Choose another section

- Home
- Community
- Preparing for Emergencies
- Emergency planning
  - Emergency contacts
  - Emergency plans
  - Flooding
  - Pipelines
  - Roads and highways flooding (drains and gullies)
  - Get ready for Brexit

Pipelines

Last Modified May 14, 2019

Share this page

We must have emergency plans to cover certain major accident hazard pipelines (MAHP) within Hertsmere.

The following gives an overview of the emergency response to a pipeline incident and follows the recommended national format for Pipeline Safety Plans.

Pipeline system

Transco (formerly British Gas) is the operator for the notified Major Accident Hazard Pipelines in Hertsmere. Transco supply maps to us and the fire service showing pipeline routes and data to the emergency planning team. The details recorded include data on bore diameter, operating pressure and above ground equipment such as valves and pumping stations. This information is not available to the public.

Hazard and effect

An incident involving a high pressure gas pipeline is readily identified by the following features:

Release of gas

Significant damage to a Major Accident Hazard Pipeline that results in a pipeline puncture or rupture will lead to a pressurised release of odorised natural gas.

If ignited this may give rise to a thermal radiation hazard to individuals. Ignition can be immediate, delayed local ignition, delayed remote ignition, or no ignition at all. Each may have different consequences, hazard ranges and duration and for this reason time scale and sequence of any incident will vary.

Duration of pipeline leaks

When a high-pressure pipeline fails, immediate and rapid de-pressurisation occurs, and is followed by relatively stable flow as the pipeline unpacks due to the leak and continued pumping of gas into the pipeline. Flow may last for several hours dependant on the location of the pipeline and time Transco takes to shut down valves.

Blast effects and projectiles

The pressure blast at the time of failure can be significant in close proximity to the pipeline, cover material over the pipeline may be thrown into the air at high velocity, but the serious effects will diminish with distance. Delayed ignition in the vicinity of buildings may result in loss of window glass as a result of blast over pressure.

Fire and explosion

The ignition of any release of gas will cause a flare, which may have serious effects due to thermal radiation. People can be shielded indoors but radiation levels may be sufficient for the buildings to catch fire. Techniques are available for estimating the thermal radiation from an estimated quantity of gas released over time. Any failure of pipelines carries the risk of ignition, but experience has shown that in the majority of cases ignition does not occur.

If a release of gas does not ignite immediately, it will form a cloud, which will disperse over large distances. If a cloud of gas ignites it may burn back as a flash fire to the point of origin. As it disperses it will be diluted with air, the concentration falling below the lower explosive level (LEL) when it will no longer present a fire hazard. The distance over which such a release may disperse depends on the type of release and the prevailing weather conditions. Concentrations and duration may be estimated using plume modelling.

It is important that ignited gas is not extinguished unless specifically requested by the Transco on site controller.

Noise

The release of high-pressure gas creates a great deal of noise, which can be very intense leading to temporary hearing damage. High noise levels can also be disorientating and may cause unexpected behaviour in people affected.

Hazard range and emergency planning distances

Transco have calculated hazard information related to thermal radiation. This is supplied to the fire service and is also available to our planning department.

Plan activation

In view of the extreme nature of a high-pressure pipeline failure it is likely that initial notification will be by a member of the public to the police or gas supplier.

The single national gas emergency number for all notifications is 0800 111 999.

Comments, compliments and complaints form

↑ Back to top

My council Terms Accessibility Contact us