with carbon steel ... where structures have be fabricated on- ... pipeline route. Carbon steel with the use ... the selected option.

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7.3.1.2 Pipeline Design

Preliminary wall thickness, on-bottom st... calculations have been performed to fac... offshore pipeline options. Both HIPPS (150 barg design pressure) and non-HIPPS (345 barg design pressure) pipeline design cases were considered. However, during the pipeline screening phase, parallel work ruled out the HIPPS design case. A range of pipeline sizes, 18", 20" and 22"OD, were considered for the non-HIPPS design case. Following a review of hydraulic analyses carried out for the pipeline the 20"OD pipeline has been carried forward as the base case, with the 18"OD pipeline being considered as an alternative option. The 22"OD pipeline size was ruled out on the basis of pipeline operability as being oversized for the projected range of flows.

7.3.1.3 Dual Pipeline Option

Ballinaboy Bridge Terminal EIS April 2001 4.5.1 The J-T option chosen over silica gel because the manufacturers would not guarantee silica gel operational performance with the predicted pressure & possible variations in composition of gas

environmental grounds.

7.3.3 Options for Hydrate Inhibition

Gas hydrates can form in gas pipework at certain temperatures and pressures. Hydrates in the form of crystals have the potential to seriously disrupt fluid flows. There are two ways of preventing the formation of hydrates, either by maintaining a temperature above that at which the hydrates form, or by using a chemical hydrate inhibitor. Calculations have shown that for the Corrib fluids gas hydrates form at temperatures below 17-22°C. It was not considered viable to keep the gas above this temperature range throughout the Corrib export pipeline, and therefore a hydrate inhibitor will be used.

There are two types of inhibitor system, either the established thermodynamic forms such as methanol and glycol or the recently developed low dosage (kinetic) hydrate inhibitors. The operating conditions of the Corrib system will be beyond the limitations of the currently available low dosage inhibitors (which only operate in pressures up to 90 – 110 bar a). During the later years of field life it is possible that low dosage inhibitors

could be used (when operating pressures are lower). Technological advances may also allow their earlier deployment. The subsea design will therefore allow for their potential future usage.

The hydrate inhibitors considered were methanol and monoethyleneglycol (MEG). It would be possible to inject methanol through the umbilical, whereas the viscosity of MEG, in combination with the higher flowrates needed would require a separate bulk pipeline to be installed. Therefore, methanol has been selected as the preferred option for hydrate inhibition. The Oslo and Paris Commission (OSPAR) classify methanol as a PLONOR substance.