# Review of the fugitive emissions from the Bedwas Site - 2022
# Permit BX9455IF PC 4.1.4

## Possible Fugitive emissions to air

The most likely sources of fugitive emissions on the Bedwas site are:

1. Loading and unloading of waste containers/skips/tanks and tankers.
2. Excessive extraction velocity over process tanks
3. Accidental loss of containment from failed plant and equipment

**Control of fugitive emissions to air**

The following techniques are used to minimise fugitive emissions:

1. Some of the current waste skips are covered and some are uncovered. Hazardous waste is bagged before placing in 205 litre drums. There is also good housekeeping around all yard and storage areas. 5S program in place for all departments.
2. The extraction system above the sulphuric acid tanks in the anodising process has been checked and is found to be satisfactory. The fumes from this area are not volatile and not expected to be an issue other than corrosion on roof areas in proximity.
3. There are emergency procedures in place, but fugitive emissions would be difficult to quantify in these circumstances.
4. There are no visible plumes from the Bedwas site.

## Possible Fugitive emissions to Water

<u>For subsurface structures</u>

1. Emissions from subsurface pipe work and tanks

<u>For surfacing</u>

1. Failure of containment from storage areas

<u>All above ground tanks</u>

1. Failure of containment from storage areas
2. Spillage during delivery

<u>Storage areas for IBC's, drums, bags etc</u>

1. Failure of containment from storage areas
2. Spillage during delivery

**Control of fugitive emissions to water**

1. A site plan is available that shows underground pipes. These pipes will be checked on an annual basis (including visual check). Any unusual observations or chemical usages are reported if they occur. Many of these pipes are in ducting under floor level.
2. All storage areas are marked on a site plan. Most storage areas are bunded (bunds were relined in 2021) and have spill kits and/or drain protectors in proximity and are checked on a regular basis. Some internal storage areas located away from surface drainage systems. Surface water drains on site are connected to one of two interceptors, which are checked on a regular basis.
3. All storage areas are checked on a regular basis including contents of bund. Any bunds found containing a reasonable quantity of rainwater are emptied. The inlet pipe for bulk storage tanks is within the bund area. All bunds are lined.
4. All storage areas are bunded and situated away from surface drains where possible. Where this is not possible, a drain cover is provided in proximity. Containers are stored with lids on whether they are full or empty. Integrity of containers is checked on delivery.
5. Floor area underneath the tanks in anodising has been relined with fibreglass. This was carried out over a period of 2 years and completed in 2007. Borehole monitoring continues to be carried out.
6. Integrity testing of bulk storage containers being pursued as part of Hydro group policy in 2020.
7. Spill training of relevant operators carried out and a chemical spill risk assessment carried out on all chemical storage areas.

## Odour

There are no obvious odour-related annoyance areas on Bedwas site. Occasionally there can be a very slight odour from the effluent plant, but this is always not present and impossible to quantify. The effluent plant only operates Tuesday to Friday 24hours and there are no complaints from nearby residents even though housing is only a short distance away from the building. The doors to this building are normally closed.

There are no significant fugitive emissions from any other sources.