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COVAC COMPLETION REPORT

Client	-	XXX LTD
Address	-	XXXX XXX XXXXXXXXXX Street London EC2
Client Site Contact	-	XXXXX XXXXXXX
Project Brief	-	The Internal and External Relining of 2 No. BAC Cooling Towers.
System Specification	-	COPON Hycote 165PW Solvent Free Polyurethane.
Nominal Dry Film Thickness	-	1000 Microns (1mm).
Completion Date	-	25th January 2007
Site Supervisor	-	Robin Bailey
Report Prepared by	-	David Snell
COVAC Contract Ref:	-	574



Company registration number: 03213628
Registered in England VAT number: 670 635334
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SUMMARY OF WORKS

The Brief

2 No. BAC Cooling Towers

Model No: VXT 70Q

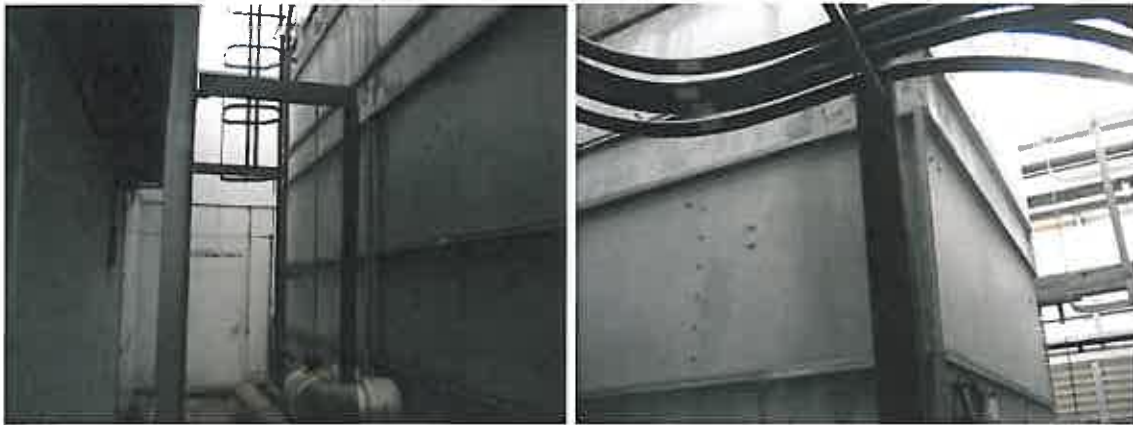
Approximate size of towers: 3.7M x 3.0Mtr x 6.0Mtr high + 1mtr added to top perimeter during the refurbishment programme to aid dispersion of water spray above the building roof level.

The towers are located 'side-by-side' in an 'open air' plant room. All internals of the towers were previously coated with Baltibond. This coating had reached the end of its useful life due to sub-film corrosion, poor elongation properties and subsequent de-bonding. The externals of the towers were painted with aerosol paint, which had reached the end of its useful life due to excessive sub-film corrosion, low film build and general deterioration.

In areas at the water exchange level, large areas of the internal coating was delaminated from the originally galvanized steel panels that could be removed by hand with minimal effort and which would have only been accelerated by regular power wash cleaning. This along with continual ingress of water beneath the coating would if left untreated, endanger the internal steel substrate with a continued risk from corrosion and micro aquatic bacterial growth including Legionella, Pseudomonas and Biofilm; this can lead to further deterioration in the towers surface structure and contamination with the supply / dispersion of unhygienic and potentially harmful water. 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".

We therefore, recommended the following scope of works: -





Side 1 (Length)

5 No. lengths in varying lengths due to configuration of ducted pipe work.



Side 2 (Width)

1 No. RSJ approximately the width of the tower.



Side 3

1 No. ladder attached to adjacent wall and the full height of the tower.



*** Internals of Towers**

Mechanical Preparation

Spray Application

*** Externals of Towers**

Mechanical Preparation

Brush & Roller and Spray Application



2 No. COOLING TOWERS - INTERNAL

(This photographic report combines the internal & external refurbishment of both cooling towers)



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The above photographs show the internal substrate of the 2 No. Towers prior to any preparation work involved in removing all of the existing failed non flexible epoxy coating.





On initial inspection severe corrosion was found to be apparent on numerous components, which were removed & subsequently replaced once the coating process had been completed.



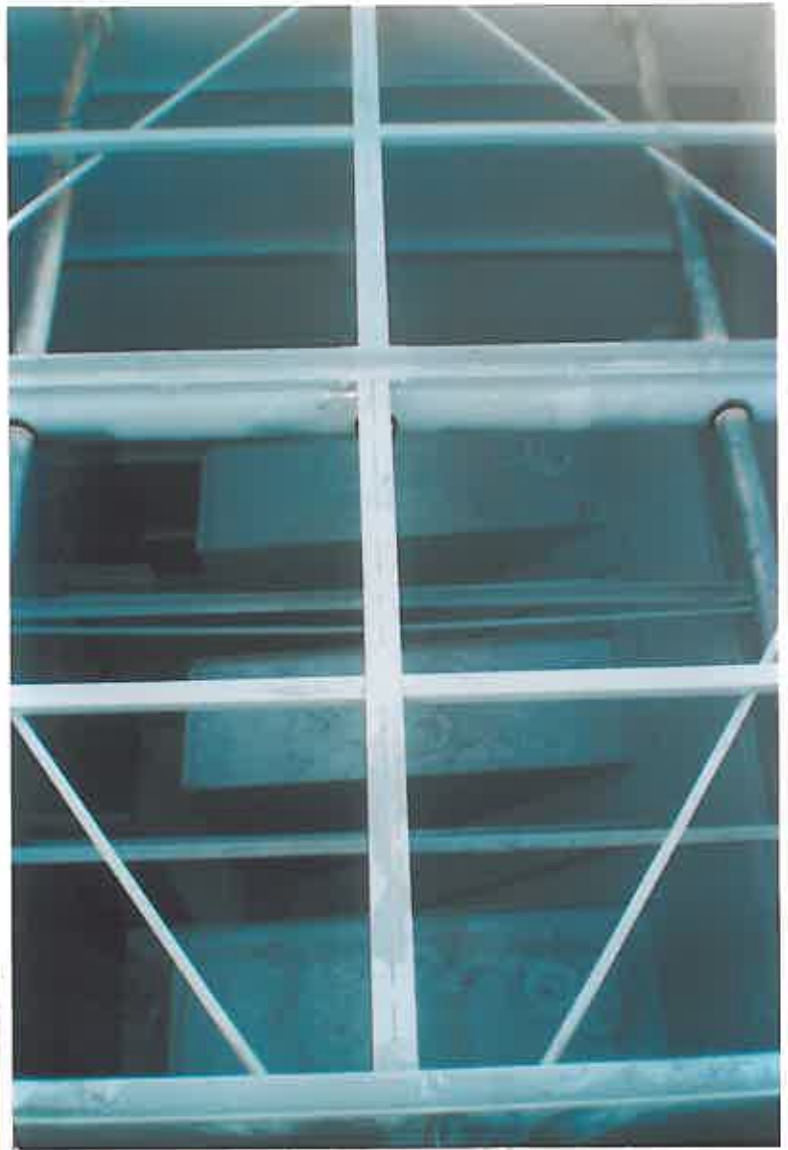






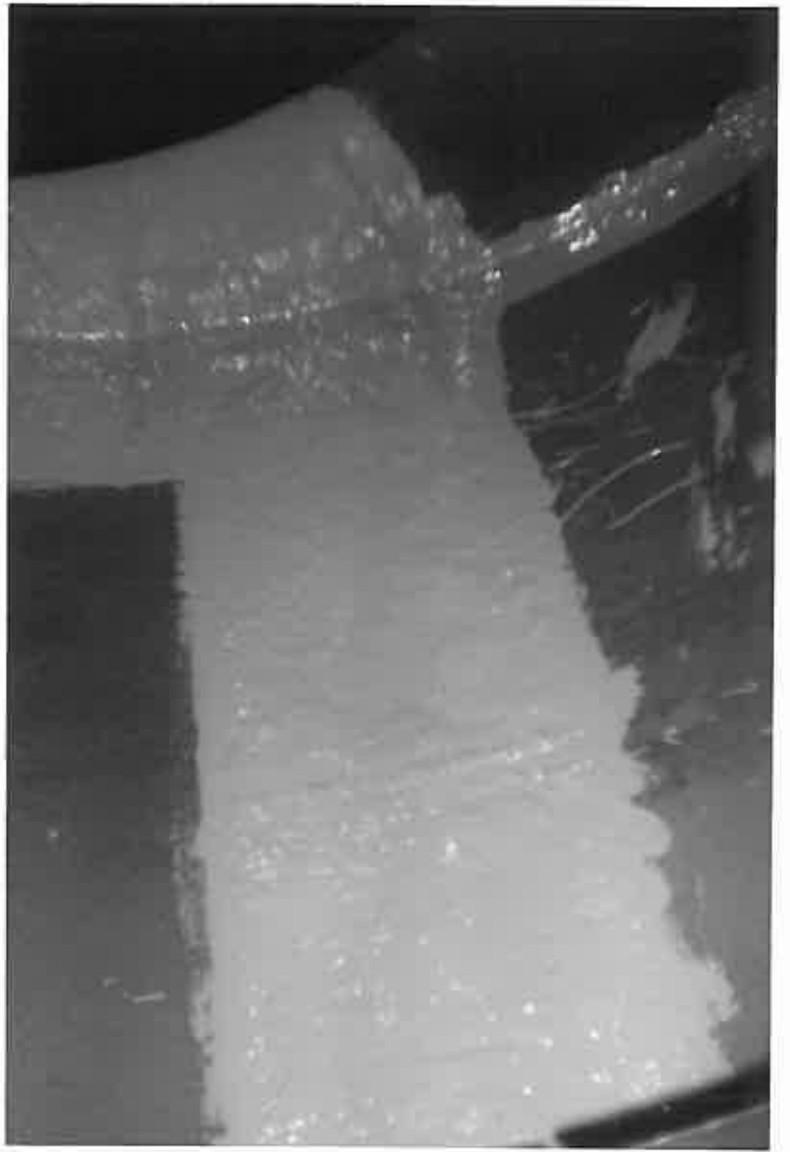
All internal surfaces were prepared in accordance with Swedish Standard SA 2.5 BS7079 Part A1 1989, utilizing mechanical, abrasive blasting and manual tools to raise a minimum surface profile and removing all surface scale and corrosion.







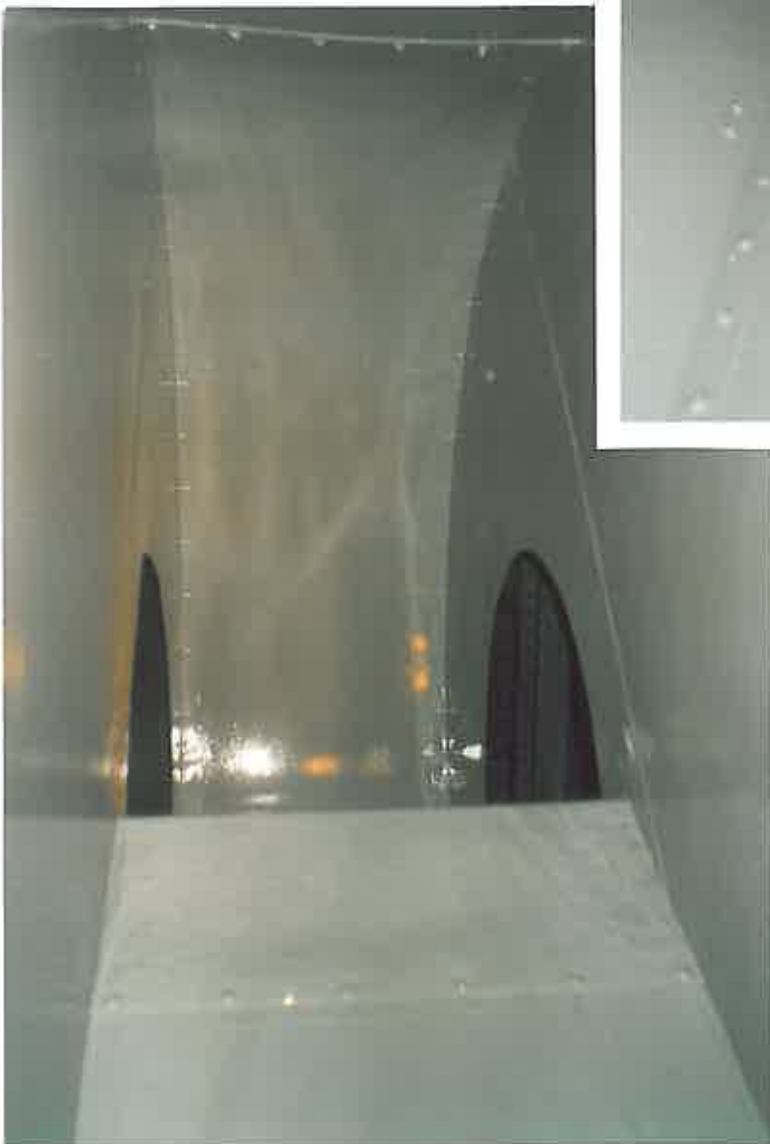
Any exposed or protruding rubber jointing strips were cut back to the substrate. All joints were then filled utilizing a flexible polyurethane mastic / sealant prior to the stripe coating.



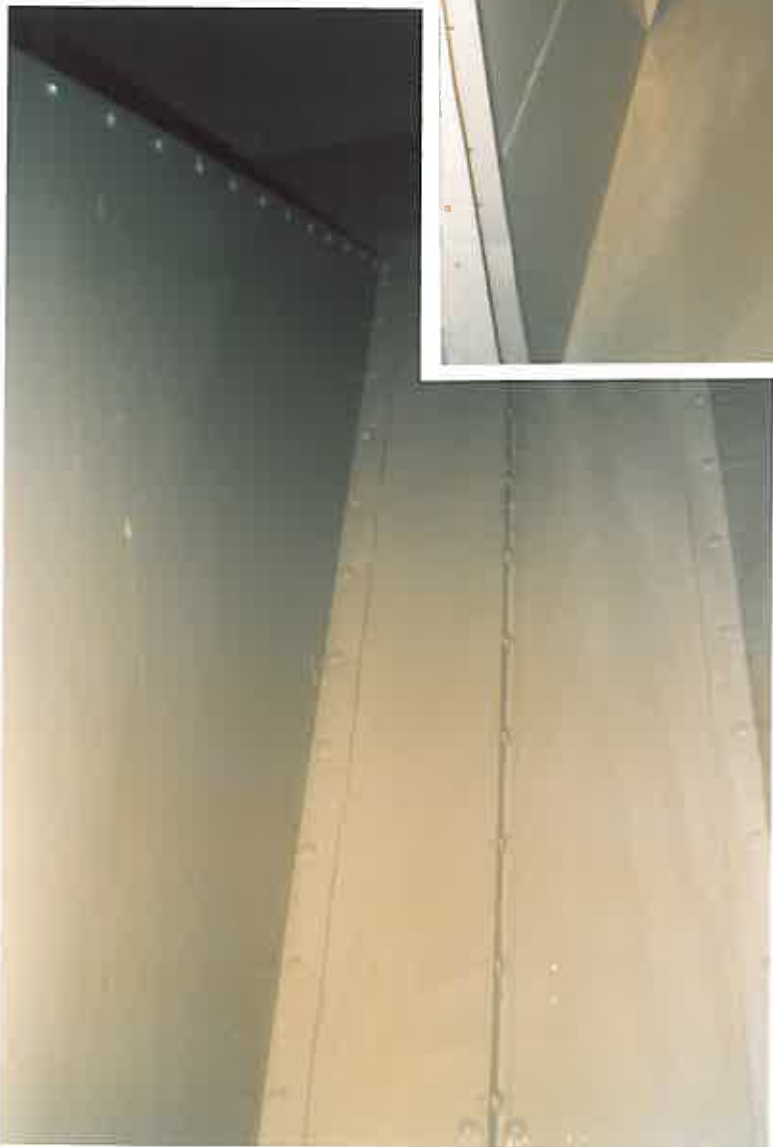
These photographs show fibreglass reinforced bandaging was used in conjunction with a full coating of COPON Hycote 165PW Solvent Free Polyurethane (cream) over severely corroded areas.



All seams, joints, flanges and all intricate/repared areas, were then stripe coated utilising Cream COPON Hycote 165PW Solvent Free Polyurethane, which was applied by brush and roller to a nominal wet / dry thickness of 500 Microns and allowed to cure.



The above photographs show the finished coat of COPON Hycote 165PW (Grey) having been Spray applied to a total w/dft of 1000 Microns (1mm) and 1500 – 2000 Microns over all stripe coated areas.









2 No. COOLING TOWERS - EXTERNAL

(This photographic report combines the internal & external refurbishment of both cooling towers)



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The above photographs show the external substrate of the towers and surrounding associated steel work, prior to the preparation work involving the removal all of the existing failed epoxy Baltibond coating











All steel work and external surfaces were dry abrasive blasted in accordance with Swedish Standard SA 2.5 BS7079 Part A1 1989, utilizing mechanical and manual tools to achieve the optimum surface adherence.









All external seams, joints and intricate areas, were then stripe coated and the area prepared for spraying.







The above photographs show the externals of the cooling towers together with the associated steel works having received the final coat of COPON Hycote 165PW (Grey, applied to a total w/dft of 1000 Microns (1mm) and 1500 – 2000 Microns over all stripe coated areas.



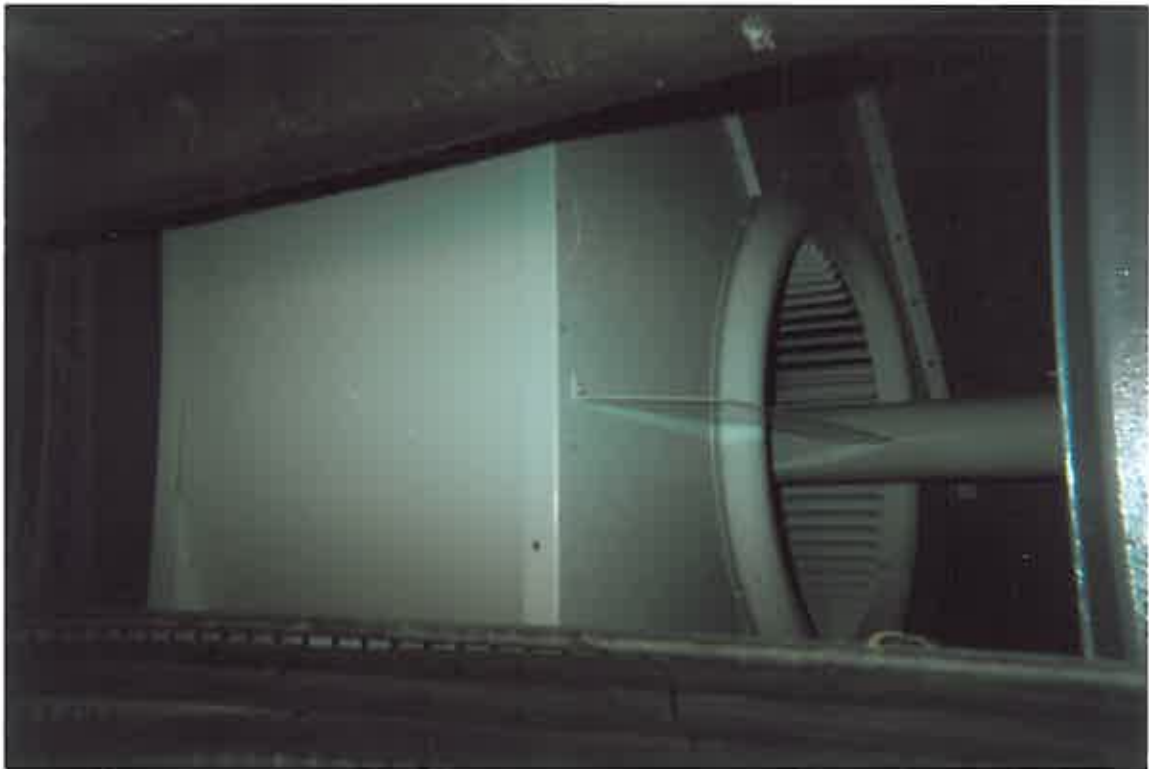












On completion of our full scope of works, BAC Balticare replaced all new fan housing's and components, which were subsequently recoated externally by Covac Site Operatives.





