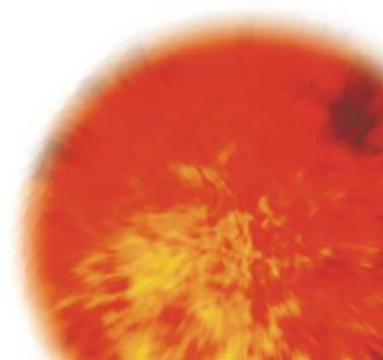


Cafco's Fendolite MII - a tried and tested solution for BP following UK fire.

1 600 tons of Fendolite MII have been supplied to ACG Phases I, II & III at Sangachal Terminal, Azerbaijan to provide 2-hour hydrocarbon pool and jet fire resistance.



Figure 1. Right; Sales Manager Geoff Robinson stands beside concrete plinth in the Slug Catcher Area and left and above; steel structure. All protected with Cafco's Fendolite MII system.



Cafco's client, **Azerbaijan International Oil Company (AIOC)**, initiated STEP (Sangachal Terminal Expansion Program) to take delivery of crude oil and natural gas from the Azeri, Chirag and Gunleshi (ACG) Oil and Gas Fields. STEP consisted of three oil storage and processing construction phases alongside two gas phases (Shah Deniz gas phase I & II).

The project was backed and funded by a consortium led by BP who had a lead role in the technical specification in conjunction with Kellogg, Brown and Root. The specifications were developed in KBR's offices in the UK and Azerbaijan in close consultation with **Geoff Robinson** (UK, Ireland and Caspian Sales Manager – Petrochemical) of Cafco.



The Fendolite MII system was recommended by BP following their extensive use of the product at Grangemouth Refinery in Scotland, UK. Fendolite MII had been applied to a pipe support structure that withstood a directly impinging jet fire of 7-hour duration. The Fendolite MII remained in situ for the entire period to protect the steel support, preventing a massive fire event and ensuing asset loss of astronomical proportions.

Figure 2. Fully intact Fendolite MII on the left following a directly impacting jet fire.

The specification of the Fendolite MII system also involved several visits and meetings with the main civil and structural contractor, a joint venture between the client AIOC and Tekfen of Istanbul, Turkey, known as the Azfen Tekfen JV. The JV decided during meetings that Tekfen would carry out application of the product. The Tekfen Fire Protection team was then trained onsite by one of Cafco's Recognized Applicators, the Rigblast Group, a multi-discipline contracting company with a base in Baku, Azerbaijan.

Close monitoring of the project was carried out by **Neil Wilcock** (Technical Sales Representative – Petrochemical) and **Geoff Robinson** from Cafco at the insistence of Azfen Tekfen JV and KBR.

The standard of work proved to be particularly high with an excess of 60 000 m² of Fendolite MII applied to pipe racks, vessel skirts and pre-assembled units.

The Fendolite MII system was also used on concrete support plinths in the Slug Catcher Area (term used for the highly flammable area receiving high pressure crude oil from oil platforms at sea) to protect against the risk of explosive spalling of concrete in the event of a fire and the consequent collateral damage to the surrounding pipe work that would ensue.

In the next 12-18 months a further phase will be built involving the construction of a second Dew Point Area, where Fendolite MII will be specified for the protection of a further 1 200 m² of structural steel.

CASPIAN REGION - BACKGROUND

The Caspian region of Azerbaijan, Kazakhstan, Iran and Turkmenistan is rich in energy wealth with oil fields and un-quantified natural gas reserves. The oil in the Caspian basin is estimated to be worth over USD \$12 trillion. Over the past 5 years, sales to the Caspian region have brought Cafco International more than twice the revenue than that of the UK market.



For further information on the project or any of the issues discussed, please contact Cafco International, Bluebell Close, Clover Nook Industrial Estate, Alfreton, Derbyshire DE55 4RD UK Tel: 01773 837900 Fax: 01773 836710 Email: info@cafcointl.com Web: www.cafcointl.com

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