



## **UKELA's response to Milieu consultants questionnaire on the effectiveness of the Recommendation 2014/70/EU on exploration and production of hydrocarbons (such as shale gas) using high-volume hydraulic fracturing**

UKELA was invited to respond to this online survey by Milieu consultants. The survey forms part of their study for the European Commission on 'The application in relevant Member States of the Commission recommendation on minimum principles for the exploration and production of hydrocarbons (such as shale gas) using high-volume hydraulic fracturing ('HVHF')'.

UKELA submitted the following response via the online portal on 2 April 2015, with the help of the Scottish Law working party. The response relates to the position in Scotland only.

### **Preliminary information on UK and Scotland**

Under the Scotland Act 1998, there is a Scottish Parliament, which has devolved responsibility for land-use planning and environmental permitting in Scotland. Licensing of the exploration and production of hydrocarbons is currently a matter reserved to the UK Parliament, but it is proposed that this function will be devolved to the Scottish Parliament in the near future. The Scottish Government is therefore free to pursue a different policy to the UK Government on this matter, and does so. The following answers reflect the position in Scotland specifically, not the rest of the UK.

### **Questions**

#### **1. National Legislation**

**Were the principles of the Recommendation already reflected in the national legislation in your country prior to its adoption?**

Yes, but only partially

*If your response is yes, please provide justification such as quotations of national legislation.*

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



Scotland – (i) The principle of baseline studies (see clause 6 of the Recommendation), for example, is included in the Pollution Prevention and Control (Scotland) Regulations 2012 (“the PPC Regulations”) – and presumably in the national legislation of all Member States that have transposed the iPPC Directive – but currently it cannot be applied to high-volume hydraulic fracturing (HVHF) because the latter is not a Schedule 1 activity.

(ii) The principle of integrated infrastructure in a production area (see clause 8 of the Recommendation) may arguably be covered by the PPC Regulations by virtue of the inclusion of ‘directly associated activities on the same site’ in the definition of ‘installation’.

(iii) One principle not reflected in Scottish legislation is that of administrative capacity (see clause 13.1 of the Recommendation). (iv) On one view, the duty recently imposed on all Scottish regulators to “contribute to achieving sustainable economic growth” by section 4(1) of the Regulatory Reform (Scotland) Act 2014 sets up a conflict of interest with the regulatory functions of the Scottish Environment Protection Agency (SEPA), in direct conflict with the principle of clause 13.2 of the Recommendation that “Member States should prevent conflicts of interest between the regulatory function of competent authorities and their function relating to the economic development of the resources”.

## **2. National Practice**

### **Were the principles of the Recommendation already applied in practice at the planning, licensing and/or permitting level in your country prior to its adoption?**

Scotland - No

#### *Please explain*

Scotland - For example, the principle of integrated infrastructure in a production area has not been applied in a gas production project in the south of Scotland: a number of gas exploration and extraction wells and a single gas processing facility in a discrete area have been granted planning permission as individual minor developments, despite the fact that the applications were made by the same operator on the same day, despite the stated connections between the wells and the central facility, and despite the possibility under Scottish planning legislation of treating the various elements of the project as a single major development entailing more prescriptive public participation requirements.

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



### 3. Changes

**To your knowledge and practice have you experienced any changes in the planning, licensing, permitting procedures, legislation or policy of your country as a result of the adoption of the Recommendation?**

Scotland – No

*Please explain*

Scotland – In contrast to the case mentioned above, a very similar gas extraction proposal in central Scotland was (more recently) treated as a major development by a different planning authority, but this integrated approach, which accords with the relevant principle in the Recommendation, was taken before its formal adoption.

### 4. Purpose

**To what extent do you think the overall purpose of the Recommendation is achieved? (Support Member States who wish to carry out exploration and production of hydrocarbons using HVHF, while ensuring that public health, climate and environment are safeguarded, resources used efficiently and the public is informed, point 1.1 of the Recommendation).**

Scotland – no information

*Please explain*

Scotland – Both proposals mentioned above came forward before the Recommendation was adopted, and are the only two current unconventional gas production proposals in Scotland. (There is a proposal for an exploratory pilot in underground coal gasification in the Firth of Forth, i.e. offshore.) In July 2014, the Scottish Government received a report on unconventional oil and gas which it commissioned from its Independent Expert Scientific Panel <http://news.scotland.gov.uk/News/Issued-on-behalf-of-the-Expert-Scientific-Panel-f2a.aspx>. The report notes the Recommendation (paragraph 7.2 of the report), but states that “a detailed assessment of the recommendation and principles outlined by the Commission has not been carried out by the Expert Scientific Panel” (paragraph 7.37). In January 2015, the Scottish Government introduced a moratorium on all onshore unconventional oil and gas proposals (including the two production proposals above) pending a public health impact assessment, consultation with communities and work to strengthen planning and environmental regulation <http://news.scotland.gov.uk/News/Moratorium-called-on-fracking-1555.aspx>. It is

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



not known if the adoption of the Recommendation led in any way to this decision. The UK's response to the Commission's first survey of Member States' implementation of the Recommendation refers to this decision as follows: "The Scottish Government will shortly consult on proposals to ensure that the existing regulatory framework is both appropriate, transparent and robust. Such consultation is likely to include issues that are covered in the next part of the questionnaire".

## **5. A Level Playing Field**

### **Has the Recommendation helped create a level playing field for operators in the EU? (Recital 9 of the Recommendation)**

Scotland – no information

#### *Please explain*

Scotland – it is submitted that this aim is unlikely to have been achieved: a recommendation with no legally binding authority creates the possibility of uneven implementation by Member States. A legally-binding instrument such as a Directive would be more likely to achieve this aim.

## **6. Investor Confidence**

### **Has the Recommendation contributed to improved investor confidence? (Recital 9 of the Recommendation)**

Scotland – no information

#### *Please explain*

Scotland – it is submitted that this aim is unlikely to have been achieved: a recommendation with no legally binding authority creates the possibility of legal uncertainty for investors due to uneven implementation across the EU. A legally-binding instrument such as a Directive would be more likely to achieve this aim.

## **7. Public Concern**

### **Has the Recommendation helped alleviate public concerns? (Recital 9 of the Recommendation)**

Scotland – No

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



*Please explain*

Scotland - There is very low public awareness of the Recommendation. Those who know about it doubt that a recommendation with no legally binding authority will significantly alter the position in Scotland. A legally-binding instrument such as a Directive would be more likely to achieve this aim. The Scottish Government's moratorium (see answer 4 above) has done more to alleviate public concern for the mean time.

## **8. Information**

**Has the Recommendation contributed to improving the dissemination of information from operators and Member State authorities (e.g. on chemicals, water use, wells completed and planned, permits granted, baseline studies, monitoring results, incidents/accidents, compliance)? (Point 15 of the Recommendation)**

Scotland – No information

*Please explain*

See answer 4 above.

## **9. Effectiveness**

**To your knowledge, are other principles set out in the Recommendation applied effectively? (e.g strategic planning and environmental assessments, coordinated permitting, site selection, baseline studies, installation design and construction, operational requirements, monitoring, use of water and chemicals, environmental liability and financial guarantee, administrative capacity, closure obligations)**

Scotland - No

*Please explain*

Scotland – The Scottish Government has (to UKELA's knowledge) made no public announcements saying whether or how it intends to implement the Recommendation, so it is not clear that it is being implemented, and it is unlikely that its principles are being applied effectively.

## **10. Updates**

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



**Is an updating of the Recommendation necessary (as mentioned in recital 10) with regards to:**

(a) Reflecting technical progress?

*Scotland – yes – see below.*

(b) Addressing techniques other than high-volume hydraulic fracturing?

*Scotland – yes – see below.*

(c) Challenges in the application of Union legislation to hydrocarbons exploration and production using high-volume hydraulic fracturing?

*Scotland – yes – see below.*

(d) Exploration and production of hydrocarbons using high-volume hydraulic fracturing in offshore operations?

*Scotland – no information*

(e) Other reason(s) - please elaborate below

*Please explain*

(a) Scotland – HVHF (and unconventional oil and gas more widely) is the subject of copious ongoing academic research, particularly in Australia and the USA. In the last 14 months several relevant academic papers have been published<sup>1</sup>, and technical experience on the ground in these countries must have developed during the same period. These should be reflected in a revised Recommendation (or a Directive).

(b) Scotland – (i) The developer of the two proposals mentioned above asserts that HVHF will not be required in either case, because a different technique (de-watering) is used to extract the unconventional gas (coal bed methane (CBM)). If this assertion is correct, Recital 2 of the Recommendation – which says that “the exploration and production of hydrocarbons, such as shale gas, **requires** the combined use of [HVHF] and directional (especially horizontal) drilling ...” –

---

<sup>1</sup> e.g. Davies, R. et al. “Oil and gas wells and their integrity: implications for shale and unconventional resource exploitation”, *Marine and Petroleum Geology*, September 2014 <http://www.sciencedirect.com/science/article/pii/S0264817214000609> ; Qiang Wang et al. “Natural gas from shale formation – The evolution, evidences and challenges of shale gas revolution in United States”, *Renewable and Sustainable Energy Reviews*, February 2014 [www.sciencedirect.com/science/article/pii/S1364032113006059](http://www.sciencedirect.com/science/article/pii/S1364032113006059)

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



needs correcting, because CBM is a hydrocarbon the production of which does not require the use of HVHF. It is understood that underground coal gasification (UCG) produces synthetic gas, another hydrocarbon, without the requirement for HVHF.

(ii) Both de-watering for CBM production and UCG involve vertical and horizontal drilling, so many of the risks associated with these two unconventional gas techniques are the same as those for HVHF. The Scottish Government's Independent Scientific Review Panel observed in its report (see answer 4 above, paragraph 7.5) that the Recommendation "has focused on shale gas extraction using fracturing techniques, and that although it does not apply directly apply to other techniques such as CBM de-watering, "the recommendations and principles would appear to be transferable". According to Recital 3 of the Recommendation, the European Parliament called on the Commission to introduce a risk management framework for the exploration and extraction of "unconventional fossil fuels", a term which encompasses both CBM and the synthetic gas produced by UCG as well as shale gas. The Recommendation needs to be extended to cover CBM de-watering and UCG.

(c) Scotland – (i) The Independent Scientific Review Panel noted (paragraph 7.26 of its report) that SEPA was in June 2014 in discussions with the Scottish Government "to clarify aspects of the role" of the iPPC Directive. To be more precise, as alluded to at answer 1 above, SEPA has expressed uncertainty (at a planning inquiry into the central Scotland proposal mentioned above, i.e. in the context of de-watering for CBM extraction) about whether gas production at scattered wells and gas transport through pipelines linking wells to a central gas processing facility are 'directly associated activities' carried out at a location 'on the same site' as the 'stationary technical unit' (the gas processing facility in this case) where the Schedule 1 activity (refining natural gas in this case) is carried out, in terms of the definition of the term 'installation' under the iPPC Directive, and whether SEPA can therefore regulate those separate activities. It is submitted that exactly the same questions would arise in the context of HVHF, making the application of the iPPC Directive (for example) problematic as regards HVHF, unless it is amended to make HVHF an activity under Annex 1 (the same as Schedule 1 to the PPC Regulations).

(ii) It is clear that the iPPC Directive cannot apply to the exploration phase of development, except in the unlikely event that refining of produced gas is being carried out during this phase.

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC



(iii) The Independent Scientific Review Panel also pointed out (paragraph 7.39 of its report) that, similarly, where a PPC Schedule 1 activity is being carried out, SEPA can regulate any flaring or venting within the site boundary, but where no such activity is being carried out, these activities (which can occur during the exploratory phase) cannot be regulated, as they themselves are not listed in Schedule 1. The Panel observed that the Environmental Permitting regime in England/Wales is different, in that “some flaring and venting is regulated”.

## **11. Legally Binding Provisions**

**Is the development of legally binding provisions necessary in order to:**

- Ensure the full application of the principles set in the Recommendation

Scotland - Yes

- Ensure the full application of principles that go beyond those currently in the Recommendation or with a broader coverage (e.g. covering techniques other than high-volume hydraulic fracturing)

Scotland - Yes

- Other reason(s) - please elaborate below

Scotland – Yes – for legal certainty, a level playing field, investor confidence and public reassurance

*Please explain*

Scotland - see answers 5, 6 and 7 above

## **12. Additional Costs**

**To your knowledge, what are the main areas where the implementation of the Recommendation has led to significant additional compliance and administrative costs over and above what was in place already (i.e. in the law, at permitting or licensing level or voluntarily done by the industry)?**

Scotland – no information

*Please explain*

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC





Scotland – As stated at answer 9 above, it is not clear whether or how the Recommendation has been implemented.

### **13. Impact on the exploration cost (if any)**

**In your view, has the implementation of the Recommendation in your area impacted the cost of exploration projects?**

Scotland – No information

*Please explain*

Scotland – As stated at answer 9 above, it is not clear whether or how the Recommendation has been implemented.

### **14. Increase in time**

**In line with question 3 above, has the implementation of the Recommendation in your area increased the time involved in gaining a licence/permit for projects?**

Scotland – No information

*Please explain*

Scotland – As stated at answer 9 above, it is not clear whether or how the Recommendation has been implemented.

### **15. Increase in costs**

**In line with question 3 above, has the implementation of the Recommendation in your area increased the costs involved in gaining a licence/permit for projects?**

Scotland – No information

*Please explain*

Scotland – As stated at answer 9 above, it is not clear whether or how the Recommendation has been implemented.

2 April 2015

UK Environmental Law Association: making the law work for a better environment

Registered charity 299498, company limited by guarantee in England 2133283  
Registered office: City Point, One Ropemaker Street, London, EC2Y 9SS [www.ukela.org](http://www.ukela.org)

President: Rt. Hon. Lord Carnwath of Notting Hill CVO PC