

# Working Group on Pipelines

UKOPA/05/0072

# Outline

- Terms of Reference
- Original Drivers
- Objectives
- Deliverables
- Programme (Chronology)
- Current Status

# WGP – Terms of Reference

## Remit

The remit of the Working Group on Pipelines is to advise the Major Hazards Subcommittee (MHSC) of the Advisory Committee on Dangerous Substances (ACDS) on issues relevant to its work on controlling the risks from pipelines.

# WPG – Terms of Reference

- The Working Group on Pipelines will provide for a dialogue between Government, as represented by the HSE and its relevant advisory committees, and those directly involved in the pipeline sector.
- The Working Group will apply its knowledge of the sector to:
  - i) the formal consultative agenda of ACDS as directed by the relevant advisory committee - MHSC.
  - ii) the development and progress of a focused agenda and work programme proposed to and agreed by MHSC.
- The range of projects and tasks undertaken, including timescales and reporting arrangements, will be proposed by the Working Group to MHSC for agreement, or will be actioned by MHSC, in accordance with the ACDS agenda.

# WGP – Terms of Reference

## Membership

- Independent Chairman  
G P Walker (Independent member of ACDS)
- HSE Representatives from Policy and Operations -  
P Sargent (Safety Policy Directorate, member of MHSC)  
(R Turner, M Goose) M Wilson? (MSDU)  
S Chatfield (Operations Directorate)
- UKOPA Representatives -  
M Harrison (Chemical Pipeline Operators, UKOPA Chairman)  
P Brown (Gas Pipeline Operators)  
N Jackson (Gas Pipeline Operators)  
P Davis (Gasoline Pipeline Operators)
- Independent Member -  
R McConnell (SH&E Consultant, nominated by UKOPA)
- Secretary -  
J Haswell (nominated by UKOPA)

Note - as a matter of principle, the Working Group will invite, nominate or co-opt additional members to meet the needs of specific projects as required.

# WGP – Original Drivers

- UKOPA lobbying for a formal interface with HSE to progress and agree a common approach for risk based assessment of pipelines (primarily for the provision of land use planning advice).
- HSE requirements for codification of pipeline LUP advice
- HSE requirements to achieve stakeholder consensus for amendments to PSR.
- UKOPA requirements to discuss and agree the basis for contentious amendments to PSR (ie MAHP classification of gasline, pipeline emergency plan tests and charging for tests).

# WGP – Deliverables

- Progress technical agenda to produce pipeline risk assessment methodology
- Receive reports on HSE codification of pipeline LUP zones
- Receive reports on development to new and existing legislation
- Receive reports from CAPEPLG re pipeline matters

# WGP – Deliverables

## WP (RA) Technical Work Programme

Deliverable
Facilitate adoption of UKOPA Data by HSE
Codified LUP Zones for Natural Gas Pipelines
Modelling of risk mitigation measures
Re-evaluation of Land Use Planning Zones for other MAHP pipelines
Consequence Modelling
Risk Criteria – (specifically societal risk aspects)

# WGP – Chronology of Events

- Sept 2001 – WGP formed by HSE to advise MHSC on pipeline issues
- Nov 2001 – Technical Workshop (No 1) to agree technical work programme:
  - Aspects of consequence modelling
  - Risk mitigation
  - Risk criteria
- May 2002 – WGP forms Working Party (Risk Assessment) to progress work programme:

# WGP WP(RA) – Terms of Reference

## Remit

The remit of the Working Party (RA) on Pipelines is to provide specialist advice and deliver technical work on issues relevant to controlling the risks from pipelines as specified by the ACDS MHSC Working Group on Pipelines.

# WPG WP(RA) – Terms of Reference

- To identify, debate, discuss and resolve key aspects of risk assessment methodology as applied to UK pipeline systems so that a consistent and coherent methodology can be agreed for future application to Land Use Planning issues.
- To propose and develop specific risk based models and methodologies for pipeline systems. These to incorporate as a minimum Natural Gas, Ethylene, Spiked Crude and Gasoline pipelines.
- All work programmes are to be directed and approved by WGP.
- Progress is to be reported back to WGP, along with conclusions, discussion papers, and any issues which need resolving.
- The work undertaken, including timescales, reporting and approval arrangements, will be proposed by the Working Party to WGP for agreement.

# WGP WP(RA) – Terms of Reference

## Membership

- Independent Co-ordinator -  
R McConnell (Independent member of WGP)
- HSE Representatives from MSDU -  
I Hirst  
S Pointer
- UKOPA Representatives -  
M Harrison (UKOPA)  
R Ellis (UKOPA)  
N Jackson (Gas Pipeline Operators)  
P Davis (Gasoline Pipeline Operators)

The WP(RA) was formed by topic specialists required for specific deliverables proposed by R McConnell and agreed by WGP.

R McConnell identified Task Teams to progress specific issues to allow best use of resources and expertise to progress specific areas.

## **WGP – Chronology of Events (Cont)**

- June 2002 Technical Workshop (No 2) – HSE Codification of LUP Zones for Gas Pipelines
- Feb 2003 – MSDU (M Goose) withdraw from WGP and WP(RA) due to resource constraints
- July 2003 – WGP meeting with MSDU, agreement for WGP (R McConnell) involvement in IFRLUP
- Nov 2003 – Technical Workshop No 3 – Risk Assessment of Gasoline Pipelines
- Feb 2004 – UKOPA proposal to progress outstanding technical work programme

# UKOPA Proposal – WGP Work Programme

- Identifications of areas affected by land movement (Transco BGS) and incorporation into LUP advice.
- Improved Limit State Function – mechanical damage.
- Assessment of mitigation factors (slabbing & marker tapes)
- LUP zones for ethylene pipelines (using HSE methodology).
- LUP zones for Spiked Crude and NGL pipelines (using HSE methodology).
- Risk assessment methodology for gasoline pipelines.

## WGP – Chronology of Events (Cont)

- October 2004 – UKOPA proposal to publish code supplements (PD 8010 & TD/1), supported by WGP
- April 2005 – WGP meeting with MSDU (M Wilson), MSDU re-engage with WGP
- **Planned for Sept 2005 – Technical Workshop No 4 – Agree outstanding work programme with MSDU**

# WGP – Current Status

- UKOPA is progressing technical work programme via RAWG
- WGP supports publication of results as code supplements to PD 8010 and TD/1 (now being progressed by BSI & IGEM)
- MSDU now involved in all initiatives

# **Application of Pipeline Risk Assessment for Land Use Planning Advice to Local Planning Authorities**

- **Scope**
- **Land Use Planning**
  - **HSE methodology – consultation distance**
  - **Inner, middle, outer zones – typical design pipelines**
- **Pipeline risk assessment**
- **Definition of the extent of risk assessment for land use planning assessments**

# Risk Reduction Factors for Use in Site Specific LUP Assessments

- The site specific risk assessment should take into account relevant details of the pipeline at the location, and any risk reduction which i) is in place or ii) planned for installation.
- The risk reduction factors recommended for design factor are given in Figure ...
- The risk reduction factors recommended for depth of cover are given in Figure ...
- The risk reduction factors recommended for wall thickness are given in Figure ...
- The risk reduction factors recommended for additional measures are given in Table ... (markers, surveys, liaison)