

A. Air

- **Combustion gases**

With the necessary and stringent controls in place, it has been considered that the risk of fugitive emissions to air is minimal.

There were no accidental releases of refrigerant gas during 2024, owing to the successful automatic leak detection system and tighter controls over the refrigeration system. The Environmental Team now monitor alarms on a remote refrigeration monitoring system to ensure that any issues are actioned in a timely manner. This prevents any issues leading to accidental releases of refrigerant gas.

There are 2 gas boilers on site that undergo an annual scheduled maintenance test, as per manufacturer's guidelines, to identify any faults that could lead to abnormal gas releases. CO and NOx emissions (ppm) are also recorded during the service.

Most of the chemicals used on site are of low volatility, meaning any accidental spillages would have no significant releases to air. All chemical containers on site are stored on appropriate bunds and clearly display all require safety information.

- **Odour**

There was 1 environmental complaint received by Natural Resources Wales (NRW) in 2024, which related to odour emissions that a local resident believed to have originated from Kepak Merthyr. Upon receipt of the complaint, we conducted a thorough investigation of our site processes at the time of which the incident occurred. The Effluent Treatment Plant (ETP) was fully manned and there were no abnormalities in the running of the ETP, and no waste or animal by-product entered or left site. From the evidence gathered, we couldn't ascertain whether the odour reported originated from site.

Documented odour assessments are carried out on a weekly basis by the Site Environmental Coordinator. The odour assessment is carried out at 12 defined assessment points using a scale ranging from 'no detectable odour' to 'very strong odour'. If an odour is deemed to be 'strong' or 'very strong', remedial action is required. This is per the procedure for on-site odour control.

- Odour abatement**

Some of the operations carried out on site are odorous by nature. The site was designed taking this into consideration and these operations are confined in dedicated buildings where possible and are located in the North or West end of the site, away from nearby receptors.

The main operations that could lead to odour releases are as follows:

(a) Waste Disposal / Animal By-Products Transfers

The main control measure to avoid the generation of odour is frequent collections and appropriate storage. Table 1 summarises the site arrangement for the collection of potentially odorous waste and animal by-products.

Table 1: Waste Contractors

Contractor	Description of Waste	Service / Disposal Route	Transport Container
Biffa	<ul style="list-style-type: none"> • General Waste • Hazardous Waste • Organic / Food Waste • Recycling 	<ul style="list-style-type: none"> • General Waste – Transport and EFW and Landfill (Contaminated Plastics) • Hazardous Waste - Transport and Sorting • Organic Waste - Transport and Sorting • Recycling – Transport and Sorting 	<ul style="list-style-type: none"> • Compactor • Skips • Wheelie Bins
GP Biotec	<ul style="list-style-type: none"> • Gut and Lairage • DAF Sludge • Blood 	<ul style="list-style-type: none"> • Transport and Anaerobic Digestion 	<ul style="list-style-type: none"> • Tanker • Bulker
APC	<ul style="list-style-type: none"> • Blood 	<ul style="list-style-type: none"> • Transport and Further Processing 	<ul style="list-style-type: none"> • Tanker
Advanced Proteins	<ul style="list-style-type: none"> • Mixed Category 3 • SRM (Category 1) 	<ul style="list-style-type: none"> • Transport • Rendering • Incineration 	<ul style="list-style-type: none"> • Bulker
Saria	<ul style="list-style-type: none"> • Mixed Category 3 • SRM (Category 1) 	<ul style="list-style-type: none"> • Transport • Rendering • Incineration 	<ul style="list-style-type: none"> • Bulker

There are dedicated procedures for the safe storage and disposal of blood, and they are as follows:

- Blood tanker collections are supervised, either by a member of Engineering or Security, of by a Yard Operative
- Blood tanker driver training records are supplied by contractors
- Copies of relevant procedures are available inside the blood storage room for reference
- The active carbon filters are inspected every 2 months and changed every 6 months
- Hygiene and housekeeping standards have been maintained and the blood storage room and associated areas are cleaned daily

(b) Lairage

The build-up of odours in this area is inhibited by a constant circulation of air by means of air fans and air extraction. It is also minimised by adherence to cleaning schedules and compliance with company procedures. These procedures are externally monitored by the FSA to ensure food safety and hygiene.

The lairage works on a clean-as-you-go basis and as soon as the pens are emptied, the dung is removed and pen cleaned. In addition to constant housekeeping, the lairage is cleaned on a daily basis. Notice is given to NRW of planned deep cleaning of the lairage, in order for them to be aware of any potential odour issues associated with deep cleaning.

(c) Effluent Treatment Plant

The ETP is housed in a self-contained building to limit the escape of odour emissions. To further prevent odour spillages, housekeeping and maintenance measures are in place and are as follows:

- Doors are kept closed at all times where possible and the importance of this is reiterated to ETP operators
- Effluent sludge is removed either daily or every other day dependant on levels of production
- The plant is cleaned on a daily basis and deep cleaned weekly
- The ETP is manned 24/7, with dedicated operators monitoring the functioning of the plant continuously to tackle any problems that arise
- Both effluent holding tanks are sealed and are fitted with active carbon filters

The plant has an automatic pH neutralising system that monitors and controls the effluent pH through chemical addition. The pH controller has a present pH set point for the effluent and uses this measured value to determine whether the effluent is within compliance with that set

point. If not, chemical pumps are operated to inject acidic or caustic solutions as required to bring the effluent in the holding tank to the correct level. This system has greatly improved the clarity of wastewater.

(d) Drainage System

The drainage system is served by a sequence of pumping pits fitted with dual pumps, failure alarms, high- and low- level controls, and high- and low- level alarms. The alarms will immediately notify ETP staff of any failures that could result in effluent build up, and subsequently potential spillages and bad odours, so immediate action can be taken. This system has been recently upgraded to alert ETP staff of any failures if they are in surrounding areas as well as within the ETP.

(e) Livestock Transport Cleaning

Livestock delivery vehicles are cleaned in a designated area before leaving the site. The solid waste collected during cleaning is stored in Dolav containers and disposed of along with dung and straw from the lairage. The liquid waste generated by the cleaning process enters the coarse screen pit and is treated by the ETP.

(f) Slaughter Hall and Meat Processing Operations

All areas of operation are externally supervised by the Food Safety Agency (FSA). Good adherence to hygiene standards and cleaning schedules inhibits the generation of odour in these areas.

During production, a dedicated hygiene team ensures that all areas have good adherence to hygiene standards. After production, all areas of operation undergo a 5-stage deep clean using high pressure hoses, foam, and sanitiser.

B. Water

The risk of emissions from points other than those specified in the site's Environmental Permit is minimal, and there are no new activities on site that have increased the risk.

Our underground structure consists of the drainage system, diesel tank, and associated pipework. The integrity of the drainage system sumps is inspected at an interval deemed appropriate to ensure proper water flow into drainpipes.

All areas where potential contaminants are handled and stored are hard surfaced and any chemicals are stored on bunds to prevent spills from spreading.

All wastewater from production areas is pumped into the ETP for chemical treatment through a series of pumping pits. Effluent drains and stormwater drains are colour coded to ensure that all wastewater is directed to the ETP. After treatment, effluent is discharged to sewer under a consent agreement with Welsh Water.

(a) Spillages

There were no reportable spillages on site during 2024.

There are 17 spill kits strategically placed around the exterior of the site, near to the storage of chemicals and oils, and near vulnerable receptors. This ensures that any spillages are dealt with quickly and appropriately. These are audited quarterly to ensure that they contain the correct stock to deal with spillages.

C. Land

It is considered that the risk of fugitive emissions to land is minimal. All factory waste is stored in appropriate containers on hard surfaces and collected and disposed of offsite by licensed contractors.