NON-TECHNICAL SUMMARY WASTE PERMIT VARIATION APPLICATION

Report for: Stolthaven Dagenham Ltd

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Abbreviation	Definition
BAT	Best Available Techniques
BAT-AEL	Best Available Techniques – Associated Emission Level
BATc	Best Available Techniques Conclusions
BREF	Best Available Techniques Reference document
COMAH	The Control of Major Accident Hazards Regulations 2015
CMS	Continuous Monitoring System
CMMS	Computerised Maintenance Management System
CIP	Clean in Place
DAA	Directly Associated Activity
EHSM	Environmental, Health and Safety Management System
ELV	Emission Limit Value
EMS	Environmental Management System
ENE	Energy Efficiency
EA	Environment Agency
EPR	The Environmental Permitting (England and Wales) Regulations 2016
EWC	European Waste Catalogue
HGV	Heavy Goods Vehicle
IED	Industrial Emissions Directive
MAPP	Major Accident Prevention Policy
NTS	Non-Technical Summary
OMP	Odour Management Plan
SMS	Safety Management System
SHEQ	Safety, Health, Environmental and Quality
TCM	Technically Competent Manager
UCO	Used Cooking Oil

1. INTRODUCTION

1.1 OVERVIEW

Ricardo was commissioned by Stolthaven Dagenham Ltd (SDL) to support a bespoke permit variation application for its permitted facility in Dagenham, hereafter referred to as “the facility”.

Under the Environmental Permitting (England and Wales) Regulations 2016 (as amended), the facility already has the benefit of a bespoke permit (reference EPR/WE4467AC) issued on 22 October 2024. The existing waste management activities at the facility involve the storage and treatment of up to 300,000 tonnes per annum of non-hazardous used cooking oil (UCO), food waste and animal fat (tallow).

This non-technical summary (NTS) document summarises what is being applied for, the key technical standards and control measures that will be employed to manage risk associated with the proposed variation to the existing activities. The proposed changes and additions are set out in section 2 and require a substantial bespoke permit variation application.

The environmental permit application comprises the documents listed below.

- Application forms (Part A, Part C2, Part C4 and Part F1)
- Existing Permit Tank.
- Stolt waste tank storage plan.
- Site condition report (SCR)
- Operating techniques
- Non-technical summary
- Environmental Risk Assessment (ERA)
- Odour management plan
- Safety Management System (SMS)
- Major Accident Prevention Policy (MAPP)

The existing environmental management system (EMS) will be reviewed and updated to include the proposed waste operations.

A fire prevention plan (FPP) already forms part of the SMS and MAPP and is relevant to the proposed waste activities. There will be no change to the existing FPP as part of this permit variation, as the risks from fire and the proposed mitigation measures remain the same.

1.2 LOCATION

The facility is located at Choats Road, Dagenham, RM9 6PU (National Grid Reference TQ 48547 82037).

The facility is approximately 2 hectares in area and is located in the centre of an industrial estate approximately 2km South of Dagenham in Essex. The facility’s main entrance and gate house is accessed from Hindmans Way. The River Thames borders the South of the site, and the Crossness Pumping Station and Sewage Treatment Works are located on the opposite side of the river.

The site is surrounded by a mixture of large industrial and small commercial units, including a skip and waste recycling site, a haulage company, warehousing, vehicle rental and hiring and a recycled road stone storage yard.

Figure 1: The facility aerial plan

Image source: Google earth. Retrieved 03/08/22.
https://earth.google.com/web/@51.51838505,0.14221755,2.17155825a,623.42675655d,35y,36.98438582h,59.99826227t,0.00000059r

1.3 OTHER NON-WASTE ACTIVITIES

The other non-waste activities undertaken at the site include the storage of hazardous liquid fuel and chemicals in around 100 storage tanks, these are upper tier activities under the Control of Major Accident Hazards Regulations 2015 (COMAH). The regulations require the use of engineered infrastructure, appropriate management and control measures to prevent serious accidents or incidents.

Marine tanker vessels on the River Thames and road tankers transfer liquids to and from the facility.

Existing activities are regulated by the Health and Safety Executive (HSE) and The Environment Agency (EA) as the competent authorities.

Since being acquired by SDL in 2012, the site has seen considerable investment and upgrading to meet, and in some areas exceed, the latest COMAH regulatory requirements.

SDL has an Environmental, Health and Safety Management System (EHSM) which supports the MAPP. The implementation of the MAPP is aimed at minimising the risk from hazardous substances capable of causing a major accident.

SDL holds and maintains a company quality management system (QMS) accredited to ISO 9001 and ISCC certification 2022. They are committed to continual improvement of its engineered infrastructure and operating techniques.

2. WHAT IS BEING APPLIED FOR

Under the Environmental Permitting (England and Wales) Regulations 2016 (as amended), a substantial bespoke waste environmental permit variation is required for the proposed addition of non-hazardous wastes and increase in storage quantities on site.

Currently SDL operates a waste storage facility that receives up to 300,000 tonnes per year of liquid wastes, namely Tallow (animal fat), UCO, food and acid oil waste and can store up to 55,000 tonnes of waste at any one time.

This application is for the following activities and additions:

- The mixing and blending of liquid wastes that have the same characteristics.
- The addition of 6 non-hazardous liquid wastes.
- The increase in the number of storage tanks used, see Appendices - waste tank storage plan.
- The increase in the quantity of waste allowed on site at any one time to 115,000 tonnes.
- The increase of the annual quantity of waste accepted at the facility to 500,000 tonnes.

The proposed changes are highlighted in bold text in Table 1 below.

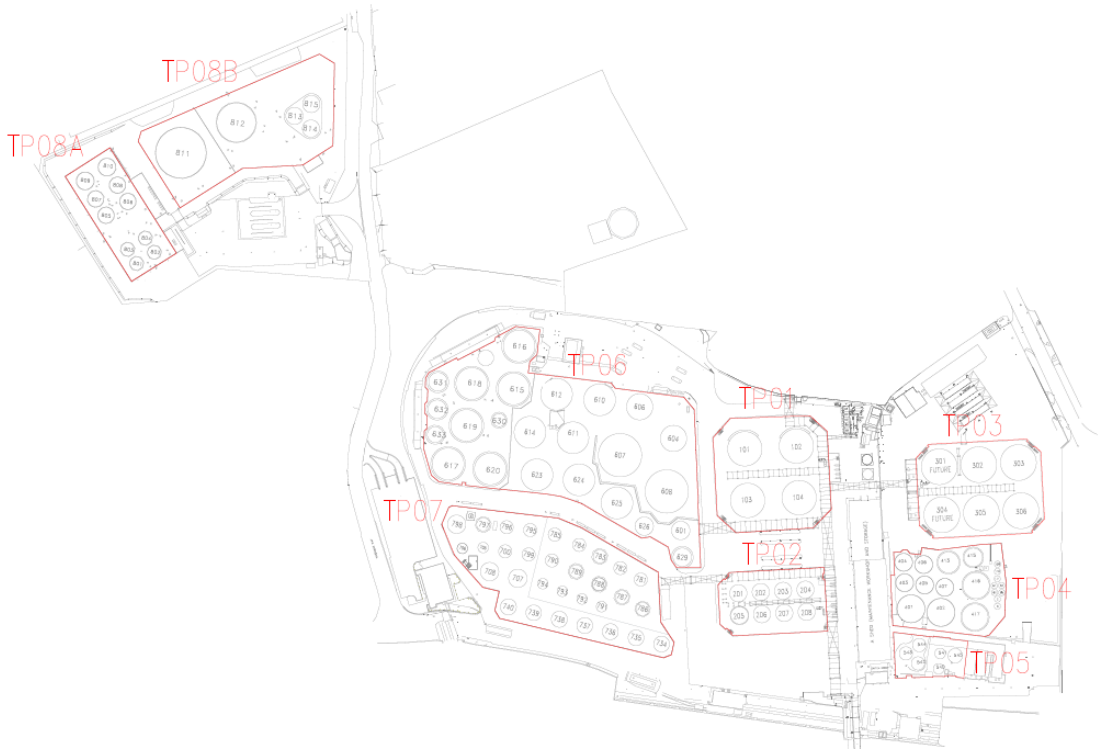
Table 1: Proposed wastes and waste storage quantities

Item	Details
Total annual quantity of waste accepted at the facility	**500,000 tonnes**
Total quantity of waste allowed to be stored at any one time	**115,000 tonnes**
Plant tissue waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing (at any time)	**10,000 tonnes**
Sludges from food, plant, tobacco preparation or processing (at any time)	**10,000 tonnes**
Waste from organic chemical processes, corn oil and glycerin from biodiesel and mixtures of vegetable oils, fats and soaps (at any time).	**10,000 tonnes**
UCO storage capacity (at any time)	**55,000 tonnes**
Food waste storage capacity (at any time)	10,000 tonnes
Tallow storage capacity (at any time)	10,000 tonnes
Acid oil storage capacity (at any time)	10,000 tonnes
Operating hours	24 hours a day/ 7 days a week (8760 hours per annum)

All wastes shall only be mixed/blended if compatible and for the purpose of storage. Waste shall be stored pending onward transfer to other permitted facilities for recovery and refining into biodiesel. The wastes will be transferred to and from the facility by heavy goods vehicle road tankers and by marine shipping tankers which will dock alongside the facility on the River Thames.

Waste shall only be sent for recovery and not disposal. No hazardous waste will be accepted, treated or stored at the facility. The layout of storage tanks and the secondary containment tank pits (TP) is shown in Figure 2 below.

Figure 2: Storage tank layout



3. SUMMARY OF KEY TECHNICAL STANDARDS

The proposed facility's primary activity is the storage of non-hazardous liquid waste, which is subject to the appropriate measures for waste storage at a regulated facility permitted to store, mix, treat or transfer (or both) non-hazardous or inert waste. As such, the facility and its procedures have been designed and are operated in accordance with the key technical standards laid out in the following documents:

- Appropriate measures for waste storage at a regulated facility permitted to store, treat or transfer (or both) non-hazardous and inert waste.
- Best available techniques (BAT) conclusions for Waste – Conclusion 2, table f.
- The Environmental Permitting (England and Wales) Regulations 2016 (as amended).
- Developing a management system: environmental permits.
- Control and monitor your emissions for an environmental permit.
- Relevant EA Guidance e.g., Environmental Risk Assessments, Site Condition Reports, Odour and noise/vibration Management and Fire Prevention Plans.

The site's existing permit and COMAH infrastructure and procedures will allow the facility to operate to the relevant appropriate waste control measures. These measures are set out in the Environment Agency (EA) guidance for non-hazardous and inert waste: appropriate measures for permitted facilities.
The control measures to mitigate any potential impacts are set out in the Table 2:Control measures to mitigate potential environmental and health and safety impacts.

Table 2:Control measures to mitigate potential environmental and health and safety impacts

Technical standards	Control measures to mitigate impact(s)
Management System	A Safety Management System (SMS) and Major Accident Prevention Policy (MAPP) is currently in place for existing activities under the existing permit conditions and COMAH regulations. The current site-specific environmental management system (EMS) will be updated to consider the proposed changes and addition of wastes, to ensure all environmental risks

Technical standards	Control measures to mitigate impact(s)
	posed by the activities are identified and both management and engineered infrastructure measure are implemented to reduce the risks.
Staff Competence	Two SDL employees are trained as the site's technically competent managers (TCMs) and hold the relevant appropriate TCM waste qualification. The employees will provide technically competent management at the facility and provide further training to all staff to raise awareness of the facility's waste operations and EMS. The TCMs will make sure that all waste is handled and stored appropriately and safely, that robust waste acceptance procedures are adhered to, and that only permitted waste is accepted. The TCMs will also make sure that any incidents, faults, leaks or fires are reported and remedied promptly.
Accident management plan	The existing SMS and MAPP are in place, as required under COMAH, and provide robust control measures and infrastructure to prevent accidents. Prior to any additional waste operations taking place, these will be updated to include the waste operations and to ensure that all potential accidents, incidents and risks are identified and mitigated, specifically to include: • Waste types and their risks. • Waste transfer and handling. • Mechanical breakdowns or plant failures. • Spillages and leaks during transfers. • Storage containment or failure. • Fire prevention, fighting and fire water retention. • Vandalism and arson. • Human error. • Main services failure (steam, power or gas). • Site flooding or extreme weather. • Accident response, reporting, staff training and incident exercises. • Preventing offsite emissions after an accidental release.
Contingency plan	The facility has an existing contingency plan in case of breakdowns or unforeseen shutdowns, which is detailed in the facility's SMS and MAPP. Further contingency measures are set out in the operating techniques (section 6.1 of the permit application. In summary, all waste acceptance will cease immediately, any waste stored on site will be retained and any waste received will be returned to the producing site.
Fire prevention	The storage of the waste poses a minor fire risk. Measures include 24-hour security and operation, fire detection, fire-fighting systems and sealed drainage with fire water retention systems.
Flooding	The site is located within a 1 in 100 year flood plain. Protection is provided by a flood wall along the River Thames and by the storage tanks' secondary containment and bunded walls.
Decommissioning	SDL will prepare a site closure plan in line with Environment Agency Regulatory Guidance Note, RGN 9: Surrender. The plan will confirm how the site will be decommissioned to return it to a satisfactory state upon the cessation of activities.
Pre waste acceptance	The facility has robust pre acceptance procedures, forming part of the facility's operating procedures and EMS. This includes requesting details about the waste transfer prior to waste reception, to make sure that the waste is acceptable under the permit and that it does not pose any unacceptable risks.
Waste acceptance and tracking	Waste acceptance procedures include the sampling and testing of wastes prior to being unloaded at site, as well as the visual inspection and monitoring of all incoming loads. All waste received or sent out will be tracked using an electronic recording system, which records the waste's quantity and location.

Technical standards	Control measures to mitigate impact(s)
Quarantine	If waste is found to be unsuitable after sampling or inspection, it will be re-tested. If still found to be unsuitable, it will be rejected and returned to the producing site within 24 hours.
Handling and transfer	Transfers of waste to and from storage tanks will continue to be conducted using sealed engineered above ground pipework and infrastructure. Transfers are continuously visually monitored and controlled by digital systems and shut off switches/valves. All handling is supervised by a trained site operator.
Mixing and blending	Waste shall only be mixed/blended into storage tanks only after it has been tested and assessed to ensure compatibility and to prevent any adverse or harmful reactions. Only wastes with similar characteristics shall be mixed/blended. All wastes received at the facility shall be sampled, tested and assessed by Southaven's site chemist, as part of the facility's waste acceptance procedure.
Waste storage	All waste loads will be kept segregated and not mixed with other wastes. All storage tanks will be specially engineered and fully sealed, with the benefit of 110% secondary impermeable concrete containment bunding. These will be fully compliant with The Control of Pollution (Oil Storage) (England) Regulations 2001. All storage tanks will be fitted with level gauges and high-level alarms. A tertiary sealed drainage system provides further containment around the facility.
Boiler and treatment (heating)	Certain wastes will require heating to maintain their viscosity and prevent blockages. Heating coils in storage tanks will be heated using steam produced by a gas fired boiler, constantly warming the waste to 35 ^{o}C to 60 ^{o}C. Temperatures will be constantly controlled and monitored using an automatic tank gauging system to prevent overheating.
Point source emissions to air	There will be no change to the point source emissions to air as a result of this variation. The facility will continue to operate a gas fired boiler producing steam to heat certain wastes. All stack emissions are regularly checked to ensure that they are not causing any potential pollution emissions or dark smoke.
Preventing fugitive emissions to air	There will be no change to the fugitive emissions to air as a result of this variation. Fugitive emissions to air are not anticipated. The existing facility has never received any complaints or reports of issues such as odour, dust, noise or vibration. To prevent odour, transfers will be conducted within a closed system and storage tanks will be vented to atmosphere at high levels. In the event of an odour complaint, the facility will follow its odour management plan and complaints procedure. All complaints will be immediately reported, logged, investigated and appropriate action will be taken.
Preventing fugitive emissions to surface water	There will be no change to the fugitive emissions to surface water as a result of this variation. All storage tanks, pipework and transfer systems are regularly monitored and inspected for leaks and spillages. Transfers are always supervised by trained site operatives. All surface water is captured and contained within the tertiary sealed drainage system, which flows to an oil interceptor and then to surface water drains off site. In case of a serious spillage or leak, the system can be isolated with a shut off valve and any contaminated liquids would be contained on site. Contaminated liquids can then be treated in the effluent treatment plant, prior to being discharged to mains foul sewer under a Thames water trade effluent discharge consent TRIV0A14. Road drainage around the weigh bridge is directly discharged to offsite surface water systems. Other than HGV weighing, no waste operations are conducted in this area.
Point source emissions to sewer	There will be no change to the point source emissions to sewer as a result of this variation. The site has an impermeable sealed drainage system, and the tertiary and secondary drainage systems flow to oil interceptors. Any contaminated liquid is captured and diverted to the on-site effluent treatment plant and aeration tank, prior to being discharged to the mains foul sewer under a Thames Water trade effluent discharge consent. The discharge effluent is regularly tested by site operatives to ensure full compliance with the discharge consent conditions.

Technical standards	Control measures to mitigate impact(s)
Preventing fugitive emissions to land and groundwater	There will be no change to the fugitive emissions to land and groundwater as a result of this variation. All storage tanks are sealed and located within impermeable bunds that provide secondary containment for 110% of the largest tank. All waste storage will be in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2011. Spillage kits are located in key storage areas and all staff are trained in their deployment. All transfers of waste will be conducted under supervision and regular checks made of the pipework and transfer systems. All pipework is above ground to facilitate inspections and to identify leaks.

4. APPENDICES

Appendix A – Stolt Waste Storage Tank Plan

Appendix A - Waste tank storage plan

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