Responses to Questions from the CLP Meeting 16 (11/01/2021)

1) *Will Covanta/RSL publish the emissions data from hot commissioning?'*

Answer:

Commissioning will be carried out in accordance with the commissioning plan submitted to the Environment Agency (EA). Reports on emissions and performance will be submitted to the EA in accordance with the Environmental Permit conditions.

The emission performance information may be available once validated by the EA. It is possible that this will be via the CLP meetings.

2) *BACI would like their question regarding the Carbon footprint answered.*

Answer:

Rookery South ERF has been developed in line with government policy on waste management and climate change. Effects on the environment were considered as part of the planning and permit deliberations and the facility was granted permission. Questions regarding the effects of this specific EfW facility on the local environment have therefore been addressed; questions regarding the effects on a wider/global scale are a matter for the government and we would respectfully ask that any CLP member wishing to debate this direct their questions to national government either directly or via an appropriate lobbying organisation.

3) *Covanta quotes that their pollutant emission levels are a tenth of the legal thresholds permitted; does this include the numerous periods, occasions and procedures when Covanta is allowed to exceed the legal pollutant levels?*

Answer:

Modelling of emissions takes into account exceedances. This is described in the attached extract from the Environmental Permit Application regarding non-routine events.

4) *'Will the theoretical dispersion model [from the planning EIA/permit] be updated with weather data from the stack top'?*

Answer:

Dispersion Modelling was carried out in 2016 for the Environmental Permit Application. It uses data measured from the closest applicable weather stations. Data is measured typically at a height of around 10 m above ground level, and creates a flow field which calculates the conditions at the release height on which the model is built. It was considered by the EA that this was a suitable reflection of the local weather conditions in Marston Vale and an Environmental Permit was issued on this basis. Stack emission monitoring will be undertaken by Covanta as part of the Environmental Permit requirements to ensure that emissions do not exceed those modelled. No additional modelling is required by the EA at this stage and there is no requirement to update the dispersion model.

5) *Could Covanta explain the temperature at which emissions will leave the stack and enter the atmosphere and the emissions dispersal pattern when we have weather conditions like the past 24-48 hours: Marston Vale and its environs covered in thick fog all-day, wind speed not exceeding 4mph, temperature ranging from 0-3 degrees Centigrade.*

Answer:

Modelling was undertaken using the Atmospheric Dispersion Modelling System (ADMS4). The emissions modelling and risk assessment for the Environmental Permit considered all aspects associated with local weather conditions including temperature inversion. See below the extract from the Environmental Permit Application 2010 regarding "Potential Effects, Operational Phase - Waste Combustion".

> "8.7.26. As with many applications of this kind, there is a perception held by members of the local community that the most adverse conditions for dispersion are those when a temperature inversion is present, creating a stable layer at the surface. Such conditions are most likely to occur nocturnally, or just before sunset or after sunrise. In this case, the perception is reinforced by local experience of the landfills and brickworks, both of which gave rise to significant odour nuisance. The modelling undertaken here encompasses the full range of meteorological conditions, including the presence of a stable boundary layer for a significant number of hours in a year. Under these conditions, the plume from the EfW stack will be above the shallow surface layer on most occasions and will be prevented from dispersing to the ground by the stably stratified air below."
> *(Environmental Permit Application, prepared by Fichtner Consulting Engineers: Environmental Statement Volume I Doc Ref. 3.1, 4 August 2010)*

6) *'Will Covanta amend the e-version of their latest Newsletter to remove the claim to support from CBC as requested by CBC?*

Answer:

Rookery South Ltd has addressed this matter directly with CBC, who are satisfied that their concerns raised at the CLP meeting will be documented in the meeting minutes. The newsletter will not be amended.

7) *Why has Covanta never acknowledged that methane is collected from the landfill sites in the Marston Vale and does not enter the atmosphere?*

Answer:

Landfilling has taken place in the Marston Vale since the 1970s. Large levels of methane are released from 'historic' landfills but modern containment landfill sites, which includes all operational landfills, capture the methane gas for power generation and for safety reasons. Capture of landfill gas from the Marston Vale sites has been a key part of their operations. Landfill gas is a mix of predominantly methane (CH_4) and Carbon dioxide (CO_2), potent greenhouse gases. CO_2 emissions from landfill do not get burnt but essentially pass through the gas engine to the atmosphere. Further, CO_2 will be created in the combustion of CH_4. Some methane is unable to be captured from very old, degraded waste. However, a comparison between the GHG emissions from landfills with those from EfW is a very complex matter. The consideration of the impact of EfW on climate change compared with landfill is a matter for national government not a local issue.

8) *What checks will be made on 'black-bin' waste from Bedford Borough and Central Bedfordshire Councils brought directly to the incinerator?*

Answer:

Residual waste delivered direct to the Rookery South ERF from local collections will receive an initial confirmatory check at the weighbridge (with respect to waste type). Random spot checks will be

made of all deliveries to the reception hall prior to being tipped in the bunker. Waste in the bunker will be examined by the crane operator as part of the mixing and feeding duties.
Council collection operatives (the bin men) have some responsibilities for checking what goes in the back of their truck, and of course householders also have a duty to place only residual household waste in the black bin in line with guidance issued by the Councils.

Outstanding from Previous Meetings @ 29/06/2020

9) *To establish the carbon footprint for the construction of the Rookery South waste incinerator (i.e., the entire facility, including the electricity generation plant), we [BACI] would like to know how much of the following will be used to complete the plant: (BACI)*
   - *Concrete (how many tonnes?)*
   - *Steel (how many tonnes?)*
   - *Tarmac (how many tonnes?)*
   - *Fuel (for construction vehicles working on site — how many litres?)*
   - *Electricity (for cranes, lighting etc. — how many kWh?)*
   - *Manpower (person-days for everyone working on site).*

Answer:
See question no. 2 above

10) *A CLP member would like information following a recent article in the Guardian which refers to [sic] the huge amount of CO_2 from incinerators and requested a Covanta response to the article and on the likely level of emissions of CO_2 from the Rookery plant. Source: Legal challenge over UK's exclusion of incinerators from emissions target (June 2020 CLP Mtg)*

Follow up prior to January 2021 mtg

- *Was the CO_2 question actually discussed? The member is interested to know, not the legal action being brought in London, but the fact that this type of facility seems to produce a lot of CO_2. Are Covanta/the EA/the Government saying that it doesn't matter how much is produced? Isn't CO_2 a greenhouse gas?*
- **written response via Bob Fisher**: "There was a limited discussion at the meeting r CO_2 and other emissions, which is recorded in the notes on page 10. Covanta provided a response to your query in the 'Questions & Answers' document issued prior to the meeting – although I note your wider interest in it being a greenhouse gas. It was agreed that the Environment Agency would provide a presentation on emissions at the next meeting. The EA will be requested to address CO_2 and its effects within that. There will, of course, also be opportunity to ask further questions during the meeting."

Answer:
CO_2 is a product of combustion. It is accepted that the Rookery South ERF will produce CO_2; the amount will depend on, and vary with, the nature of the waste being burnt. There are a number of research papers on this topic [1] which suggests EfW produces between 0.7t and 1.7tonnes CO_2 per tonne of waste combusted, of which 68% is likely to be of fossil origin, e.g. plastics. This should be put into context by comparison with electricity produced by burning fossil fuel, and other waste treatment options, as well the quantities of CO_2 emissions produced from other sourcese.eg traffic, industry. Also see response to Q2 above.

[1] https://zerowasteeurope.eu/wp-content/uploads/edd/2019/09/ZWE_Policy-briefing_The-impact-of-Waste-to-Energy-incineration-on-Climate.pdf

Questions to the Environment Agency

RSL/Covanta Answer:

Rookery South Limited and Covanta, as the operator, will endeavour to operate the ERF in accordance with the Environmental Permit at all times. It is understood that the EA has the ability to shut down the operation for serious breaches.

The EA also has the ability to amend the Permit to comply with changes to legislation; a reasonable period of time for compliance is normally allowed for existing facilities (which would include any under construction).

Covanta is able to apply for amendments to permit conditions. It is understood that the EA would consult relevant statutory consultees and publish the application in the case of a major amendment.