2.0 Non-Technical Summary

2.1 Introduction

2.1.1 This non-technical summary provides an overview of an application submitted to the Environment Agency (EA) for a variation of Environmental Permit reference EPR/ LP3127SM. The application has been made to allow changes in operation to Stockport Wastewater Treatment Works Bioprocessing at Heathside Park Road, Cheadle Hulme, Stockport, SK3 0PT, referred to as 'The Facility' or the 'FOG Treatment Facility' throughout this document.

2.2 Description of the Facility and its Surroundings

2.2.1 The FOG Treatment Facility treats incoming effluent to extract fats, oils and greases ('FOGs') for recovery into biodiesel at an off-site permitted Facility. It comprises:

- Vehicle offloading and connection points.
- Buffer tank with solids screening
- Liquid waste storage and FOG treatment vessels.
- Solids storage.
- Wastewater discharge to UU STW via tanker.
- A secondary treatment tank.
- Water treatment chemicals (small quantities only).

2.2.2 The site is located within the Stockport Sewage Treatment Works (STW) in Cheadle Heath, Stockport, England. This facility is bordered by the River Mersey 100m to the north, with Mersey Vale Nature Park situated approximately 600 meters to the northwest. The surrounding land use is predominantly industrial and green space, with the Embankment Business Park located about 300 meters to the northwest.

2.2.3 Residential areas are in proximity to the site; the suburb of Cheadle Heath lies roughly (350 meters to the southeast. The Alexandra Hospital, a private healthcare facility, is located approximately 1.6 km to the southwest. There are open fields and a recreational ground 250m to the west and the M60 (Manchester outer ring road) 230m to the south.

2.3 Proposed Changes

2.3.1 The following changes are proposed to be implemented:

- Change 1: Addition of treatment activities to allow the treatment of incoming effluents to extract FOGs which will be recovered at permitted waste treatment sites.
- Change 2: Change the current waste storage activity to reflect the proposed operations.
- Change 3: Change the input waste types and amend and consolidate EWC codes in Schedule 2 to reflect the proposed input wastes. See Appendix B for the proposed list of incoming wastes. Only one additional EWC code has been added which is 20 01 25 Edible oil and fat. This waste is similar in nature to other waste types already included in the Permit.

- Change 4: Changes to the site layout, see Drawings section, however the site boundary is not changing.

- Change 5: Administrative changes to the permit in the Schedules to reflect the proposed changes

2.4 Point Source Emissions to Air

2.4.1 There are no point source emissions to air in the current permit and no point source emissions to air are proposed as a result of the changes. As the process is carried out at low temperatures, using mechanical processes, there are no emissions generated which require abatement.

2.4.2 Treatment processes are carried out in vessels within containerised buildings which do not require ventilation as minimal manual intervention is required due to a high level of automation. Treatment tanks are enclosed with no emission points.

2.5 Fugitive Emissions to Air Including Potentially Odorous Releases

2.5.1 There is minimal potential for the release of fugitive emissions into the air as vessels and tanks are enclosed and the treatment processes are within containers. There are no emissions points to release fumes, odours or pollutants from the processes, therefore releases are likely to be minimal.

2.5.2 There is a small potential for odour during tanker deliveries, however as the delivery tanker is enclosed and the treatment processes are enclosed, the potential for releases into the air are minimised.

2.5.3 Potential accidental releases have been assessed as part of this Application's ERA with the conclusion that the risk of impact is 'low'.

2.6 Point Source Emissions to Water and to Sewer

2.6.1 There are no point source emissions directly into watercourses in the current permit and no point source emissions to water or sewer are proposed as a result of the changes.

2.6.2 Only uncontaminated surface water drains into the main Stockport STW site surface water drainage system. The site has a small footprint therefore surface water drainage will not be significant.

2.6.3 Effluent which has been treated by the FOG Treatment Facility to remove FOG and reduce the chemical oxygen demand (COD) loading will be discharged into the Stockport STW for further treatment via tanker. As such, there are no emissions released into the sewer.

2.7 Fugitive Emissions to Water

2.7.1 The FOG Treatment Facility includes several process vessels which could result in accidental releases to water without controls in place should spills occur. However, there are physical measures including bunding and capture within on-site containment systems, and management controls, which are designed to prevent fugitive releases into waterbodies.

2.7.2 Potential fugitive releases to water have been assessed as part of this Application's ERA with the conclusion that the risk of impact is 'low'.

2.8 Noise and Vibration

2.8.1 The proposed changes will not result in an increase in noise levels above the noise level generated by current plant and equipment.

2.8.2 Potential accidental noise releases have been assessed as part of this Application's ERA with the conclusion that the risk of impact is 'low'.

2.9 Waste Generation

2.9.1 Wastes comprise material extracted from the treatment of incoming effluent by the FOG Treatment Facility. These include:

- Solids, which are further treated by anaerobic digestion (off-site).
- Treated effluent, which is transferred to the STW.
- FOGs ('brown grease') extracted from the incoming effluent for processing into biodiesel.

2.9.2 These wastes have been quantified in this Application's ERA.

2.10 Accidents and their Consequences

2.10.1 The Operator maintains an Accident Management Plan (AMP). Potential accidents which may arise during the operation of the Facility have been considered and assessed using three elements:

- Identification of hazards;
- Assessment of risks (and possible consequences); and
- Identification and implementation of techniques to reduce the risk of accidents (and contingency plans for any accidents that may occur).

2.10.2 A qualitative risk assessment has been carried out for the foreseeable accident scenarios associated with the proposed changes. The assessment concludes that the proposed changes present a low risk to the environment from accidents when control measures are considered.

2.10.3 A list of potential accident scenarios associated with the proposed changes with mitigation measures can be found in Appendix D.

2.11 Emissions Monitoring

2.11.1 As there are no point source emissions, no monitoring is proposed.

2.12 Overall Environmental Impact

2.12.1 The potential for impact on the environment due to the proposed changes to the operation of the Facility has been assessed, as described in Section 5.0 of this report. This variation application involves installation of plant and equipment comprising the FOG Treatment Facility, as described in Section 3.0. The main priority for the Facility is prevention of spills and leaks from the tanks and vessels installed on-site however with robust controls in place, risks are minimised.