

Case Against the Environment Agency: Permits to Frack the Fylde (PNR and ROS) are significantly flawed and potentially illegal under the Mining & Waste Directive.

The Subject:

The Environment Agency Permits to HVHF Little Plumpton and Roseacre Wood are flawed and potentially illegal under the Mining and Waste Directive and the EPR2010 Regs. <sup>(1)</sup>

The Case:

1. The Chair

Lord Smith, as then Chairman of the Environment Agency, stated that Cuadrilla had argued that it should not be subject to tough regulations requiring it to monitor closely any contamination of aquifers after fracking takes place and that the EU Mining and Waste Directive should not apply to the fracking waste that remains underground (approx. 50% of 3million gallons +/-borehole). The Environment Agency had to take legal advice to back its case that the directive should apply. <sup>(2)</sup> Lord Smith went on that shale gas operators :

*“have to make absolutely, demonstrably sure [that the fracking waste] is under proper control, properly sealed, and check that it continues to be the case” for decades after fracking.*

2. The Regulator

The EA issued Permits to frack in Jan 2015. Sec 5.1.10 – concluded that all the Best Available Techniques were not effective and so leaving the waste in situ was the BAT. i.e. doing nothing was the BAT. <sup>(3)</sup> (Author note: I serve on two EU Committees drawing up the BATs and last Dec 2015 the Hydrocarbon BREF published the GAP Analysis document that highlighted the large gap between where BATs are and where they need to be for onshore). Further the EA decided:

*“We agree with Cuadrilla that there is no risk of a major accident (serious danger to human health of the environment) based on the fact that the Mining Waste Facility is more than 1km underground and there is no relevant source –pathway-receptor chain.”*

So the EA were persuaded by Cuadrilla and chose to ignore the possibility of well integrity failure (vertical migration) and horizontal migration (away from the shales via faults). They ignored the well integrity/barrier failure between 1<sup>st</sup> April 2011 – 28<sup>th</sup> March 2014 (when it was discovered) at the only well to have been fracked in the UK – PH1 <sup>(4)</sup>. They have ignored their own former Chairman who had insisted it was for the operator to “make absolutely, demonstrably sure” no waste could escape the target formation. They ignored their own analysis of flowback which showed contaminants including Lead, Aluminium, Chromium, Selenium, Cadmium and NORM at excessively high levels (in some cases >1000 times when compared to drinking water). <sup>(5)</sup>

3. The Operator

Cuadrilla’s Technical Director , Dr. Andrew Quarles, stated (after the Permits had been issued): <sup>(6)</sup>  
*“we have no idea where the fracking waste goes or its final resting place is”.*

4. The Independent Engineer

Mike Hill, Chartered Engineer, has assisted the UK Gov, local councils and the EU Commission Technical Working Groups on the subject. He concludes “ it is clear, based on the real risks of leakage through well integrity failure and from waste leaving the target formation, the statements of Lord Smith, the EA’s own flowback analysis, and the flat out direct contradiction of Cuadrilla’s assurances to the EA by their own Technical Director, the Permits are demonstrably flawed and should be withdrawn and not re-issued till Cuadrilla have complied with Lord Smith’s requirements as per the law in the U.K. and the Mining and Waste Directive. “

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References:

1. Environment Agency Permits EPR/BB3800FQ.
2. Article in The Times – Tim Webb. 11<sup>th</sup> May, 2013.
3. Environment Agency Permitting Decisions - Jan 2015
4. HSE – FoI Response.
5. Environment Agency Analysis of PH-1 Well Flowback – 6<sup>th</sup> December, 2011.
6. Cuadrilla Pres Conf at The Shale Gas Conf - London February 2015.

All references are available in writing or as recordings.