



Lifecycle Services for the Oil & Gas Industry

Installation Location

Pioneer Road and Jurong Island

Engineering Location

Singapore

Duration

Average of 2-5 days per tank

K2's team

Rope Access Technicians

Rigging Specialist

Mechanical Specialist

Tank Deluge System Repair: Singapore

The largest refinery in Singapore were looking speed up the repair process on their deluge systems with a method that was cost-effective, time-effective, and exposed fewer people to risk at work. They contacted K2 to provide rope access qualified technicians to carry out the tank deluge system repair, cutting the time frame on each individual tank from around four weeks to an average of 2-5 days depending on the amount of work that was required. Some lines needed temporary repair wrap to seal corroded holed pipes which took longer than removal of nozzles flushing the system and then replacing nozzles.

Project Scope

To remove sprinkler nozzles, flush the system for corrosion product that was blocking the nozzles, replace the nozzles and carry out temporary repairs to the pipes where needed. Operator then flushed the system to test.

Challenges

- Providing a new safe efficient methodology as opposed to the traditional methods that had been used.
- Adapting to new regulations set out by the Ministry of Manpower (MOM) in Singapore with respect to anchor points.

K2 Approach

As K2 were dealing with a client who had no experience with working at height using rope access techniques, we invited various department heads and engineers including HSE to our training facility here in Singapore. This demonstrated rope access at work and the number of skill sets Rope Access technicians are able to carry out. With this, we could show how scaffolding can be made redundant in some cases.

We also submitted pictures and detailed breakdowns of dimensions for anchor points to the MOM approved Professional Engineers prior to beginning work.

K2 Comments

"We successfully proved that Rope Access is a quicker, more cost-effective and most importantly safer means of carrying out these work scopes. Scaffolding would have taken upwards of three weeks and then would have required additional technicians to do work, exposing technicians to a longer window of risk. Our teams

Client Feedback

"The total savings for 9 tanks in Jurong: S\$150,000, 27 weeks, 10512 manhours. That's really productivity."