



NUSTAR GRANGEMOUTH EXPANSION PROJECT – Tank Bases & Containment Bund Walls

This project was to provide the infrastructure for three new steel fuel storage tanks for Nustar at their existing storage terminal in the port of Grangemouth, and comprised heavily reinforced concrete tank plinth bases constructed on piled foundations with a surrounding concrete containment bund wall.

The main elements of construction included:

- 750 x 50m long pre-cast concrete piles driven to bedrock
- 3 x 30m diam x 1.2m deep heavily reinforced concrete base plinths
- 300m x 2.5m high reinforced concrete perimeter bund wall
- Miscellaneous accommodation works including site drainage and service connections

The work was subject to rigorous procedural checks to ensure quality, safety and environmental standards were maintained within this petro-chemical environment with the additional challenge of the live, operational docks location.

Specific features of the construction included:

- Single 800m³ continuous concrete pours to each base to give a monolithic construction
- High-spec proprietary waterbar system to bund walls and floor joints
- Bespoke circular base formwork systems



Extensive programme coordination and liaison was undertaken with follow-on contractors engaged on tank the erection, to open-up work fronts and ensure Nustar production and in-to-service dates were met.

CLIENT:

Nustar Grangemouth Ltd

ENGINEER / DESIGNER:

Stopford Projects Ltd

CONDITIONS OF CONTRACT:

Nustar Master Works Agreement

DURATION OF WORKS:

March 2013 – April 2014 (13-14 Months)

CONTRACT VALUE:

£3,500,000

KEY FEATURES

Petro-chem environment
Deep-piled foundations
Heavy reinforced concrete
Bespoke circular formwork
Large-area concrete pours
Watertight joints systems