

# Building With Flare

## Aecon Fabco's Offshore Tower



*Rendering of the Deep Panuke production platform (flare tower on the left)*

When helicopters start ferrying workers out to the Deep Panuke gas field late next year, their destination should be easy to spot. Just fly 250 kilometres south east of Halifax and look for the offshore production platform with the 93-metre high flare tower.

Currently being fabricated by Aecon Fabco, the flare tower is the new Pictou facility's largest project to date.

Discovered in 1998, EnCana Corporation's Deep Panuke gas field will produce up to 300 million cubic feet of natural gas a day when it comes on stream towards the end of 2010. It will be Nova Scotia's second offshore gas development since Sable Island in 1999.

The production platform for the field, designed, installed and operated by Single Buoy Moorings, will be situated 250-kilometres south-east of Halifax and 40-kilometres west of Sable Island. The platform will stand in 45 metres of water, with production facilities for up to 8 wells and accommodation for up to 75 people in its living quarters. And towering above the platform, will be the 93-metre flare tower.

Earlier this year, Single Buoy Moorings awarded Aecon Fabco a multi-million dollar contract to fabricate the tower. Work on the project started in January and is expected to be finished early in 2010.

The tower has three pipes, a 2-inch diameter pipe to provide fuel gas for the pilot light and two flare pipes, a high pressure pipe 18-inches in diameter and a low pressure pipe 12-inches in diameter. The tower frame is a triangular steel structure, with three columns and horizontal & diagonal bracing. Each side is 9-metres wide at the base tapering up to 4-metres wide at the top. Aecon Fabco will also fabricate and install the cable trays, platforms and ladders.

## Project File

### Flare Tower

**Division:** Aecon Fabco

**Facility:** Pictou, Nova Scotia

**Customer:** SBM (Single Buoy Moorings)

**Scope:** Flare tower fabrication

- Piping
- Pipe supports
- Cable trays
- Platforms and ladders
- Coating

**Timing:** January 2009 to January 2010

**Height:** 93 metres

**Weight:** 160 tonnes

**# of Employees:** 40

**Key Employees:**

Mike Jones – Project manager  
Brendan McCormick – Operations manager Pictou  
Ken Campbell – Engineering manager  
Bruce Morton – Shop manager  
Claude Capstick – Shop supervisor  
John McInnis – Quality inspector  
Les Avery – Shop foreman  
Vaughan Osborne – Technical specialist

*Pictures courtesy of EnCana Corporation*

“This is the largest project we have undertaken at Pictou,” says Mike Jones, Aecon Fabco’s project manager. “We couldn’t have done it at our Dartmouth facility and if it had been two feet wider we couldn’t have done it at Pictou either. As it is, laying out the panels takes up the whole shop.”

Built with a special grade of carbon steel, much of which was imported from Europe, the tower is almost completely fabricated by hand.

“We call them TKY joints because the pipe-to-pipe joints form T-, K-, and Y-connections,” explains Mike. “It is a very difficult welding configuration and only the most highly-skilled welders can do the work. In fact, every welder had to pass a test before they were eligible to be chosen for this project.”

The tower is being built in two sections – the 52-metre long base and the 41-metres long top section – and will weigh 160 tonnes.

A trailer will take the finished sections from the shop to the wharf where they will be loaded on an SBM ship and shipped to Abu Dhabi in the United Arab Emirates where the tower will be integrated with the remainder of the platform. **A**



*Assembly of the flare tower for the Deep Panuke production platform in Pictou, Nova Scotia*



*From left to right: Brendan McCormick, Operations Manager Pictou Aecon Fabco; Kinnon Kendziora, Construction Site Manager SBM Offshore; Mike Jones, Project Manager Aecon Fabco*