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18th October 2019

Dear Edward Anderson

Planning application for: Angus Energy Ltd, Lower Stumble Exploration Site,
London Road, Balcombe, Haywards Heath, West Sussex, RH17 6JH

Reference: WSCC/071/19

Thanks you for consulting Public Health England (PHE) on the above planning application submitted to the West Sussex County Council by Angus Energy Ltd. PHE was consulted on the previous application for this site; WSCC/040/17/BA on the 23rd of November 2017. It is understood that the applicant is seeking permission to remove drilling fluids and if in doing so finds oil, to carry out testing of the well over 3 years. The applicant states that it does not seek permission to undertake hydraulic fracturing under this planning application (nor in the future).

The site is located in a predominantly rural area, lying directly parallel to a railway line which runs northward to Balcombe village. The closest residential receptors to the site are at Kemp farm approximately 350m to the northwest of the proposed site boundary. Residential properties are also located approximately 600m east; 500m to the southwest; with the village of Balcombe located approximately 700m north of the site boundary.

The proposed operations are covered by two environmental permits issued by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2010:

- Mining waste permit (ref: EPR/AB3307XD), which was issued in July 2013 and covers the management of non-inert, non-hazardous and hazardous extractive waste, with a management facility; and
- Radioactive substances regulations permit (ref: EPR/PB3439DP), which was issued in September 2013 and allows to the accumulation and disposal of any radioactive waste.

The permits require air quality, surface water and ground water to be monitored during the proposed operations. An awarded variation to EPR/AB3307XD(V005) allows for the the loading, unloading, handling or storage of, or the physical, chemical or thermal treatment of crude oil.

In terms of air quality the applicant has focussed the assessment on operational phase impacts on local air quality from:

- Exhaust emissions from traffic associated with the proposed development;
- Emission to air from flaring of gas; and
- Emission to air from generators used to power equipment on site.

It is anticipated that natural gas will be produced during flow testing and this will be burnt off from the ground flare. The gas flaring will be up to 5000 m³ per day. It has been assumed that 2 generators will be operating on site however it is anticipated that only 1 will operate at any one time with the second as a back up.

The site is not located within or close to any Air Quality Management Areas (AQMA's). The applicant states that the main potential impact on air quality of the proposed development are emissions from the enclosed ground flare and the two generator engines. On this basis the applicant has identified the key air pollutants of concern as nitrogen oxides, carbon monoxide and particulate matter from the generators. The application states that gas to be burnt during flaring is predominantly methane and does not contain sulphur or benzene and therefore sulphur dioxide and benzene are not considered further in the assessment.

The results of the air quality assessment indicate that the predicted annual and hourly NO₂ concentrations, annual and 24-hour mean PM₁₀, annual mean PM_{2.5} and maximum 8-hourly rolling mean carbon monoxide (CO) concentrations at each of the defined human receptor locations, with the proposed development operational, are below the relevant AQS objectives.

The applicant has also considered the potential impacts of increased traffic emissions but due to the low number of proposed vehicle movements per day no quantitative assessment of potential emissions has been conducted.

The applicant suggests that the existing control measures will result in a minor to negligible risk to surface and ground water quality. Measures include the use of an impermeable membrane placed around the site to contain any spill, protective casing of wells and removal of all on-site waste including contaminated water to suitably licensed off-site treatment facilities. The well testing will involve the use of 10% hydrochloric acid as an acid wash to clean the immediate area of the wellbore. As no increase to impermeable areas is proposed the applicant suggests that there is no increase in flood risk.

The applicant has included risk assessments for potential off site impacts due to noise and odour. The applicant notes that that as there will be no significant construction or any drilling works, odour and dust associated with this type of well testing development are typically minimal and given the closest residential receptor is approximately 350m from the site, the applicant considers that these emissions will be negligible and

assessment of odour and dust has been scoped out. The noise assessment indicates impacts to be low during operation, with the exception of the closest receptor, Kemp farm, where nighttime levels are estimated to be 1 decibel above the test criteria. However the applicant notes these are worst case estimates and in practice levels are anticipated to be lower.

Summary

Based solely on the information contained in the application, we have no significant concerns regarding risk to health of the local population from potential emissions associated with the proposed activity, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with relevant technical guidance or industry best practice.

Any additional information obtained by the planning authority in relation to these comments should be sent to PHE for consideration. Such information could affect the comments made in this response.

Yours sincerely

Daniel Medlock

CCs: Surrey and Sussex PHE Centre
Public Health Department, West Sussex County Council