

COMPLETION REPORT

Client : **XXXXXX Hospitals NHS Trust**

Project Brief : **The Internal Relining of 2 No.Split Sectional CWS Tanks –
2 No. Compartments Each – Block A**

Site Address : **UK**

Site Contact : **XXXXXXXXXXXX**

System Spec : **3M Scotchkote™ 165PW**
(Formerly Known as COPON Hycote 165PW)

Film Thickness : **1000 Microns**

Covac Supervisor : **David Elwell**

Completion Date : **1st April 2010**

Compiled By : **David Snell**

Covac Ref : **958**

SUMMARY OF WORKS

The Brief

Block A

1no. split sectional CWS tank (2no. compartments) - CWST 5 (E) & CWST 6 (F)
Each compartment 5.0 x 1.0 x 1.0mtr high

1no. split sectional CWS tank (2no. compartments) – CWST 1 (A) & CWST 2 (B)
Each compartment 3.5 x 1.0 x 1.0mtr high

Block C

1no. split sectional CWS tank (2no. compartments) - CWST 1 (A) & CWST 2 (B)
Each compartment 4.0 x 3.0 x 2.0mtr high

All surveyed tanks had been installed with rubber liners long with the exposed struts and internal access ladders being over coated in an unknown industrial grey coating. The underside of the steel roof panels and behind the backing of the rubber liner was coated with a thin layer of bitumastic based paint, which has potentially carcinogenic properties that could leach into the water supply due the tar / high solvent content as well as being no longer WRS / WRAS (Water Regulations Advisory Scheme) or DWI (Drinking Water Inspectorate) approved for potable water storage.

The rubber linings present on several tanks had failed and therefore come to the end of their useful lives leading to sub-film corrosion on the steel substrate. If left untreated, the internal steel and rubber liner substrates would be endangered with a continued risk from progressive corrosion and micro aquatic bacterial growth including Legionella, Pseudomonas and Biofilm especially within the creases of the liners; this can lead to further deterioration in the tanks surface structure and contamination of the down services with the supply of unhygienic and potentially harmful water to the outlets.

We are all now under an obligation to ensure that water retaining structures comply with the practical guidance of ACOP L8 and subsequently, utilize products that comply with WRAS / DWI Regulations and, therefore, maintain “the cleanliness of the system and the water in it” and avoid the “use of materials that harbour bacteria and other micro-organisms or provide nutrients for microbial growth”.

COVAC would highly recommend a full internal lining to all tanks, complying fully with current stringent water treatment regulations with a protective internal coating, which we can confidently guarantee for a minimum of 10 years, with additional benefits of ease to regular monitoring, annual cleaning and most importantly, the client’s peace of mind.

We, therefore, proposed the following: -

Manual Preparation

Brush & Roller Application

BLOCK A

THIS REPORT COMBINES THE REFURBISHMENT OF ALL 4 No. TANKS



These photographs show the external of the tanks with typical access.





The above and following images show the internal of the structures before removal of the failed rubber liners.





These photographs show the internal surfaces of the vessels having been drained of water with the rubber liner removed exposing the steel substrate which had been previously coated in a non (WRAS / DWI) approved bitumen paint.



Corrosion is clearly evident as a result of water leaking behind the failed liner.





These pictures show the internal substrate after being prepared by COVAC Operatives.

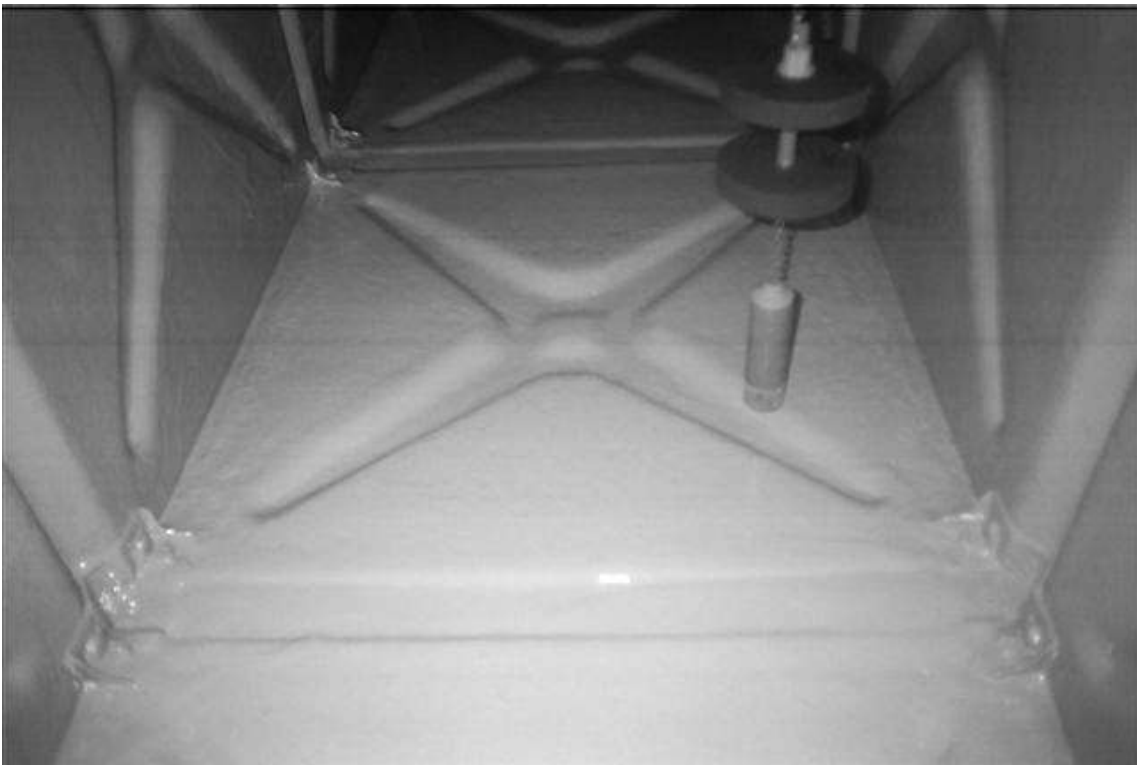
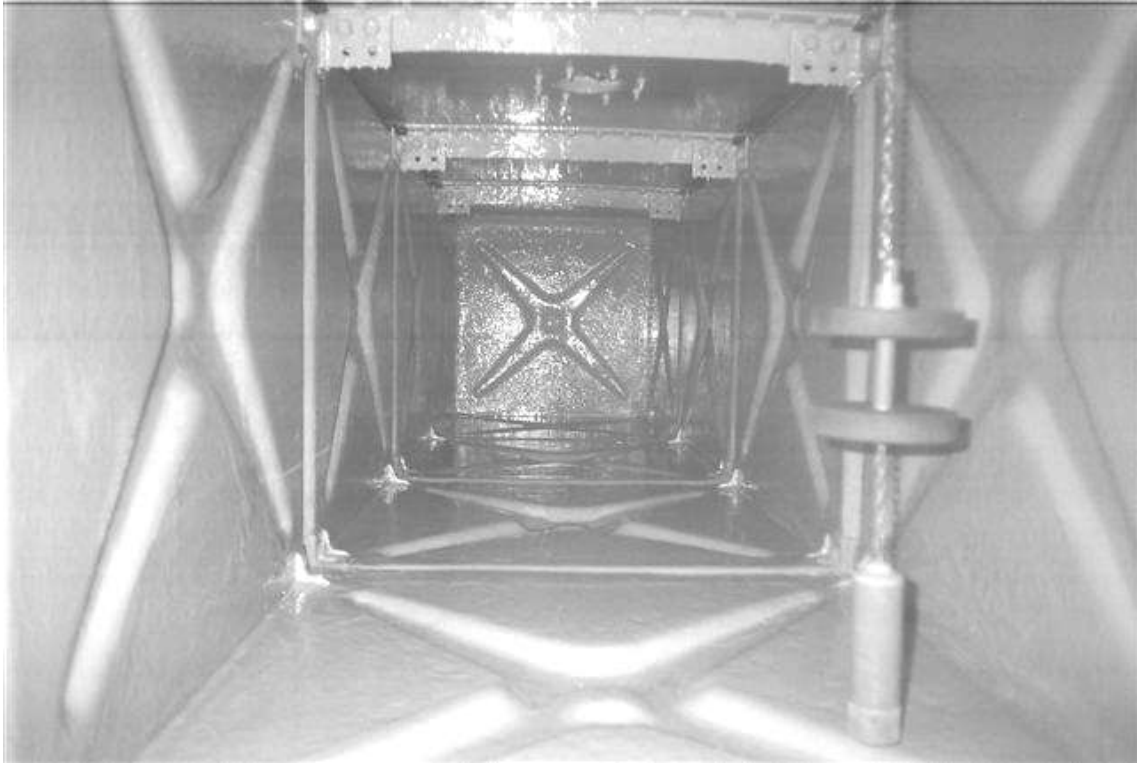




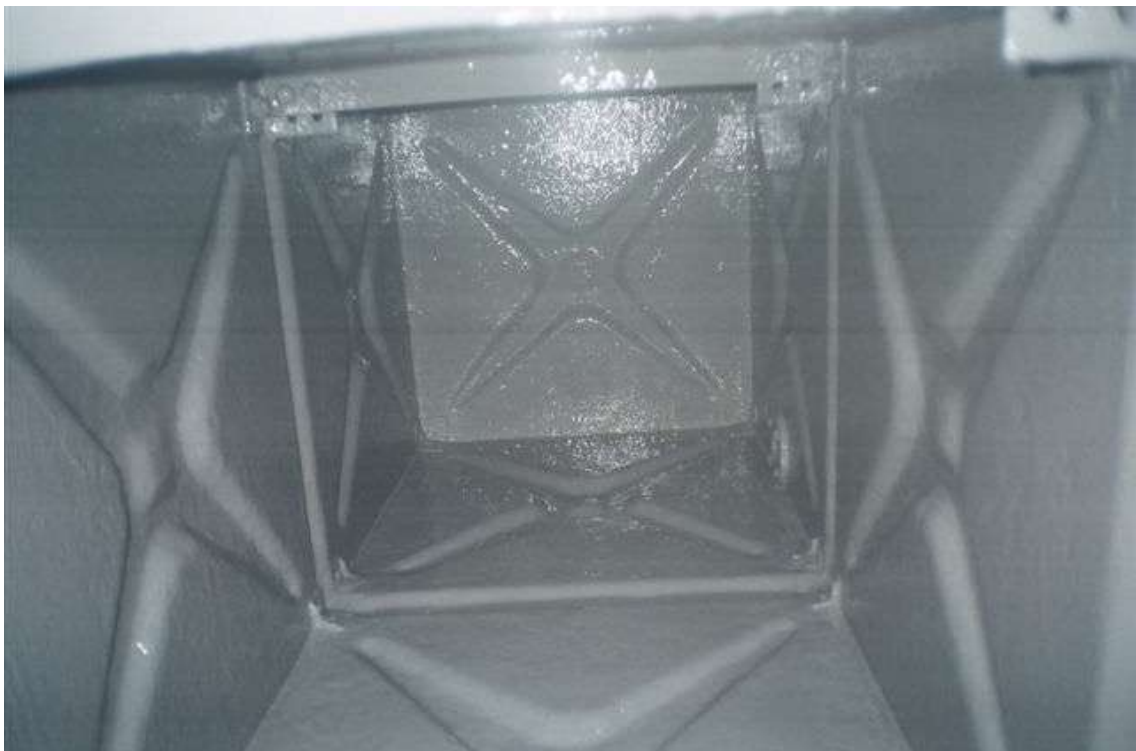
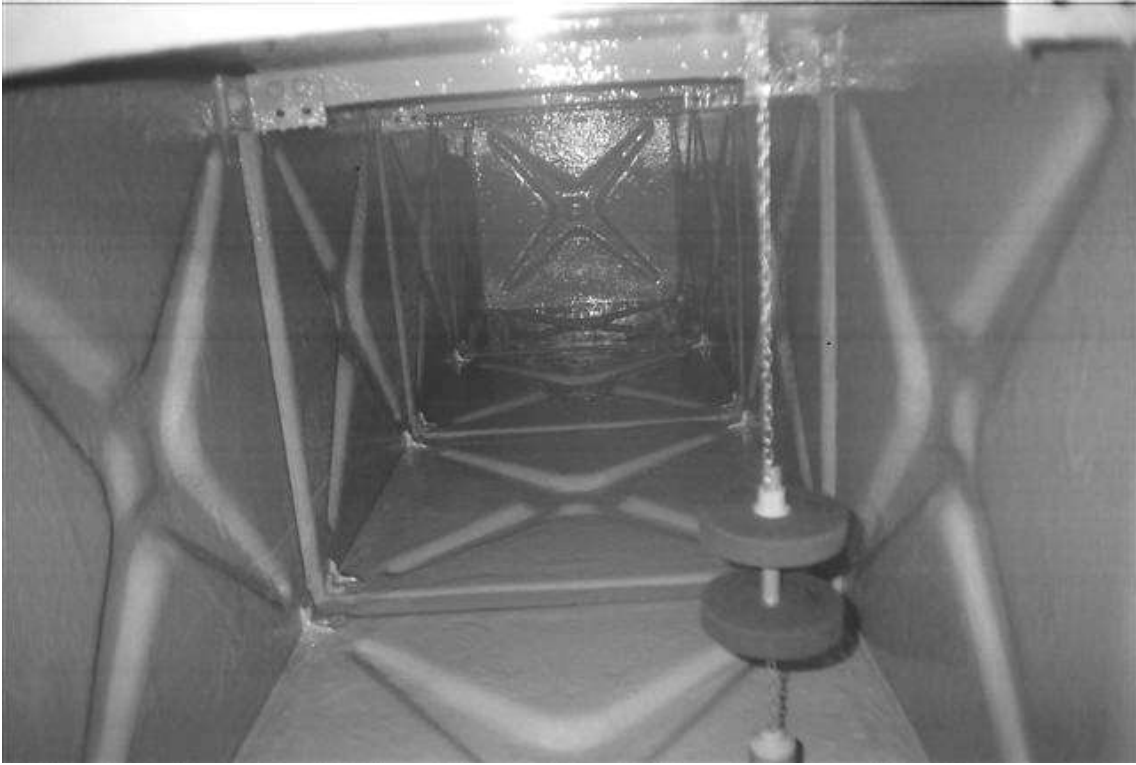
All seams, joints, bolts etc were initially 'stripe coated' to ensure all intricate areas were coated. These photographs show the substrates having received the 1st full coat of 3M Scotchkote™ 165PW (cream).

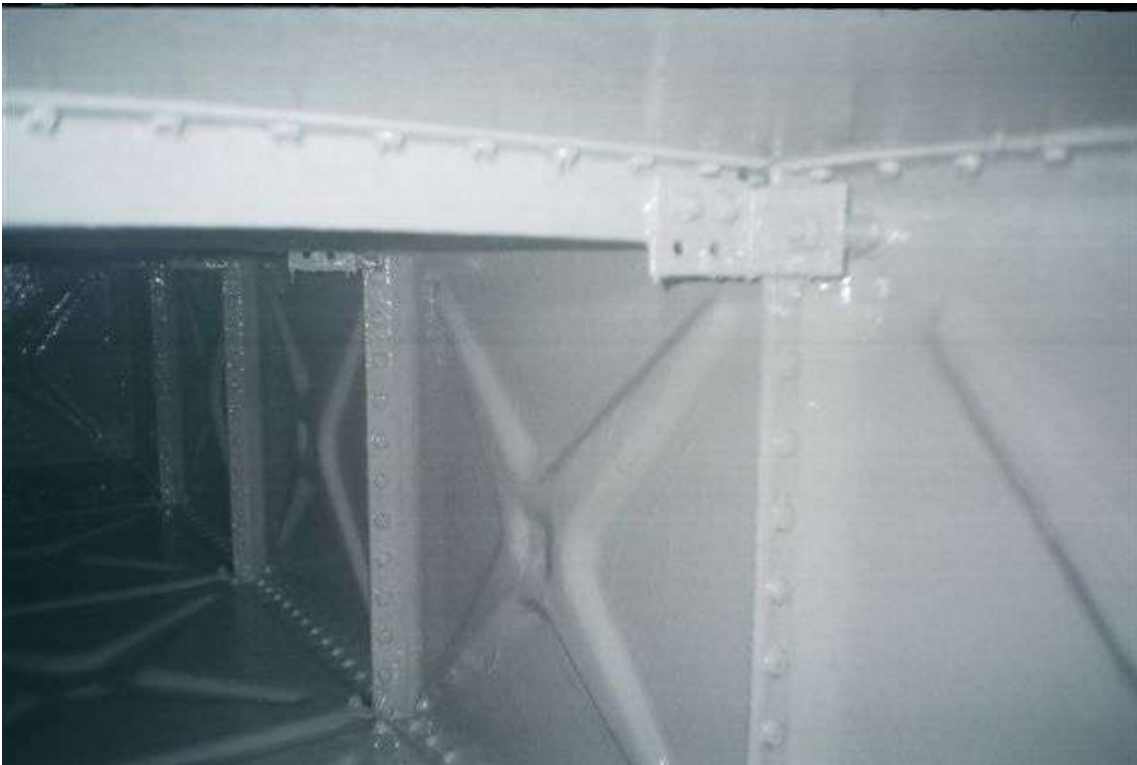




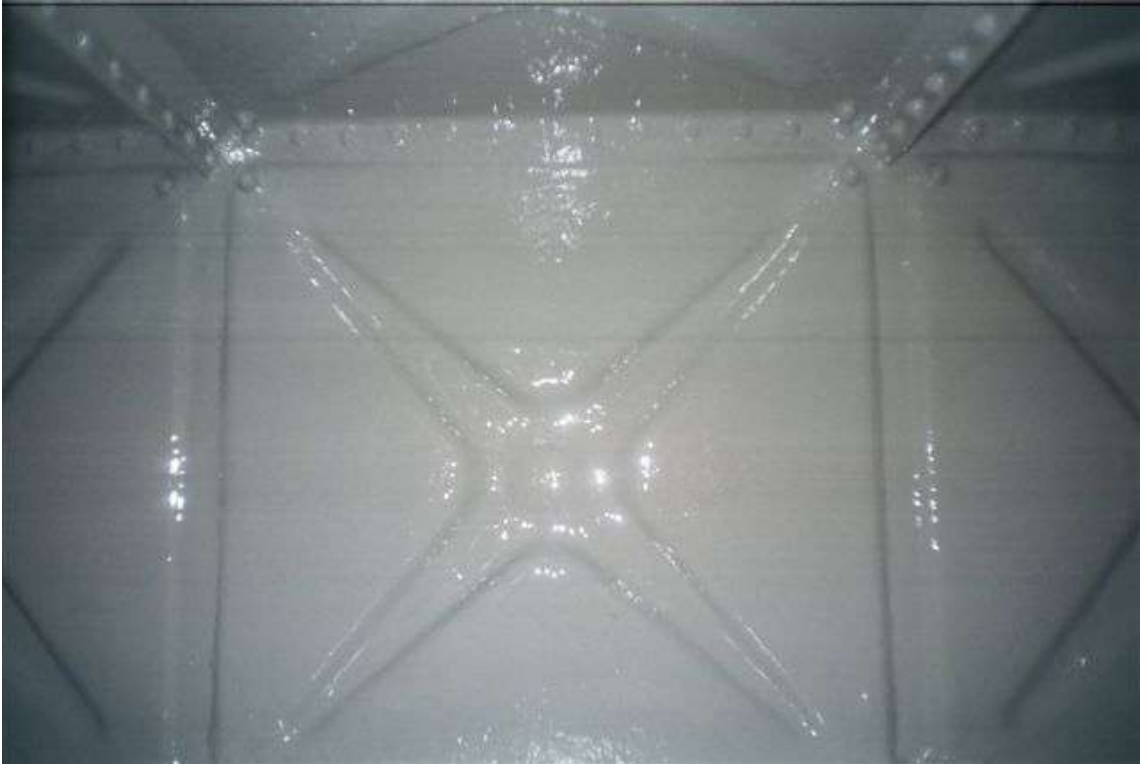


All intricate areas were again 'stripe coated' for a second time. The following photographs show the final application of the 2nd coat of 3M Scotchkote™ 165PW (grey).













The existing hatch covers were also coated.

