



Modification of Hazardous Pipelines



Engineering Expertise for Hazardous Pipeline Modifications

Hazardous Pipeline Modifications

Reasons for pipelines to be modified include:

- > Repairs to leaking pipes
- > Replacement of damaged sections
- > Replacement of defective valves
- > Sealing of redundant lines
- > Tie-in of new lines
- > Pipeline commissioning and decommissioning

When modifications to a hazardous pipeline are required, it is normally essential that the pipeline is restored to service as quickly as possible. This is particularly the case with unplanned modification work and where the line may contain hazardous materials, such as hydrocarbons.

PE provides specialist engineering services for a wide range of hazardous pipeline modifications.

Pipeline Modification Services provided by PE

PE provides hazardous pipeline modification services for planned pipeline maintenance, operational changes and reactive emergency requirements.

Services available from PE for the modification of pipelines include:

- > Valve fitting and replacement
- > Launcher and receiver installation
- > Pipe section isolation
- > Repair methods and procedures
- > Decommissioning (line void evacuation)
- > Re-commissioning leak testing
- > Spool piece manufacture and fitting
- > Cold cutting
- > In-service pipe welding and weld repairs
- > Non-destructive testing
- > Full site procedures, quality and risk assessments
- > Consultancy services



Cold cutting of a pipeline



On-site pipe welding



Hydrotesting of flange weld joint

PIPELINE ENGINEERING

"Engineered Solutions for the Pipeline Pigging and Flow Assurance Industry"





Case Study

JET FUEL PIPELINE REPAIR

An emergency repair was required to a below ground jet fuel pipeline after it had been damaged during directional drilling which was being carried out to lay fibre optic cables.

PE's Project Management Team carried out a detailed site survey and provided a scope of works to repair the pipeline which included:

- > Isolation of the pipe using PE Compression Plugs
- > Cold cutting and weld preparation of the existing pipe
- > Welding of new flanges to the pipeline
- > Non-destructive testing including 100% radiography and localised hydrotesting using PE Flange Weld Testers
- > Insertion and welding of a new prefabricated pipe spool
- > Reconnection of the cathodic protection system

PE's Engineering Services Team successfully completed this project allowing the jet fuel pipeline to be quickly put back into service.

Industry Focus

PE provides pipe modification services for all industrial sectors including:

- > Oil & Gas
- > Chemical
- > Water
- > Pharmaceutical
- > Food & Drink
- > Mining
- > Power Generation
- > Sewage & Effluent
- > Nuclear



Damaged pipeline



Repaired pipeline

Pipeline Modification Resources from PE

PE's Project Management and Engineering Services support team includes:

- > Project Managers
- > Process Engineers
- > Mechanical Engineers
- > Field Service Engineers
- > Specialist Technical Support Services



Repaired pipeline with cathodic protection system