

Thames Water – Refurbishment of two Storm Overflow Drum Screens – Abbey Mills Pumping Station, London



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- Upgrades to existing OEM replacement parts
- Updated control philosophy allowing for improved processing of higher capacities
- In-situ refurbishment meaning shorter downtime
- Several upgrades to existing screens allowing for greater reliance
- Post refurbishment service options and warranties available to allow for improved operation
- Principal contractor role

The Brief

The two drum screens are located next to Station F pumping station and are part of one of the world's largest installations of drum screens to treat sewage. The two 10 meter diameter Drum Screens are used to filter storm overflow effluent from Beckton STW via the Lea tunnel, they were constructed to handle a capacity of 14.00m³/sec with an estimated solids loading of 60m³/day. However, as a result of an ineffective wash water regime the screens had suffered badly from premature wear during their relatively short life, (2002).

The Solution

The refurbishment took place on a like for like basis with no alteration to the original design other than larger panel fixings and the inclusion of an additional spray bar per screen.

The refurbishment works of the two Drums briefly consisted of the following:

- A complete replacement of the high density polyethylene mesh panels and mesh panel sealing strips.
- Larger more substantial mesh panel fixings used
- Replacement of the Neoprene drum screen seal to each screen.
- Replacement of the drive shaft bearings and the drive pinion for each drum screen.
- Additional Spray Bars

The Outcome

The newly refurbished screens will ensure that Thames Water can now rely upon them to process the storm overflow effluent to a satisfactory level and comply with EA regulations. The Utility is confident that the work has been carried out to the highest professional standards in a safe and efficient way including the aftermarket backing of Jacopa service, maintenance, spare parts and technical advice.