

Safety Regulation of Gas Networks

Barry Donnelly

Senior Technical Inspector – Gas Transmission

Commission for Regulation of Utilities

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Structure

- What is the role of the CRU?
- How does the CRU regulate the safety of gas networks?
- What are the main components of the Gas Safety Framework?
- How does CRU approach the safety regulation of new infrastructure/activities?

The CRU's goals

To ensure that

- energy and gas are supplied safely
- the lights stay on
- the gas continues to flow
- a reliable supply of clear water and efficient treatment of wastewater
- the prices charged are fair and reasonable
- regulation is best international practice

Gas Safety Risks

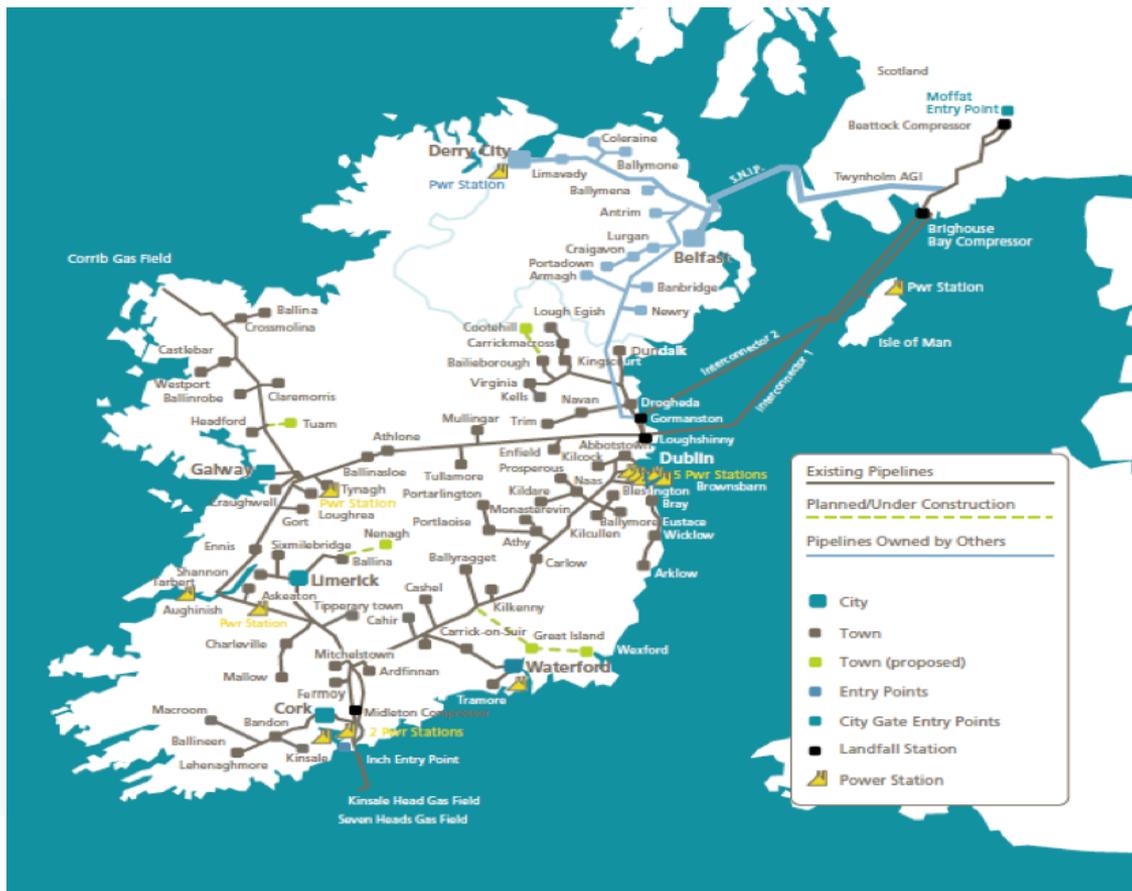
- Hazards associated with gas as a fuel
- Asset lifecycle safety risks
- Control of gas quality, pressure and flow
- Response to ‘localised’ and ‘network’ gas emergencies
- Safe utilisation of gas



The CRU's Gas Safety Role

- Regulating the activities of:
 - Natural gas undertakings (*engaged in transmission, distribution, supply or storage of natural gas*)
 - Natural gas installers
 - LPG undertakings
 - LPG installers
- Promoting the safety of gas customers and the public generally
 - Does not include safety regulation of areas covered by the Health and Safety Authority and Local

Transmission Network



CRU's approach to Gas Safety Regulation

- Primary responsibility rests with the gas undertaking
- CRU ensures that undertakings manage their safety risks to an appropriate level (compliance)
- Non-prescriptive approach based on a safety case prepared by the undertaking
- Risk and outcomes based
- Set out in the Gas Safety Regulatory Framework (CER/14/296)

Safety Case Regime

A safety case is prepared by the undertaking to include

- ▶ A facility description (assets and operations)
- ▶ A formal safety risk assessment covering the asset life cycle and mitigation measures to ensure risks are managed to ALARP
- ▶ A description of the safety management system to in place to manage the risks
- ▶ Emergency response arrangements

CRU has published Safety Case Guidelines (CRU/17/103)

(CRU/14/296)

Demonstration of ALARP

▶ As Low As Reasonably Practicable

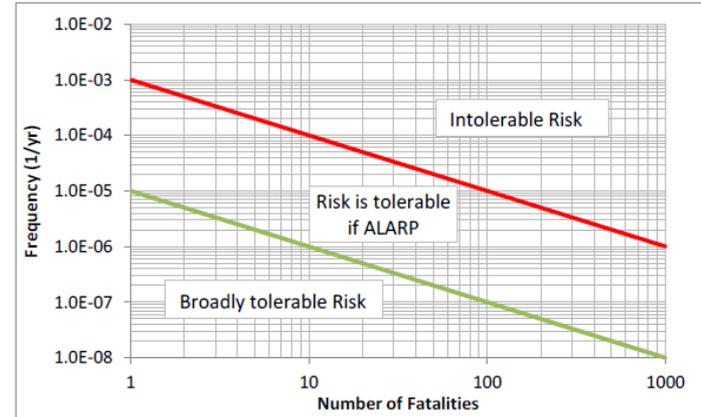
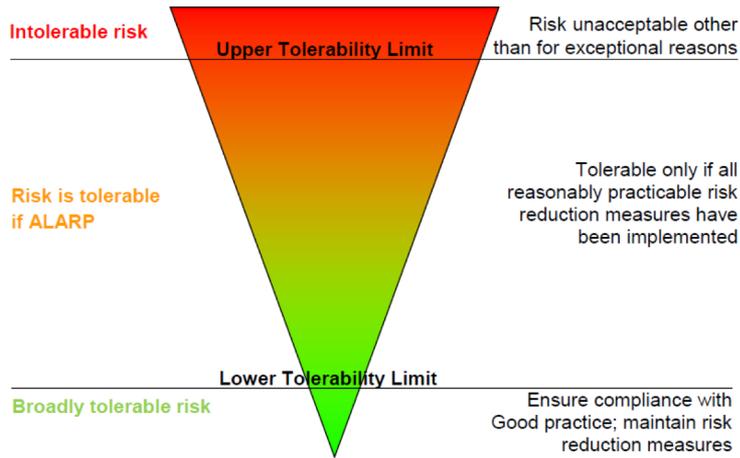


Figure 6: FN Curve showing the Risk Tolerability Limits for the public (excluding workers)

CRU has published ALARP Guidance (CER/16/106)

Proportionate Demonstration of ALARP

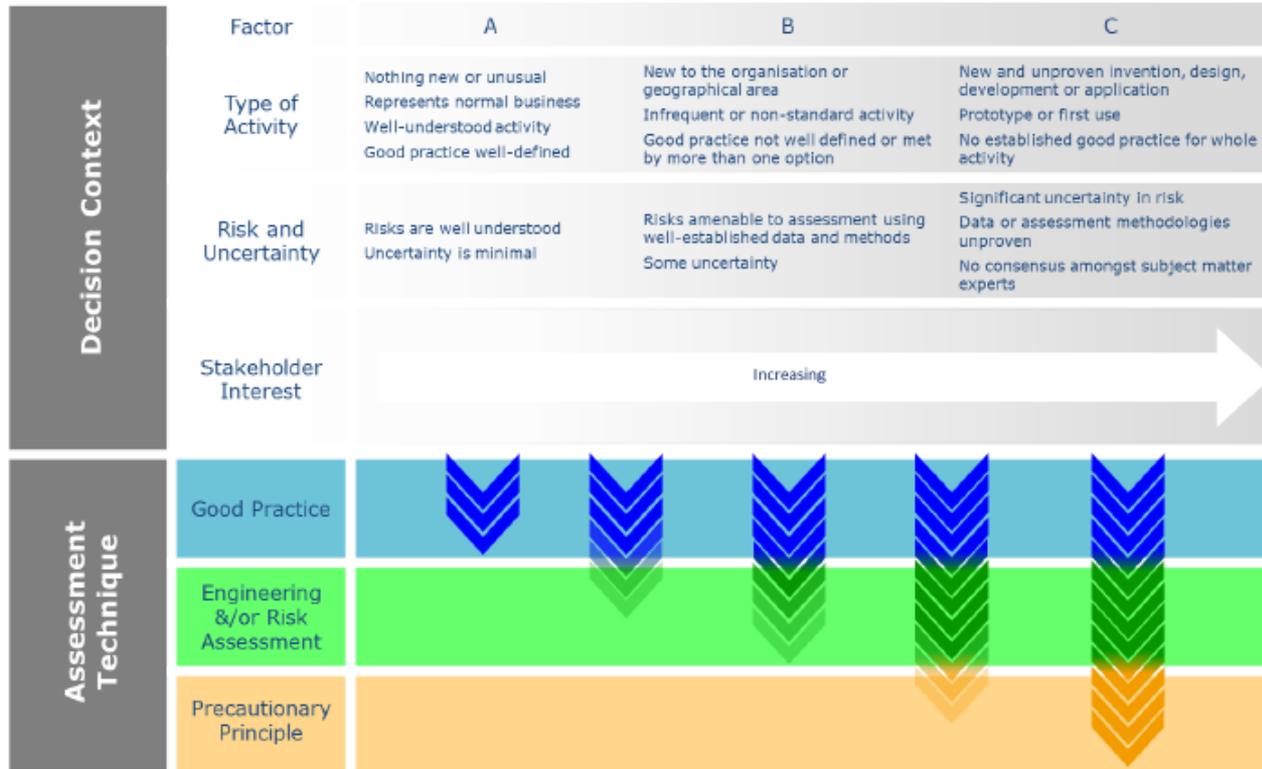


Figure 4: Techniques to determine reasonable practicability: Decision Process

Compliance Assurance

- Inspectors are appointed as Gas Safety Officers for the purpose of verifying undertakings performance
- Audits
 - ▶ Review of evidence that procedures are being carried out in line with approved Safety Case
- Inspections
 - ▶ Site visits to verify that risks are being managed to ALARP
- Reporting against Key Performance Indicators
- Regular review of safety cases by undertakings

Incident Reporting and Investigation

- Undertakings must report certain categories of incident to CRU
 - ▶ Type A – resulting in death
 - ▶ Type B – resulting in injury
 - ▶ Type C – resulting in damage to property
- “Reportable under Guidelines” incidents
- CRU appoints Gas Safety Officers with powers to investigate incidents and take protective actions where required to safeguard life or property

Compressed Natural Gas

- Design of the facility
- ALARP demonstration
- Interaction between parties involved



Renewable Natural Gas (RNG)

CRU has published Safety Case Guidelines for the injection of RNG to the network (CRU/18/217)

Considerations

- Feedstock Management
- Means of Grid Connections
- Gas Quality Arrangements



Thank you for your attention