Number	2nd Sch5 Question	2nd Sch5 Response
	Non-Technical Summary	
1	**Monitoring methodology of waste gas emissions from aerated static piles (ASP)** Provide a response to the following questions regarding the monitoring methodology of waste gas emissions on the ASP piles: • Please confirm if the grid system and the requirement for one sample per physical location was employed during the sampling, given that you proposed that each ASP was to be divided into 15 no. 40 m_2 grids and that a single air sample was to be taken from each grid. • Please show by means of a diagram where the sample hood locations were physically located on each bay and match the odour result to the location and bay. Please make clear which hood locations were used for taking the samples when the fans were shut off. • Please describe the measures taken to ensure that the sampling locations chosen were representative of the ASP surface, and that the potential for variability in air flow across the surface of each ASP bay, and for preferential channelling of air (especially on the front slope and in proximity to the bay walls), was taken into account. • Please state the specific age range (in days) at the time of sampling of the compost in each ASP bay	A supplementary report has been provided to respond to these questions (document reference 19248 - Supplementary Information - Walker Resource Management - Biowise Ltd - V1), please find it alongside this document. The questions that it does not answer are those associated with bullet points 4 and 5. The specific age range (in days) at the time of sampling of the compost in each ASP bay was as follows: • Bay 1 – 43-47 days old (7 days sanitisation, 35 days stabilisation, 1 to 5 days to fill the bay) • Bay 3 – 29-33 days old (7 days sanitisation, 21 days stabilisation, 1 to 5 days to fill the bay) • Bay 4 – 15-19 days old (7 days sanitisation, 7 days stabilisation, 1 to 5 days to fill the bay) Bay 4 contained the freshest material. The bay took 5 days to fill and monitoring took place 4 days later. For the final bullet point regarding the individual flow rates, for the modelling, where the flow rate through the sampling hood was below the limit of detection, the design flow rates were used. The fans in the ASP bays nominally provide an airflow for half of each section at $50m^3/h/m^2$. Given that the fans are on / off approximately 50% of the time, for the purpose of this calculation, the air flow provision has been halved to $25m^3/h/m^2$ to provide the average flow rate when the fans are on and off. This equates to $0.0069m^3/s/m^2$. This figure was used in the calculation of the specific odour emission rate from each bay. It should be stated that the area beneath the hood was $1m^2$.

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	• Please state (in days) how long the bay with the freshest compost took to fill prior to the sampling taking place and the interval, if any, (in days) between completion of the filling and the day the sampling was carried out. • Provide any further evidence of how the hood was employed during the monitoring operation including any images • Provide the individual flow rates for each sample collected across the ASP piles. Reason for question *The information requested has not been adequately described in the monitoring report provided in response to the Schedule 5 Notice dated 13 August 2021.*	
2	**BAT – Aerated Static Piles** Provide proposals with appropriate timescales for achieving compliance with the Waste Treatment BAT Conclusions with respect to reducing diffuse emissions to air of dust, odour and bioaerosols from open-air treatment (**BATc 13, BATc 14 and BATc 37**). In your response, describe how the following appropriate measures will be incorporated into the site management system:	• It is proposed that all material that is 2 weeks old or less will be covered with a semi-permeable membrane. This is because the emissions monitoring carried out demonstrates that the odour concentration of material that is older than 2 weeks is less than the BAT-AEL of 1,000 OUe/Nm^3. This will be implemented by February 2023 subject to manufacturer availability. • The operator confirms that with immediate effect all waste that is brought onto site and all waste that leaves site will do so in covered vehicles/trailers. The operator can confirm that all material that is transferred between the IVC site and the ASP site will be done so under a sheeted tractor trailer within the next three months. From that point onwards all material transported between the two sites will be covered. • The residence time of the material in the IVC tunnels of 7 to 10 days is based on the time taken for the material to heat up to the pasteurisation

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	• Use of semi-permeable membrane covers on the aerated static piles; • Covering of vehicles transporting waste materials within the site and out of site; • Increasing the residence time of waste in the IVC tunnels; • Increased temperature monitoring in compost piles which cannot be fully monitored with 1-metre probes; • Increased monitoring points of waste piles, pH and N sampling; • Reduction in the use of leachate on post sanitised material on site <u>Reason for question</u> *We consider that the site is not in compliance with BAT with respect to the reduction of odour emissions at the installation. This information is required to demonstrate that the site has implemented Best Available Techniques (BAT) and minimised odour emissions with respect to the aerated static piles (ASP).*	temperature of 60°C, remaining at that temperature or above for 48 hours with an appropriate cool down period to follow before being transferred to the ASP site. The IVC tunnels are in use for pathogen control via sanitisation as much as composting. There is no reference to increasing the residence time of material in IVC tunnels in the BAT Reference Document for Waste Treatment. Therefore, no amendments to the residence time in the IVC tunnels is proposed. • The operator confirms that of the 8 No. 1m long temperature probes currently installed in each ASP bay, one of the probes will be replaced with a 1.5m long temperature probe which will be positioned in the centre of each bay. This ensures that the monitoring of the temperature from the longer probe in the centre of the pile will remain automated and will be logged continuously. This will be done within 3 months of permit issue subject to availability of the probes. • The operator confirms that it will monitor one phase (age-range) of material in the ASP bays quarterly for pH and C:N ratio. For example, in Quarter 1, material that is one week old will be monitored, in Quarter 2, material that is 2 weeks old will be monitored, in Quarter 3, material that is 3 weeks old will be monitored and in Quarter 4, material this is 4 weeks old will be monitored. As such, all age-ranges up to the minimum stabilisation period of 4-weeks will be monitored for pH and C:N ratio over a 12-month period. • Prior to the recirculation of leachate on post-sanitised material, the operator will perform a sniff test on the leachate. If it is considered to be odorous and likely to cause offence by the operator, the leachate will be diluted with fresh water to the point that no discernible odour is detected by the operator prior to being applied to the waste pile.
3	**BAT – Screening Operations** Provide proposals with appropriate timescales for achieving compliance with the Waste Treatment BAT Conclusions with respect to containment, collection and treatment of diffuse	The operator can confirm that the feed hopper serving the screening line will have wind barriers installed on two sides. An additional drop chute at the oversize rejection point will be manufactured and installed to reduce the drop height of the oversize. The star decks and the picking line will have proprietary covers fitted to them to act as wind and fugitive emission barriers. Additionally, the water misting bars on the inclined material belt, which serves to suppress odour and dust, will be uprated.

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	emissions from screening operations currently undertaken externally on site (**BATc 14d**). Reason for question *This information is required to demonstrate that the site has implemented Best Available Techniques (BAT) and minimised odour emissions with respect to the external screening activities. This will assist in confirming that the specification of the site infrastructure system is appropriate and continues to meet the requirements of BAT.*	The operator is committed to having all of the above in place by the end of February 2023.