Monitoring Plan

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Site: Newport Pagnall

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1. Introduction

Ringway Infrastructure Services Ltd (the Operator) operates a maintenance contract on behalf of National Highways covering sections of the M1, A5, A1M & A421 in the vicinity of Newport Pagnall services (MK16 8DS). Maintenance includes clearing drains and gullies along this stretch of motorway and roadsweeping, including responding to incidents such as flooding or spills.

The waste operation will involve use of a storage bay for storage of the incoming waste and treatment by dewatering (by gravity drainage). The storage bay drains to foul sewer. This drainage allows for the physical separation of the water fraction of the waste from solids. The site will effectively be used as a temporary storage depot / transfer station. Waste will be stored for short durations only, typically overnight and removed from Site within a week.

The facility will be operated from a purpose-built, concrete storage bay within the National Highways Newport Pagnall depot, next to Newport Pagnall Services at Junction 14/15 M1, Newport Pagnell MK16 8DS (the 'Site').

Waste will arrive to site in roadsweeping vehicles, tankers or similar and deposited within the purpose-built, concrete storage bay. Water will be allowed to separate from the solids and passively drain to foul sewer via a silt trap and hydrocarbon interceptor. The water discharge to foul sewer will be authorised by a separate consent to the local wastewater authority. It is estimated that the deposited waste may comprise up to 80% water.

Water is allowed to separate from solids and passively drain to sewer via a silt trap and hydrocarbon interceptor.

1.1 Background

The Operator has undertaken an indicative sampling suite which is considered to be representative of the substances/elements which may be contained in the facility's discharge to sewer. This data has been used to undertake the H1 quantitative risk assessment. As can be seen in Table 2.1, the results of the majority of substances/elements were observed at the Limit of Detection (LOD) and as such, it is likely that negligible quantities of these parameters will be contained within the site's discharge to sewer.

Analysis was undertaken by a UKAS accredited laboratory, using personnel and equipment certified to meet the requirements of MCERTS standards.

The waste to be discharged to sewer will comprise the water fraction only, from gully waste returned to site. This water will have passed through a silt trap and a Class 1 hydrocarbon interceptor. As the activity is not yet in operation, a true representative sample could not be obtained. The sample analysis represents a sample taken from the gully waste tanker, without solids removal and without being passed through a hydrocarbon interceptor – and therefore represent a 'worst-case' representation of the waste quality. Therefore, it has been determined that these results are suitable to be used as maximum results. To provide a conservative estimate with the data available, these results have also been used as average results.

The sampling suite undertaken by the Client is thought to be representative of all substances/elements which may be contained in the facility's discharge to sewer. All substances/elements which were included in the sampling suite and for which EQS data is available have been included within the H1 quantitative risk assessment.

All substances/elements which were included within this quantitative risk assessment and will be potentially discharged to foul sewer from the site screened out during either Screening Test 1 or Screening Test 2 and so, no

adverse environmental impact is expected due to the discharge of these substances/elements from the site. The quantitative risk assessment undertaken utilised worst-case conditions to provide a conservative assessment.

As shown in the H1 risk assessment, all substances/elements for which EQS have been defined screen out from this test and the discharge of these substances/elements from the site can, therefore, initially be deemed as an acceptable environmental risk.

2. Monitoring

2.1 Emissions to Air

There are no point source emissions to air from the proposed waste operation.

2.2 Emissions to Surface Water

There are no point source emissions to surface water from the proposed waste operation.

2.3 Emissions to Groundwater

There are no point source emissions to groundwater from the proposed waste operation.

2.4 Emissions to Sewer

Effluent from the dewatering of the waste on site will be discharged to foul sewer via silt trap and a class 1 hydrocarbon interceptor.

It is considered that the determinands of primary concern from the activities will be suspended solids and fuel/ oil concentrations.

Both of these are intended to be mitigated via optimal use of the silt trap and hydrocarbon interceptor.

Sampling of untreated gully emptying sample would appear to support this view.

The treatment system will be maintained in good condition and cleared and serviced as necessary. The effluent must also comply with the terms of the trade effluent consent (once granted).

Upon arrival at site, the gully emptyings will first be visually inspected by decanting some of the contents into a sample container. Once visual fuel/oil is confirmed to be absent, the waste will be decanted to the storage bay, allowing liquid to drain from the solid fraction within the bay.

After passing the silt trap and interceptor, the effluent will be discharged to the foul sewer at point S1.

Volume of effluent discharged will be estimated on the capacity of the delivery vehicles, less the solid content estimate.

The appropriate access, facilities and services required for effluent sampling will be in place, this includes:

- a safe means of access sampling (sample container);
- a safe place of work at the sampling position;
- space for the equipment and personnel; and

The table below proposes a monitoring schedule for the site's emissions to sewer. This is based on the substances deemed relevant to the facility's discharge.

The Non-hazardous and inert waste treatment Appropriate Measures have been used to determine monitoring standards and frequencies.

Table 1 – Proposed Monitoring for the Discharge to Sewer

Source	Proposed Monitoring	
	Parameter	Frequency
S1: Discharge to Sewer	pH	Per waste source (daily)
	Total Suspended Solids	Per waste source (daily)
	Fuel / oil	Per waste source (daily)

Note 1: It is recognised that monitoring may be required as part of the trade effluent consent and this monitoring table will be updated to reflect this.

2.4.1 Sampling Procedure

Samples will be taken from a dedicated sampling container, following decanting of a sample of the waste load.

The site will follow a set procedure to undertake the sampling of the site's discharge to sewer. This procedure will be included as part of the site's EMS and will contain the following:

- precise location of the discharge and automatic sampling unit;
- sampling process;
- storage conditions and transport of samples;
- types of container and closure;
- procedure for notifying a sampling event failure to the Environment Agency; and
- quality assurance procedures for sampling activities.

Exact details of the sampling procedures that will be utilised at the site are not yet known at this stage; however, it will be ensured that a sampling procedure for the site is developed and included within the site's EMS prior to commissioning.

The sampling procedures will also include examples of the following:

- sampling event record sheets;
- sample results forms and the format of any computer generated data; and
- sample event failure reports.

As samples will be sent to a UKAS accredited laboratory for analysis, aspects concerning sample analysis and reporting will not be included within the EMS or quality assurance manual.

A proposed monitoring schedule has been developed in Table 1. This is subject to change following permit determination and/or trade effluent consent determination.

Staff will be trained to an appropriate standard in sample handling and data reporting and will undergo refresher training, particularly if the sampling procedure for the site changes.