




EPR Permit Variation Application
Application Support Document
EPR/BX9846ID/V005
Timet Waunarlwydd Facility

Prepared for:
Timet UK Ltds

Date:
February 2022

Project Issue Number:
SOL_21_P019_TIM

VERSION CONTROL RECORD			
Contract/Proposal Number:		SOL_21_P019_TIM	
Authors Name:		Claire Goddard	
Signature:			
Issue	Description of Status	Date	Reviewer Initials
1	First Issue to Client for Review	February 2022	SB
2	First Issue to NRW	February 2022	SB

This report has been prepared by Sol Environment Ltd (Sol) with all reasonable skill, care and diligence, and taking account of the Services and the Terms agreed between Sol and the Client. This report is confidential to the client, and Sol accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by Sol beforehand. Any such party relies upon the report at their own risk.

Sol Environment Ltd disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the Services.

Contents

	Page
Glossary	1
Non-Technical Summary	2
1. Introduction	4
2. Planning Status	9
3. Proposed Activities	10
3.1 Type of Permit	10
3.2 Installation Boundary	11
3.3 Infrastructure and Design	11
3.3.1 Proposed Infrastructure	11
3.3.2 Site Drainage	11
3.3.3 Tanks and Bunds	12
3.3.4 Roadways and External Areas	13
3.4 Description of the Process	13
3.4.1 Raw Materials	13
3.4.2 Existing Effluent Treatment	14
3.5 Description of the Proposed Changes	14
3.5.1 Swarf Storage	14
3.5.2 Drainage	15
3.6 Management System	15
3.6.1 Site maintenance	15
3.6.2 Emergency Procedures	16
3.7 Site Security	16
3.8 Hours of Operation	17
3.9 Accidents and Emergency	17
3.9.1 Emergency Procedures	17

4.	Emissions and Their Abatement	18
4.1	Emissions to Air	18
4.2	Emissions to Controlled Water	18
4.3	Emissions to Sewer	18
4.4	Emissions to Land	18
4.5	Odour	18
4.6	Noise	18
4.7	Fugitive Emissions	18
4.7.1	Dust, mud and litter	19
4.7.2	Volatile Organic Compounds	19
4.8	Waste Generation and Management	19
5.	Environmental Monitoring	21
5.1	Emissions to Air	21
5.2	Emissions to Controlled Water	21
5.3	Emissions to Sewer	21
5.4	Emissions to Land	21
6.	Resource Efficiency	22
6.1	Energy Efficiency	22
6.2	Raw Material and Water Usage	22
6.3	Energy Usage	22
7.	Impact to the Environment	23
7.1	Impacts to Air	23
7.2	Impacts to Land	23
7.3	Impacts to Controlled Waters	23
7.4	Impacts to Sewer	23

8. High Level BAT Assessment	24
Annex A – Figures	25
Annex B – Environmental Risk Assessment	26
Annex C – Site Condition Report	27
Annex D – EMS Manual	28

GLOSSARY

Term	Definition
BAT	Best Available Technique
EMS	Environmental Management System
EWC	European Waste Catalogue
IBC	Intermediate Bulk Container
ISO14001	ISO 14000 is a family of standards related to environmental management that exists to help organizations (a) minimize how their operations (processes etc.) negatively affect the environment (i.e. cause adverse changes to air, water, or land); (b) comply with applicable laws, regulations, and other environmentally oriented requirements, and (c) continually improve in the above.
NRW	Natural Resources Wales
R / D Code	Recovery and Disposal codes as defined in the EU Waste Framework Directive
VOC	Volatile organic compounds

NON-TECHNICAL SUMMARY

Timet UK Ltd (the 'Applicant') is making a Minor Technical Permit Variation to their existing Bespoke Installation Permit EPR/BX9846ID/V004.

The site is located in an industrial area off Titanium Road, Waunarlwydd, Swansea, SA5 4BT (Grid Reference SS 60320 96306) and is currently permitted under the conditions established by Environmental Permit EPR/BX9846ID/V004.

This Permit Variation is being made to incorporate the relocation of the existing swarf storage area slightly further East into a new, purpose built building, with internal bunding and sealed drainage (connected to existing process drain on site).

The permit boundary requires extending in order to incorporate this new swarf storage area.

There are no other changes to the existing permitted process as a result of this permit variation.

Emissions to Air

All point source emissions from the plant will remain as currently permitted.

There are no changes to emissions to air as a result of this permit variation.

Emissions to Controlled Water

There are no direct process emissions to controlled water arising from the Installation other than the existing uncontaminated surface water drainage.

A new surface water discharge point will be added to the North of the new swarf storage building. This will release clean, uncontaminated surface water run-off from the roof of the building that has drained through a new silt trap, a new rainwater garden and collected in a new attenuation tank, prior to being discharged under flow control to the existing ditch.

All process drainage arrangements on site will remain as currently permitted.

Emissions to Sewer

All point source emissions to sewer from the site will remain as currently regulated (through a Dŵr Cymru Welsh Water Trade Effluent Consent SW79). A new section of pipework will be placed to connect the new swarf storage area sump to existing process drainage on site.

All process drainage arrangements on site will remain as currently permitted.

Emissions to Land

There are no emissions to land arising from the Installation.

Odour

There are no changes to that would result in odour emissions from the facility as a result of this permit variation.

Noise

There are no changes to noise emissions from the facility as a result of this permit variation.

Fugitive Emissions

There are no new fugitive emissions from the facility as a result of this permit variation.

As the existing swarf storage is external, moving it to the new purpose built building with internal bunding, will represent a significant improvement in the control of any fugitive emissions that may arise.

Wastes

The wider site wastes and their storage remain as previously permitted.

The new swarf storage area will continue to produce the same waste streams as the existing swarf storage area, namely:

- Swarf; and
- Oily water

Impacts

There are no impacts to the environment as a result of this permit variation application.

Through the implementation of the changes proposed in this permit variation, the risk to the environment from the swarf storage area is greatly reduced.

1. INTRODUCTION

This document has been prepared on behalf of Timet UK Ltd (*'The Applicant'* hereafter) by Sol Environment Ltd and provides supporting evidence as required by Environmental Permit Application Forms Part C2 and C3 issued by Natural Resources Wales (NRW).

The site is located in an industrial area off Titanium Road, Waunarlwydd, Swansea, SA5 4BT (Grid Reference SS 60320 96306). The site is currently permitted under the conditions established by Environmental Permit EPR/BX9846ID/V004.

Timet UK Ltd is making this application to carry out a *'Minor Technical'* Variation of their existing EPR permit under The Environmental Permitting (England and Wales) Regulations 2016 (as amended) in order to include the following changes:

- Expand the permit area boundary to include an area to the North-East of the current permit boundary; and
- Relocate the existing outdoor swarf storage area in the North-East of the site, slightly further East and upgrade the storage by erecting a purpose built building with sealed drainage (connected to existing process drain on site)

There are no other changes to the existing permitted process as a result of this permit variation. This variation includes an updated Site Condition Report 2021 in support of the above named changes and incorporating intrusive ground investigation data to baseline this area.

The site is permitted as an Installation as defined by Section 2.3 *'Surface treating metals and plastic materials'* paragraph A(1)(a) namely:

'surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m³'.

The remainder of this application support document is structured accordingly:

- Section 2: Provides a detailed planning history of the site and associated activities;
- Section 3: Provides specific details associated with the Permit Variation Application;
- Section 4: Provides specific nature and detailed description of the emissions to air, water emissions and waste associated with the Installation;
- Section 5: Provides details of all environmental monitoring associated with the Installation;
- Section 6: Provides an Environmental Impact and Assessment of the Installation.

- Section 7 Provides details of resource efficiency
- Section 8 Provides a high level BAT Assessment

All technical appendices associated with the Installation are included and comprise the following:

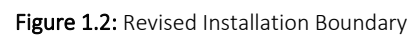
- Annex A: Figures;
- Annex B: Environmental Risk Assessment;
- Annex C: Updated Site Condition Report; and
- Annex D: Existing Permit.

The location of the Installation is provided overleaf in Figure 1.1.

The New Installation Boundary is provided in Figure 1.2 and the Site Layout and Process Drainage of the new area is provided in Figure 1.3.



Figure 1.1: Site Location



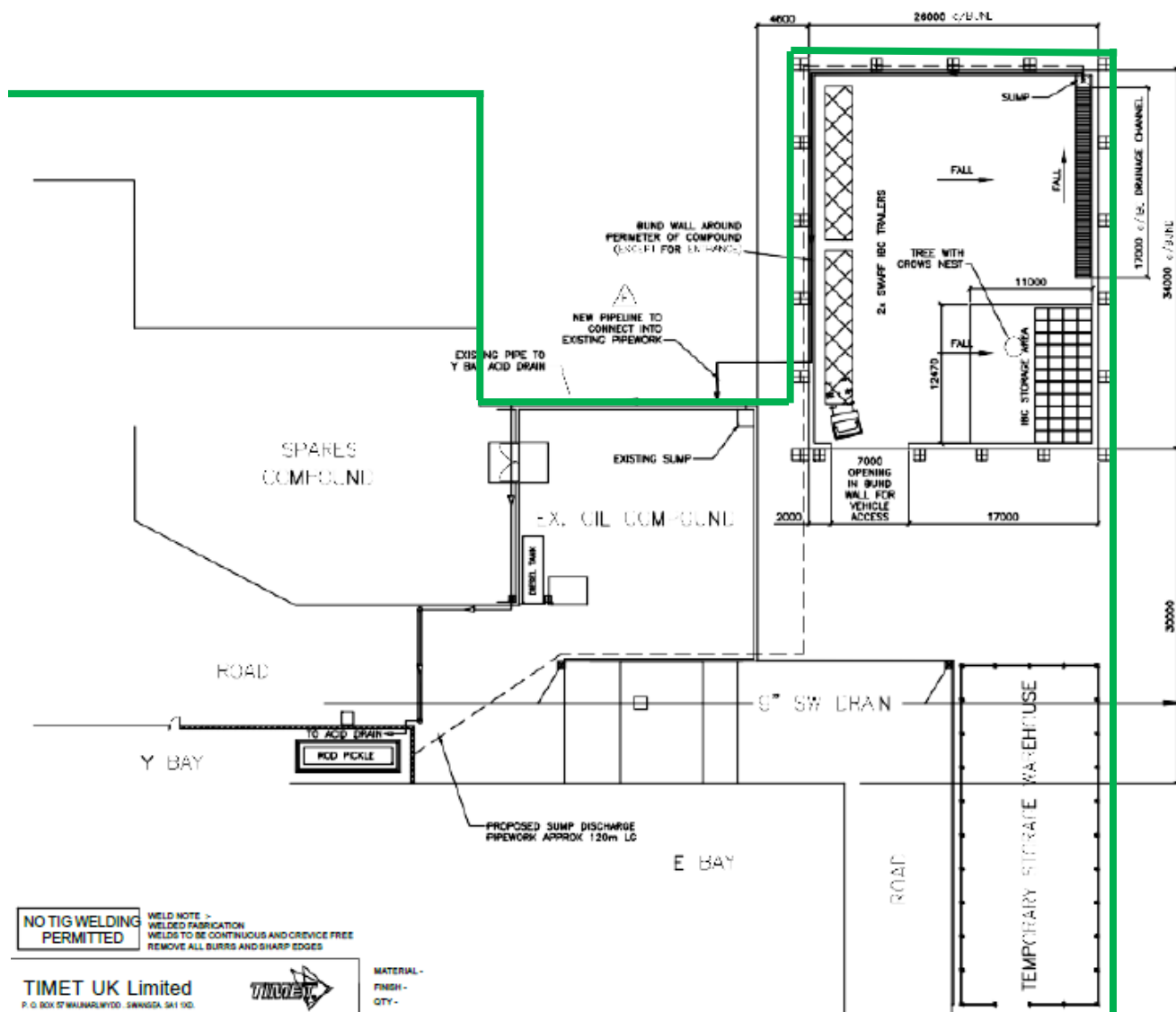


Figure 1.3: Site Layout and process drainage - new swarf storage area

2. PLANNING STATUS

An application to City and County of Swansea Council was made for the site on 6th April 2021. The planning application was successfully granted on 10th June 2021 establishing permission for a new swarf storage building.

The details pertaining to all known planning permissions are provided in Table 2.1 below.

TABLE 2.1: PLANNING HISTORY			
Reference	Description	Status	Date Granted
2021/1970/DOC	Discharge of conditions 3 (Arboricultural Method Statement), 4 (Construction Environmental Management Plan) and 5 (Ecological Enhancement Document) of planner permission 2021/0895/FUL granted 10 th June 2021	Granted	15/12/2021
2021/1794/FUL	Construction and installation of water pump house, two water storage tanks, new water surface disposal system and sprinklers to provide fire protection across site with associated landscaping	Granted	08/09/2021
2021/0895/FUL	Detached steel frame building to house swarf compound	Granted	10/06/2021
2020/2526/PRE	Pre-application enquiry – covered hardstanding for storage, and clearance of 3000 square metres of land by tree felling	Granted	03/02/2021
2020/2581/PRE	Pre-application – construction and installation of water pump house, water storage tanks, water distribution infrastructure and sprinklers to provide fire protection across site	Granted	28/01/2021
2017/2194/PLD	Single storey rear extension and addition of glazed canopy to canteen building (Application for a Certificate of Proposed Lawful Development)	Granted	20/12/2017
2013/0409	Retention of external flue (application for a Certificate of Lawful Development)	Was Lawful (existing)	01/05/2013
2011/1430	Extension of Z bay, addition of a pitched roof to existing bay and new access and parking area	Granted	18/04/2012
2011/1431	Single storey extensions to X and Y bays	Granted	18/04/2012

3. PROPOSED ACTIVITIES

3.1 Type of Permit

Timet UK Ltd is making this application to carry out a ‘*Minor Technical*’ Variation of their existing EPR permit under The Environmental Permitting (England and Wales) Regulations 2016 (as amended) in order to include the following changes:

- Expand the permit area boundary to include an area to the North-East of the current permit boundary;
- Relocate the existing outdoor swarf storage area currently in the North-East of the site, slightly further East into the new area; and
- Upgrade the swarf storage by erecting a purpose built building with sealed drainage (connected to existing process drain on site)

There are no other changes to the existing permitted process as a result of this permit variation.

There are no other changes to the existing permitted process as a result of this permit variation. This variation includes an updated Site Condition Report 2021 in support of the above named changes and incorporating intrusive ground investigation data to baseline this area.

The site is currently permitted under the conditions established by Environmental Permit EPR/BX9846ID/V004 and there will be no amendments to Schedule 1 – Operations stated within the permit. The permitted activities at site are detailed within Table 3.1 below.

TABLE 3.1: SITE ACTIVITIES		
Activity listed in EP Regulations 2016	Description of Specified Activity	Limits of Specified Activity
Section 2.3 Part A(1) (a): Surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m ³ .	Surface treatment of metals	From receipt of raw materials to dispatch of finished packaged product.
Directly Associated Activity		
Effluent treatment	Effluent treatment	Treatment of process effluent prior to discharge to public sewer
Handling of wastes	Handling of wastes	Handling, storage and dispatch of waste material

3.2 Installation Boundary

The existing Installation Boundary of the site will be extended by this variation application and therefore an updated Site Condition Report has been included (*Annex C – Site Condition Report*).

The site layout plan, site location plan and site drainage plan have been updated to include the new swarf storage area and. The site plans are provided within *Annex A – Figures*.

3.3 Infrastructure and Design

3.3.1 Proposed Infrastructure

There is minimal proposed infrastructure to be constructed in relation to this permit application as most structures all currently exist and are considered fit for purpose. The new infrastructure to be installed comprises:

- Detached steel frame building (with internal concrete bund around perimeter)
- IBC Storage area (within internal concrete bund)
- Vehicle access and parking within building (for 2 IBC trailers)
- Drainage channel (internal) to collect process effluent
- Sloped, concrete flooring to a new sump to collect process effluent
- New section of drainage pipe to route process effluent to existing drain
- New rainwater garden and attenuation tank for clean uncontaminated surface water
- Flow control outlet, for discharge of clean uncontaminated surface water, to existing ditch to the North of the new building

The IBCs will be stored within the designated IBC storage area within the bund and the building itself. The bund is an integral part of the building base and has a capacity of 265 m³ which is greater than both 25% of the total IBC capacity of oily water (noting the IBCs will predominantly comprise swarf with an anticipated 20% oily water) and over 110% of the largest tank (IBC) within the bund.

All IBCs are within bunded secondary containment and are appropriately labelled. The site itself is additionally contained via kerbs and drainage gullies providing tertiary containment. All aspects of the site are impermeable and constructed with fully sealed drainage systems.

3.3.2 Site Drainage

There are no new process effluents produced from the changes resulting in this permit variation.

There are no new point source emissions to controlled waters or sewer as a result of the processes carried out at site. Oily water draining from the swarf IBCs will drain through a new internal drainage channel within the new building, to a new sump in the North-East corner of the building. This sump will be pumped to the existing rod pickle area manhole through a new section of drainage pipework (See *Annex A - Figures*), and on to the existing effluent treatment plant.

The effluent treatment plant will continue to discharge to sewer (through existing emission point S1) under the existing Dŵr Cymru Welsh Water Trade Effluent Consent SW79.

Any spillages, leaks or incidents arising on site will be effectively contained and captured in accordance with the sites spill response procedure.

All bunds and IBCs in the new swarf storage area will be checked periodically and will drain via the building floor fall to the new sump to be pumped to the existing rod pickle area manhole and on to the existing effluent treatment plant.

Clean, uncontaminated surface water run-off from external hard standing and roof top areas will drain through a new rainwater garden and attenuation tank via flow control outlet to a ditch to the North of the building.

In the event of a fire, all potentially contaminated firewater will be contained within the new swarf storage building in the building bund and sump. The automatic pump in the sump will be stopped in the event of a fire, to prevent any potentially contaminated fire water being released off site. Any firewater external to the building would drain via the surface water drainage system to the new attenuation tank and the flow control outlet isolated to prevent discharge of any potentially contaminated fire water to nearby surface water culvert.

All fire water would be removed off site via tankers.

3.3.3 Tanks and Bunds

All IBCs will be stored within a concrete bund inside the new swarf storage building so benefit from secondary containment and are designed to comply with the following standards and guidance requirements;

- Oil storage regulations for businesses, Environment Agency, 2015;
- Oil Storage Regulations Guidance, Environment Agency and Defra 2016;
- CIRIA C598: Chemical Storage Tank Systems – Good Practice; and
- CIRIA 736: Design of Containment Systems for the Prevention of Pollution.

The new swarf storage area will have no new tanks; only IBC storage.

The new sump within the new swarf storage building will:

- Be waterproof and made of suitable material resistant to the oily water that will be stored within it;
- Form an integral part of the building base (the base of the building bund is 300mm thick reinforced concrete);
- Be fitted with a high-level alarm; and
- Be fitted with an automatic pump to drain on a level control system.

3.3.4 Roadways and External Areas

The new swarf storage building has been designed to give safe access during deliveries and collections and provide internal parking for 2 swarf IBC trailers. Once loaded, the trailers will exit and follow existing site access routes.

Separate segregated pedestrian walkways and car parking areas already exist on the wider site to allow for safe access and egress of all personnel at site.

The layout of the new area is provided in Figure 1.3.

3.4 Description of the Process

Under Permit EPR/BX9846ID/V004, the facility is permitted to finish rolled titanium / non-ferrous alloy units by acid pickling, de-scaling, bright dipping and strain etching in process tanks with a total capacity greater than 30m³. The total throughput of the plant is 2000 – 3000 tonnes per year.

Currently, swarf generated in the process is stored in bunded IBCs in a designated external area in the North-East of the site. This permit variation, V005, seeks to move the existing swarf storage area slightly further East, and to upgrade the storage of the swarf to within a new purpose built building.

3.4.1 Raw Materials

The raw material for the new swarf storage area is the swarf waste that is currently generated in three main areas across the wider site:

1. Rod rolling and finishing in E Bay – titanium rod is run through bar peelers which take off up to 1mm on diameter. The operation requires water based coolant to lubricate and cool the cutting action and this is where the oily swarf is generated.
2. Machine Centre in C Bay – titanium flat sheet is run through several milling operations (Noble and Lunde, Asquith Butler and Cincinnati) to get the plate flat and to correct dimensions. These also create oily swarf.
3. Test Laboratory in Main Office – smaller samples of titanium rod and sheet are machined on small lathes to get the samples to the correct dimensions to carry out quality assurance checks. This also produces swarf.

There are no changes to the process feedstocks, including how or where swarf is generated in the process or its characteristics, as a result of this permit variation.

There will be no amendments to the raw materials used within the permitted activities as a result of this permit variation.

3.4.2 Existing Effluent Treatment

Currently, oily water is pumped from the IBCs into a sump which is periodically emptied into the rod pickle area manhole located on the north side of the Y Bay building. Process effluent from this manhole joins with the acids from various site processes in the acid drain, diluting the oily water and dissolving some of the oil in the mixture. The effluent is then routed to the existing effluent treatment plant for treatment prior to discharge to sewer through existing Dŵr Cymru Welsh Water Trade Effluent Consent SW79.

The existing effluent treatment plant process incorporates:

- Acid neutralisation - kalic lime is added, then the effluent is agitated in the primary mixing chamber and measured for pH. Lime / hydrochloric acid are used to adjust pH as necessary.
- Secondary tank – effluent pH is measured again and flocculant is added to assist with solids settling
- Clarifier – solids in the effluent are allowed to settle to the base with clear water staying at the surface and overflowing to the Outflow Tank
- Outflow Tank – final pH and turbidity checks are carried out and providing the effluent is within parameters, the effluent is discharged to sewer for further treatment in Welsh Water Treatment Plant. If effluent is not within the parameters for discharge, it is diverted back to the Primary Mixing Tank. Solids from the tank are pumped to a filter press for drying and dried solids (containing the oil phase from the oily residues from the swarf storage) are sent to licensed landfill.

This arrangement is currently permitted by the sites existing permit and no changes are proposed to the effluent treatment plant.

3.5 Description of the Proposed Changes

3.5.1 Swarf Storage

No changes are proposed to the existing permitted activities other than the extension of the permit boundary in the North East corner of the site and the movement of the existing swarf storage area to a new purpose built building slightly further East.

The new purpose built swarf storage area will comprise:

- Detached steel frame building to store swarf waste in IBCs (within bund);
- Vehicle access and parking (for 2 IBC trailers) for collection of drained swarf IBCs;

- A short section of new pipe to collect process effluent (oily residues drained from the IBCs containing the swarf) via a new sump within the building, and route this to drain through the existing manhole at the rod pickle area (located on the north side of the existing Y Bay building), joining up with the existing underground acid drain and flowing to the existing effluent treatment plant; and
- Uncontaminated surface water drainage through new rainwater garden and attenuation tank via flow control outlet to existing ditch to the North of the new building.

The changes to the swarf waste storage will be to move the storage of the IBCs into a purpose-built building with integral concrete bunding. The bund has a capacity of 265 m³ which is greater than both 25% of the total IBC capacity of oily water (noting the IBCs will predominantly comprise swarf with an anticipated 20% oily water) and over 110% of the largest tank (IBC) within the bund.

See Figure 1.3 for Site Layout Drawing.

3.5.2 Drainage

Oily water will drain from the IBCs into the new internal drainage channel within the building, to a new sump in the North East of the building and this will be pumped to the existing rod pickle area manhole through a new section of drainage pipework (*See Annex A - Figures*), and on to the existing effluent treatment plant.

3.6 Management System

Timet UK Ltd implements an Environmental Management System based on the requirements of ISO14001. The EMS includes an EMS Manual that enables Timet UK Ltd to protect the environmental and manage the activities on site in line with the environmental permit.

The EMS will be updated where necessary to include the new site layout and any changes required to procedures for unloading and loading of IBCs containing swarf waste.

A copy of the EMS Manual can be found in *Annex D*.

3.6.1 Site maintenance

All maintenance activities on site are carried out in accordance with the manufacturers' recommendations and will be integrated within the company's management system.

The key aspects of the maintenance management programme include:

- A programme of Planned Preventative Maintenance (PPM) is undertaken to ensure ongoing management and replacement of key plant and equipment rather than waiting for the equipment to fail and the maintenance of any critical environmental equipment;

- The inspection and maintenance schedules that the manufacturer recommends are adhered to, including any period of recommended shut-down;
- Predictive maintenance (e.g. assessment of vibration from bearings in motors) is carried out to prevent any catastrophic breakdown;
- Plant condition monitoring.

The detailed management system operated by the site includes procedures for ensuring that adequate maintenance is undertaken at the site.

The maintenance programme ensures that all equipment or infrastructure that is deemed essential in the prevention of pollution to the environment (e.g. hard-standing, bunds, abatement plant etc.) or the prevention of local nuisance impacts (e.g. noise abatement equipment etc.) is maintained and kept in good operating condition.

The new swarf storage area will be added to the existing site planned preventative maintenance programme. This will include at least a weekly inspection of stored IBCs to check they are not damaged and that the sump capturing oily water drainage from the IBCs, is in good working order and has sufficient capacity.

3.6.2 Emergency Procedures

Timet have developed their own Emergency Procedures based around the specific risks associated with the site operations.

The key aspects of the sites Emergency Procedures are:

- Reviewed by Site Management annually, and as soon as practicable after an accident.
- Considers hazards presented by
 - actions in case of fire;
 - actions in case of emergencies;
 - environmental incidents;
 - spillages and uncontrolled releases;
 - plant or equipment failure (e.g., over-pressure of vessels and pipework, blocked drains);
 - flooding;
- Proposes action to minimise the potential causes and consequences of emergencies.

3.7 Site Security

The site is accessed through a manned gatehouse with security barrier. Security card access is required at point of entry into the main plant.

Security guards are present on site during the day, 7 days a week and they carry out rigorous checks of high risk areas as part of their daily duties.

3.8 Hours of Operation

The site operate 24/7, with most deliveries and collections taking place during daylight hours.

3.9 Accidents and Emergency

3.9.1 Emergency Procedures

Timet have developed their own Emergency Procedures based around the specific risks associated with the site operations.

The key aspects of the sites Emergency Procedures are:

- Reviewed by Site Management annually, and as soon as practicable after an accident.
- Considers hazards presented by
 - actions in case of fire;
 - actions in case of emergencies;
 - environmental incidents;
 - spillages and uncontrolled releases;
 - plant or equipment failure (e.g., over-pressure of vessels and pipework, blocked drains);
 - flooding;
- Proposes action to minimise the potential causes and consequences of emergencies.

Timet's Emergency Procedure has been included in *Annex E*.

4. EMISSIONS AND THEIR ABATEMENT

4.1 Emissions to Air

All point source emissions from the plant will remain as currently permitted.

There are no changes to emissions to air as a result of this permit variation.

4.2 Emissions to Controlled Water

There are no direct process emissions to controlled water arising from the Installation other than the existing uncontaminated surface water drainage.

A new surface water discharge point will be added to the North of the new swarf storage building. This will release clean, uncontaminated surface water run off from the roof of the building that has drained through a new silt trap, a new rainwater garden and collected in a new attenuation tank, prior to being discharged under flow control to the existing ditch.

All process drainage arrangements on site will remain as currently permitted.

4.3 Emissions to Sewer

All point source emissions to sewer from the site will remain as currently regulated (through a Dŵr Cymru Welsh Water Trade Effluent Consent SW79). A new section of pipework will be placed to connect the new swarf storage area sump to existing process drainage on site.

All drainage arrangements on site will remain as currently permitted.

4.4 Emissions to Land

There are no emissions to land arising from the Installation.

4.5 Odour

There are no changes to that would result in odour emissions from the facility as a result of this permit variation, therefore this is not considered further.

4.6 Noise

There are no changes to noise emissions from the facility as a result of this permit variation, therefore this is not considered further.

4.7 Fugitive Emissions

There are no new fugitive emissions from the facility as a results of this permit variation.

As the existing swarf storage is external, moving it to the new purpose built building with internal bunding, will represent a significant improvement in the control of any fugitive emissions that may arise.

4.7.1 Dust, mud and litter

There will be no fugitive emissions from dust, mud or litter from the new swarf storage area.

Nevertheless, the site will maintain a number of control measures onsite in order to prevent any offsite impacts from fugitive emissions. These include the following:

- All storage and draining of IBCs to take place internally within an enclosed building complete with concrete bunding and sloped flooring to sump;
- Vehicles transporting swarf IBCs will be enclosed / covered;
- Speed limits are enforced on site;
- General site maintenance and good housekeeping measures; and
- Daily inspection of the site entrance and public highway.

4.7.2 Volatile Organic Compounds

Volatile organic compounds (VOCs) may arise from the oily residues on the swarf. Fugitive emissions of VOCs will be prevented by:

- Storing the swarf within IBCs;
- All storage and draining of IBCs will take place internally within an enclosed building;
- Vehicles transporting swarf IBCs will be enclosed / covered;

As a result of the fully enclosed nature of the storage building it is considered unlikely that fugitive emissions will arise from the proposed activity.

4.8 Waste Generation and Management

The wider site wastes and their storage remain as previously permitted.

The new swarf storage area will continue to store the same waste stream, i.e. swarf, as the existing swarf storage area. Within the swarf storage area oily residues from the swarf will be drained to sealed drainage, separating that waste stream (as is current practice on site). The oily residues will continue to drain to existing process drainage and on to sewer. The volume of this liquid waste will be reduced as a result of the proposed changes in this permit variation, as the storage of the swarf within a building will prevent rainwater ingress.

Table 4.1 below shows a tabular summary of site wastes from the new swarf storage area.

Table 4.1: Waste Summary Swarf Storage Area					
Waste	EWC Code	Approx. Quant (tonnes/yr)	Source	R / D Code	Environmental Fate
Swarf	12 01 03	Approx. 373	Swarf from: <ul style="list-style-type: none"> • Rod rolling and finishing in E Bay • Machine Centre in C Bay • Test Laboratory in Main Office 	R4	Recycled off-site
Swarf coolant	12 01 09	Approx. 75	Swarf	D9	Effluent treatment plant on site discharges to sewer (to Welsh Water treatment works)

5. ENVIRONMENTAL MONITORING

5.1 Emissions to Air

All monitoring of emissions to air will take place as currently permitted.

5.2 Emissions to Controlled Water

There are currently no monitoring requirements for emissions to water as currently permitted and this will not change. Clean, uncontaminated surface water from the new building roof and surrounding area will drain to ditch but no monitoring requirement is expected to be required.

5.3 Emissions to Sewer

All monitoring of emissions to sewer will take place in accordance with the existing Trade Effluent Consent.

5.4 Emissions to Land

There are no process emissions to land arising from the process, therefore no monitoring is required.

6. RESOURCE EFFICIENCY

6.1 Energy Efficiency

All energy efficiency measures will remain as per the previous permit application.

6.2 Raw Material and Water Usage

There are no changes to the site raw material or water usage as a result of this permit variation.

Process effluent from the swarf storage area will reduce as a result of this permit variation as the swarf IBCs will be enclosed within the building, minimising rainwater ingress.

6.3 Energy Usage

There are no changes to the site energy usage as a result of this permit variation.

7. IMPACT TO THE ENVIRONMENT

7.1 Impacts to Air

There are no additional impacts to air relating to this proposed variation.

7.2 Impacts to Land

There are no impacts to land as a result of this permit variation application.

7.3 Impacts to Controlled Waters

There are no impacts to controlled waters as a result of this permit variation application.

7.4 Impacts to Sewer

There are no impacts to sewer as a result of this permit variation application.

Through the implementation of the changes proposed in this permit variation, the risk to the environment from the swarf storage area is greatly reduced.

An Environmental Risk Assessment is provided in *Annex C*.

8. HIGH LEVEL BAT ASSESSMENT

The proposed variation does not change the purpose and function of the Installation. All BAT justifications provided within the previous permit application are still valid and applicable to the site.

The changes being made will allow for storage of the swarf waste inside a purpose built building, benefitting from concrete hardstanding, internal bunding and connecting to existing sealed process drainage via a new sump in the north east corner of the new building.

New surface water drainage will also be installed, incorporating silt trap, rainwater garden and attenuation tank prior to flow controlled outfall to existing ditch.

Access for the plant and lorries unloading and loading the IBCs containing the swarf waste will also be implemented with concrete pavement to the front of the new building for access.

The changes represent a significant improvement to handling and storage of the swarf waste and will reduce the risk of pollution to the environment. This is considered BAT for the facility.

ANNEX A – FIGURES

ANNEX B – ENVIRONMENTAL RISK ASSESSMENT

ANNEX C – SITE CONDITION REPORT

ANNEX D – EMS MANUAL