"THE SAFETY OF THE PEOPLE IS THE HIGHEST LAW."

HIGH VOLUME HYDRAULIC FRACTURING PART ONE: INTRODUCTION.



Note the miles of USA uninhabited open spaces.



Note the huge areas of USA forestry sheltering their brutal fracking industrialisation.

Salus Populi Suprema Lex.

"THE SAFETY OF THE PEOPLE IS THE HIGHEST LAW."

Cicero: Roman orator, and consul.

HIGH VOLUME HYDRAULIC FRACTURING (HVHF) KNOWN AS FRACKING.

Part One: Introduction.

I believe that there are three issues (see parts two, three, and four below). In recent years, the facts now known about *fracking* have changed dramatically. In a letter dated 5th April 2014, the Department for Energy and Climate Change confirmed that "high volume hydraulic fracturing operations such as are required by shale gas extraction, have so far been performed at only one well, Preese Hall in Lancashire". Since then, there has not been another one. Thus this process, new for England, now needs a 2017 *made in England* policy to accord with all now known evidence on fracking.

Part Two: to what extent is gas from *fracking* an essential national requirement?

This paper comments on the alleged national needs in 2017, and notes that, at the General Election, the Conservative party was the only one to support fracking, and that England and Spain are the only major European countries that have not banned it.

Part Three: deploys the up-to-date evidence concerning the dangers and hazards of *fracking?*

Many known dangers are now emerging from elsewhere in the world as shown by the US Environmental Protection Agency, in 2016, reporting its voltes faces. One, of many, illustrations of how the circumstances have changed is shown by an article from 2013 where the author, using the then state of knowledge, wrote:

"It is simply false ... that shale gas production has polluted aquifers in America. The total number found to be polluted by ... fracking liquid in the United States is zero ... The Environmental Protection Agency closed its negotiation at Dimock, Pennsylvania, concluding there was no evidence of contamination ... Tens of thousands of wells drilled, two million fracking operations completed and not a single proven case of groundwater contamination."

Now, in December 2016, the EPA is writing the **exact opposite**:

"Contamination happens at every stage of fracking ... cases of impacts were identified for all stages of the hydraulic fracturing water cycle. https://www.epa.gov/sites/production/files/2016-12/documents/hfdwa_executive_summary.pdf

Part Four reviews the English Regulations and sees that they are now shown to be wholly unfit for their purposes.

Before moving to Parts Two – Four, we should remember

THE MOST IMPORTANT UNFULFILLED PROVISO:

At this moment, when fracking is poised to start in England, it is pertinent to recall the provisos stated by Professor Lord Mair on January 26th 2015 when, before the Infrastructure Bill debate in Parliament was concluded, he wrote:

"The government have accepted [but see below] all the recommendations of our review" [this review proposed experimental fracking only, not operational] "on how to manage health, safety and environmental risks. However we cannot properly evaluate these measures until we see them in operation. If fracking goes forward in the UK, the public will need evidence that the necessary protections are in place and that they are effective."

[Underlining introduced]

At the time of writing this paper (May 2017) only one recommendation of Lord Mair's ten is in place; the public survey that his report also suggested has not been done. His proposed *experimental fracking* has simply been abandoned – with the contractors on the Fylde now preparing full production:

Cuadrilla are presently building, what is generally accepted (amongst engineers in the oil and gas sector), the largest fracking pad anywhere (by area and by fracking volume capacity). It is most certainly is not a pad for 4 exploratory fracking wells. This is obvious to anybody with any engineering qualifications/experience. There can be no doubt this pad is intended for production.