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04 March 2014

Dear Ms Jane Moseley

Planning application for: Cuadrilla Balcombe Limited, Lower Stumble Exploration Site, London Road, Balcombe, Haywards Heath, West Sussex, RH17 6JH
Reference: WSCC/005/14/BA

Public Health England (PHE) welcomes the opportunity to provide comment on the above planning application submitted to the West Sussex County Council by the Cuadrilla Balcombe Limited. It is understood that the application is seeking temporary permission for further exploration and appraisal, comprising the flow testing and monitoring of the existing hydrocarbon lateral borehole drilled at the above location along with site security fencing, the provision of an enclosed testing flare and site restoration. It is stated in the application that the applicant 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's house 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. Balcombe village features schools, GP surgeries and numerous residential dwellings.

The applicant has identified a number of air quality parameters i.e. nitrogen dioxide; sulphur dioxide; hydrogen sulphide; methane; Volatile Organic Compounds (VOCs) and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) related to proposed operations at the site. The applicant states that a contractor has been employed to undertake air quality monitoring prior to, during and after the proposed well testing operations. However, the application, does not appear to enclose the air quality

monitoring data stated to have been undertaken prior to well testing operations. The Planning Statement (section 4.14) states that a report of such monitoring will be issued to the Environment Agency as part of the Mining Waste Directive permit condition.

Modelling has been undertaken on potential emissions of nitrogen oxides and carbon monoxide from flaring which indicated that the emissions would not affect the achievement of the relevant short-term air quality objectives. The application does not appear to provide a clear justification for only selecting nitrogen oxides and carbon monoxide as potential emissions from flaring. Sulphur dioxide emissions appear to have been discounted on the basis that no sulphur dioxide is present in the extracted gas however it does not appear that the monitoring data to justify this has been included within the application. The planning authority may wish to seek the assessment of sulphur dioxide emissions from flaring activities.

The applicant has 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 application appears limited in its consideration of the potential for fugitive release of volatile organic compounds (VOCs) into atmosphere either directly or as a result of incomplete combustion during flaring. The planning authority may wish to request that the applicant considers the potential for impacts from fugitive VOC emissions and other combustion emissions and undertakes baseline air quality monitoring for VOCs. The results of such monitoring could then be compared to monitoring results during operations to provide an accurate assessment of air quality impacts due to the proposed operations.

The applicant suggests there will be minimal risk to ground and surface water from the proposed operation due to a combination of measures employed such as 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 planning authority may wish to confirm that proposed control measures and site management plans provide adequate measures to mitigate the risks to ground and surface water and that these are supported by any environmental permits issued by the Environment Agency.

The applicant has included risk assessments for potential off site impacts due to noise, odour and light nuisances. For noise, the applicant expects that the plant and equipment involved in the proposed flow testing operations will be less noisy than the preceding drilling operations and consequently noise emissions would comply with the same limits imposed at the site under previous planning consent. In light of the 24 hour nature of the operations the planning authority may wish to consider whether the existing noise limits remain suitable. Regarding the odour, although the applicant expects emissions to be minimal, there is the potential for off site emissions due to venting of raw gases. Given the nature of the proposed operations, it is recommended that the planning authority discusses the potential for the prospective operations to cause nuisance with the environmental health department of the local authority .

Summary

Based solely on the information contained in the application provided, PHE has 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.

PHE would like to suggest that:

- Wider emissions monitoring may be required to better assess the impact the on the environment from any development
- The planning authority consult the local authority environmental health department for matters relating to noise, odour, dust and other nuisance emissions
- The planning authority considers matters relating to on site impacts arising from the potential for flooding
- The planning authority also consult the Director of Public Health for matters relating to wider public health impacts

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



Dr Sohel Saikat
Principal Environmental Public Health Scientist

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