Managing onshore induced seismicity

Hydraulic Fracture Plan (HFP)

Operator sets out how it will control and monitor the fracturing process.

Identifies and assesses the locations of existing faults to prevent hydraulic fracturing from taking place near them.

HFP must be agreed with OGA and Environment Agency.

OGA must be satisfied controls are in place to minimise disturbance.

Monitoring

Before and during operations, the operator must carry out seismic monitoring as agreed in HFP.

May include additional recording to measure levels of ground motion close to nearby dwellings and other structures.

Where magnitude/ground motion are in line with the HFP, this confirms geological understanding and injection can resume, subject to any mitigation as part of the agreed HFP.

Management – “traffic light system”

M ≥ 0.5
Operator must suspend injection, reduce pressure and monitor seismicity and ground motion for any further events before potentially resuming.

M ≥ 0.0 to < 0.5
Injection proceeds with caution, possibly at reduced rates. Monitoring is intensified.

M < 0.0
Injection proceeds as planned.