



Stonbury was pleased to refurbish two granular activated carbon (GAC) tanks on a water treatment site in the north of England.

The two GAC tanks had become degraded over time due to the acidity of the water they hold and treatment chemicals present in it. Stonbury was enlisted to refurbish the assets and stop further degradation. Keir was the principal contractor for the project as the client had contracted them to complete further works to the site once the two tanks had been refurbished.

Working on one tank at a time, temporary scaffolding was erected to enable access inside the tanks to clean and remove laitance and loose concrete using high pressure water jetting. Scaffolding was then erected around the tank perimeter and shrink-wrapped to prevent ingress of water and keep the tank at a consistent temperature whilst the cementitious coatings were applied.

Once Kier had completed an inspection and issued a permit to load, the Stonbury team erected a boss alloy tower to gain access to the middle and top sections of the walls.

Data loggers were also installed to record temperatures between 12-20 degrees Celsius at intervals throughout the application, providing assurance on the integrity of the new cementitious coatings.

A Smooth-finish, waterproof render was applied to one cell at a time over a three-day period. All coatings were applied using hand towels and sponges to remove trowel lines and provide a clean finish. Pull-off tests were conducted after each application which demonstrated adequate adherence.

A second sub-contractor was appointed to complete concreting on the tank floors. The Stonbury team returned to complete the areas which were previously obscured by the access scaffolding and securely seal the area between the walls and the new concrete floors with a non-shrink grout. Finally, the team applied another layer of the waterproof render to provide a seamless finish.