

Belzona saves Ruptured Effluent Tank

ID: 7821

Industry: Food & Drink
Application: VPF-Valves, Pipes and Fittings
Substrate: Glass reinforced steel
Products: * Belzona 9611 ES Metal Stick ,
* Belzona Superwrap II plates ,
* Belzona 1212 ,

Customer Location: England, UK
Application Date: October 2018

Problem

The problem that the customer had was that the effluent treatment tank had multiple leaks, both into the surrounding soil, and into a bund. To avoid both hefty fines and a full tank failure, they had to find a way to repair the tank but without hindering their production. This grave situation was compounded by the fact that the tank was set on a hill within the production facility premises, but about 100 metres overlooking a large retail park. Should the tank have had a catastrophic failure when we removed the wall, 200+ tons of food waste effluent would have poured into the shopping centre, effectively shutting the whole area down.



Photograph Descriptions

- * 1: Before the wall came down ,
- * 2: The ruptured area ,
- * 3: SWII plates bonded in place ,
- * 4: Finished application ,

Application Situation

A large food production facility which produces ready-meals for a very prestigious high street retailer. The plant operates 7 days a week, 51 weeks a year and stopping production is not an option.

Application Method

First all the holes and cracks were plugged with wooden wedges to stem the flow. Then the areas around them were patched with Belzona 9611. Applied in accordance with a modified version of Belzona Know-How System Leaflet VPF-11. As this cured, another piece was placed over this piece, moving slowly around the splits and holes until they became virtually sealed. The wooden wedges were then sawed off as close to the tank as possible. Next, a manufactured "top-hat" was drilled and tapped, and bonded over one of the entire failed areas with Belzona 1111, encompassing all the splits and leaks in that area. The tapped "top-hat" meant that

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FS 695214
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the small leaks had a means of escape whilst the Belzona 1111 was curing. Finally, when the Belzona 1111 cured a bolt was screwed in, sealing the leaks. An area to the right of the “top-hat” was patched using a large sheet of Belzona Superwrap II. Finally, Belzona 1111 was applied as a 75mm band around the base of the tank, incorporating reinforcement sheets, to seal the multiple leaks around the base.

Belzona Facts

The Belzona solution allowed the plant to continued their production, averted an environmental disaster, provided a long-term solution and saved around £180,000K in tank replacement costs.

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