Gas Emergency Arrangements

Peter Boreham

UKT Gas Operations Manager and NEC

December 2005



Gas Emergency Arrangements

- UK Legislative framework and the role of the Network Emergency Coordinator (NEC)
- Network Gas Supply Emergencies
 - Gas Deficit
 - Transportation Constraint
 - GS(M)R Safety Monitors
- Priority Customers

GS(M)R 1996 Safety Case obligations

 The current NEC Safety Case was accepted by the HSE in March 2005

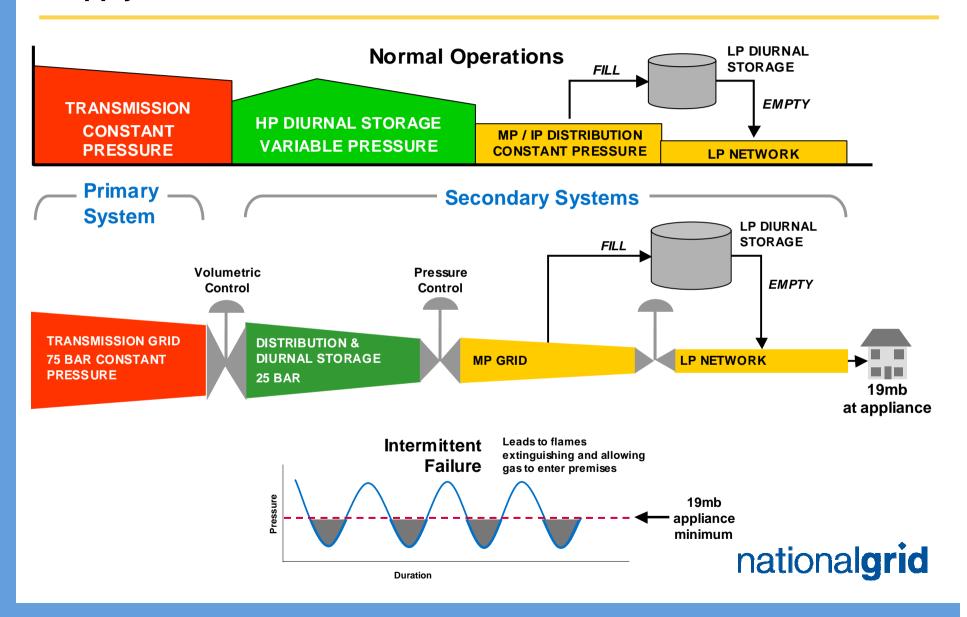
- Its clear objective being:
 - To prevent a Network Gas Supply Emergency from occurring, and if it should occur
 - Minimising the risk to the general public



GS(M)R Legal obligations

- To achieve this objective all gas conveyors have a legal obligation to comply with their own safety case, which must be aligned with the NEC Safety Case
- In addition, the following parties have a legal duty to cooperate with gas conveyors and the NEC
 - Consumers
 - Shippers
 - Storage Operators
 - Terminal Operators
 - Interconnectors

Supply / Demand Balance



Stages $1 \rightarrow 5$

Stage 1

Potential

Stage 2

Declaration

Stage 3

Firm Load Shedding

Stage 4

Isolation

Stage 5

Restoration

Maximise use of NTS Linepack
Maximise use of Network Storage
Emergency Specification Gas
Emergency Interruption

Maximise beach gas
Maximise Storage
Suspension of gas market

Firm Load Shedding

- Interconnectors

- Non domestic

- Public appeal

System Isolation

Restoration of gas supplies

Gas Supply Deficit

- A Network Gas Supply Deficit occurs whenever there is insufficient gas available in the NTS to maintain a National supply / demand balance
- Generally envisaged to be of short duration, the steps taken to maintain control are dependent upon the conditions of the Network and the cause of the deficit

Critical Transportation Constraint

- A Critical Transportation Constraint occurs when the Primary Transporter is unable to maintain adequate pressures at specific gas offtakes from the National Transmission System (NTS)
- Various options to reduce local demand are available in such an emergency
- A key difference being that the "On-the-day Commodity Market" (OCM) would not be suspended
- Critical Transportation Constraint emergencies are generally expected to be of short duration

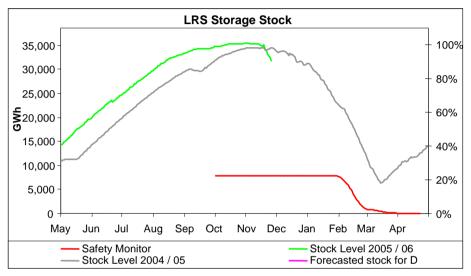
GS(M)R Safety Monitors Breach

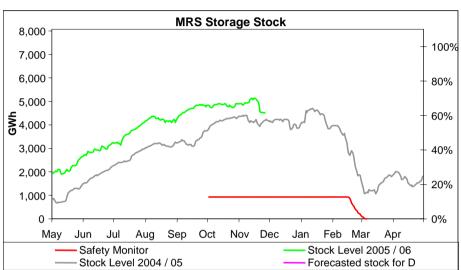
- Safety Monitors ensure continued safe control of the Network should the UK experience a severe winter
- If the safety monitor is breached for any storage type, the NEC will declare an emergency
- This type of emergency could be protracted and stay in place until either
 - The storage gas under the monitors is replenished, or
 - The monitor levels decline as the winter ends

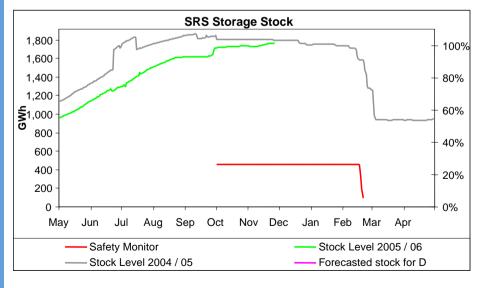


Safety Monitors Status

As at Saturday 26th November 2005







Consumers protected by monitor include all:

- Domestic customers
- Other non-daily metered loads
- Priority "firm" customers
- Firm exports to Ireland

Priority Customers

- Priority customers have to meet specific criteria as laid out by the Secretary of State
- Application for registration is made by the Shipper to xoserve, who manage the process on behalf of the industry

Priority Category	Contract Type	Characteristics	Example of customers	GT Safety Case	No. of customers	Additional Information
Priority A	Firm	> 25,000 Therms per annum.	Failure to supply could put lives at risk. e.g. Hospitals or homes for elderly or disabled.	Protected by Monitor	5344	14 DM Aggregate AQ 300 GWh 5330 NDM Aggregate AQ 540 GWh
Priority B	Interruptible	Interruption Notice period normally 5 hours	Any of the above which have Interruptible Contracts	Protected by Isolation	194	
Priority C	Firm or Interruptible	Require adequate time to be safely shut down. Otherwise could sustain serious damage (£50m or more)	Major items of capital plant.e.g.Furnac es, Glass works.	Firm Priority C = Protected by Monitor. Interruptible Priority C = Protected by Isolation	0	

Summary

- Industry emergency arrangements have been in existence for a number of years, and are subject to regular testing and exercise
- Compliance with statutory obligations by all parties will be essential in the event of an emergency ever being called
- The UK gas industry has an exemplary record for safe operation – a record the industry is committed to retaining!