

Dangerous Occurrence: Piling Platform Failure at Battersea Reach, London



Rock and Alluvium were working a Soilmec CM70 rig on a St George site at Battersea Reach, Wandsworth, London on March 4th 2011 installing 600mm diameter CFA piles to depths of around 26m. Whilst drilling one of the piles there was a concrete blockage therefore the auger was back screwed out of the bore to enable the extension pole to be removed. As the auger was back screwed, the ground began to fail under the foot of the rig causing the rig to sink forwards and right towards the sheet piled wall. The rig operator tried to recover the rig by tracking back and then drilling back into the ground but this was unsuccessful. The piling platform failed under the front right hand side track and the mast folded over the sheet piled wall, coming to rest on the large spoil heap as shown in the photograph above.

Fortunately there were no injuries but this incident had serious potential for harm and may result in severe financial loss as the rig is now inoperable.

What Happened?

- The piling platform was a maximum depth of approximately 300mm instead of a minimum required depth of 600mm in the area the rig sank.
- Crushed material used to construct the piling platform was not tested by a UKAS laboratory to certify that it met the specification of the piling platform design.
- The platform material contained a high fine content along with crushed brick and timber.
- The rig back screwed out of the pile when it was evident that there was a concrete blockage.
- This was the third pile over the duration of the contract where a blockage occurred and back screwing was required.

All are reminded that the key factors required to prevent such incidents are as follows:

- Ensure that all piling platforms are designed within the specifications recommended by FPS (Federation of Piling Specialists)
- Ensure ground conditions are checked by a qualified and competent engineer prior to installation to ensure that an adequate foundation is provided for the platform.
- The platform should be maintained and remediated to platform design level where necessary for the life span of the piling activities.
- Ensure that the design is signed off by the independent checker after maintenance of the platform and a certificate issued to the piling team prior to the installing and operating the rig on the new platform.

If you require any further clarification please contact your HS&E Advisor for support.

Sally Lloyd-Raines
Health, Safety & Environmental Advisor