



**Friends of
the Earth
Scotland**

Friends of the Earth Scotland

Hearing Statement in Planning Permission Appeal PPA-240-2032

COAL BED METHANE PRODUCTION, INCLUDING DRILLING, WELL SITE ESTABLISHMENT AT 14 LOCATIONS AND ASSOCIATED INFRASTRUCTURE AT LETHAM MOSS, FALKIRK FK2 8RT Falkirk (P-12-0521-FUL) and Stirling (12/00576/FUL)

1. This statement is submitted on behalf of FoE Scotland; FoE Falkirk; FoE Stirling; and supported by Transition Stirling (referred to as 'FoE Scotland').

Hearing Session 1

2. FoE Scotland have indicated they will not participate in this session.

Hearing Session 2

3. FoE Scotland note that this session will cover:

- Relationship to other permissions
- Restrictions on permission (permitted development)
- Timescale of the development (relationship to PEDL License area, first phase? timescale for each phase)
- Regulatory guidance
- Monitoring

They wish to participate in relation to the following matters:

Regulatory framework

4. We have commissioned a paper on the adequacy of regulation from Chris Hilson, Professor of Law and Head of the School of Law at the University of Reading, which we attach as annex 1. This paper reviews the complex regulatory landscape for unconventional gas and highlights a number of deficiencies including:

- the Waste Management Plan for a development is regulated by the local authority rather than by SEPA, while in England this responsibility is with the Environment Agency.¹
- the lack of powers to regulate methane emissions including a weaker regime which allows venting and flaring to go unregulated during the exploration stage, unlike the system in place in England.²

¹ Chris Hilson, precognition on regulatory regimes Annex 1, §21

² Ibid, §23

- the Pollution and Prevention and Control (Scotland) Regulations 2012 fail to correctly implement the Industrial Emissions Directive 2010/75/EU, allowing flaring of gas to go unregulated.³
- SEPA's proposals to 'flex' PPC permitting to allow for some control of air emissions is limited, and the regulator now appears to be questioning its ability to adequately regulate fugitive emissions, acknowledging that it is "still working to develop its regulatory position" and that it is "unable to state definitively at this point that we will regulate the fugitive methane emissions from the well heads."⁴

5. The paper concludes that "it is difficult to have full confidence in the regime on paper, let alone its implementation in practice".⁵

Timescale of the development

6. As outlined in our Inquiry Statement Dart Energy and its predecessors have been active in what is now described as Petroleum Exploration and Development License (PEDL) 133 since the 1990's. The current application indicates that Dart expect the Airth field to be operational over the next 25-30 years.

7. Aspects of the planned expansion of this development are detailed in Field Development Plans (FDP) required by the Department for Energy and Climate Change (DECC) under the terms of the PEDL, however these are considered commercially confidential for 6 years and even after this time not routinely made available to the public, nor to the best of our knowledge, the local planning authorities and SEPA. As a result, the most recent FDP for the Airth field dating from 2012 is only available to the public on request from DECC very heavily redacted, so as to give little idea of the licensees' future plans for the area.⁶

8. We consider that this is highly unsatisfactory in terms of involving local communities and other interested parties in the decision-making process about the current application, and presents an inherent problem for both the Council and the developer. Without knowledge of an operator's full field development plans from the outset it is not possible for interested parties to make full representations nor for the Council to make an adequate assessment of the cumulative impacts of a development; and the operator faces considerable uncertainty as to whether future applications will be rejected on the basis of cumulative impact and subsequently render their development commercially unviable. This situation may raise issues as to compliance with the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, and the EU Public Participation Directive but at the very least it is undesirable in terms of the understanding of the local community as to future proposals on site. It is our understanding that no previous applications on site have been subject to an EIA process.

9. We consider that this is of particular concern in light of the fact that the Strategic Environmental Assessment (SEA) carried out by DECC of its plans to tender licenses under the 13th round of onshore oil and gas licensing (including PEDL 133) was arguably inadequate in terms of its assessment of the specific impacts of unconventional gas extraction.

Restrictions on permissions (hydraulic fracturing)

10. Hydraulic fracturing, or to use the industry slang adopted by media, campaigners, communities and politicians, 'fracking', is a process which involves pumping a mixture of water, chemicals and

³ Ibid, §24

⁴ Ibid, §25-26, and SEPA letter to DPEA 24 January 2014

⁵ Ibid, §36

⁶ FO183813 Extracts from PEDL 133 Field Development Plan: Airth 27 June 2012

proppants under high pressure into vertical and / or horizontal bore holes to ease the flow of hydrocarbons.

11. We acknowledge Dart Energy's assertion that they do not currently plan to use hydraulic fracturing at Airth, and that the well design in their current application is not suitable for the use of this technique.

However, we wish to make the following points:

12. The term 'fracking' is often used interchangeably with 'shale gas' as extraction of that kind of unconventional gas always requires the use of hydraulic fracturing. However it is also used (conveniently but inaccurately) to cover unconventional gas extraction as a whole as short hand for 'unconventional gas extraction including shale and tight gas fracking, and coalbed methane extraction by methods including de-watering and / or fracking'. Even the process of underground coal gasification is sometimes swept up under the catch all term 'fracking' to describe a new generation of techniques to extract fossil fuels. This is because it is broadly understood and accepted that these techniques carry many of the same risks in terms of climate, public health and local environment.

13. Coalbed methane operations can involve use of the hydraulic fracturing technique. For example, where seams are less permeable, or as gas flow starts to decline, wells can be fracked to increase productivity. In Australia where coalbed methane (known there as coal seam gas) is more developed, the industry estimates that up to 40% of wells will end up being fracked.⁷ Where coal seams are fracked, it is worth noting that the risks are likely to be greater than in shale gas fracking as coal seams tend to be much shallower than shale deposits (between 100-1000m deep, compared with shale at 3000m) and so closer to groundwater and soil. Thus any contaminants have much less distance to travel, resulting in an increased short-term risk of water and soil contamination, air pollution and fugitive methane emissions.

14. There is nothing detailed in the current application, or SEPA's proposed conditions, that would prevent the applicant from applying for permission to enable them to frack at a later stage for either these or future wells in this license area. Nor is it clear whether the appellant would be required to submit a new application for planning permission if it wished to introduce the technique, unless this is specified in the planning conditions of this application. Greenpark Energy, Dart's predecessor in PEDL 169, applied for variation of planning permission to Dumfries and Galloway Council to inject "sand...mixed with a fluid (almost entirely water) under pressure into the coal seam"⁸ only to be told that the "proposed amendments...are purely an operation [sic] matter" therefore no such variation was required⁹. Under CAR Regulations SEPA has discretion as to whether to advertise applications for the injection of fluids including those associated with hydraulic fracturing.

15. Nor did the environmental assessment provide data to support the assertion that fracking would not be required to extract gas at Airth. This is one of the issues that AMEC sought to establish in its peer review of the ES, however they concluded with the appellant that while there was no data to indicate that fracking was not technically feasible, any future application for fracking at this site would be dealt with under a separate application. We also note that fracking was trialled by previous operators of the Airth site, and proposed by the previous operators of the coalbed methane site at Canonbie, now operated by Dart.

⁷ Australian National Greenhouse Accounts, Coal Seam Gas Estimation and Reporting of Greenhouse Gas Emissions 2012, <http://www.climatechange.gov.au/climate-change/emissions/~media/climate-change/emissions/factsheets/NGA-FactSheet-7-CoalSeamGas-20120430-PDF.pdf>

⁸ Greenpark letter to Dumfries and Galloway Council, request variation of planning, March 2011

⁹ Dumfries and Galloway Council response to Greenpark 7 April 2011

16. We note that the Scottish Government's position statement has adopted erroneous language from the independent analysis of responses to the SPP in relation to input on unconventional gas extraction.¹⁰ The statement under Key Issue 9 that "A campaign comprising 364 responses and a petition of 245 signatures opposed the potential extraction of coal bed methane by hydraulic fracturing (fracking)" misrepresents what the petition called for and campaign responses¹¹ said. Neither mentioned hydraulic fracturing (commonly referred to as fracking) but rather call for 'a ban on the unconventional gas industry' and buffer zones 'between communities and onshore gas drilling sites.'

Monitoring

17. We note that the ability to properly monitor fugitive emissions is limited in terms of identifying potential sources of leaks, particularly those associated with leakage through the ground. Further, we note the limitations on mitigating any such identified leaks, e.g. once a pathway through naturally occurring faults, is established.

Hearing Session 3

18. FoE Scotland do not intend to participate in this session.

Hearing Session 4

19. FoE Scotland do not intend to participate in this session.

Hearing Session 5

20. FoE Scotland note that this session will cover the issues of:

- Conditions
- Legal Agreements

In terms of conditions, FoE Scotland consider that the following matters should be considered by the DPEA.

Restoration

21. Should unconventional fossil fuel production be consented in Scotland, full restoration and protection of the environment after operations are finished are key issues to be discussed and agreed before any planning permission is granted. As well as the usual issues of removing surface installations, for a novel industry like unconventional gas, there are some important extra safeguards required, including the need for long-term monitoring and management of any pollution which may make its way to the surface or into water course long after the developer has left.

22. Recent events in the open-cast industry illustrate how not to proceed. The collapse of Scottish Coal and ATH has shown the failure of the current system of restoration bonds in the open-cast coal industry. This has resulted in the administrators trying to abandon a number of sites, to numerous sites where there is a large gap between available funds and what is needed to honour the restoration promises made when planning permission was granted, and to sites where potential or

¹⁰ Scottish Government Position Statement on Scottish Planning Policy January 2014

<http://www.scotland.gov.uk/Resource/0044/00441852.pdf> Key issue 9, page 8-9. See also emails between Friends of the Earth Scotland and the Scottish Government clarifying this error.

¹¹ <http://www.scotland.gov.uk/Resource/0043/00431251.pdf> and <http://www.scotland.gov.uk/Resource/0043/00431648.pdf>

actual pollution hazards are going unmanaged. The Scottish Government is consulting on a range of options for replacing restoration bonds for the opencast industry in future.¹²

23. The current Scottish Planning Policy is clear that full restoration is required; it says for on-shore oil and gas developments: "Planning authorities should ensure that conditions requiring the removal of equipment and full restoration of sites following completion of exploration and extraction are attached to any planning consents granted."¹³

24. The draft of the new Scottish Planning Policy reinforces this requirement, adding a stipulation for a financial guarantee to ensure successful restoration; it says in the extractive industries section: "Proposals should ensure that restoration and aftercare will be to a high standard and undertaken at the earliest opportunity. Consents should be associated with an independent guarantee through a vehicle such as an escrow account to manage the operator's exposure to costs; recognise landowner liability; ensure obligations transfer to successors in title; and ensure that site restoration and aftercare is fully funded."¹⁴

25. The current Scottish Planning Policy also comments on future risk in the section on surface coal mining in terms which should reasonably also apply to unconventional gas extraction: "Restoration should be designed and implemented to the highest standards to avoid the occurrence of future public safety and environmental hazards, such as land instability and emissions of gas or water."

26. The consultation on the future of opencast restoration states a main principle which should also apply to unconventional gas: "Effective regulation that makes provision for the restoration of any site is fundamental to potential future operations, community acceptability, the functioning and credibility of the planning system, environmental stewardship, public sector finances and corporate responsibility."¹⁵

27. However the funding of restoration and monitoring is unclear for unconventional fossil fuel developments. In their response to objections to their current proposal for CBM production, Dart Energy state that requiring them to put in place a restoration bond would "double-up the requirement placed on the operator as part of the PEDL licence and in its discussions with landowners."¹⁶ The response to the SPP consultation submitted by RPS on behalf of Dart Energy similarly states that DECC "when granting a PEDL requires applicants to prove financial capacity."¹⁷ Of course the financial health of a public listed company such as Dart Energy can change rapidly. For instance, when Dart took over PEDL133 from Composite Energy their share price was about AUS\$1, at the time of writing it is 14 Australian cents. In addition DECC granted the PEDL licence before any discussions between Dart Energy and the local authorities could have established the necessary extent, and therefore cost, of restoration and aftercare.

28. In common with most Petroleum Exploration and Development Licences, the licence for PEDL133 contains no requirement to restore the site nor any provision for aftercare and these matters are not covered by the Petroleum Act 1998, under which the licences are granted. Nothing in the Act or the licences explicitly require Dart Energy to prove that they have the resources to carry out restoration or aftercare activities.

29. Dart Energy have not had to prove that they can afford to fund a restoration and aftercare programme, such a programme has not been agreed or even costed, and Dart Energy clearly cannot give any guarantee that they will be in sound financial health on an on-going basis.

¹² <http://www.scotland.gov.uk/Publications/2013/12/7688>

¹³ <http://www.scotland.gov.uk/Resource/Doc/300760/0093908.pdf> §238

¹⁴ <http://www.scotland.gov.uk/Resource/0042/00421076.pdf> §177

¹⁵ <http://www.scotland.gov.uk/Publications/2013/12/7688>

¹⁶ 2013.08.07 DLA Piper response to comments from interested parties A6538433 §15.53

¹⁷ <http://www.scotland.gov.uk/Resource/0043/00431502.pdf>

30. In these circumstances the only approach which fits with Scottish Government planning policy is for a thorough restoration and aftercare programme to be negotiated between an company proposing an unconventional fossil fuel development and the relevant local authorities, and for this and a requirement for a sufficient restoration bond or similar financial arrangement to be written into the conditions of any grant of planning permission.

31. FoE Scotland are unaware of any industry guarantee scheme for on-shore oil and gas, but will update the parties should they become aware of any relevant matters to bring to the DPEA's attention. However, it is noted that the experience in other jurisdictions, such as Australia and the USA, has been fraught with difficulties around this issue. In Wyoming for example, there are around 1,200 'orphaned' coalbed methane wells, that is, wells that operators have walked away from without plugging.¹⁸

Buffer zones

32. Concerns regarding unconventional gas extraction have led to over 20 bans and moratoria around the world, including a ban on all coalbed methane drilling within 2km of communities and sensitive industries in New South Wales, Australia. We feel strongly that the precautionary principle, to which the Scottish Government is bound under international treaties, applies to the unconventional gas industry which to date has failed to demonstrate that it is safe for the environment and human health (in the face of mounting evidence to the contrary) and call on the Scottish Government and Parliament to lead the way within the UK by implementing a ban on all unconventional gas extraction, and the DPEA to refuse this application.

33. However, the draft SPP2 is an improvement in terms of the guidelines it provides for local authorities. In particular we note the introduction of buffer zones between sites and communities, which applies to all extractive industries. The Scottish Government has confirmed its intention to ensure that this requirement remains in the final SPP.

34. We support the inclusion of buffer zones for unconventional gas extraction in SPP but wish to make the following points:

- Buffer zones can help to protect communities from the very worst of the local environmental and health impacts of unconventional gas extraction, but they will do nothing to mitigate against the climate impacts, therefore we still consider a ban is necessary.
- It is critical that SPP specifies how buffer zones will be designated, otherwise communities across central Scotland face a postcode lottery as to whether they will be afforded actual or tokenistic protection.
- An emerging body of research indicates that the worst public health impacts are identifiable within 2km of gas extraction sites, therefore we consider that SPP should require buffer zones of at least 2km from all above and below ground activity between dwellings, ecologically sensitive areas and sensitive industries. We note the SPP proposes a buffer distance of 2.5km for windfarms.
- In New South Wales 2km Coal Seam Gas Exclusion Zones now cover 5.3 million hectares and protect communities and sensitive industries. An extension of this system protects areas which might be developed for housing in future. 95% of dwellings in NSW are now protected from CSG exploration and development.^{19,20}
- We note that because the unconventional gas resource in Scotland is located in the most populace part of the country it is likely that such a restriction would make the unconventional gas industry unviable.

¹⁸ http://www.gilletteneewsrecord.com/news/article_5cbf848c-7b31-11e3-9e10-001a4bcf6878.html and <http://www.hcn.org/issues/45.22/the-coalbed-methane-bust-has-left-orphaned-gas-wells-across-wyoming>

¹⁹ <http://www.planning.nsw.gov.au/coal-seam-gas-exclusion-zones>

²⁰ <http://www.planning.nsw.gov.au/DesktopModules/MediaCentre/getdocument.aspx?mid=1595>

35. Further, we note that the Scottish Government has synchronised the National Planning Framework (NPF) 3 and Scottish Planning Policy (SPP) 2 consultation processes in recognition that the obligatory NPF Parliamentary scrutiny process might helpfully influence SPP. Therefore, the draft SPP is currently undergoing scrutiny by four Parliamentary committees as part of the statutory 60-day process for NPF. The Economy, Energy and Tourism Committee are taking evidence on unconventional gas extraction.²¹ NPF3 and SPP2 are expected to be finalised in June 2014.

Further conditions

36. If the DPEA chooses not to reject the application we suggest that as a minimum, the following conditions should be attached:

- That the applicant publishes in full details of all drilling chemicals to be used in the Airth CBM field, subject to approval by SEPA, as part of the planning application. Any additional chemicals the developer may wish to use in the future must be consulted on and subject to approval by the planning authority and SEPA;
- In view of the uncertainty as to the regulation of any future development on site, the Reporter should consider a condition stating that the applicant will not use hydraulic fracturing or similar stimulation techniques at any stage in the development of the Airth coalbed methane field
- A baseline must be established of air, water and soil quality, and independent monitoring undertaken on a regular basis of the full range of chemicals and radioactive substances naturally occurring in the coal seam and surrounding geology and all chemicals to be used in drilling fluids in addition to what the applicant proposes;
- The development of and adherence to an environmental management plan to be agreed with SEPA is held to be a condition of planning consent; we suggest that as part of the environment management plan, payment is also made to SEPA and/or the planning authority as required for resources for monitoring of the site. FoE Scotland understand this has taken place elsewhere in respect of minerals development;
- That robust, realistic restoration bonds are put in place prior to the development going ahead to ensure that the operator is fully liable for ongoing management and any future clean up wells and infrastructure.

²¹ Economy, Energy and Tourism Committee's Call for Views on Scottish Government's draft third National Planning Framework http://www.scottish.parliament.uk/S4_EconomyEnergyandTourismCommittee/Inquiries/Call_for_views_-_NPF3.pdf

Annex 1

Precognition of Professor Chris Hilson (Law and Policy)

I am a Professor of Law and Head of the School of Law at the University of Reading. I hold a BA/MA (Cantab) in Law from the University of Cambridge and a PhD in Law from the University of Sheffield. I was Editor-in-Chief of the *Journal of Environmental Law* (OUP) between 2007-2012. I have published widely in both domestic and European environmental law and policy. I was a policy advisor to the waste industry for a period during the 1990s and am currently an occasional legal advisor to ClientEarth. The current statement is written in my personal capacity and should not be taken to represent the views of any of the above organisations.

The evidence that follows aims to demonstrate the gaps in, and inadequacy of, the current regulatory regimes that apply to coal bed methane (CBM).

1. CBM, like shale gas, is an example of ‘unconventional’ gas – a term which refers not to the technique for extracting it but rather to the geological formations in which it is found (which differ from ‘conventional’ gas fields). While extraction of CBM may use some similar techniques to those used for shale gas (e.g. horizontal/directional drilling), it differs in that it typically involves removal of water from the coal seams (‘dewatering’) rather than injection of fluids into the rock, as occurs with hydraulic fracturing or ‘fracking’. Fracking does, however, remain a possible technique for CBM activities where seams are thicker or at deeper levels,²² or in future years when well production levels are declining.

2. There are significant public concerns around unconventional gas. Many of these stem from the weak regulation to which the industry has been subject in the US, with associated claims of environmental degradation and harm to human health, which have begun to give rise to significant levels of litigation. These ‘local’ environmental concerns are accompanied by more ‘global’ ones involving the climate change impacts of unconventional gas.

3. The core concerns relating to CBM in particular are as follows:

- Effect of dewatering abstraction on groundwater levels and supplies
- Potential of dewatering to lead to pollution of groundwater by toxic chemicals, including radioactive substances
- Risk of pollution of surface waters through discharge of dewatering produced water
- Industrialisation of the landscape and effect on local amenity of multiple well pads (cumulative impacts)
- Potential impact on human health of air pollution from drilling sites
- Risk to climate change targets from ‘direct’ site emissions (fugitive methane emissions, venting, flaring)
- Risk to climate change targets from ‘indirect’ emissions (combustion of CBM to produce electricity, or as gas for domestic heating etc)
- Risk to climate change targets from impact of unconventional gas on investment in renewables

4. The response of the UK²³ and Scottish²⁴ governments to public concerns over unconventional gas has been to emphasise the strength of UK regulation (when compared to e.g. the US) and its

²² http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_13-68.pdf p 8.

²³ <https://www.gov.uk/government/policies/providing-regulation-and-licensing-of-energy-industries-and-infrastructure/supporting-pages/developing-shale-gas-and-oil-in-the-uk>, which states “The Government takes the safety of the public and protection of the environment very seriously. We commissioned the Royal Society to review the scientific

ability to address these concerns. However, the evidence presented below will demonstrate that the current regulatory system is far from adequate and that there are some clear gaps and deficiencies in the protection it affords.

5. The regulatory controls over onshore oil and gas exploration, appraisal and production are labyrinthine in structure. The first permission or licence required by a CBM operator in Great Britain is a PEDL²⁵ licence from DECC²⁶ under powers, reserved to Westminster, in the Petroleum Act 1998.²⁷ PEDLs are generally awarded in licensing 'rounds'. Such rounds require a prior 'Strategic Environmental Assessment' (SEA) under the SEA Directive 2001/42/EC²⁸ in order to assess the environmental effects of, and reasonable alternatives to, the licensing proposals. A SEA was initiated in 2005 for the existing 13th Round for onshore oil and gas exploration and production,²⁹ and one is currently under consultation for the forthcoming 14th Round.³⁰

6. PEDL licensing provides an alternative, more targeted system than auctions, for allocating exclusive, payable rights to search for and exploit oil and gas in geographical 'blocks', for set time periods associated with exploration, appraisal and development. Applicants must prove technical competence, awareness of environmental issues and financial capacity before a PEDL is offered.³¹ Environmental awareness requires applicants "to demonstrate understanding of the environmental sensitivities and potential constraints on blocks both at the application stage and during any subsequent operations."³² Operators are also expected to comply with licence conditions set out in 'model clauses' which include, inter alia, a requirement to avoid harmful methods of working, such as taking all practicable steps to "prevent the escape of Petroleum into any waters in or in the vicinity of the Licensed Area."³³

7. Under the licences, operators are required to seek consent from DECC (via what were Petroleum Operations Notices - PONS, and is now a Well Operations Notification System - WONS)³⁴ for

and engineering evidence on shale gas extraction conducted by the Royal Academy of Engineering and the Royal Society. This concluded that 'the health, safety and environmental risks associated with hydraulic fracturing (often termed 'fracking') as a means to extract shale gas can be managed effectively in the UK as long as operational best practices are implemented and enforced through regulation. The Government believes that the regulation is robust for exploration, but wants to continue to improve it.'

²⁴ Question S4W-11976: Iain Gray, East Lothian, Scottish Labour, Date Lodged: 19/12/2012, "To ask the Scottish Government how onshore gas extraction fits into its energy strategy. Answered by Fergus Ewing (28/01/2013): < > Scotland's energy needs are set out in our Draft Energy Generation Policy Statement – which sets out the pathway to a low carbon generation mix in Scotland, supported by a diverse portfolio of energy sources to reflect the breadth of Scotland's energy resources and ensure security of our energy supply. As part of that, the Scottish Government is open to onshore gas extraction, which, along with all other energy production in Scotland is subjected to a rigorous regulatory regime to ensure it is sourced and produced with due regard to the environment. Onshore gas is a valuable national resource which can play a part in Scotland's energy mix. The Scottish Government therefore works closely with the UK Government on the licencing [sic] of onshore gas extraction in Scotland and with Scottish Environmental Protection Agency on the regulation of unconventional gas in Scotland." Available at <http://www.scottish.parliament.uk/parliamentarybusiness/28877.aspx?SearchType=Advance&ReferenceNumbers=S4W-11976&ResultsPerPage=10>

²⁵ Petroleum Exploration and Development Licensing.

²⁶ Department of Energy and Climate Change.

²⁷ Under section 1, 'petroleum' is defined as including "any mineral oil or relative hydrocarbon and natural gas existing in its natural condition in strata".

²⁸ [2001] OJ L197/30.

²⁹

http://webarchive.nationalarchives.gov.uk/20121114093642/http://og.decc.gov.uk/en/olgs/cms/licences/lic_rounds/13th_round/13sea/13sea.aspx

³⁰ <https://econsultation.decc.gov.uk/decc-policy/consultation-env-report-further-oil-gas-licensing/>

³¹ DECC, 'Oil and Gas: Petroleum Licensing Guidance' (2012) <https://www.gov.uk/oil-and-gas-petroleum-licensing-guidance>

³² <http://www.publications.parliament.uk/pa/cm200708/cmhansrd/cm071107/wmstext/71107m0001.htm>

³³ Sch 4 (production licences) and Sch 6 (exploration and development licences), clause 19(1) Petroleum Licensing (Exploration and Production) (Seaward and Landward Areas) Regulations 2004.

³⁴ <https://www.gov.uk/oil-and-gas-petroleum-operations-notices>. The WONS system sits behind the UK Oil Portal (https://itportal.decc.gov.uk/eng/fox/live/PORTAL_LOGIN/login) which requires registration – which is detrimental in terms of public transparency.

particular activities such as drilling a well.³⁵ This consent is additional to and not in place of any other relevant regulatory permissions (such as planning permission) outlined below, which the operator will be required to prove have been obtained before consent is granted.

8. Under both the model clauses³⁶ and section 12 of the Energy Act 1976 (as amended)³⁷ consent from DECC is also required for the *flaring* of gas. There is a number of exceptions³⁸ and exemptions³⁹ from the need for consent for flaring. Consent is similarly required, but only under the Act, for the disposal of gas by unignited release (*venting*) into the atmosphere. No exceptions or exemptions appear to apply to venting.

9. PEDL regulation has developed piecemeal over a number of years and is focused principally on resource exploitation. The environmental awareness requirements, while mentioned in guidance, do not have sufficient statutory backing. The provisions on flaring and venting – both activities which have potentially significant climate change implications (principally CO₂ and methane respectively) – are inconsistently provided for in relevant primary and secondary legislation and, again, seem more designed to ensure optimal resource exploitation (and thus low wastage of gas through flaring or venting) than they are to prevent environmental harm.⁴⁰ Neither is the interrelationship with other, more environmentally focused regulation of flaring and venting (covered further below) made at all clear. Recent FoI requests by third parties suggest that ongoing monitoring and control of venting and flaring is falling between the regulatory cracks.⁴¹ Finally, if the PEDL regime is intended to cover environmental effects (as it should be) then, other than in relation to the recent SEA, public participation and transparency of environmental information is also significantly lacking.⁴²

10. The Coal Industry Act 1994⁴³ states that ownership of CBM rests with the Crown and not the Coal Authority. Nevertheless, further consent via a 'Coal Bed Methane Access Agreement', is also required from the Coal Authority before an operator is able to work on coalfields or surface land owned by the Authority.⁴⁴ The Authority's policy is not to grant access unless a PEDL licence has already been granted to the applicant by DECC.⁴⁵

11. The Coal Authority is placed under a statutory duty to have regard to the "desirability of the exploitation, so far as that is economically viable, of coal-bed methane in Great Britain."⁴⁶ The 1994 Act is, however, severely deficient regarding environmental protection requirements: there is, for example, no *statutory* sustainable development duty placed on the Authority such as is typically found in numerous, more modern statutes.⁴⁷ To include only what might be identified as the economic element of sustainable development in the form of the 'desirability' section above, without

³⁵ Sch 4 (production licences) and Sch 6 (exploration and development licences), clause 15, Petroleum Licensing (Exploration and Production) (Seaward and Landward Areas) Regulations 2004.

³⁶ Sch 4 (production licences) and Sch 6 (exploration and development licences), clause 19(3), Petroleum Licensing (Exploration and Production) (Seaward and Landward Areas) Regulations 2004.

³⁷ By the Gas Act 1986.

³⁸ These are limited temporary exceptions regarding unforeseeable health and safety and flow maintenance emergencies listed in Sch 4, clause 19(7) and Sch 6, clause 19(5) Petroleum Licensing (Exploration and Production) (Seaward and Landward Areas) Regulations 2004.

³⁹ E.g. if it is permitted under the terms of a *production* licence – Energy Act 1976, section 12(3)(a).

⁴⁰ The Energy Act 1976, which was enacted at the time of the 1970s oil crisis, is largely concerned with conserving fuel.

⁴¹ Frack off Scotland, 'Letter to Fergus Ewing' <http://frackoffscotland.org.uk/?cat=5>

⁴² See eg *ibid*, 'Dart's Plans for Letham Moss' (the operator, Dart's Field Development Plan, which would show the full number of planned wells and hence cumulative environmental impact, was not made public). The Plan has since been partially released after a FoI request (n 20).

⁴³ Section 9.

⁴⁴ The Coal Authority, 'Methane Associated with Coal Seams', <http://coal.decc.gov.uk/en/coal/cms/publications/mining/seams/seams.aspx>. See also Coal Industry Act 1994 section 9(4).

⁴⁵ The Coal Authority, 'Guidance Notes For Applicants For Coal Access Agreements, Or For Access To Land Owned By The Coal Authority, For The Purpose Of Coal Bed Methane Extraction' (2000) <http://coal.decc.gov.uk/assets/coal/GuidanceNotesforCBM2000.pdf> p1.

⁴⁶ Section 3(5).

⁴⁷ See eg Andrea Ross, 'Why Legislate for Sustainable Development? An Examination of Sustainable Development Provisions in UK and Scottish Statutes' (2008) 20 *Journal of Environmental Law* 35.

considering the environmental element to it, seems deficient. Nevertheless, as a matter of *policy*, the current application form for an access agreement does require applicants to provide certain environmentally important information, including “Details of measures the applicant would take to prevent or remedy spontaneous combustion, uncontrolled emissions of gas or water or other hazard directly or indirectly caused or related by the proposed activities” as well as “Details relating to the sealing of boreholes and restoration proposals.”⁴⁸ Operators are, additionally, expected to be aware of the Coal Authority’s ‘Guidance on Managing the Risk of Hazardous Gases when Drilling or Piling Near Coal’.⁴⁹

12. CBM operators are also required to secure planning permission from the Local Planning Authority under the Town and Country Planning (Scotland) Act 1997 for CBM surface well pad operations and also for sub-surface drilling, both of which will amount to ‘development’ for the purposes of The Town and Country Planning (Scotland) Act 1997 (as amended).⁵⁰

13. Current Scottish planning policy contains a somewhat one-sided presumption in favour of oil and gas related development, stating that “The aim is to maximise the potential of Scotland’s oil and gas reserves in an environmentally acceptable manner as part of a strategy for achieving safe, secure and indigenous energy supply.” The policy also states that development plans for areas covered by PEDL licences should identify the factors that will be taken into account in deciding planning applications for wellheads and transmission infrastructure. Relevant factors are stated to include: “disturbance and disruption from noise, potential pollution of land, air and water, impact on communities and the economy, cumulative impact, impact on the natural heritage and historic environment, landscape and visual impact and transport impacts.” Where PEDL licences extend across local authority boundaries, planning authorities are expected to “work together to ensure a consistent approach to on-shore oil and gas extraction, including the consideration of cumulative effects.” The policy goes on to state a preference for non-road transport of the end-product, to require full site-restoration conditions and to prohibit drilling near homes and other noise-sensitive properties unless noise remains within acceptable levels.⁵¹

14. The new, draft Scottish Planning Policy removes the maximising presumption, replacing it with a more neutral need to “recognise the continuing role of indigenous coal, oil and gas in maintaining a diverse energy mix and improving energy security”.⁵² The policy notes that the production stage is likely to require a separate (additional) planning permission to the earlier exploration and appraisal stages.⁵³ It also states that adequate buffer zones should be provided between sites and settlements.⁵⁴ However, the buffer zone is undefined in terms of distance and the policy does not make it clear whether it would apply only from the boundary of the site surface or would also include below ground activity.

15. The Scottish Environmental Protection Agency (SEPA) is, among other bodies, a statutory consultee for all mineral planning applications, under Schedule 5 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008.

16. An environment statement as part of an environmental impact assessment (EIA) may also need to accompany the planning application, under the Town and Country Planning (Environmental

⁴⁸ (n 24) Annex A.

⁴⁹ <http://coal.decc.gov.uk/assets/coal/whatwedo/4860-guidance-on-managing-the-risk-of-hazardous-gases-w.pdf>; https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265984/Onshore_UK_oil_and_gas_exploration_Scotland_Dec13_contents.pdf p 37.

⁵⁰ Section 26(1). As amended by the Planning etc. (Scotland) Act 2006. Drilling does not count as permitted development – see further SEPA, ‘Regulatory Guidance: Coal bed Methane and Shale Gas’, Version 121119, para 44.

⁵¹ ‘Scottish Planning Policy’ (2010), <http://www.scotland.gov.uk/Publications/2010/02/03132605/8>

⁵² <http://www.scotland.gov.uk/Resource/0042/00421076.pdf> para 167.

⁵³ *ibid*, para 173. In England, all three stages require separate permissions. See

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224238/Planning_practice_guidance_for_on_shore_oil_and_gas.pdf para 10.

⁵⁴ (n 30) para 175.

Impact Assessment) (Scotland) Regulations 2011. If a development falls within Schedule 1 of the Regulations, then an EIA is mandatory. Operations where more than 500 tonnes of oil or 500,000 cubic metres of gas will be extracted per day will fall under Schedule 1. For Schedule 2 projects, EIA is required if the development is likely to have a significant effect on the environment. To fall within Schedule 2, the development must either be located in a sensitive area or be listed and meet relevant criteria and thresholds.⁵⁵ In the case of “deep drilling”,⁵⁶ the “area of the works” must exceed 1 hectare as a threshold. It is unclear if works here refers only to surface works but it is submitted that it includes all works, including underground horizontal drilling. Should that not be the case, a limit of 1 hectare on the surface appears arbitrary. Also listed in Schedule 2 (with a threshold of 0.5 hectares) are “Surface industrial installations for the extraction of coal, petroleum, natural gas and ores, as well as bituminous shale.” However, reference to “extraction” here raises a question mark over whether this covers the exploratory stage of unconventional gas development, though the term is not defined in the EIA Directive.

17. Although in 2013 the European Parliament proposed an extension of the EIA Directive to make EIA mandatory for all unconventional oil and gas development involving fracking, including at the exploration stage,⁵⁷ this amendment was dropped in January 2014.⁵⁸ However, in any event, this amendment would not have applied to CBM or other unconventional oil and gas development which does not use fracking.⁵⁹

18. While a formal EIA was conducted for the application subject to the current appeal, previous applications by Dart and its predecessors in the area were granted planning permission without an EIA.⁶⁰

19. Waste from CBM drilling, including e.g. drill cuttings, spent drilling fluids/muds, dewatering produced water and sludges removed from it during treatment, and fugitive gas or gas intentionally released to air⁶¹ or for waste combustion, will be classed as an ‘extractive waste’ for the purpose of the EU Mining Waste Directive 2006/21/EC.⁶² This Directive has been transposed into Scottish law by the Management of Extractive Waste (Scotland) Regulations 2010. Under the Directive, extractive waste must not endanger human health, harm the environment, cause a nuisance from noise or odour or adversely affect the landscape or places of special interest.⁶³ Operators are required to use ‘best available techniques’ in taking all necessary measures to prevent or reduce as far as possible any adverse effects on the environment or human health arising from their management of extractive waste.⁶⁴ They are also required to draw up a waste management plan for the minimization, treatment, recovery and disposal of extractive waste, taking into account the principle of sustainable development.⁶⁵

⁵⁵ <http://www.scotland.gov.uk/Publications/2011/06/01084419/2> figure 1 and para 36.

⁵⁶ Which CBM will invariably involve.

⁵⁷ <http://www.europarl.europa.eu/news/en/news-room/content/20131004IPR21541/html/Shale-gas-new-fracking-projects-must-pass-environmental-test>.

⁵⁸ <http://www.environmentalisonline.com/article/2014-01-03/compromise-agreed-over-eia-directive>

⁵⁹ <http://goodenergiesalliance.com/2013/10/14/the-eia-directive-details-of-vote/>

⁶⁰ See e.g. the planning application for the exploration and pilot test well granted permission by Falkirk Council, P/12/0109/FUL, http://eplanning.falkirk.gov.uk/online/files/4AA674648618055022EFFE0B98607718/pdf/P_12_0109_FUL-Supporting_Statement-279230.pdf (for other recent examples, see e.g.

http://www.sepa.org.uk/customer_information/energy_industry/unconventional_gas/current_activities.aspx)

⁶¹ Cf. Dart’s Waste Management Plan, para 3.3 which claims that this is a non-waste by-product (though cf. para 2.3 which states that natural gas during early development and non-routine operations is a waste; cf. also paras 3.41-3.42 and 6.3; this discrepancy is also noted by SEPA in its response to the Joint Statement - email from SEPA, ‘DART energy appeals - SEPA response’, 24 January 2014, p 5, para 1).

⁶² [2006] OJ L102/15.

⁶³ Art 4.

⁶⁴ Art 4.

⁶⁵ Art 5. Dart’s plan was submitted on the 23 December 2013.

20. The Directive provides that the Member state authorities ‘may’⁶⁶ (not ‘must’) reduce or waive the requirements of the Directive in relation to the ‘deposit’ of non-hazardous waste generated from the ‘prospecting’ of ‘mineral resources’ (except oil and evaporates other than gypsum or anhydrite),⁶⁷ but *only* if satisfied that there will be no risk to human health or the environment.⁶⁸ ‘Prospecting’ under the Directive would encompass only relevant non-hazardous waste from the CBM gas *exploration* phase but, due to recital 6 to the Directive (which makes it clear that the ‘pre-production development phase’ is part of ‘extraction’ and not ‘prospecting’), it would not cover *appraisal*; nor does it cover waste arising at the well *production* stage.

21. The regulator in Scotland is the local planning authority, with the required waste management plan for safe environmental management of such wastes dealt with as part of the planning permission. This governance arrangement is far from adequate. Waste management licensing ought to be within the control of an *independent* environmental regulator such as SEPA. In England, the relevant mining waste regulation is carried out by the Environment Agency. It is not only politically independent but, more importantly here, much more likely to have the relevant, cross-media environmental expertise required for both standard setting and subsequent monitoring and enforcement of those standards. This is underlined by the forward guidance that SEPA has felt necessary to provide to local authorities.⁶⁹

22. The waste management plan must be provided by the applicant as a discrete, stand-alone plan. The operator cannot simply claim substantive (though not formal) compliance with the required contents of a plan by pointing to details provided by it on waste management under other regulatory regimes such as the EIA environment statement or Pollution Prevention and Control (PPC) permits. To do so would drive a coach and horses through the formal requirements of Regulation 11, including in particular 11(1) which requires the plan to “plan for the minimisation, treatment, recovery and disposal of extractive waste, take account of the principle of sustainable development, [and] have the objectives in Schedule 1”. It seems extremely unlikely that existing waste management information would formally address all of these required points in relation to ‘extractive waste’. It would also make a mockery of the important publicity requirements in Regulation 12 involving placing the formal plan on the register. Neither is the Court of Justice of the European Union likely to accept substantive rather than formal compliance – to do so would place the UK at risk of being found in breach of its obligations under the Mining Waste Directive.⁷⁰

23. The current Scottish regime fails to regulate certain key wastes through all stages of CBM development. This is notable in relation to waste methane gas, which is a (c86 times over 20 years, and c34 times over 100 years) more potent greenhouse gas than CO₂. Gas may be unintentionally released via leaks (‘fugitive’ emissions), intentionally released via venting, or intentionally burned through flaring. Guidance on unconventional oil and gas issued by the English Environment Agency includes details on flaring, venting and fugitive emissions within the relevant section on mining waste management.⁷¹ The equivalent SEPA guidance mentions flaring and venting only in relation to the Pollution Prevention and Control (Scotland) Regulations 2012 and states that, at the

⁶⁶ ‘May’ is repeated in reg 8.

⁶⁷ I.e. gas remains included as a mineral resource.

⁶⁸ Art 2. See also Reg 8.

⁶⁹ SEPA (2012), Guidance Note LUPS-GU20, ‘Standing Advice for Planning Authorities on Extractive Waste Management Plan consultations submitted under the Management of Extractive Waste (Scotland) Regulations 2010’.

⁷⁰ See eg the House of Lords case *Berkeley v Secretary of State for The Environment* [2001] 2 AC 603 (substantial compliance insufficient).

⁷¹ Environment Agency, ‘Onshore Oil and Gas Exploratory Operations: Technical Guidance’, consultation draft, August 2013, pp 20-21, http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/LIT_7983_3b53c2.pdf. On fugitive emissions, see further technical evidence by the Environment Agency, ‘Monitoring and control of fugitive methane from unconventional gas operations’ <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/scho0812buwk-e-e.pdf>

exploration stage, a PPC permit would not be required.⁷² It therefore appears that waste gases are unregulated by SEPA at this stage.

24. Under the Industrial Emissions Directive 2010/75/EU, a permit will be required where it is intended to flare waste gas in a plant with a capacity of more than 10 tonnes per day.⁷³ Although the Pollution Prevention and Control (Scotland) Regulations 2012 purport to implement the Directive, its provisions exclude flaring because they (incorrectly) apply only to solid and liquid wastes and not waste gases.⁷⁴ There is therefore a gap in the Scottish legislative provisions in relation to flaring.

25. A PPC permit will be required for the processing or further treatment of *non-waste* gas for use in mains supply (as with the proposed Dart Gas Delivery and Water Treatment Facility - GDWTF).⁷⁵ Once this processing/refining is operational, the PPC permit can be expected to cover other 'directly associated activities' taking place *on the same site*, including drilling, and will include monitoring duties in relation to all environmental media including air, from both point sources and fugitive emissions within the site boundary.⁷⁶ Although *satellite* production and surface to in seam wells will be physically connected to Dart's GDWTF by pipeline, because they are up to 4km away they are not legally 'on the same site' and hence will not themselves count as an 'installation' requiring a separate PPC permit.⁷⁷ This is an error in the implementation of the Industrial Emissions Directive which contains no such 'same site' requirement.⁷⁸ While Dart will thereby escape full PPC control for each satellite well site, SEPA has, nevertheless recognised that "some regulatory control over these sites is desirable".⁷⁹ It thus stated its intention to 'flex' the main GDWTF PPC permit to include limited air emissions controls from such satellite sites by relying on the power to impose 'off-site' conditions.⁸⁰ However, this does not make up for the fact that there is potentially a failure to implement the proper scope of the Directive here. In addition, in its response to the Joint Statement, SEPA now appears to question its ability to flex in this way: "As the Reporters will appreciate, this is a novel process, and one on which SEPA is still working to develop its regulatory position. The scope of the 2012 Regulations to regulate the various aspects of process is not yet completely clear. As such, we would like to clarify that although it is our intention to regulate the central gas processing and water treatment facility and the fugitive methane emissions in the manner stated above [PPC requirement of monitoring of fugitive emissions around the well heads and the central gas processing facility], having reviewed our position, we are unable to state definitively at this point that we will regulate the fugitive methane emissions from the well heads."⁸¹

26. Thus, in England, environmental control of flaring (as opposed to resource waste control via DECC) will fall under the Environmental Permitting system – either through a mining waste permit or via an installation permit. Venting is covered by the waste management plan. In Scotland, environmental control of flaring, venting and fugitive emissions is seemingly not provided for at all at the exploration stage. SEPA guidance suggests that controls will apply only during production if gas

⁷² SEPA (n 29) paras 37-38 (stating that a PPC permit is required only where 'processing' of the gas on site is involved).

⁷³ Environment Agency (n 50) p 6. In England, see the *Environmental Permitting (England and Wales) (Amendment) Regulations 2013*, reg 35.

⁷⁴ Sch 1, Ch 5, section 5.1 (final line), definition of 'waste'. Flaring is not caught by section 5.3 either. The previous English regulations – the Environmental Permitting (England and Wales) Regulations 2010 – were similar until altered by the 2013 amending regulations (see n 52). The Directive effectively contains two separate parts on incineration: Ch. 2, Art 10 and Sch 1, which are not limited to solid and liquid waste; and Ch 4, which by reason of Art 42(1), is so limited. For an explanation of the different purposes, see DEFRA, 'Industrial emissions Directive – key points to note' (2012) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82610/industrial-emissions-cp-note-120312.pdf pp 1 and 3.

⁷⁵ SEPA (n 29) para 38. See also

http://eplanning.falkirk.gov.uk/online/files/C446AE9731EE2E6C7A288EBF2C4BFCCE/pdf/P_12_0521_FUL-Consultation_Response_Scottish_Environmental_Protection_Agency_SEPA_-386502.pdf

⁷⁶ SEPA, *ibid*, para 39.

⁷⁷ *United Utilities v Environment Agency* [2006] Env LR 42, cited in SEPA letter of 8 Oct 2013 to Mrs Stringer.

⁷⁸ *United Utilities* case, *ibid*.

⁷⁹ SEPA letter (n 56).

⁸⁰ *ibid*; Reg 24 of the Pollution Prevention and Control (Scotland) Regulations 2012.

⁸¹ Email from SEPA (n 40) paras 2.3-2.4.

treatment/processing is taking place on site and only, if at all, in a reduced, 'flexed' way to satellite well sites during this time.

27. An operator will also be required to secure a 'CAR' licence from SEPA under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).⁸² Under CAR, SEPA authorise, inter alia (and subject to certain exemptions), the construction of deep boreholes (>200m, which will now require a complex licence under CAR as opposed to a general binding rule),⁸³ the abstraction of water (in e.g. dewatering) and the discharge of this fluid to surface or groundwater, with the aim of preventing significant adverse impacts on the water environment. Once abstracted, produced water from dewatering will be classified as extractive waste (while e.g. held in tanks – as planned at the initial stages for the Dart proposal) and subject to local authority control, via planning conditions, under the Management of Extractive Waste (Scotland) Regulations 2010, until such point as it is discharged into e.g. receiving surface waters, at which point it becomes subject to CAR licensing and SEPA control again. This lack of an integrated, joined-up approach to licensing appears unsatisfactory. When the Dart GDWTF is operational, then it seems likely that a more integrated approach to waste water will apply, with the whole operation from extraction to discharge falling under SEPA PPC control.

28. In the context of the current appeal, Dart currently has three CAR licences⁸⁴ (a fourth is mentioned in the Environment Statement and SEPA's response to it as necessary for the *new* discharge point planned for the Firth of Forth,⁸⁵ though control of this discharge under the PPC licence is mentioned in the Joint Statement and the latter seems more likely in principle; additional CAR licences will also be needed where pipelines and roads cross watercourses). The first (CAR/L/1111096) relates to borehole construction. The second (CAR/S/1010756) lays down standards for the *quantity* of water that can be abstracted from the wells. It allows Dart to abstract up to 73m³ from each well and a total of 880m³ from all wells each day. The third CAR licence (CAR/L/1017224) sets discharge consent levels for the *quality* of produced water to be discharged at the *existing* outfall to the Forth. The abstracted water receives treatment on site before discharge to try to ensure that it complies with the consent levels. Both of the latter licences have only a quarterly monitoring requirement.

29. Produced water from CBM dewatering will typically contain naturally occurring radioactive materials (NORM), since these are often found in geological formations including coal seams. This water, once abstracted, is thus likely to be classed as radioactive waste and hence require an authorisation from SEPA under the Radioactive Substances Act 1993 (RSA93) for temporary accumulation⁸⁶ and subsequent disposal.⁸⁷ According to SEPA guidance, there will be a precautionary presumption that "all developments will require an authorisation issued under RSA93, prior to the start of groundwater abstraction, for the accumulation and disposal of the fluids that flow back as radioactive wastes." It will then be for the operator to rebut this by demonstrating, if they are able to, that the concentrations fall below the threshold levels for radioactivity set out in the Act. Dart's Waste Management Plan states that samples of produced water from pilot CBM wells have indicated levels above threshold and that it intends to submit an application to SEPA for authorisation under the RSA.⁸⁸

⁸² Introduced under the Water Environment and Water Services (Scotland) Act 2003.

⁸³ http://www.sepa.org.uk/water/water_regulation.aspx para 4.1. See also http://eplanning.falkirk.gov.uk/online/files/C446AE9731EE2E6C7A288EBF2C4BFCCE/pdf/P_12_0521_FUL-Consultation_Response_Scottish_Environmental_Protection_Agency_SEPA_-386502.pdf

⁸⁴ http://eplanning.falkirk.gov.uk/online/files/2408184BC3441C8B57195CB6BEBEC7ED/pdf/P_12_0521_FUL-Water_Abstraction_Discharge_Licences_Report-398171.pdf

⁸⁵ Environment Statement, para 3.283;

http://eplanning.falkirk.gov.uk/online/files/C446AE9731EE2E6C7A288EBF2C4BFCCE/pdf/P_12_0521_FUL-Consultation_Response_Scottish_Environmental_Protection_Agency_SEPA_-386502.pdf

⁸⁶ Section 14.

⁸⁷ Section 13.

⁸⁸ Paras 3.45-3.47.

30. Operators are also subject to health and safety regulation of wells and well sites by the Health and Safety Executive. The overall framework for regulation is set out in the Health and Safety at Work etc Act 1974, with detailed, oil and gas-specific controls contained in the Borehole Sites and Operations Regulations 1995 and the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996 (which also apply onshore).

31. Although not a licensing regime as such, local air quality management under Part IV of the Environment Act 1995 and associated regulations is also relevant to CBM emissions to air. Its application in the context of the current appeal appears to have been viewed in different ways, with the Environment Statement observing that there are no currently designated Air Quality Management Areas (AQMAs) within 5km of the proposed sites and that “no interactions are anticipated”,⁸⁹ and the more recent, part-agreed Joint Statement requiring an air quality management plan (AQMP), with extensive air quality monitoring requirements on the developer starting 6 months prior to well construction. While the pollutants covered and locations for monitoring overlap with the statutory local authority air quality regime, what is put forward in the joint statement is planning based control via planning conditions, responsibility for which lies with the developer. This is likely to have to pick up any gaps in air quality monitoring left by uncertainty over the scope of SEPA PPC coverage mentioned above (paras 25-6). Such an approach is explicitly envisaged by the relevant policy guidance on local air quality management.⁹⁰

32. From the above it can be seen that there are numerous regulatory regimes in place. Reading the various guidance documents in both Scotland and England, then, if one judges from the sheer number of regimes, one might be tempted to conclude that the industry is at the very least adequately regulated, if not over-regulated. However, one should beware concluding that more is better here. From the current UK Government’s perspective, it would appear odd to be satisfied with a mountain of disparate red-tape – indeed to be trumpeting this – rather than adopting its more usual stance of seeking to replace it with a more integrated approach. But that – a dedicated, integrated regime with time for consultation on its details – is what is needed here rather than a rush to production using existing laws. The current patchwork of regulation is just that and is not fit for purpose.

33. First, many of the regulatory regimes (e.g. PEDL, Coal Authority) are economically rather than environmentally focused, with a preference for resource maximisation rather than environmental protection; or else (HSE) they are aimed at health and safety (especially of workers) and not at safeguarding broader public health or the environment.

34. Second, even where the regimes are environmentally and public health focused, there remain considerable uncertainties regarding the interconnection between them (and also between the economic and environmental regimes) which are only being worked out on an ad hoc, catch-up basis. There has been confusion over the relationship between the EIA regime and the mining waste management regime (whether a discrete waste plan is required if there is one in the EIA statement). Venting and flaring (which have both global climate and local air pollution implications), though subject to economic regulation via PEDL, are oddly absent from the mining waste regime (unlike in England) and are only caught at the *production* stage through the PPC controls (as are fugitive emissions). Even then they are caught in full only for the main site and may not be caught for satellite well sites at all. It seems unsatisfactory that planning conditions based around local air quality management should have to pick up the regulatory gap here.

⁸⁹ Para 4.74.

⁹⁰ LAQM PG(S)(09) para 10.8: “If a proposed emission source does not require a pollution control permit (e.g. if the source is not regulated under Integrated Pollution Prevention and Control (IPPC) ... then planning authorities might, in some circumstances, consider adding conditions to the planning permission to tackle the source's possible effect on local air quality. These conditions might require a scheme of monitoring and mitigation, covering planning concerns to be approved by planning authorities before any development went ahead.” Available at <http://www.scotland.gov.uk/Topics/Environment/waste-and-pollution/Pollution-1/16215/PG09>

35. If no one seems quite sure what regimes waste gases fall under, a similar problem arises with waste produced water from CBM dewatering. Does this fall within CAR, the mining waste regime, PPC, the radioactive substances regime or a combination of these? An operator has, for example, claimed that since radioactive waste in technical EU legal terms amounts to non-hazardous waste, it should benefit from the exemption, described earlier at paragraph 19, from the mining waste regime.⁹¹

36. Although there has been guidance published on unconventional oil and gas, this has only described the various regulatory regimes in sequence rather than addressing these key, interrelationship points – points that would necessarily be addressed in drawing up a dedicated regime. As things stand, it is difficult to have full confidence in the regime on paper, let alone its implementation in practice.

⁹¹ Caudrilla letter subject to FoI by Greenpeace - <http://www.documentcloud.org/documents/759662-fge-b-l002-ea-mwd.html>

Annex 2 Document list

1. SPICe Briefing http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_13-68.pdf p 8.
2. DECC, 'Oil and Gas: Petroleum Licensing Guidance' (2012) <https://www.gov.uk/oil-and-gas-petroleum-licensing-guidance>
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4. Petroleum Licensing (Exploration and Production) (Seaward and Landward Areas) Regulations 2004, Sch 4 (production licences) and Sch 6 (exploration and development licences), clause 19(1)
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13. Onshore UK oil and gas exploration Scotland Dec13 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265984/Onshore_UK_oil_and_gas_exploration_Scotland_Dec13_contents.pdf p 37.
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15. Planning Circular 3 2011/ The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 <http://www.scotland.gov.uk/Publications/2011/06/01084419/2> figure 1 and para 36.
16. Europa Press Release, Shale gas- new fracking projects must pass environmental test <http://www.europarl.europa.eu/news/en/news-room/content/20131004IPR21541/html/Shale-gas-new-fracking-projects-must-pass-environmental-test>.

17. Compromise agreed over EIA Directive <http://www.environmentalisonline.com/article/2014-01-03/compromise-agreed-over-eia-directive>
18. EIA Directive – details of vote | Good Energies Alliance Ireland <http://goodenergiesalliance.com/2013/10/14/the-eia-directive-details-of-vote/>
19. EU Mining Waste Directive 2006/21/EC [2006] OJ L102/15.
20. SEPA (2012), Guidance Note LUPS-GU20, 'Standing Advice for Planning Authorities on Extractive Waste Management Plan consultations submitted under the Management of Extractive Waste (Scotland) Regulations 2010'.
21. Environment Agency, 'Onshore Oil and Gas Exploratory Operations: Technical Guidance', consultation draft, August 2013, pp 20-21, http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/LIT_7983_3b53c2.pdf
22. Environment Agency, 'Monitoring and control of fugitive methane from unconventional gas operations' <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/scho0812buwk-e-e.pdf>
23. Environmental Permitting (England and Wales) (Amendment) Regulations 2013, reg 35.
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26. *United Utilities v Environment Agency* [2006] Env LR 42, cited in SEPA letter of 8 Oct 2013 to Mrs Stringer.
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