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Your ref:
Our ref: LCC/2019/0037
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Dear Elizabeth

PLANNING APPLICATION LCC/2019/0037 – PROPOSED HYDROCARBON EXPLORATION SITE AT SUTTONS LANE, GREAT ALTCAR, FORMBY

I refer to the above planning application received on 10 July 2019. As discussed I am now writing to provide you with a summary of the issues that have been raised as part of the consultation exercise together with the matters raised in representations and my own review of the application and Environmental Statement.

Some of the issues raised in this letter relate to topics contained within the Environmental Statement and therefore in respect of such matters, this letter is a request for further information under Regulation 25 of the 2017 EIA Regulations.

It is noted that your planning application has not been twin tracked with a separate application to the Environment Agency for a permit. Whilst this can be an acceptable way to proceed, it does mean that for issues such as ground and surface water and air quality, less information is submitted than might be the case had a permit application also have been produced. This is reflected in the consultation response from the Environment Agency. The County Council is currently seeking further advice on the water and air quality matters from an independent consultant and I will advise you further if additional issues are raised beyond those listed below.

Site Design:

- Looking at drawing ZG-AER-ALT-PA-11, it is noted that there would be a security cabin located at the point where the access road diverges from Suttons Lane. Is it the intention to have the access track enclosed within fencing between the security cabin and the exploration site itself?
- Where will the soils / materials be stored from the excavation of the drilling cellar
- Why are there two AER security areas? There is one at the entrance to the site compound (shown on drawing ZG-AER-ALT-PA-16) and another on the access road (shown on drawing ZG-AER-ALT-PA-11)
- Para 6.1.2 – wellsite construction. The text says that there will be an element of cut and fill. I assume this would be relatively minor to allow the creation of a flat site prior to laying of the impermeable membrane and aggregate materials.

- What will be the depth of the aggregate materials and total tonnage of such materials required to construct the site?
- How will the non-active area (car parking/office areas) be surfaced? I assume this will be with aggregate materials without the need for any impermeable membranes because this part of the site would not include any potentially polluting activities.
- The wellsite construction section describes the fencing around the compound area and describes 3 metre high steel mesh security fencing with interwoven solid panels. Does this fencing have any form of noise attenuation properties and has the use of this fencing been factored into the noise assessment?
- The proposed drill rig has a height of 60 metres. This is significantly higher than the drill rig used at Preston New Road which is limited by planning condition to 36 metres. Why is a higher rig proposed to be used at Altcar Moss? If the use of the higher rig would shorten the drilling period, could you provide a comparison to demonstrate how much longer it would take to drill the two boreholes using a 36 metre high rig compared to a 60 metre rig as currently proposed.
- Figures are presented in tables 6.10 and 6.11 of the Planning Statement to show the vehicle movements and waste volumes produced during the Phase 4 works (hydraulic fracturing). The text says that hydraulic fracturing flowback may be retained on site and reused. Are the figures in table 6.10 based upon all flowback being taken off site for treatment so they are therefore a worst case scenario?
- During phase 4, water will be required to undertake the hydraulic fracturing. Will this water be imported by tanker, be mains water, use water collected on site or abstracted from ground water via an onsite borehole?

Green Belt: In your planning statement you come to the conclusion that as the development is for temporary minerals development and includes for restoration, then it is appropriate development in the Green Belt. I am not convinced that this is a correct reading of the policy.

Paragraph 146 of the NPPF states that mineral extraction is not inappropriate provided it preserves openness and does not conflict with the purposes of including land within it. Minerals development is, therefore, not automatically appropriate development and the judgement must depend upon an assessment of its impacts on openness and the purposes of the Green Belt. All minerals development is temporary and at some stage will be restored and therefore these factors alone cannot be enough to make minerals development appropriate. If these factors were sufficient, then minerals development would always be appropriate and there would be no need to list it in paragraph 146 NPPF. Therefore, the visual impacts, scale and size of the development must also be taken into account in deciding whether a specific minerals development is appropriate in the Green Belt. Whilst I note that the Altcar Moss site would be a relatively short term development, it would still be of significant scale and, therefore, cannot reasonably be considered to be appropriate development. Very special circumstances should therefore be demonstrated to justify the development in the Green Belt. I do think that these circumstances could exist in this case by reference to geological factors, the extent of the Green Belt and the geographical area of the licence block compared to the Green Belt boundary. However, it is for the applicant to demonstrate the very special circumstances that apply and, therefore, I consider that you need to submit additional evidence in relation to Green Belt impacts.

Environmental Statement Topics:

Ecology

As you are aware the site is located a short distance to the south of Downholland Moss Biological Heritage site which is designated for its ornithological interests in particular overwintering birds associated with the various coastal European wildlife sites (Sefton Coast SAC, Ribble and Alt Estuaries SPA, Martin Mere SPA and Liverpool Bay SPA).

It is noted that you have produced a Habitats Regulations Assessment in view of the possible impact on the above European wildlife sites and that the conclusion of your assessment is that there would be no likely significant effect. However, Natural England do not agree with that conclusion and are of the view that there is currently insufficient information within the ES to be able to conclude that there would not be a likely significant effect on the European sites in question. Natural England suggest that the bird surveys that were carried out are incomplete and do not follow the methodology that was previously agreed with them. Natural England suggest that survey data be produced for the months of December, February, March, April and May, in order to take account of all migrations and changes in agricultural practices. Unless you have additional bird survey data for the above months that has not been submitted with the Environmental Assessment, I therefore consider that you need to be undertaking some additional bird surveys in winter 2019/2020.

Natural England consider that the calculations used in tables 7 – 9 of the HRA have been undertaken incorrectly to assess the 1% threshold for considering the significance of the bird species present in the area around the site. NE consider that the 1% threshold should be calculated using the figure in the citation or the Webs 5 year mean peak as a base line (depending on which is the most up to date figure) for each single SPA and not the aggregated figure for all SPA's as appears to have been done within the HRA. NE expect that the lowest of the SPA 1% figures to be used as the baseline for the assessment.

Taking account of the surveys that you have carried out, Natural England consider that these demonstrate that the populations of pink footed geese or lapwing utilising the application site or land within 500 metres of the site are greater than 1% of the SPA population which would therefore indicate that the application site and surrounding land is functionally linked to the SPA and therefore need to be subject to appropriate assessment. If an impact would result, then mitigation measures would need to be explored.

Natural England consider that the noise impacts during construction, operation and restoration of the site on land which is functionally linked to the SPA also need to be reassessed. EN consider that the assessment should take into account the exact types of disturbance that would be created by this development and the sensitivities to such noise by the bird species that are found in the area. EN do not agree with the use of the generic approach which appears to have been used as the basis for the assessment of noise impacts. EN suggest that a baseline noise increase of 3Db(A) would be appropriate in terms of avoiding significant effects on bird interests and that any necessary mitigation measures outlined that may be required to meet such a noise level. EN request a revised noise contour map be produced to illustrate the noise impacts of the site.

EN also draw attention to the possible impacts on the Down Holland Moss SSSI and state that there is inadequate assessment of the impacts on this site. However, I note that there is a considerable standoff between the proposed site and the SSSI and that furthermore the SSSI is a geological site. It is, therefore, my view that the proposal would be unlikely to impact upon the SSSI, but you may wish to present some information to demonstrate that this would be the case.

Seismicity – The conclusions of your seismic impact risk assessment in section 17 of your ES are noted. However, this risk assessment and its conclusions were produced prior to the seismic events at Preston New Road in late August 2019.

The information within your ES appears to demonstrate that the stratigraphy and structural geological setting of the Altcar Moss site is very similar to the Preston New Road and Preese Hall site. It might therefore be expected that similar seismic impacts might be encountered in response to hydraulic fracturing of wells at Altcar Moss. The risk assessment within the ES (tables 17.4 and 17.10) should therefore be updated as they are based upon an assumption that the embedded mitigation will limit the size of seismic events to 1.5Ml. Events at PNR appear to demonstrate that seismic events well above this level are possible.

The County Council has taken some initial advice on seismicity issues. The initial advice is that the information on geological setting is too generic and that a more site specific study would assist in justifying the conclusions of the ES. In particular Figure 17.1 shows that none of the faults within the Carboniferous reaches the surface and are terminated by the unconformity at the base of the Permian. The County Council's advice is that this is unlikely to be the case and that more detail should be presented within the ES to justify the conclusions. The County Council is in the process of obtaining further advice on the seismicity issues which may result in a request for further information once received.

Many local residents have raised issues in relation to the historic oil wells that have been drilled in this area and the implications of these wells on potential seismic activity from future hydraulic fracturing works. However, this topic does not appear to be covered in section 17 of your ES.

Highways: Sefton have made a number of comments in their capacity as highway authority in relation to the Transport Assessment. Their comments are as follows:

- Sefton comment that no information is provided showing the roads within Sefton that will be used to access the Formby bypass. However, I note you have included figure 18.1 which shows vehicle routing and which appears to give sufficient certainty of the routes that HGs would use.
- Sefton also state that the TA does not consider existing or forecast flows on the Formby bypass and Altcar Road and no account is taken of committed development or local plan allocations that would affect traffic levels at these junctions. They consider that an assessment of capacity and queuing at the affected junctions should be made.
- Sefton also make comment about abnormal loads in particular the Active Mud Tank Transport. I note that you have included swept path diagrams for this vehicle and Sefton note that this vehicle would have to cross into the opposite carriageway to pass the Altcar Road/Stephenson Way roundabout and would have to cross a bridge on the

Sefton/Lancashire boundary. In assessing the highway impacts of this abnormal load, it would be useful to know how often this vehicle would access the site and its total weight. You should also take into account Sefton's observations regarding on street parking but my own observations are that there are 'no parking' restrictions around the Altcar Road/Stephenson Way roundabout which should prevent parking in that particular location.

- Sefton have commented that route condition monitoring is proposed for the highway within Lancashire. However, my reading of the mitigation measures within section 18.8 of your TA is that they are not specific to Lancashire but apply to the access route as a whole including roads within Sefton. Could you please confirm this.

The proposed development also affects highways in Lancashire and a number of comments have been received from Lancashire Highways:

- It is stated in section 2.2.1 of the TA that the southern section of Suttons Lane will be widened to 4.6 metres. Drawing ZG-AER-ALT-PA-11 shows the detail of the widening/new construction works on the northern part of Suttons Lane and asks the reader to refer to drawing SK02. However, that drawing does not appear to be anywhere within the documentation.
- During my visits to the site, I have looked at the arrangements for vehicles accessing the site and it is clearly important that vehicles are able to pull clear of Lord Sefton Way when entering the site. If an HGV was exiting the site, would there be room on the southern part of the access road to allow two HGVs to pass? LCC Highways have raised a number of comments regarding existing infrastructure in this location and it would be useful for a plan to be produced showing this infrastructure and how it relates to any road widening that might be required and to demonstrate that the existing infrastructure in this area can be moved if required to create adequate passing/waiting space.
- LCC Highways have raised an issue with the carriageway widths on Lord Sefton Way and state that roads narrower than 5.5 metres are not well suited to accommodating 2 way HGV movements and particularly increases in numbers of such vehicles which would be the impact of the proposal. There is limited information within the ES to demonstrate that the existing carriageway is suitable to accommodate such movements or if any localised widening or other improvement would be required. The only section of highway beyond Suttons Lane that appears to have been assessed in terms of large HGVs appears to be the Altcar Lane/Stephenson Way roundabout in Sefton. None of the other potential pinch points or substandard sections of highway in Lancashire appear to have been assessed. You will note that Highways have asked for passing places to be identified and suitably marked using signage. Highways have stated that these works and the other improvement works that may be required to the public highway would need to be the subject of a section 278 agreement.
- It would be useful to know the frequency of trips that would be made by abnormal load vehicles such as the Active Mud Tank Transporter or the crane used to assemble/disassemble the drilling rig or coiled tubing rig.
- Highways have raised an issue with the timing and control of abnormal load departures/arrivals. I would expect this issue to be addressed in a construction/highways management plan should planning permission be granted.
- LCC Highways have also made a number of comments about the trip generation analysis in the TA. The figures are presented in terms of the number of HGVs per day

but Highways consider that analysis of peak flows may be more relevant especially if events outside the control of the operator mean that HGVs are concentrated through convoys.

- You will note that Highways have raised a comment about the timing and weather conditions during the traffic surveys. However, in my view this will not have significantly affected the baseline traffic data.
- You will note that highways comment upon vehicle routing. The B5195 to the east of the site has not been assessed in the ES and does have significant highways issues. It is therefore vital in my view that any permission is supported by mechanisms that require all HGVs to approach / leave the site via the A565. The only issue with this is that it will remove any flexibility in the event that there is protestor activity between the site and the A565. You will note that Highways have commented with regards to how compliance with the routing requirements will be monitored. This appears to be a valid point since the proposed security cabin on the access road is not located in a position where it would allow monitoring of any routing requirement.
- The outstanding requirements of LCC Highways are helpfully set out in the conclusions section of the response which can be viewed on our website.

Archaeology: The response from Lancashire Historic Environment Service is that the site development should include a programme of archaeological investigation providing for a trial trenching scheme to at least the depths to which the site will be stripped of overburden. Whilst the planning application discusses the construction of the drilling cellar which would clearly involve excavation of the soils and overburden, this does not appear to be the case with the remainder of the site which appears to be constructed leaving the topsoil in situ. The description of development in section 6.1.2 is not entirely clear on this point and some further explanation would assist to help to confirm the extent of archaeological works that would be required. In particular, what would be the extent of the cut and fill works that are described in the planning statement.

Climate Change

Table 8.1 states that the overall contribution to greenhouse gas emissions from the proposed development is 0.118% of the total of the UK greenhouse gas emission from the energy supply sector in 2017. These figures are different from those included within the Executive Summary of Chapter 12 which states that the total contribution of tCO² equivalent will be 84,199t which is 0.07% of the total UK greenhouse gas emissions. Can you explain the differences in these figures please?

Noise

The assessment appears to have been carried out in accordance with BS 5228 rather than Planning Policy Guidance for Minerals/Noise policy statement for England. This matter appears to have been covered in the Preston New Road appeal where the Inspector appears to have come to the conclusion that the appropriate assessment methodology should be PPG – M and the NPSE rather than the BS standards.

The assessment that has been carried out provides an assessment of noise for different periods during the day and night which is particularly relevant for drilling operations which would be undertaken during the night time period. The information included in Table 15.8

shows the noise changes between existing ambient sound levels at six properties and the maximum new ambient sound level. However, I would question whether the assessment methodology accords with Planning Practice Guidance for Minerals. For the evening periods the guidance appears to require that noise from a development should not exceed the **background** (LA90) level by a prescribed amount rather than the ambient level (LAeq) as used in the assessment. Table 15.7 appears to indicate that the background noise level during the evening at Suttons Farm is 35 dB(A) which increases to 56 dB(A) with the development (Table 15.8).

For the night time period, the guidance states that noise limits should be set to reduce to a minimum any adverse impacts without imposing unreasonable burdens on the operator with the maximum noise level not exceeding 42 dB(A). The outcome of the assessment appear to show that the worst impact occurs during night time drilling (phases 2 and 3) at Sutton's Farm where a predicted increase in ambient noise of 5dB is shown. In BS4142 it states that an increase of around 5dB(A) is likely to be indicative of an adverse impact. I, therefore, consider that further mitigation needs to be incorporated into the development and a demonstration included of the level of noise mitigation that would be provided. The night time noise impacts are not greatly discussed in the summary section at the end of the noise assessment except to say that night time noise will not affect resident because they will be indoors or asleep. This conclusion seems to disregard the point that during the summer residents may sleep with windows open and that they could be subject to sleep disturbance if woken by site noise.

Ground/Surface Water

The assessment of the hydrology and hydrogeological impacts of the development is complicated by the fact that this planning application has not been twin tracked with a permit application to the Environment Agency. As you will note the EA have responded that they have no objection in principle, but there is limited consideration of the issues to assess the planning authority in its assessment of the application. The County Council are therefore taking further advice from consultants on this aspect of the development and will respond to you in due course if there are further outstanding issues on this topic.

The application states that the effectiveness of the ground and surface water mitigation measures will be demonstrated through a scheme of monitoring that will be agreed with the EA through the permitting process. However, no details of the monitoring have been provided to provide comfort at the planning stage that this matter will be adequately addressed, or that mitigation measures can be implemented if there is any variance from the baseline during operations.

Air Quality

The application states that monitoring will be undertaken of air quality during the proposed development, there are no details of baseline monitoring presented or of the actual monitoring techniques that will be used during the operational phases.

In relation to emissions from the flare, the modelling is based upon an assumed gas composition. However, the actual emissions may vary depending upon the actual gas composition at this site. In particular the potential for hydrogen sulphide or VOC emissions

should be quantified at this stage to establish what the potential impacts would be and if there is a need for any specific monitoring or mitigation for these parameters.

Radon Gas: The air quality assessment section of the ES states that the assessment of radon releases is contained in appendix B. However, appendix B does not appear to contain anything in relation to radon.

Norm: There is nothing in the air quality assessment that reviews the potential for NORM within the drill cuttings and more especially the flow back fluid and how any impacts will be controlled and mitigated.

I hope these comments are useful to you. If you have any further questions please contact me.

Yours sincerely

Jonathan Haine
Team Leader – Development Management