

15th Nov 2018

Natascha Engel, (Shale Gas Commissioner),  
Department for Business, Energy and Industrial Strategy  
1 Victoria Street  
London  
SW1H 0ET

Dear Ms. Engel

Our opposition to fracking at Preston New Road, Little Plumpton, and anywhere else, is based on the following facts:

- 1) **Seismicity** – As per my letter to you dated 05/11/2018 we believe that the traffic light system and the limits defined in it must remain unchanged. This system was stipulated by independent experts following evidence-based scientific analysis. There have so far been 36 Seismic Events at Preston New Road. We recognise that some tremors may not be felt at the surface. However, our main concern is the cumulative damage deep beneath the surface caused by repeated induced tremors. We do not believe it is possible that guarantees can be given that these events are not weakening the cement casing, or the well-bore. This could result in the leakage of toxic fracturing fluid out of the well, into faults, eventually migrating and contaminating the surface water close to our homes. Or it could also result in the fugitive emissions of methane gas. We do know that the induced seismic events at Preese Hall caused the well to become permanently deformed.
- 2) **Proximity** – 9 homes are 350 metres or less from the site. The planning officer in North Yorkshire had stipulated that there should be at least 500 metres between a site and dwellings. Other countries have also required even greater setback distances of up to 2km.
- 3) **Air Quality** – We know that the total industrial process of fracking generates air pollution. This was well documented in the delayed report published by the Air Quality Expert Group at the end of July, 2018. Evidence is also available from other countries, particularly the USA. The conclusions in the AQEG report highlight the fact that the people of PNR are being used a guinea-pigs. There are many elderly people and those with chronic illnesses who live close to the PNR site. They have chosen to do so because of the clean air of the Fylde coast. Poor air quality will have a detrimental impact on our health and impair lung development in our young children.
- 4) **Climate Change** – Fracking will exacerbate climate change. It is a fossil fuel, the fugitive methane emissions released from fracking (NASA study) make it no cleaner than coal during the extraction process. Moreover, methane is a greatly more potent greenhouse gas than CO<sub>2</sub>. It is a backward step to be starting up a new fossil fuel industry when we should be moving towards sources of renewable energy. There is no evidence that shale gas will replace other fossil fuels.

## 5) Health problems associated with fracking

**Respiratory problems:** Cough, shortness of breath and wheezing are the most common complaints of residents living near fracked wells. Toxic gases like benzene are released from the rock by fracking. These noxious chemicals and particulates are also released by the diesel-powered pumps used to inject the water. An epidemiological study of more than 400,000 patients of Pennsylvania's Geisinger clinic, done with Johns Hopkins School of Public Health, found a significant association between fracking and increases in mild, moderate and severe cases of asthma (odds ratios 4.4 to 1.5). Hopkins' Dr. Brian Schwartz cautions that residents should be aware of this hazard as "some 'pristine' rural areas are converted to heavily trafficked industrial areas."

**Pregnancy problems:** Fracking chemicals are harmful to pregnant women and their developing babies. West Virginia researchers found endocrine-disrupting chemicals in surface waters near wastewater disposal sites; these types of chemicals can hurt the developing foetus even when present at very low concentrations. Another Hopkins/Geisinger study looked at records of almost 11,000 women with new-borns who lived near fracking sites and found a 40% increased chance of having a premature baby and a 30% risk of having the pregnancy be classified as "high-risk," though they controlled for socioeconomic status and other risk factors. Contributing factors likely include air and water pollution, stress from the noise and traffic (1,000 tankers/well on average). Premature babies accounted for 35% of infant deaths in 2010. In addition to the personal toll on the families, prematurity is a major cause of neurologic disabilities.

**Noise, stress, sleep deprivation and cardiovascular disease.** Other studies have found that the noise from the drilling itself, the gas compressors, other heavy equipment and the truck traffic is high enough to disturb sleep, cause stress and increase high blood pressure. Longer-term exposure to noise pollution contributes to endocrine abnormalities and diabetes, heart disease, stress and depression, and has been linked to learning difficulties in children. Sleep deprivation has pervasive public health consequences, from causing accidents to chronic diseases. Another epidemiologic study from University of Pennsylvania and Columbia University compared the hospitalization rates between a county with active fracking and a neighbouring county without. This study found that fracking well density was significantly associated with higher inpatient hospitalization for **cardiac or neurologic problems**. There was also an association between skin conditions, cancer and urologic problems and the proximity of homes to active wells.

**Symptoms (the so-called 'Shale Gas Syndrome')** Migraine headache, fatigue, and nasal and sinus symptoms (*Environmental Health Perspectives 2016*) Patients closer to more or larger fracking wells had – 88% increased risk for chronic rhinosinusitis(CRS) and fatigue together – 95% increased risk for fatigue and migraine together – 84% increased risk for CRS, fatigue, and migraine together.

The residents of Westby with Plumptions would not wish to inflict by displacement, any of these severe adverse health impacts on any other village, or any other people elsewhere.

For all the above reasons Preston New Road Action Group is resolutely opposed to fracking everywhere.

Yours sincerely

Preston New Road Action Group