UK Ethylene System

UKOPA Meeting
25th/26th February 2009

United Kingdom Onshore Pipeline Operators' Association
Development of a Network

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• Export facilities at North Tees & Mossmorran
What’s in a name?

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• The UK ethylene pipeline network has comprised the following …

(FSEP Fawley – Severnside)
TPEP Trans-Pennine
SCEP Stanlow - Carrington
WGEP Wilton - Grangemouth
RSEP Runcorn - Stanlow
MGEP Mossmorran - Grangemouth
NWEP North West
TSEP Teesside - Saltend
History - TPEP

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- Uprated in 1981 with the installation of booster stations and Holford storage
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• Booster station capability installed in 1997
History - NWEP

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• This provides a direct link between Grangemouth and Stanlow and forms the third leg of the network triangle
History - TSEP

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• This new link was connected to the WGEP, providing an extended ethylene reservoir and connection of BP’s production and consumption assets
The Ethylene Network – SH&E Benefits

• The alternative to the bulk transport of high pressure ethylene via pipeline is as a liquid (-103°C)

• Environmental penalties
  - liquefaction energy
  - road transport

• Safety risks
  - mobile major hazard
  - loading/offloading hazards
The Ethylene Network – Commercial Benefits

• With increasing production and consumption plant scale, plant outages create major impact
• The UK network provides the means to link production and consumption to bulk storage
• This allows quite large swings in supply and demand to be balanced
• Most plants on maintenance intervals of 3-6 years
• Network enables swaps within and outside the UK to manage these intervals
• Concept of virtual flows