



Greendale Business Park (Unit 29B)

Environmental Permit Application

Operating Techniques

May 2019

Prepared on behalf of Synergy Asset Services Limited





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1.0 Introduction

1.1 Report Context

- 1.1.1 This section of the Environmental Permit application corresponds to Section 3 of Part B4 of the Environmental Permit application forms and specifically details the operating and management procedures for the acceptance and temporary storage of used gas cylinders at their site on Greendale Business Park.
- 1.1.2 This Environmental Permit application has been prepared by WYG on behalf of the Operator, Synergy Asset Services Limited (Synergy).

1.2 Site Setting

- 1.2.1 The application site is situated at Unit 29B of the Greendale Business Park in Exeter and is situated within the Central Zone of the business park. The site is centred at approximate National Grid Reference (NGR) SY 01830 89907 and the Environmental Permit Boundary is shown on Drawing Number SYN/A108683/GBP/PER/01.
- 1.2.2 Access to the site can either be achieved from an access road located to the north of the site that runs along the northern boundary of the Greendale Business Park or an access road located to the east of the site that runs along the eastern boundary of the business park. The immediate surroundings of the site comprises an industrial setting as part of the wider business park. Beyond the business park, the surroundings are largely agricultural.

1.3 Geology

- 1.3.1 According to the British Geological Survey's (BGS) 'Geology of Britain Viewer', the bedrock geology of the site comprises mudstone of the Exmouth Mudstone and Sandstone Formation. The bedrock was formed approximately 247 to 252 million years ago during the Triassic Period.
- 1.3.2 The superficial deposits are River Terrace Deposits which comprise of sand and gravel. These deposits were formed up to 3 million years ago in the Quaternary Period.

1.4 Hydrogeology

- 1.4.1 With reference to the Multi-Agency Geographic Information for the Countryside's (MAGIC) website, the site is not situated within a Groundwater Source Protection Zone (GSPZ).

- 1.4.2 The MAGIC website shows that the bedrock geology comprises a Secondary B Aquifer which are predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. The superficial deposits comprise a Secondary A Aquifer which is defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

1.5 Hydrology

- 1.5.1 The closest surface water feature to the site is the Grindle Brook which is located approximately 195m south from the application site and runs in an east to west direction through the Greendale Business Park.
- 1.5.2 According to the Flood Map from Planning Service (FMPS), the site is not situated in an area at risk of flooding.

1.6 Ecology

- 1.6.1 With reference to the MAGIC website, there are no statutory ecological sites within 2km of the site. There is however, one area of deciduous woodland located to the east of the Greendale Business Park which is designated as a Priority Habitat.

2.0 Operating Procedures

2.1 Permitted Activities

- 2.1.1 The proposal entails the receipt of used gas cylinders from a variety of locations including civic amenity sites and direct collections from users. Hazardous cylinders will be stored on site prior to transfer to a suitable permitted facility for treatment and disposal/and or recovery with no more than 10 tonnes of waste hazardous cylinders stored on site at any one time. The site will also accept non-hazardous cylinders and other pressure vessels which will be stored on site prior to transfer suitable permitted facility for treatment and disposal/and or recovery. The maximum quantity of non-hazardous cylinders will be 40 tonnes at any one time.
- 2.1.2 It is considered that the proposed activities on the site will fall under the following R/D codes:-

Table 1: Proposed Permitted R/D Codes

R/D Code	Description of Activity
R13	Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, collection, on the site where the waste is produced).
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced).

2.2 Waste Types

- 2.2.1 The proposed waste types are detailed in Table 2 below.

EWC Code	Description
15	WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	Packaging (including separately collected municipal packaging waste)
15 01 04	Metallic packaging (cylinders, and other pressure vessels that are emptied/open to atmosphere and therefore no longer pressure vessels)
15 01 10*	Packaging containing residues of, or contaminated by, hazardous substances
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05	Gases in pressure containers and discarded chemicals
16 05 04*	Gases in pressure containers (including halons) containing dangerous substances
16 05 05	Gases in pressure containers other than those mentioned in 16 05 04

2.3 Waste Quantities

- 2.3.1 The site will have a maximum annual throughput of 150 tonnes per annum. This will be split as follows:

- A maximum annual throughput of 30 tonnes of hazardous waste per annum.
- A maximum annual throughput of 120 tonnes of non-hazardous waste per annum.

2.3.2 The site's storage capacities will be as follows:

- A maximum storage capacity of 10 tonnes of hazardous waste at any one time.
- A maximum storage capacity of 50 tonnes of non-hazardous waste at any one time.

2.4 Site Layout

2.4.1 The proposed layout of the site is illustrated on Drawing Number SYN/A108683/GBP/PER/01.

2.5 Waste Acceptance Procedures

Pre-acceptance procedures

2.5.1 Prior to delivery to the site, the waste producer or holder will be required to provide the following information of the waste to allow Synergy to assess its suitability for acceptance:-

- The quantity of waste to be imported;
- The contents of the cylinders, including named product and propellant;
- Whether the cylinders are fully discharged or partially discharged;
- Hazardous properties posed by contents of cylinders; and
- Construction material of cylinders (e.g. steel, aluminium or mixed).

2.5.2 The site is likely to have regular consignments from certain waste producers/holders on a long term contractual basis. The site will still need to ensure that each load accepted is suitable and is compliant with the permit requirements.

2.5.3 Synergy will not accept wastes onto the site unless the above information is established.

2.5.4 If the information provided demonstrates that the waste is acceptable, arrangements will be made to collect the waste from the site.

- 2.5.5 If not obtained from the customer, the condition, content and hazard properties posed by the contents of the canister should be determined and acceptability for on-site storage confirmed by the Operator as a priority once the load has arrived onsite.
- 2.5.6 All records relating to the pre-acceptance will be kept for cross-reference a verification at the waste acceptance stage. These records will be kept for a minimum of 3 years.

Acceptance Procedures

- 2.5.7 All vehicles collecting waste cylinders will be licensed waste carriers and each collection will be accompanied by the Waste Transfer Note (for non-hazardous waste) or a Hazardous Waste Consignment Note (for hazardous waste) consistent with fulfilling the company's responsibilities under the Duty of Care Regulations.
- 2.5.8 To ensure that the transport of the cylinders does not pose any potential risks, Synergy will only utilise waste carriers that meet the requirements of the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (CDG) and the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR).
- 2.5.9 As mentioned in Section 2.5.5, arrangements will be made to collect the waste from the waste producer or holder's site. Upon arrival, the waste producer or holder will be required to provide documentation to the waste carrier that details the waste being collected from the site. The documentation will be reviewed by the waste carrier to ensure that the information provided corresponds with the information provided during the pre-acceptance stage and therefore complies with the conditions of the environmental permit.
- 2.5.10 If the document checks show that the waste is acceptable, the waste will be loaded on to the waste carrier's vehicle and transferred to the application site for temporary storage. Upon arrival at the application site, the waste carrier will report to the waste reception area as shown on the Site Layout Plan (Drawing Number SYN/A108683/GBP/PER/01). As noted on the Site Layout Plan, the waste reception area is situated outside and therefore will provide sufficient ventilation whilst the cylinders are being loaded/unloaded from the waste delivery vehicle.
- 2.5.11 At the waste reception area, the waste will be unloaded from the waste carrier's vehicle and will be subject to the following visual checks:-
- Check the waste to ensure that it is as expected, complies with the site's waste acceptance criteria and is consistent with accompanying paper work and the site's environmental permit;

- Check the condition of the containers in which the cylinders have been packaged, in order to identify any that are damaged or unsuitable for handling and storage;
- Inspect the load to identify leaking cylinders and potentially explosive accumulations of gas; and
- Check the labelling of the containers in which the cylinders have been packaged to ensure that it accurately identifies and describes the waste, removing any labels that do not relate to the waste.

2.5.12 Synergy will label each container that holds the waste cylinders and will keep a log of the quantities on site. This information is then sent to Synergy's main office address as registered on Companies House, where a record will be maintained and stock checks are updated. Synergy implement regulator collections from the Exeter site, at least once every three months, so it is ensured that any waste will not be kept on site for longer than three months.

2.5.13 Wastes that are deemed acceptable following the visual checks will be transferred to the relevant sorting areas (as shown on Drawing Number SYN/A108683/GBP/LAY/01) where the cylinders will be placed into Intermediate Bulk Containers (IBC) which are then transferred to the relevant waste storage area as shown on Drawing Number SYN/A108683/GBP/PER/01. Wastes that are not deemed acceptable will be rejected as per Section 2.6 below.

2.5.14 All documentation that is generated from the waste acceptance process will be sent to Synergy's main office.

2.6 Unauthorised and Rejected Wastes

2.6.1 In the event that a load is identified as unacceptable upon unloading at the site, if it does not comprise any leaking cylinders it shall be transferred to the quarantine area as shown on the Site Layout Plan (Drawing Number SYN/A108683/GBP/PER/01). The load will then be transferred off site to a suitable permitted facility for treatment and disposal and/or recovery. Rejected loads that don't comprise leaking cylinders will be removed from the site within five working days in accordance with the Environment Agency's 'Guidance for the Storage and Treatment of Aerosol Cylinders and Similar Packaged Wastes' document.

2.6.2 In the event that a load is identified as unacceptable and contains leaking cylinders, the leaking cylinders will be transferred to the quarantine area prior to removal off site to a suitable permitted facility for treatment and disposal and/or recovery. The quarantine area will be situated outside which will ensure sufficient ventilation is provided until the leaking has ceased.

In accordance with the Environment Agency's 'Guidance for the Storage and Treatment of Aerosol Cylinders and Similar Packaged Wastes' document, leaking cylinders will not be removed from the site until the leaking has ceased or has slowed sufficiently to present no threat of a flammable atmosphere being generated during transport.

2.6.3 If necessary, the Environment Agency will be contacted to agree the most appropriate course of action.

2.6.4 If a load is rejected, the following information shall be recorded:-

- Time and date of incident;
- Haulier and vehicle registration number;
- Customer;
- Waste type; and
- Reason for rejection.

2.6.5 Records will be kept of all rejected loads and these will be made available to the Environment Agency.

2.7 Waste Storage

2.7.1 Wastes that are deemed acceptable following the waste acceptance procedures (Section 2.5) will be stored within Intermediate Bulk Containers (IBCs) in the relevant waste storage areas as shown on the Site Layout Plan (Drawing Number SYN/A108683/GBP/PER/01). The hazardous waste storage area will provide a maximum storage capacity of 10 tonnes and the non-hazardous waste storage areas will provide a maximum storage capacity of 40 tonnes.

2.7.2 The IBCs will be open-topped and will be situated outside to ensure sufficient ventilation is provided to prevent the build-up of combustible gases. Synergy will also undertake precautions to ensure that the risk of combustion is minimised on site (as detailed in Section 4.1 of this report).

- 2.7.3 As mentioned in the Environment Agency's 'Guidance for the Storage and Treatment of Aerosol Cylinders and Similar Packaged Wastes' document, overfilling storage containers can result in the cylinders being actuated and lead to an accidental discharge of contents. This can be triggered by the weight of the cylinders when the storage containers are stacked. As such, Synergy will ensure that all storage containers for the cylinders are not overfilled to minimise the risk of leaking. To ensure that there is no cross contamination or reactions between incompatible materials, each waste stream will be stored within separate containers which will be segregated in designated storage areas (as shown on Drawing Number SYN/A108683/GBP/PER/01). Each storage area will be clearly marked to inform site operatives of the type of waste that is stored within each storage area, to ensure that incompatible materials are not placed in the wrong areas. Areas for the storage of hazardous waste and non-hazardous waste will be clearly defined.
- 2.7.5 The waste storage area will benefit from impervious surfacing which will be inspected on a regular basis to ensure continuing integrity and fitness for purpose. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.
- 2.7.6 In accordance with the Environment Agency's 'Guidance for the Storage and Treatment of Aerosol Cylinders and Similar Packaged Wastes' document, cylinders should not be stored on site for a period longer than 3 months. Synergy implements regular collections from the Exeter site, more frequently than each three months, so it is ensured that no waste is kept on site for longer than three months. The site operative at Exeter will keep a log of the quantity of IBCs on site at any given time, and sends weekly paperwork to the main office so that stock checks can be updated. This information will be reviewed in line with the site's remaining storage capacity and details of waste collections to ensure that the site does not store the cylinders for

no longer than the maximum storage period.

- 2.7.7 To ensure that the waste storage areas are secure, the site will be surrounded by security fencing and secured by lockable gates which will be kept closed and locked outside hours of operation.
- 2.7.8 The site gates and perimeter fencing will be inspected on a daily basis. Any identified damage to the fence or gates that could prejudice the site security will be recorded and temporarily repaired as necessary before the end of that working day. Permanent repair or replacement will be undertaken as soon as practicable.
- 2.7.9 All visitors to the site will be required to sign in on arrival and sign out on departure. Any unauthorised visitors on site will be challenged and will be asked to sign in or leave. Details regarding visitors will be recorded in the Site Diary.

3.0 Emissions Control

3.1 Point Source Emissions to Air

3.1.1 There will be no point source emissions to air as a result of this application.

3.2 Point Source Emissions to Groundwater

3.2.1 There will be no point source emissions to groundwater as a result of this application.

3.3 Point Source Emissions to Surface Water and Sewers

3.3.1 There will be no point source emissions to surface water or sewer as a result of this application.

3.4 Fugitive Emissions

3.4.1 Fugitive emissions have been identified as a potential environmental risk resulting from the proposal, as detailed in the Environmental Risk Assessment (Appendix C of the main application) that accompanies this application.

Leaks and Spillages

3.4.2 The most likely sources for spillages will be from the waste storage areas or spillages of fuel or oil associated with vehicles or mobile plant that is utilised to handle the waste.

3.4.3 IBCs will have a series of holes (between 4 to 5 holes per container) drilled at the bottom measuring 1 inch in diameter. This will allow any rainwater that may collect in the IBC to drain out and minimise the risk of corrosion. In addition, the waste storage area will benefit from an impermeable surface which will contain any runoff that is generated on site and prevent contact with groundwater. [A copy of the site drainage plan is provided with this report reference #####.](#)

3.4.4 All areas of impermeable surface and containers will be visually inspected on a regular basis to ensure continuing integrity and fitness for purpose. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.

3.4.5 With regards to fuel and oil spillages, all mobile plant will be maintained in accordance with the

Planned Preventative Maintenance Programme (Section 4.3) to minimise the risk of mechanical failure which could result in an increased risk of spills and leaks.

- 3.4.6 In the event that a spillage or leak occurs on site, the spillage procedure will be employed as detailed in Section 4.2.

Fugitive Emissions to Air

- 3.4.7 The most likely source of fugitive emissions to air will be from the waste storage area in relation to leaking cylinders.
- 3.4.8 As well as fugitive emissions, leaking cylinders present a risk to combustion. As mentioned in Section 2.7.2, Synergy intends to take precautions to minimise the risk of combustion including leaking cylinders. These measures are detailed in Section 4.1 of this document.

4.0 Accident Management

4.0.1 All necessary measures will be taken to prevent the occurrence of accidents. The types of accidents and the potential environmental consequences associated with them have been identified in the Environmental Risk Assessment that accompanies this application.

4.0.2 It is considered that the most significant risk associated with the site is the unauthorised acceptance of non-compliant waste types. The waste acceptance procedures listed in Section 2 of this document aim to control and minimise this risk.

4.1 Fire Control

4.1.1 The following measures will be implemented on site to minimise the fire risk.

4.1.2 As part of the waste acceptance procedures (Section 2.5), all cylinders will be visually inspected to establish the condition of the cylinders including any potential leaks. If any canister is found to be leaking, it will be rejected as detailed in Section 2.6.

4.1.3 All waste storage areas will be inspected on a regular basis using a suitable flammable gas detector in order to identify any leaking cylinders. If a canister is found to be leaking, it will be removed from the storage area and stored within the quarantine area as per Section 2.6.

4.1.4 Given that the waste storage areas will be situated outside, there is the potential for steel cylinders to rust which can result in an increased risk of gas leaks. As such, site operatives will remain vigilant during the waste storage inspection and during all operating hours to identify any cylinders that may be affected by rusting. Any cylinders that are found to be rusting will be prioritised for onward treatment and disposal and/or recovery.

4.1.5 Given that the site will accept cylinders that are manufactured from different materials (i.e. aluminium, steel, mixed etc.), there is a potential risk of thermite spark between the cylinders during handling and storage activities. As mentioned in Section 2.7.3, each waste stream will be stored within separate containers to prevent cross contamination. This procedure will also consider the construction material of the canister to prevent the risk of thermite spark. For example, non-hazardous waste cylinders that are manufactured from aluminium will be stored in one IBC and non-hazardous waste cylinders manufactured from steel will be stored in another.

4.1.6 The most likely source of ignition from the proposed activity will be from mobile plant and vehicles delivering the cylinders to the site. To minimise the risk of combustion, waste delivery vehicles and mobile plant will be required to switch their engines off when cylinders are being

loaded/unloaded from the vehicle.

- 4.1.7 Powered vehicles will not be used for the movement of leaking cylinders. At the end of the day, mobile plant will be stored within a designated area as shown on the Site Layout Plan (Drawing Number SYN/A108683/GBP/PER/01).
- 4.1.8 Fire fighting equipment of a suitable type shall be kept at appropriate locations as advised by the Health and Safety Manager or the local Fire Service. Where appropriate, mobile plant will be fitted with fire fighting equipment. All fire fighting equipment shall be kept in good condition, be unobstructed and be serviced at least once a year by a competent person. The site will be designated as a "no smoking area" and signed accordingly.
- 4.1.9 No hot works will be undertaken within 10m of any waste storage area. A permit to work will be issued to any contractors proposing to undertake works involving naked flames, with a clear area provided around the hot working area to minimise the risk of accidental combustion.
- 4.1.10 Any fire on the site will be treated as an emergency and will be extinguished at the earliest opportunity. If necessary, the Fire Service will be summoned. Any incidents of fire will be reported to the Environment Agency and recorded in the Site Diary.

4.2 Spillage Procedure

- 4.2.1 In the event of a spillage of fuel/oil from site machinery or vehicles, the following procedures will be implemented:-
- Clear the area straight away;
 - Lay absorbent granules over the spill to soak up the spillage;
 - Use Personal Protective Equipment (PPE) provided on site if required;
 - Once the liquid has all been absorbed use a shovel to clear up the waste, put it in a plastic sack and then place it in the container for non-compliant waste for disposal at a suitably permitted facility; and
 - A record of the spill incident and remedial action taken will be recorded in the Site Diary.
- 4.2.2 Spillage kits will be maintained on site in order to respond to any spillage incident.

4.3 Maintenance Procedures

- 4.3.1 A Planned Preventative Maintenance programme (PPM) will be incorporated into the Environmental Management System to minimise the risk to safety, health and the environment by ensuring that all appropriate items and elements within the site are serviced and inspected on a regular basis or to the manufacturers' maintenance schedules.
- 4.3.2 Details of faults, breakdowns and repairs will be documented, and records will be maintained by Synergy at their main office address as registered on Companies House. Faults and breakdowns will be investigated and the service schedule revised if necessary.

5.0 Site Management

5.1 Technical Competence

5.1.1 The site will be supervised by a designated technically competent manager who hold the appropriate certificate of technical competence issued by the Waste Management Industry Training and Advisory Board (WAMITAB). Appendix A provides confirmation that Carl Janson and Sam Roud will undertake the 'HROC6 WAMITAB VQ' course in advance of the issue of the Environmental Permit. This ensures that a technically competent individual will be available prior to the commencement of operation of the facility.

5.2 Management System

5.2.1 The operator, Synergy, has a certified Environmental Management System (EMS) in place which is compliant with the requirements of ISO 14001. A copy of the company's ISO 14001 Certificate is provided as Appendix B.

5.2.2 All site operatives will be adequately trained in health, safety and environmental issues. Staff will only be permitted to undertake activities that they have been trained for. They will be made aware of the procedures they must follow in the event of an accident or incident and will be able to access any relevant documentation that they may require. All training, experience and qualifications of staff will be noted and these records will be maintained and kept up to date.

6.0 Management of Documentation

6.1 Record Keeping

6.1.1 Synergy have a Management System which includes procedures for the management of documentation.

6.1.2 A record of all waste delivered to the site and materials leaving the site will be maintained (including transfer notes) and will be kept at Synergy's main office for a minimum of 6 years.

6.1.3 A Site Diary will be kept at Synergy's main office address as registered on Companies and will be updated on a daily basis. This diary will be used to record any incidents on site involving accidents, spillages, vandalism, complaints etc. This will provide an ongoing record and allow for investigative and corrective action to take place in line with the requirements of the company's EMS.

6.1.4 The Site Diary will include the following:-

- The name of the Certificate of Technical Competence holder attending the site on any particular date;
- Details of all visitors, including status and times of arrival and departure;
- Details of maintenance, modification, repair, replacement, delivery and return, and breakdown of any plant and machinery in line with the principles of planned preventative maintenance;
- Weather conditions;
- Non-conforming wastes and actions taken; and
- Any damage to vehicles, fences, gates etc. and incidents of trespass.

6.1.5 A copy of the Environmental Permit and associated documents will be kept in a convenient location at Synergy's main office address as registered on Companies House, allowing suitable access for all persons working on or visiting the site.

7.0 Incidents and Non-Conformances

7.0.1 Synergy has procedures for investigating and recording any incidents and non-conformances at the site, and for taking any corrective action. Synergy has an EMS which is compliant with ISO 14001 and this includes procedures for handling incidents and non-conformances.

7.0.2 The following types of incidents will require investigation:-

- Malfunction, breakdown or failure of plant and equipment;
- Deviation from site procedures and operating techniques;
- Near misses; and
- Complaints from external parties.

7.0.3 All staff will be trained to detect and report any such occurrences. Procedures will be taken to allow operations to resume and preventative measures may be put in place to ensure that the incident does not reoccur.



Drawings

SYN/A108683/GBP/PER/01 – Environmental Permit Boundary

SYN/A108683/GBP/LAY/01 – Site Layout Plan



Appendices



Appendix A – WAMITAB Registration Confirmation



Appendix B – ISO 14001 Certificate