

## Monitoring and Reporting of Emissions (Air, Water, Sewer, and Waste)

The installation carries out the following emissions monitoring:

- Annual flue gas analysis on the gas fired boiler
- Monthly utility provider sampling of the trade effluent (sewer)

Records of all waste and by-product removals from site are also retained. The table below demonstrates compliance with BAT requirements for the Red Meat Processing (Cattle, Sheep and Pigs) Sector:

Table 1

Ref	Requirement	Comment
1	Identify process variables that may affect the environment and monitor as appropriate	Compliant
2	Assess whether monitoring the capacity parameters: <ul style="list-style-type: none"> <li>• Blood Tank 15,000Litres</li> <li>• Drum Storage (Covered) 25L</li> <li>• Drum Storage (Covered) 205L</li> </ul> Would these enable you to minimise your environmental impact of reduce risk of an accident	See Below
	<ul style="list-style-type: none"> <li>• Salt</li> </ul>	n/a
	<ul style="list-style-type: none"> <li>• Refrigerant – Quantity of refrigerant and oil added to or removed from the system</li> </ul>	Each charge or drain
	<ul style="list-style-type: none"> <li>• Detergent and disinfectant – You should monitor the consumption of detergent and disinfectant to check that correct dilutions and application procedures are being followed</li> </ul>	Weekly
	<ul style="list-style-type: none"> <li>• Bleeding times – Blood has a very high BOD. By monitoring bleeding times, you can check that the maximum quantity of blood has been</li> </ul>	Regular monitoring checks, however, line speed and thus bleeding time is fixed

	collected for sale or separate disposal and will not overload the effluent treatment plant	<p>Cattle – line speed 1 every 3 minutes with 5 in blood trough hence 15 minutes draining time</p> <p>Sheep – line speed 130/h with 35 in trough hence 16 minutes draining time</p>
	<ul style="list-style-type: none"> <li>Efficiency of blood collection – At single species abattoirs, the efficiency of the blood collection procedures can be assessed by monitoring the quantity of blood collected per animal processed</li> </ul>	Quarterly calculation done on numbers of species in throughput
	<ul style="list-style-type: none"> <li>Energy consumption – Energy consumption across the abattoir and at individual points of use in accordance with the energy plan</li> </ul>	<p>Electricity – continuous</p> <p>Gas – by utility bill</p>
	<ul style="list-style-type: none"> <li>Water use – Fresh water use across the activities and at individual points of use should be monitored as part of the water efficiency plan</li> </ul>	Meter reading
	<ul style="list-style-type: none"> <li>Levels in the blood collection tank – The risk of accidents can be reduced by installing a high-level alarm on the blood tank linked to an automatic cut-off for the blood trough pumps</li> </ul>	<p>Monitored based on throughput rate and days since emptied with significant additional capacity retained. With blood levels emptied twice weekly and no blood stored over the weekend.</p>
	<ul style="list-style-type: none"> <li>Levels in the effluent treatment plant tanks</li> </ul>	n/a
	<ul style="list-style-type: none"> <li>Effluent quality</li> </ul>	By routine utility provider sampling

## Emission Monitoring

Effluent parameters from W1 samples will be monitored as detailed below in table 2, while volume discharged will be monitored continuously.

The effluent monitoring program will consist of testing for many different parameters as

*Table 2*

<b>Parameter</b>	<b>Frequency</b>
Oils, Fats, and Grease	Monthly

Schedule 3 table S3.2 of the permit states that monitoring frequency of these parameters monthly. However, the site monitors these weekly to reduce risk of blockage. These parameters are tested through visual inspection, with regular results of 'non-visible' from sampling.

There are 2 boilers on-site (A1, BEP1) producing emissions to the atmosphere through the boiler stacks. Schedule 3, Table S3.1 of the facility's permit states that there are no specific controls imposed upon emissions to air at the facility.

The site is permitted to process emission to sewer (S1). This emission point is sent to Northumbrian Water 'Howden' Sewage treatment works. Schedule 3, Table S3.3 of the facility's permit stats that there are no specific controls imposed upon emission to sewer at the facility.