

## HSE/UKOPA Meeting at Bootle to discuss Societal Risk 30 March 2007

RAWG/07/012

<b>Present</b>	Neil Jackson	UKOPA	Nigel Riley	HSE
	Mike Acton	UKOPA	Peter Harpur	HSE
	Graham Goodfellow	UKOPA	Ian Hirst	HSE
	Rod McConnell	UKOPA	Glyn Hawkins	HSE

### Background

The purpose of the meeting was to discuss current developments and the way Societal risk is applied to pipelines.

Developments provided background to the meeting include:-

- deliberations by HSE/Government on major hazard sites with large consequence zones where developments outside Land Use Planning Consultation Zones could affect Societal risk.
- UKOPA-led development of pipeline code supplements on Land Use Planning which propose to include Societal risk F-N criterion lines.

### HSE Developments – Consultation Document

A Consultation paper (2 April 2007) cd212 proposes possible additional requirements on site operators, HSE and the planning authorities:-

**“If it was decided to take societal risk into account, operators of major hazard installations would be required to determine what measures they need to have in place based on consideration of both individual and societal risk. HSE would enforce compliance with COMAH on this basis.”**

And also planning controls:-

**“For these sites, therefore, HSE would agree an extended area (likely to be up to twice the existing CD but no more), in which the planning authority would consult on large development proposals.”**

The HSE consultation includes a list of 54 sites where this might apply.

On pipelines, HSE indicated that at this stage pipelines are not formally included in Societal risk considerations, although PADHI and other calculations include elements of Societal risk. HSE have not formally declared a policy on F-N curves apart from the one point in R2P2. F-N lines are derived as part of HID policy only, and the vertical straight lines downwards at N = 100 and N = 1000 are artefacts of applying risk integrals to calculate Societal risks.

### Application to Pipelines

The derivation and application of the IGE/TD/1 Edition 4 Criterion F-N line was explained by UKOPA. The origins are succinctly described in a BGT paper.

**Action: Neil Jackson agreed to send a copy of the T R Baldwin paper December 1998 on the derivation of the IGE line to HSE**

Various questions raised by HSE on an earlier (and now withdrawn) UKOPA paper (Feb 2005) were clarified. The origins of the IGE line were derived from both R and S areas. HSE were reassured that the IGE criterion line was a representation of existing Societal risk due to the operation of the gas network. When applying the line, population in the full effect zones are included, not just within 4 BPD.

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HSE would expect ALARP considerations to be made against Individual Risk considerations. However, they accepted that for the gas transmission system, the IGE curve would be more stringent than previous HID policy F-N lines. HSE raised the issue of including an "intolerable" line ~2 orders of magnitude above the "acceptable" line. However, the practical effect of applying the IGE code was such that risks did not approach the "intolerable" level for UK conditions.

HSE indicated that they accepted the logic of the HID Policy curves being applied to 1 kilometre of pipeline having also equated the perimeter of a medium sized COMAH site to 1 kilometre of pipeline. Therefore it is proposed that the 1 km criterion line should be included for PD 8010 pipelines in the PD 8010 code supplement whereas the existing IGE/TD/1 criterion line applies to 1 mile (1.6 km). The 1 mile (1.6 km) case length for the IGE criterion is based on the code requirement for a 4-yearly MOP reaffirmation which requires reassessment of the population density and check for new proximity infringements based on 1.6 km x 8 BPD wide section of the pipeline.

Any guidance in the Code Supplements on comparing Societal risks against F-N Curve criterion lines should be seen as comparing against Code or Industry standards rather HSE ALARP requirements.

## Other Developments

UKOPA / HSE briefly reviewed progress in several other areas:-

1 Terms of reference for UKOPA / HSE discussions on case work / methodology developments - Neil Jackson has produced a protocol for Case work issues, and Rod McConnell to circulate the draft for methodology development produced in 2006.

2 HSE mentioned that several ongoing aspects are awaiting further action from UKOPA including ethylene failure rate review (final documentation etc.) UKOPA agreed to produce a list of issues and clarify what is required to progress the issues (slabbing, ground movement etc).

3 HSE progressing issues – it was agreed that a formal mechanism and presentation requirements would be developed – the links with HSL to provide independent review and verification are still being established.

3 Bo'ness development adjacent to BP's Forties line is becoming live again – BP to request a meeting with HSE to review risk assessment methodology developments.

Rod McConnell  
2 April 2007

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