



**RF BROOKES**

***PPC PERMIT CONDITION 4.1.4***

***SUMMARY OF FUGITIVE EMISSIONS***

***May 2018  
(covering year 2017)***

## **RF BROOKES**

### ***ANNUAL SUMMARY OF FUGITIVE EMISSIONS***

#### **1. INTRODUCTION**

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This summary is submitted in relation to RF Brookes' Environmental Permit condition 4.1.4.

Areas of the site summarised are as previously submitted. New activities since the issue of the last report are underlined. The report covers the year 2017

There are no new operational activities at the site for the calendar year.

To assess all potential fugitive emissions scenarios – the following have been considered.

- Potential fugitive emissions to air;
- Chilling and refrigeration;
- Fugitive emissions to surface water, sewer and groundwater;
- Subsurface structures;
- Surfacing;
- Odour.
- Noise

Details of any incidents or near misses have been included.

## **2.0 Fugitive Emissions to Air**

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- Fugitive emissions to air could potentially arise at the site from the ammonia plant (refrigerant leak), malfunctioning or unabated boiler gases or malfunctioning thermal oxidisers.
  - Daily preventative maintenance checks and monthly flue gas testing is carried out to ensure the boilers and oxidisers are running within their parameters. Annual maintenance contracts with external companies test and make adjustments to burners.
  - Emission to Air points (covered in Permit) are measured by an external company (as agreed with Natural Resources Wales) to establish emissions are in line with consent levels. Testing was undertaken in December 2017 and January 2018 by a UCAS certified company.
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## **2.1 Chilling & Refrigeration**

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- Regular inspections are undertaken to assess leak risks. All high risk areas are covered by an electronic leak detection system incorporated into the site fire detection panel. Specialist external contractors oversee the maintenance of both the refrigeration and the leak detection systems. Records are kept of the quantity of refrigerant added to the system and the amount removed for maintenance purposes.
  - For this review period the logs show £2000kg of ammonia have been added to the central ammonia system
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## **3.0. Fugitive emissions to surface water, sewer and groundwater**

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- There are no underground storage tanks at the site. Any fugitive emission to these receptors would be via spillage or pipe network/drain breach.
- Drainage from the factory is in the form of sub-terrain pipes to an underground collection vessel at the first stage of the effluent treatment process. The effluent treatment plant is either sited within the site internal drains or within bunds.
- At stipulated intervals, camera surveys are undertaken to assess integrity of underground pipework.
- All effluent from process areas are directed to Effluent Treatment Plant prior to release to sewer. There is no risk of fugitive emissions to surface water from any internal process areas (all directed to ETP regardless of area of use). All external sensitive drains (i.e. risk of process discharge to surface water) have been re-routed to the ETP drains.

- The effluent treatment plant is designed and operated to ensure that under any circumstances the water from factory drains can always be discharged to sewer and prevent an overflow to surface drains. Plant alarms and SMS alerts to engineers mobile phones ensure a rapid response to machinery or component failure.. These alarms are tested monthly and are part of the site PPM. (confirmed by Site Services Manager)
  - External surfaces are subject to a regular maintenance review. Areas considered sensitive near surface water drains are prioritised for repair. Re-surfacing of the goods in area took place 5 years ago and measures have been taken to provide extra protection for despatch area surface drains. Internal surfaces are covered by HACCP/Hygiene/Food Safety Regulations. And maintained accordingly
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### **3.1. Subsurface Structures**

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- There are no subsurface structures holding liquids with the potential to cause a pollution incident.
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### **4.0 Odour**

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- The site operates 2 Environment Agency/Natural Resources Wales approved thermal oxidisers. Daily preventative maintenance checks (visual) and monthly flue gas testing is carried out to ensure oxidisers are running within their parameters. An annual maintenance contract with an external specialist company tests and makes adjustments to burners and fans to ensure optimum running conditions are maintained.
- Planned shut downs are agreed prior and when possible, neighbours are informed.
- Historically there has been odour complaints received to the Installation. For 2017, there were three relevant complaints. Details of these were provided to NRW and a new Odour Management Plan was issued (and accepted) in August 2017.
- As part of the ongoing site odour recording and tracking, the site retains details of location (see below annotated location map).



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## 5.0 Noise

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- Potential noise generating activities are the statutory pressure regulations checks carried out on the 3 steam boilers. Safety valves are tested for functionality which results in an escape of steam for a few minutes for each test. Natural Resources Wales local office and our security guards are pre-warned before each period of testing
- Certain waste management practices have (historically) been relocated on site, to ensure noise producing activities are separated from the border with residents.
- There were no noise complaints in 2017.