

Crude Oil Pipeline Risk Assessment Confidential Client

Entec was approached to perform a risk assessment for a major crude oil pipeline project, to satisfy the regulatory authorities that design and operation would not result in unacceptable levels of risk to the environment and communities along the pipeline route.

The pipeline passes close to a number of environmentally sensitive features and inhabited areas, and a thorough independent review was considered essential. Entec's broad experience of risk assessment and accident investigation made us an obvious choice for this work.

The pipeline passed through a variety of terrains, with potential for earthquake, erosion through river crossings, damage from excavation, construction or agricultural activities. Release of crude oil could result in serious environmental pollution, possibly involving damage to water resources or major fires with the potential to result in serious air pollution incidents. Such incidents would have serious economic consequences in the predominantly rural areas along the pipeline route.

Assessment consisted of an analysis of frequency and size of potential releases of crude oil from other international pipelines. Frequency was based on an examination of leakage rates in similar piping systems. The potential scale of problems was modelled using well-established computer models. The study identified measures to reduce the potential for leakage and strategies to mitigate the effect of spillage.

The completed assessment will assist the pipeline operators to gain government approval for operation, based on a thorough analysis of the loss potential and practical measures in place to limit the size of loss.



*Assessing the risks
of a major crude oil
pipeline project*

