The Regulatory Framework for onshore oil and gas development

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Introduction

I will cover…

• Regulatory regime for onshore oil and gas wells
  – conventional
  – shale and coal bed methane

• Regulatory developments for storage of combustible gas and potential underground coal gasification
Health and Safety Executive’s role
Repeat the process for appraisal wells, production etc.
So what are the main hazards?
The health and safety regulatory regime
How does HSE conduct interventions?

Industry standards

- Inspection activity – wells and operators
- Lifecycle approach
- Joint Regulation
Designing the well - notification
Designing the well - notification
Constructing the well - weekly report

Details of:

• activity since the work started or since the last report,
• the diameter and depth of the borehole,
• the diameter and depth of the casing,
• drill fluid density

Purpose - to check against information in the notification and that the pressure in the well and the well’s stability is as expected.
Decommissioning/ Abandonment

Diagram of typical shale gas well - abandonment (illustrative only)

Surface plugging
Steel and cement

Layers of steel casing with cement bonding

0 m
500 m
1000 m
1500 m
2000 m
2500 m
3000 m

Lias mudstones (Jurassic)
Meric mudstones (Triassic)
Sherwood sandstone (Triassic)
Permian
Coal measures (Carboniferous)
Millstone grit group
Shales
Cement base
Carboniferous limestones
Combustible Gas Storage and UCG

• Combustible Gas storage
  – 80 wells in operation
  – small number of operators
  – all following borehole and wells regulations

• UGC
  – number of proposals in GB
  – onshore wells to near shore coal reserve
What will change

- Requirements of BSOR
- Requirements of DCR
- RIDDOR
- Changes take effect April 2016
Why change?

• Need to make requirements clear for potential new operators

• European Commission’s emerging view is ‘Borehole Directive’ (EEC92/91) applies to UCG wells

• Important that position in UK is clear to operators and public
Summary

- The health and safety regime
- How HSE regulates
- How HSE and other regulators work together
- The current position on combustible gas storage and UCG

www.hse.gov.uk/offshore.htm