing an efficient, high quality and hassle free service to our customers. The customer can still have full control over the project, but through a single point of accountability rather than several, often many, points of contact across different contractors.





Case Study

Customer: Air BP

Location: Kangerlussuaq, Greenland

Date: June 2022 – Sep 2022

Brief: Fuel infrastructure upgrade to Greenland's largest commercial &

military air transport hub.

Value: \$1.4m

Air BP, who are the global leader in the aviation sector has recently benefited from this relationship. In 2021, we were successful in tendering for the major fuel infrastructure upgrade of Kangerlussuaq Airport, Greenland's largest commercial airport and hub for domestic and foreign military activity. The project includes pipeline repair, and application of AkzoNobel's protective three-coat epoxy system from its International® brand, to 1.46km of cross-country pipeline and the refurbishment and re-lining of six 100m3 bullet tanks and a cone down vertical storage tank with Interline® 984 novolac epoxy phenolic. The tank re-lining works included:

- Mobilisation and shipping of ten 20' containers and hazardous goods cargo.
- Installation of scaffolding using a vetted and trusted subcontractor.
- Erection of perimeter fencing, and implementation of Ferrous Protection permit to work system.
- Confined space entry and provision of an emergency rescue and safety standby team, including both vertical and horizontal emergency extraction.
- Implementation of engineering controls and monitoring of atmospheric conditions within the storage tanks.
- Pumping and downgrade of residual fuel to arctic diesel.
- Tank cleaning using high pressure water jetting & on-site filtration of contaminated washings down to 3.5ppm.
- Very thorough blast cleaning of the internal substrate using an inert, naturally occurring, and eco-friendly blast media.
- Preparation of all steelwork defects.
- Application of International's Interline® 982 two-component holding primer by airless spray.
- Application of a stripe coat using International Interline 984 solvent free epoxy phenolic to all edges, welds and intricate areas by brush and roller.
- Application of a scrape coat where required to work the epoxy phenolic into any excessive pitting.

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- Application of the epoxy phenolic to the full internal substrate by airless spray.
- Detailed inspection of the newly applied lining including holiday detection, visual inspection, DFT checks, and Methyl Ethyl Ketone rub test. All snags were marked up, repaired and re-tested.
- Soak test, re-instatement of gaskets, closure of the tank and handover to the client.
- Submission of a fully detailed QAQC dossier.
- Demobilisation just in time for the fjord to freeze back over.

The application of the new Interline 984 novolac epoxy phenolic tank lining system offers the tanks another 12-15 years life to first maintenance and is critical in allowing Greenland's main air transport hub to continue operating.

Following initial engagement with Ferrous Protection on the project in 2021, the client was facing supply chain difficulties with the tank cleaning contractor they had appointed - the appointed contractor could not meet the client's timeframe and were not providing adequate assurance in terms of health & safety and accountability of the work scope. With time against the client, Ferrous Protection partnered with Qualitech Environmental Services to undertake the pre-clean of the cone down vertical storage tank to facilitate an API653 tank inspection.

Qualitech Environmental Services were subcontracted through Ferrous Protection saving the customer precious time and effort associated with the onboarding of a contractor unfamiliar with the location, its logistical challenges and the scope and quality of work required.

Ferrous Protection had begun planning the lining phase of works to start this year, so Qualitech were able to use our knowledge to help them effectively plan their work and mobilise extremely quickly which was critical given the logistical complexity of working in such a remote corner of the world where the fjord and surrounding landscape is frozen for 7 months of the year.

Qualitech were also able to temporarily store their contaminated waste locally which enabled them to manage the contaminated waste in conjunction with the waste generated during the re-lining phase this year. This saved the customer money by halving the number of times they would need to ship and dispose of contaminated waste during the project and significantly reducing the project's carbon footprint.

In short, through Ferrous Protection and Qualitech coordinating their efforts and offering two specialist services under one roof, the client was able to:

- Find a prompt and effective solution to their time critical problem.
- Save time and cost through reduced admin and avoiding duplication of effort associated with engaging with multiple contractors.

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- Avoid pitfalls through using one company for both phases of the work.
- Take advantage of both Ferrous Protection's and Qualitech's extensive combined experience in the storage tank industry.
- Benefit from Qualitech Environmental Services' extensive knowledge and expertise in the waste management sector to minimise the environmental impact of the works.

The contract was delivered nearly a month ahead of schedule, with industry leading safety performance achieved and with minimal impact on the environment to allow Greenland's largest commercial and military airport to continue running for years to come.

A statement from Air BP's Project Manager – "the Ferrous Protection and Qualitech partnership has shown the power of collaboration, it has combined the safety performance and know-how of tank cleaning from Qualitech along with the expertise and knowledge of tank and pipework corrosion protection from Ferrous Protection. In addition, Ferrous Protection's attention to detail and diligent planning has led to the project in Kangerlussuaq being executed to perfection, which is a rare achievement in the project environment. Air BP will be looking to build a stronger and longer term partnership with this company going forward, given the breadth of their offer and the professionalism of their delivery."

To discuss how you might benefit from Ferrous Protection's and Qualitech's partnership or either of our services, feel free to get in touch with Ferrous Protection's Projects Manager on +447540222477 or dominic@ferrousprotection.co.uk

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