

**Gravesham Borough Council's Post hearing Written Submissions - Issue Specific Hearing on Planning Policy and Environmental Matters (DEADLINE 3 – 30/04/2018)**

17.2	<p><b>Employment and Skills Strategy</b></p> <p>i. TC states that the potential for local socio-economic benefits, to be delivered through the Employment and Skills Strategy, are supported by TC, and that discussions with the Applicant regarding the detailed content of the Strategy are ongoing (re TC's WR [REP1-090]). Would the Applicant and TC update the hearing on the current position with regard to the Employment and Skills Strategy?</p> <p>ii. How will it be secured?</p>
<p>In respect to Skills &amp; Employment Strategy, the PoTLL's consultant (Arup) advised at the hearing that GBC are being included in this strategy and we welcomed this explicit addition and await advice on how GBC is to be included.</p>	
1.1	<p><b>Air Quality Common Ground</b></p> <p>i. Would TC and GBC confirm that the study area, baseline, methodology, assessment of effects (all the modelled results fall either below or well below the relevant air quality objectives for NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) and mitigation measures (through the CEMP and OMP) are all agreed between the Applicant TC and GBC (re SOCG Update Report [REP1-021], Appendices 1 and 2)?</p> <p>ii. Are all parties content with the provisions for the management of dust during construction via the CEMP, and during operation through the OMP?</p> <p>iii. Do any parties have outstanding issues over air quality?</p>
<p><b>i. Would TC and GBC confirm that the study area, baseline, methodology, assessment of effects (all the modelled results fall either below or well below the relevant air quality objectives for NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) and mitigation measures (through the CEMP and OMP) are all agreed between the Applicant TC and GBC (re SOCG Update Report [REP1-021], Appendices 1 and 2)?</b></p> <p>GBC and the PoTLL have been discussing the air quality components of the SoCG:</p>	

- It is agreed that Table 18.1 is comprehensive in setting out the effects of Air Pollutants
- It is agreed that the ES defines the “reasonably likely worst case scenario” for air quality assessment with GBC being particularly interested in shipping emissions and fugitive emissions of dust, particulate matter and odour from the CMAT facilities and aggregate handling areas once operational.
  - Table 18.2
  - Plus 18.44 does include the potential impacts that could arise from the proposals. Of particular relevance to GBC is:
    - .. shipping emissions associated with the proposals once operational: on-site, ... at the new jetties .
    - fugitive emissions of dust, particulate matter and odour from the CMAT facilities and aggregate handling areas once operational, including unloading from ships, transport on-site, materials storage, handling and processing;
- It is agreed that the ES has used the air quality information currently available in Gravesham. As GBC only currently monitors NOx and PM10, GBC does not currently agree that this is sufficient and wishes to discuss the need for additional site survey work.
  - As explained in 18.163 of the ES, Thurrock Council undertakes monitoring of local air quality in its administrative area, using both Continuous Monitoring Stations (CMSs) and passive diffusion tubes (DTs). Paragraph 18.164 then explains that currently there are four CMS sites within the borough of Thurrock. These continuously monitor concentrations of NO2, PM10, PM2.5 and SO2.
  - As explained in 18.174 of the ES, in Gravesham nitrogen dioxide monitoring is carried out using diffusion tubes at 70 locations within the borough. PM10s are measured in the AQMAs with the nearest monitoring locations being the Northfleet Industrial Area AQMA and A2 AQMA. GBC does not have Continuous Monitoring Stations and therefore has no monitoring of PM2.5.
- GBC agrees that the SoS Scoping Opinion relating to air quality accepted that no further assessment of operational rail and shipping emissions was necessary. GBC remains concerned about vessel emissions.
  - Shipping is a growing sector but one of the least regulated sources of emissions of atmospheric pollutants. Shipping makes significant contributions to emissions of nitrogen oxide (NOx) and sulphur dioxide (SO2) gases, to primary PM2.5 and PM10 (particulate matter, PM with diameter less than 2.5 micrometres and 10 micrometres respectively).
  - Chemical reactions in the atmosphere involving NOx and SO2, and ammonia (NH3) gas emitted from land sources (principally associated with agriculture), lead to the formation of components of secondary inorganic particulate matter.
  - These primary and secondary pollutants derived from shipping emissions contribute to adverse human health effects in the UK and elsewhere (including cardiovascular and respiratory illness and premature death), as well as environmental damage through acidification and eutrophication.
  - The relative contribution of emissions from shipping is greater in the vicinity of the UK than across other areas of Europe because of the UK’s location adjacent to major shipping lanes and its major port activities.
  - In port cities the ports contribute massively to air pollution. But it is not only the ships that pollute the air with emissions from fuels that are up to a hundred times dirtier than road. The combustion of diesel and heavy fuel oil leads to a comparatively high amount of PM emissions. PM also develops when certain pollutants meet other substances fuels (extracts from [http://www.cleanair-europe.org/fileadmin/user\\_upload/redaktion/downloads/NABU/2014\\_Clean\\_Air\\_in\\_Ports\\_workingpaper\\_4.pdf](http://www.cleanair-europe.org/fileadmin/user_upload/redaktion/downloads/NABU/2014_Clean_Air_in_Ports_workingpaper_4.pdf) ).
  - WHO estimates that long term exposure to PM2.5 is associated with an increase in the risk of cardiopulmonary mortality by 6-13%

- International research on harbour emissions on PM10 and PM2.5 indicates that around 50-55% of PM0 and PM2.5 measured at the port was attributed to harbour activities

**ii. Are all parties content with the provisions for the management of dust during construction via the CEMP, and during operation through the OMP?**

- GBC accepts that:
  - The IAQM guidance suggests that, based on a literature review of the distances that dust particles can travel, impacts will occur mainly within 250 m to 400 m of the minerals operation. It is commonly accepted, however, that the greatest impacts will occur within 100 m of a source, for both large (>30 µm) and small dust particles
- GBC notes that paragraph 18.255 states that “particles with a diameter of less than 10 µm have the potential to persist beyond 400 m” and this again raises concern at the lack of PM2.5 monitoring in Gravesham

**iii. Do any parties have outstanding issues over air quality?**

GBC remains concerned about shipping emissions and the absence of PM2.5 monitoring in Gravesham. GBC would like this data gap to be filled so that we know the current situation for all potential pollutants and so we can truly evaluate whether the introduction of shipping emissions close to Gravesham, where there are currently no vessels, will have an impact. The CMAT vessels will be some of the largest and most polluting.

1.2

**Use of Shore Power for Powering Moored Vessels**

- i. The Applicant responds to Interested Parties’ calls for shore power to be considered for moored vessels, and states that there are constraints due to ships’ ability to take shore power, and due to electrical capacity being extremely limited due to the National Grid infrastructure locally (re Applicant’s response to ExA’s FWQs Q1.1.1 and Q1.1.3 [REP1-016]). The Applicant also states that it will provide the infrastructure to ensure that shore power can be accommodated at the Tilbury2 site in the future should the vessel profile change. Would the Applicant state what infrastructure it will provide so that shore power can be accommodated, and what provisions will be made to ensure sufficient electrical capacity?
- ii. Would NGET comment on the sufficiency of electrical capacity?
- iii. Would TC and GBC comment on this matter?

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**ii. Would NGET comment on the sufficiency of electrical capacity?**

**iii. Would TC and GBC comment on this matter?**

As highlighted above, GBC is concerned about the impact of shipping emissions on existing and proposed residential properties in Gravesham.

A key mechanism to reduce these potential impacts is via the use of shore power.

GBC covered this in its submissions to deadline 1 and does not intend to repeat them

The Port of London is their "Comments on Responses to FWQs, ES and Deadline 1 material" (REP2-008) advises:

*The PLA has been developing an Air Quality Strategy as part of the Thames Vision. As part of this the PLA has been undertaking research to understand the feasibility of installing shore power for shipping at sites that the PLA controls as one of many options available to reduce emissions during the growth of the Port. The PLA's own fleet already has access to shore power along the estuary. We are not aware of another operator on the estuary looking into this or installing any infrastructure for shipping, although it is common in mainland Europe.*

*Shore power from shipping has gone through a number of changes recently, including standardisation of technology to ensure compatibility worldwide. Of the vessels qualifying for the Green Tariff discount on the Thames in 2017 87% have the ability to plug in. With more ships being provided with the technology to use shore power, **the PLA is seeking to encourage terminals along the estuary to provide this power and assist in reducing marine sourced emissions as the port grows.***

*The up-take of shore power in mainland Europe and America provides the perfect opportunity to learn from best practice from across the world to reduce diesel emissions from all commercial vessels that use the river. River transport can play a huge part in reducing CO2 emissions and removing harmful emissions from sensitive receptors such as schools. With this in mind there is a role for us all in exploring how to encourage the move to greener vessels and practices especially where activity will increase.*

As suggested by GBC at the hearing session, a requirement could be carefully worded that shore power will be enabled once X% of vessels have the ability to plug in to shore power and National Grid have confirmed that there is the local capability.