Road Tanker Sampling Techniques (excluding Bristol Treatment Centre)

Purpose

The purpose of this document is to ensure that personnel involved within the Liquid Waste activities are clear of roles and responsibilities and best practices for sampling techniques.

Scope

Activities relating to Liquid Waste Department.

Roles and Responsibilities

Ensure the following:

- Aid and communicate expectations to the customer taking the sample.
- The tanker driver obtains the sample correctly and is representative.
- Tankers are sampled from ground level, unless otherwise authorised. Ref to tophatch sampling section of this document.

Requirement for sample

No waste will be accepted without the pre acceptance process being completed. Samples that have been taken in advance of the tanker arriving at the Treatment Centre (TC) and storage of a waste pending sampling is not permitted.

Wash Out Certificates/declaration of the previous load

Sector guidance (Acceptance 22) recommends that 'Deliveries in bulk road tanker should be accompanied by a "wash-out" certificate or a declaration of the previous load so that contamination by this route can be checked.'

Due to the nature of the wastes accepted and the low likelihood of contamination a 'wash out'certificate or a declaration of the previous load is not necessarily insisted unless a query of the load arises prior to acceptance. This practice was confirmed acceptable by an EA officer on the 12/05/2011.

Sample area

Sampling of the tanker will take place within the designated area, as these areas have suitable drainage should a spillage occur.

Supervision of sampling

CCTV coverage and/or TC personnel will supervise the sampling from the tanker.

Sampling of tankers

It's the responsibility of the driver the collect a representative sample from the tanker, using the sampling equipment that has been provided by the TC.

Sampling equipment will be checked, maintained, replaced by the TC personnel.

Tankers are owned and operated by third party companies. Therefore, it is not best practice for TC personnel to operate these vehicles, from a health and safety or liability perspective.

Sampling for Acceptance Analysis

Samples can be obtained via the following methods:

1) Sight Glass

A sight glass is a transparent plastic or glass tube connected to the bottom of the tank at one end and the top of the tank at the other, with a valve on the bottom and generally located at the front of the tank. The level of liquid in the sight glass will be the same as the level of liquid in the tank.

Obtaining a sample from the site glass provides little risk of spillage and a representative sample of the waste. However, blockages in the sight glass may mean that the waste contained is not the load being carried, a small load may be insufficient to fill the sight glass,and many vehicles have a sealed sight glass from which samples are unable to be taken.

Method for obtaining a sample:

- Place sampling bucket under site glass valve.
- Carefully open the site glass valve and fill the sample bucket.
- Close site glass valve.
- If the sample has been contaminated with any residual waste in the site glass from previous loads, obtain a further sample.

2) Back Valve

The back valve is located at the bottom rear of the road tanker shell.

Method for obtaining a sample from the back valve:

- Remove end cap from back valve.
- Place sampling can/bucket under back valve.
- Carefully open the discharge valve and fill the sampling can/bucket.
- Close discharge valve and replace end cap.
- If the sample has been contaminated with any residual waste in the back valve fromprevious load, obtain a further sample.

3) Top hatch – Last Resort and valid risk assessment must be obtained prior to sampling.

Liquid Waste only permits companies to sample vehicles from ground level.

Should top hatch sampling be required a risk assessment on the activity will need to be provided by the operating company and relevant leaders/management from Liquid Waste will need to authorise this process.

Samples taken from the top hatch should be obtained from the cross-section of waste and not from the surface of the liquid, as this will not be representative.

Risk table:

Activity	**Top hatch**	**Ground level**
Slips, trips and falls when climbing vehicle/working at height (Driver)	High risk	Low risk
Slips, trips and falls when climbing vehicle/working at height (Waste Technician)	High risk	Low risk
Injury caused by top hatch	High risk	Low risk
Injury from sampling pole	High risk	Low risk
Spillage	Low risk	Medium risk
Poor representation of waste	Low risk	Medium risk

Revision history

Issue	Date	Approved by	Description
1	19/03/2012	Sarah Baker	New document.
2	20/02/2019	Helen Smith	Revise/update whole document. Original version removed from mgt system. Paper copy version found,and document rewritten.
3	15/06/2023	Helen Smith	Review document and update into new format. Removed photos.