FICHTNER
Consulting Engineers Limited

Viridor South London Limited

Beddington Waste Transfer Station

Further information for Duly Making

1 WAMITAB certificate

Provide a copy of the WAMITAB qualification certificate, or continuing competence certificate for the Technically Competent Manager (TCM) that will be present at the facility. This needs to cover the new hazardous waste and clinical waste activities that you have applied to undertake.

A copy of the WAMITAB qualification certificate to demonstrate continuing technical competence for the proposed operations at the Waste Transfer Station (WTS) is presented within Appendix A.

2 H1 tool

Provide a copy of the emissions to air risk assessment (H1 tool) that you previously supplied. This is required as the version supplied previously has been corrupted.

An updated copy of the H1 tool is presented within Appendix B.

3 BAT assessment

Provide a BAT assessment against the relevant sections of SGN5.06 for the new activities that you have applied to undertake.

A BAT assessment against the relevant sections of SGN5.06 for the new activities proposed at the WTS is presented below.

3.1 In-process controls

3.1.1 Pre-acceptance and acceptance procedures

Details on waste pre-acceptance and acceptance procedures are presented within section 4.2 of the Supporting Information submitted with the EP variation application (Ref: S3191-0320-0002KLH). The WTS already has robust waste pre-acceptance and acceptance procedures in place at the site. The procedures will be updated to include for additional requirements associated with the hazardous wastes proposed to be accepted at the WTS, with any updates fully in line with the requirements of SGN5.06.

3.1.2 Waste storage

Viridor can confirm that the proposed inclusion of the hazardous EWC codes proposed within the EP variation application is primarily for contingency purposes, and it is not Viridor's intention to accept these waste codes on a regular basis and notice of their intended arrival will be made in advance.

A drawing is provided within Appendix C to show the current proposed storage arrangements and secondary containment at the WTS. If required, Viridor would be happy to provide additional details on storage arrangements for hazardous waste to the EA prior to first accepting these hazardous wastes at the WTS. Notwithstanding this, it can be confirmed that the following techniques will be in place in accordance with the requirements of SGN5.06:

- Location of storage areas – Wastes will only accepted in appropriate containment (e.g. drums, sealed bags, etc) for temporary storage at the WTS prior to onward transfer. A 'ticket' system or similar will be employed as part of the waste acceptance process at the site – deliveries will be supervised by site staff and waste will be transferred to storage areas depending on the results of any dynamic risk assessments that are undertaken during the waste acceptance process. Storage arrangements will be determined to eliminate or minimise the 'double-handling' of wastes within the WTS. Notwithstanding this, documented operating procedures will be developed for the movement of wastes between different storage locations (e.g. using trolleys) and any movement would take place in accordance with these procedures.
- Storage area infrastructure – Waste will only be accepted if it is delivered in appropriate containers and it will be stored within fully enclosed buildings and on impermeable hardstanding with contained process drainage systems. Any liquid wastes received at the site will be stored within bunded/secondary containment facilities which are designed to contain 110% of the largest container or 25% of the aggregate total capacity of the containers, whichever is the greater of the contents of the vessel. For example, drums will be stored on sump pallets. Storage and containment infrastructure will be subject to regular inspection and maintenance, with particular attention paid to any signs of damage, deterioration and leaks. Records of inspections (or leaks/spillages) and any corrective actions/maintenance taken will be recorded. Any pollution incidents/spillages which occur would be reported to the EA in accordance with the requirements of the EP. Should any containment facilities be compromised, the waste stored will be immediately removed until the containment facilities have been repaired. The storage areas for hazardous waste will be arranged as such so that the transfer of containers is not reliant on the removal of others that may be blocking access (other than drums in the same row). Drums will not be stacked more than two drums in height and will allow access for inspection on all sides.
- Condition of tanks, drums, vessels and other containers – Storage facilities such as containers, pallets, drums, will be subject to daily inspections. If a storage container is found to be damaged, leaking or in a state of deterioration, it will be immediately transferred into another container. The transfer of chemicals between containers would only be undertaken as an emergency measure, within a suitable location with Local Exhaust Ventilation (LEV), if required. All appropriate information would be transferred onto the label of the new container.
- Stock control – Records will be maintained of all hazardous wastes stored at the WTS, including their storage location, storage vessel, quantity etc. Any hazardous wastes will be labelled individually, including details on the chemical identity and composition of the storage facility, hazardous contents, acceptance date and unique identification number assigned to the waste. Labelling will be resilient enough to stay attached and legible throughout the whole time of storage at the WTS. This internal 'tracking' system will allow the hazardous wastes to be suitably

tracked and recorded whilst they are stored at the WTS. The total maximum storage capacity of the WTS will be clearly stated and the waste tracking system will be used to monitor volumes against this. Storage times will be kept to a minimum where possible to avoid the accumulation of waste, and all waste will be removed from the site within a maximum period of six months from the date of receipt.

- Segregated storage – Hazardous wastes will be segregated from other incoming wastes, to avoid the potential for any "cross-contamination" or incompatible wastes from coming into contact with each other. Any pressurised gases/aerosols accepted will be stored in a dedicated secure compound/cage. Individual storage requirements and separation distances will depend on the results of a site-specific risk assessment, which will be undertaken (and updated) prior to the acceptance of hazardous wastes at the site. Prior to acceptance, it is expected that written procedures will be developed for small quantities of any laboratory chemicals to be received at the WTS (such as sharps accepted under EWC code 18 01 01) in accordance with the requirements of SGN5.06. Hazardous wastes will not be repackaged, bulked or treated, and so the requirements for these activities listed within SGN5.06 are not considered to be applicable. Emergency storage will be provided in the form of a quarantine area or similar, whereby any 'unacceptable' waste can be segregated and 'quarantined' should there be a defect or potential failure of the containment facility (for example during offloading of the waste from the delivery vehicle).
- Site security – The WTS already has robust site security measures in place (such as CCTV) to prevent access by unauthorised individuals.
- Fire risk – The use of additional fire walls etc will depend on the result of any site-specific risk assessment undertaken prior to the acceptance of hazardous wastes on-site. Naturally, any hazardous liquid wastes and pressurised gases pose the greatest risk in terms of fire. These types of wastes will be kept segregated from other wastes at the WTS and will be located in appropriately labelled storage facilities. No activities that create a clear fire risk will be carried out in waste storage areas (such as grinding, welding etc).

3.1.3 Other controls

In relation to the other techniques set out within SGN5.06, there will be no treatment or other processing undertaken on hazardous wastes accepted at the WTS. Therefore, the techniques relating to waste treatment do not apply.

3.2 Emissions control

The only additional point source emission to air, as a result of the proposed changes at the WTS, is including the shredder as an additional emissions point 'A4' within the EP emissions points table. The shredder will have an 'exhaust' duct which will release gases, via a side vent, to a vertical stack which will protrude approximately 14.5m high above the main WTS building. Emissions of particulates from the exhaust duct would be extracted via a particle filter, designed to meet the relevant EUROMOT standards (for nonroad diesel engines).

The risk of fugitive emissions (including odour) as a result of the additional wastes that are proposed to be accepted at the WTS, and appropriate controls that are in place, are discussed further within the Environmental Risk Assessment submitted with the application. The measures to prevent fugitive emissions are in-line with the requirements of SGN5.06. In particular:

- Waste unloading activities will be undertaken within an enclosed building.

- Appropriate spill kits/equipment will be in place to deal with leaks, and site workers will be equipped with appropriate PPE.
- Waste unloading areas will have contained process drainage.
- Hazardous wastes and non-hazardous clinical wastes will be received in appropriate containment/packaging, and will not be treated at the WTS.
- Dust spray bars will be fitted to the shredder (noting that hazardous waste will not be processed in the shredder). The shredder will also employ a self-cleaning system.
- Skips/vessels would be covered where appropriate (i.e. if wastes are identified as being dusty – although this is less relevant for hazardous wastes which would be received in appropriate containment).
- Avoidance of outdoor or uncovered stockpiles where possible (the majority of waste will be stored inside the WTS building).
- Good housekeeping and regular wheel/road cleaning to minimise dust and litter.
- Procedures for leak detection and repair, regular inspection of drum storage, etc will be in place.
- All sumps designed to be impermeable and resistant to stored materials and subject to regular visual inspection.
- Appropriate hardstanding and contained drainage is in place, subject to regular inspection and preventative maintenance.
- Bunds for the storage of liquid wastes will have a capacity greater than 110 percent of the largest tank or 25 percent of the total tankage, whichever is the larger.

The proposed changes to the WTS activities will not affect the nature of any discharges to surface water or sewer from the site, as the drainage arrangements will not be affected. Hazardous wastes will be received in appropriate containers and stored within suitable secondary containment facilities, thereby minimising the risk of additional contaminants being process drainage.

3.3 Management

As identified within section 8 of the Supporting Information submitted with the EP variation application (Ref: S3191-0320-0002KLH), Viridor currently operates the WTS in accordance with robust documented management systems. As identified within the application, the documented procedures will be updated to incorporate the changes proposed. This may include, but not be limited to, the following:

- Procedures for the delivery, storage, handling and processing of clinical and hazardous wastes at the WTS, including identification of specific risks and response procedures for accidents e.g. spillages.

3.4 Raw materials

The proposed changes at the WTS are not expected to significantly change the quantities of raw materials consumed from the operation of the WTS.

3.5 Waste recovery or disposal

The proposed changes at the WTS are not expected to change the quantities of residues generated from the operation of the WTS.

3.6 Energy

The proposed changes at the WTS are not expected to significantly change the quantity of energy consumed from the operation of the WTS.

3.7 Accidents

The potential for accidents and mitigation measures are discussed further within the Environmental Risk Assessment submitted with the application: potential hazards are identified, the risks have been assessed, and techniques to reduce risks have been identified.

Any Accident Management Plan forming part of the documented management procedures in place at the site will be updated to reflect the proposed changes at the WTS.

3.8 Noise

The proposed changes will not result in any changes to the noise impacts as a result of the operation of the WTS.

3.9 Monitoring

The proposed changes will not result in any changes to the monitoring arrangements at the WTS. It is not anticipated that the addition of the emissions point for the shredder will introduce any additional monitoring requirements.

3.10 Closure

At the end of the lifetime of the WTS, a Site Closure Plan will be developed. The Site Closure Plan will take into account any additional risks posed by the storage and transfer of hazardous wastes at the WTS.

3.11 Emission benchmarks

The proposed changes will not result in significant emissions from the WTS that have associated emission limit values (ELVs).

4 Containment of liquid wastes

Provide details on the secondary containment for the liquid wastes you have applied to add to the list of wastes that the waste transfer station can accept. This needs to include; volumes of the primary containment, volumes of the secondary containment, types of chemicals being stored, construction materials and a layout plan of where the different types of waste will be stored within the waste transfer station.

A drawing is presented within Appendix C which provides more details on the storage locations of and containment measures for waste at the WTS. Clinical waste storage is not marked up on the drawing, due to the mobile nature of the storage trollies. Furthermore, fluorescent tubes would be stored in a small box with no ‘dedicated’ storage area as such. These wastes would be placed in

appropriate areas for temporary storage depending on the results of a 'dynamic' risk assessment when the waste is accepted at the site.

As shown in the drawing, liquid wastes such as oils, greases, solvents and chemicals will be stored within a bunded area within the WTS building. The bunds will have a capacity of 250 litres each, and will meet the requirements of SGN5.06 in that the bunds will have a capacity at least 110% of the largest vessel or 25% of the total tankage volume, whichever is the greater. Additional details on the storage and containment measures for hazardous waste are presented within section 3.1.2 of this report.

A summary table is provided below which expands on the drawing provided in Appendix C and details the expected storage capacities and containment facilities for hazardous wastes proposed to be accepted at the WTS.

Table 1: Hazardous waste storage facilities

Hazardous waste type	Relevant EWC code(s)	Storage facility/capacity	Containment measures
Hazardous WEEE			
Small domestic appliances	20 01 23* 20 01 35*	2 tonnes in 12 yard enclosed skip	Primary: Base of skip Secondary: Contained process drainage
Televisions	16 02 13* 20 01 35*	2 tonnes in 12 yard enclosed skip	Primary: Base of skip Secondary: Contained process drainage
Fridges	16 02 13* 20 01 23* 20 01 35*	Concrete wall bay – 4 tonnes (approx. 50 units max)	Primary: Concrete bay Secondary: Contained process drainage
Batteries	20 01 33*	Plastic storage crate (no more than 1 tonne)	Primary: Storage crate Secondary: Contained process drainage
Fluorescent tubes	20 01 21*	Secure fluorescent tube boxes, each ca. 20 kg (0.02 tonnes)	Primary: Box Secondary: Contained process drainage
Hazardous clinical wastes			
Hazardous clinical wastes	18 01 03* 18 02 02*	Received in sealed packages or containers, stored in wheeled trollies. Maximum 5 tonnes of clinical waste stored on site at any one time.	Primary: Sealed package/containers Secondary: Trolley Tertiary: Contained process drainage
Other			
Solvents and chemicals	20 01 13* 20 01 14* 20 01 15* 20 01 17* 20 01 19*	Drums or sealed containers (total capacity of 200 litres stored or ca. 0.2 tonnes).	Primary: Drum or sealed containers Secondary: 250 litre bund (sump pallets) constructed of polyethylene or similar Tertiary: Contained process drainage
Hazardous pressurised gases	16 05 04*	Secure compound/cage (0.5 tonnes)	Primary: Cage/compound

Hazardous waste type	Relevant EWC code(s)	Storage facility/capacity	Containment measures
			Secondary: Contained process drainage
Asbestos	17 06 05*	8 tonnes in 12 yard enclosed skip	Primary: Skip Secondary: Contained process drainage
Total estimated storage capacity for hazardous wastes: **22.72 tonnes**			

A WAMITAB certification

B H1 tool

C Waste storage locations