# Changes to Existing Activities

- 1. This application is for:
  - An increase in the environmental permitted boundary (See figures 1 and 2) to the North and West of the exiting permit boundary area, but still within the site boundary

# New Site Boundaries New Site Boundaries

2. Addition of permitted waste types/ codes that can be received for treatment as per below;

Owned Site Area Permit Area

- Table S2.1 Permitted Waste types and quantities for refrigeration treatment facility and the associated storage of hazardous wastes pending treatment (AR1, AR2)
- 17-06-03\*, 17-06-04
- Table S2.3 Permitted Waste types and quantities for the plastics separation plant (AR8))
- 19:02:04\*, 19-12-04

3. To update the permit to include the changes in interim on site storage of VOC gases prior to be taken off site for disposal at an appropriately approved facility.

Environmental Benefits Include:

- 1. Reduction in vehicle journeys/movements by 86% (for every 7 existing movements will equate to 1 new movement)
- 2. Reduced number bottle changes from 300kg to 500kg
- 3. Greater control over disposal route, not reliant on 3<sup>rd</sup> party or availability of containers
- 4. Creation of Local jobs
- 5. Contributes to GAP Net Zero
- 6. Additional monitoring to ensure compliance

Process Description including additional steps:

## Tank Exchange

Recovered Gas from the step 1 and 2 process is collected in gas containers by means of two armored pipes with a non-return valve at the end as shown in figure 1 below.



Figure 1

As shown in the photo above (Figure 1) both the pipes and the container have independent shut off valves to prevent any fugitive emissions from the liquid gas to atmosphere. When placing a replacement container on the system all valves are closed (both container and pipe) when the pipe is secure the valves are opened.

When the container is full, it is exchanged for an empty one and the process of closing the valves before the pipes are disconnected is repeated.

### This process will not change!

### Additional Step:

The full container will be moved away from the building into a purpose built and designed structure where the full container will be coupled to the system by exactly the same connections as shown in figure 1 above. The same procedures for closing and opening of vales will be mirrored here.

In addition, the same couplings as seen in figure 1 with the control valves at the end of the connection pipe will be used to connect the larger tank to the closed system. The liquid gas will be transferred from the small to large container by means of an atex rated pump with appropriate non return valves installed.

### Risk/Benefits

No additional environmental risk when compared to reconnecting containers from Step 1 onto the step 2 circuit to ensure the container is completely filled.

The added benefit of raising the stored gas up to trailer height further reduces the likelihood of a forklift hitting a container full of VOC's. Reducing the potential risk of any fugitive emissions due to better storage of VOC's awaiting destruction off site

We will be reducing the number of full containers on site, as all the containers will be transferred into the larger container when full. Thereby reducing the number of movements of full, smaller containers further. Currently BOC deliver 480KG container or a 320kg container depending on stock availability, requiring both, more containers and more connections. This will no longer be the case as the new drums are rated to 500kg and will be kept onsite.

Reduction in Carbon emissions as reduced transport is required to manage the captured VOC's. Approximately four times less Heavy Goods Vehicle movements.

Regular testing of the larger pressure vessel when at disposal site ensuring that the highest standards maintained are above industry guidelines.

During the container exchanges the piping will be monitored with a handheld VOC detector to ensure no fugitive emissions.