



BRADWELL SITE

EFFLUENT SAMPLING (MIXED EFFLUENT A3 OT8)

BRAD/EN/REP/193

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1. Purpose

This document is in response to the Environment Agency's request to provide an operating technique to meet condition 2.3 "A3 OT8 (Effluent Sampling Frequency)" for the Mixed Effluent permit PR2TS/E10760C¹. This operating technique describes how the site will sample treated voids' effluent from the siltbuster to ensure they are reasonably spread across the year.

2. Effluent collection Frequency and Analysis

The site will carry out regular monitoring of treated voids' effluent from the siltbuster. This is to provide some assurance that the output from the siltbuster unit is consistent with that described in the permit application. It does not provide data on actual discharge concentrations into the estuary as the effluent is diluted when mixed with other sources in the main drains pit (MDP) prior to discharge. To ensure best endeavours to comply with the requirement to carry out analysis for specified metals on a minimum of 12 samples, every discharge into the MDP shall be analysed for the first 12 discharges of the year. Then to ensure an even spread across the year, metals analysis shall be carried out every month (on the first discharge of the month where practicable) for the remaining period of the year. If there are less than 12 discharges into the MDP in the year, there will be less than 12 sets of metals analysis, however, every discharge will have been analysed for the specified metals.

The collection of samples is discussed in more detail in section 3 of this operating technique.

3. Process for Collection

The procedure to collect treated voids' effluent samples from the siltbuster is described below.

The sampling of effluent will be completed using an appropriate sampling device. The sample will be a spot sample of the effluent taken as it emerges from the siltbuster. The sample will be representative in the sense that it is collected before the effluent is mixed with other effluent streams. However, the sampling method is limited in that within the system there is no opportunity to homogenise the 20m³ effluent produced each day or pass through a flow proportional sampler. Samples collected will be appropriately labelled and controlled according to site instructions.

Collected samples will be visually inspected for signs of visible oil or grease and the pH measured and recorded. In addition to this, specified metals shall be analysed in accordance with written laboratory operating instructions. The analytical technique is described in the operating technique A3 OT9 as required by the Mixed Effluent permit PR2TS/E10760C. The analysis will be carried out by suitably qualified and experienced personnel to prescribed instructions controlled by management control procedure.

REFERENCES

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- 1 Environment Agency 2016. Mixed Effluent Permit Number PR2TS/E10760C