

johnbusbyltd@hotmail.com

**Our ref:** NR33642

**Date:** 15 February 2017

Dear Mr Busby

Thank you for your request regarding flowback fluid from hydraulic fracturing:

***“By copy of this email I am requesting from EA's Onshore Oil and Gas Team a full list of the limits of the substances in Cuadrilla's Analytical Results which we can put to the treatment works for their comments on their ability to meet them. Presumably, although EA has granted a mitigation from the need for permits for the wastewater from the test drillings, it will ensure that the limits of dangerous substances will be observed.”***

For ease of reference we have divided our response into the following sections:

**“By copy of this email I am requesting from EA's Onshore Oil and Gas Team a full list of the limits of the substances in Cuadrilla's Analytical Results”:**

Please find attached a list of the Environmental Quality Standards (EQS) for List 1 and List 2 substances, under the Dangerous Substances Directive (DSD), which permit 254/1920 refers to. For ease of reference we have highlighted the relevant standards for the substances identified in Cuadrilla's analytical report which you included with your request.

Please note the Dangerous Substances Directive has been repealed and the substances are now regulated under the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 (WFD).

Under WFD the “List 1” and “List 2” substances are now classified as Priority substances (PS), Specific pollutants (SP) and Other pollutants (OP). These are often grouped together under the term ‘hazardous pollutants’. Please also see the attached document for a definition of each group and how they relate to the old classifications.

Where permits do not contain numeric limits for specific substances the operator must still ensure the EQSs are not exceeded in the receiving watercourse (see attached). Further information about the assessments undertaken to determine if a numeric limit should be applied to a permit can be found at:

<https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-yourenvironmental-permit>.

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In granting the environmental permit to Northumbrian Water for the Bran Sands effluent treatment works, the Environment Agency has determined that the operator can satisfactorily meet all of the conditions and limits specified within the permit.

It is possible that the concentration of substances found in flowback water may vary based on local geology, however waste water treatment work's operators must still treat and dispose of any flowback water they receive in line with their environmental permit, no matter how stringent the conditions might be.

**“Presumably, although EA has granted a mitigation from the need for permits for the wastewater from the test drillings, it will ensure that the limits of dangerous substances will be observed.”**

All flowback waters produced from hydraulic fracturing activities (at both the exploration and production phase) must be treated and disposed of at a permitted facility. There are no exceptions to this rule. Treatment and disposal must be conducted in line with all of the conditions of the environmental permits, including conditions for priority substances (dangerous substances).

During May 2011 Cuadrilla hydraulically fractured their well at Preese Hall on the Fylde. The majority of the flowback fluid was removed and treated at United Utilities industrial effluent treatment facility at their Davyhulme water treatment works in Greater Manchester. This was done in accordance with permits issued by the Environment Agency and the regulations in place at that time.

On 1 October 2011, the regulations in the UK changed, altering the levels of radioactivity where a permit would be required, (revisions to Schedule 23 to the Environmental Permitting Regulations 2010). As a result any waste water treatment facility wishing to accept and treat flowback fluid must now also hold a Radioactive Substances Directive permit.

Some flow back fluid remained on site (at Preese Hall) and was stored safely until the summer of 2012. It was then used in a series of trials at industrial treatment sites to help determine the best treatment and disposal route should the industry develop further. These sites had the appropriate environmental permits in place that were issued and regulated by the Environment Agency. All these sites are permitted to accept and treat a range of industrial and commercial wastes.

### **Future enquiries:**

I am sure that you will appreciate that we receive a large number of enquiries from the public and have to manage our resources to respond to these whilst fulfilling our direct regulatory duties. We understand that the topic of treatment and disposal of waste waters is of great interest to you and have responded to a number of requests from you since October 2016. Whilst we endeavour to provide you with the information you require, doing so is diverting resources away from high priority work areas.

I am sure that you would support the need for our team to focus on direct regulatory work and we recognise your interest in this subject. Therefore we propose we alter

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our approach to correspondence with you to a more proactive model – with us contacting you to notify you of any developments in relation to regulation of waste water treatment for the oil and gas industry.

In addition members of the APPG are in direct contact with the Onshore Oil and Gas team and we will continue to work with this group to inform their final report and to ensure people and the environment are protected, now and in the future.

Yours sincerely

Onshore Oil and Gas team