Site Condition Report for Gtb Components Ltd Environmental Permit Application.

January 2023

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**SUMMARY**

*This document represents the Site Condition Report (SCR) for Gtb Components ltd, St Helens submitted as part of the application to the Environment Agency for a permit to operate an installation under the Environmental Permitting (England and Wales) Regulations 2016 (EPR). The objective of the SCR is to provide information on the activities and substances used in the installation, to identify any substances in, on or under the land that could present a pollution risk now or in the future.*

*The application is for a Low Impact Bespoke installation under Section 2.2. Part A(1)(a) “Unless falling within Part A (2) of this Section, producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities.”*

*Gtb have operated an existing facility at the St Helens site for the production of sintered components since 1988. Following the operator completing an EA questionnaire in early 2018 and further communication with the local inspector, the view of the EA with respect to regulation of the facility has changed. Through dialogue with the operator the EA have determined that the Gtb manufacturing process should be regulated and drawn into the Environmental Permitting regime.*

*The process takes place inside an existing secure building with sealed drainage. The activity will produce no emissions to surface waters, noise or odor. The only emissions to air are exhaust air from LEV which is installed for the protection of workers during the powder mixing operations, and extraction of waxy vapors from the furnaces.*

*Raw materials used in the process include metal powders. A small amount of waste is produced by the process, all movements of waste to and from the site will be undertaken by a licensed waste carrier. This report further demonstrates that the activities will be carried out over 250m from any designated conservation site and 250m from any borehole. The underlying geology of the installation is classed as pemberton rock and sandstone. The site is not located within a source protection zone or at risk of flooding.*

*An inspection of the area was carried out and records for the site and surrounding areas have been reviewed, along with operational Environmental Management System and associated records. Pollution prevention measures have been identified and an assessment of pollution to land and groundwater has been undertaken.*

*The operation of the proposed activities within a secure internal part of the site means that the installation will have inherently low impact and therefore there is little possibility for land pollution as a result of operations within the installation.*

*The findings of the desk study and site reconnaissance have been used to develop the site conceptual model, which is based on the source-pathway-receptor linkages that may be present at the site.*

*Key future potential contaminant sources relevant to the installation include:*

 *Internal storage of raw materials and wastes*

*External storage of general waste (skips)*

*The potentially sensitive receptors to current and future contamination from the installation include:*   
 *On-site workers;*

 *Employees of neighboring firms; and*

 *Controlled waters;*

*In accordance with the criteria set out in the Environment Agency’s technical guidance the following conclusions can be drawn in relation to the installation’s activities and pollution control measures:*

 *There are existing pollution prevention measures for the process and associated activities, including:*   
*primary containment; secondary containment in the form of tertiary containment afforded by concrete*   
*hard standing. All bulk and non-*   
*bulk materials are stored internally with all drains from the manufacturing areas discharging to sewer*   
*under consent;*

 *The proposed preventative measures in place are deemed adequate to prevent the emissions to*   
*land or groundwater of substances stored within the installation. There are no subsurface structures*   
*on the site drainage system. All primary containment will be regularly inspected. Adequate secondary*   
*and tertiary containment in the form of concrete hard standing is provided to all storage areas;*

 *A recent desktop study reported that the local authority stated that the site is not registered as*   
*contaminated under the Environmental Protection Act 1990 and that the site’s proposed use means*   
*that it has been classified as a low priority for further investigation. There have been no significant*   
*incidents relating to spills from the site or immediate surroundings in the last 30 years.*

 *All facilities necessary for the operation are fit for purpose. This is deemed adequate with regard to*   
*integrity testing of facilities. The facilities will be maintained in line with the company’s planned*   
*preventative maintenance procedures during the life of the permit.*

• *Formal substance acceptance, storage, handling and spill procedures are implemented as part of*   
*the Environmental Management System (EMS). The EMS also includes provision of environmental*   
*training to employees. The company has already gained certification to BS EN ISO 14001:2015 at the site.*

*It is considered that there is little possibility for future land or groundwater pollution to occur within the proposed installation that could be associated with the prescribed process or directly associated activities. Therefore, no further intrusive investigation is required.*

*.*

0B**INTRODUCTION**

Following the operator completing an EA questionnaire in early 2018 and further communication with the local inspector, the view of the EA with respect to regulation of the facility has changed. Through dialogue with the operator the EA have determined that the Gtb manufacturing process should be regulated and drawn into the Environmental Permitting regime under Section 2.2 Part A(1)(a) Non-ferrous Metals.

The installation will comprise the existing Gtb activity including storage of raw materials and packaging, powder mixing, pressing and sintering, Heat treatment, and storage of wastes. The process is completely dry and takes place entirely within the building, apart from the storage of general waste externally. The activities are carried out over 250m from any designated conservation site and 250m from any borehole.

The operation of the proposed activities within a secure internal part of the site means that the installation will have inherently low impact and therefore there is little possibility for land pollution as a result of operations within the installation. Gtb is applying for a Low Impact permit.

An inspection of the area was carried out and records for the site and surrounding areas have been reviewed, along with operational Environmental Management System and associated records. Pollution prevention measures have been identified and an assessment of pollution to land and groundwater has been undertaken.

The information presented within this report is based on a review of available historical, geological and hydrogeological sources. Further information has been provided by the British Geological Survey, the Environment Agency.

1B**OBJECTIVES**

This report has been developed with reference to the following Environment Agency guidance documents: • *Guidance for Applicants H5 Environmental Permitting Regulations Site Condition Report –*

*Guidance and Templates (formally withdrawn);* and

• *European Commission Guidance concerning baseline reports.*

The overall aim of the report is to describe the condition of the site of the installation and to identify any substance in, on or under the land which may constitute a pollution risk.

The specific objectives of this report are to:

 Identify the environmental setting and land pollution history of the obligated installation;

 Identify activities that will be conducted at the installation that may lead to land or groundwater   
pollution;

 Identify and assess the preventative measures that are in place to protect the land and   
groundwater; and

 Assess whether there is:

1. little likelihood that land or groundwater pollution or leaks to land will occur during the future life   
of the installation; or

2. a reasonable possibility that there is potential for current or future land or groundwater pollution   
from the installation.

**INSTALLATION DESCRIPTION**

**SITE LOCATION**

The site is an existing process within an existing industrial facility located at National Grid Reference SJ 53259 94789, off fleet lane, St Helens, Merseyside. The property comprises a main unit and associated external offices. The operation is centered on the main manufacturing building which is divided into a number of discrete operational functions areas depending on the activity taking place.

The wider site is bordered by other industrial facilities on 2 sides and open fields to one side and the rear.

Residential properties to the front on fleet lane. The site location is presented in site location plan. Both the internal and external areas at the site are covered in concrete hard standing.

8**DETAILS OF INSTALLATION**

The site occupies an area of approximately 1 hectare. The wider property comprises a main manufacturing unit and external hard standing facilities. The main unit is divided into discrete product manufacturing facilities each comprising materials bulk and non-bulk storage, manufacturing, product storage, and warehousing. External facilities include delivery and dispatch areas, security and car parking serving the site.

It is understood that the installation boundary for the permit application covers the internal areas of the building, the boundary does not include the office areas. The only external activity related to the installation is the storage of general waste in a skip in the yard area. All raw materials and packaging are stored in the warehouse area of the building and all processing operations take place internally. The building has concrete hard standing with sealed construction joints. However, there are no liquid raw materials or liquids involved in the process.

The installation will therefore have inherently low impact and therefore there is little possibility for land pollution as a result of operations within the installation.

The installation boundary is illustrated in the site location plan.   
**Process Description**

Gtb manufacture is a powder metallurgy process which involves the mixing of precise amounts of raw material in the form of pre alloyed Stainless steel powder and other secondary alloying powders to produce a homogeneous blend and applying exacting temperatures at different stages to create specific alloys. The process involves:

* Powder mixing
* Pressing
* Sintering
* Powder coat

Heat treatment

* Storage of raw materials and wastes
* Quality control

Emissions to air from the process consist of exhaust air from LEV extraction which is in place on powder mixing areas and powder coating for the protection of employees, and the furnaces. There are no emissions of effluent, noise or odor, and the likelihood of fugitive emission to air and water is very low as the process operates entirely within the building.

A further process description is given in the main application.

**Environmental Licenses and Consents**

**Discharge Consent**

Gtb operate a discharge consent for the disposal of process effluent and drainage from the wider site.

**SITE SETTING**

**INTRODUCTION**

This section details the condition of the installation and the potential for substances to be present in, on or under the land associated with present and past uses of the installation and the surrounding area.

1**INSTALLATION SURROUNDINGS**

The facility is located adjacent to a wider industrial park approximately 3km east of St Helens town center. Potentially contaminative land uses within the vicinity of the site from have been identified and are summarized below:

• There are no active Environmental Permits, relating to the former Local Authority Air Pollution   
Control (LAAPC) regime within a 500m radius of the site.;

• There are no active Registered Radioactive Substances consents within a 500m radius of the site;

• The site is not located within a Nitrate vulnerable zone.

1**NATURE CONSERVATION DESIGNATIONS**

Details of Nature Conservation designations were sourced from the government website ([HUwww.magic.gov.ukUH](http://www.magic.gov.uk/)) which has information from Natural England and the Environment Agency.

There are no nationally or internationally designated sites within 2km of the installation.

1**SITE HISTORY**

Historical maps show the site as being developed since at least the mid 1970s with industrial works on site prior to gtb acquiring the works.

**GEOLOGY**

Geological information for the site was obtained from the following sources: British Geological Survey BGS 1:625,000 Solid Geology.

**General Geology and Ground Conditions**

The British Geological Society Map for the area indicates that the site is underlain by the Pemberton rock and

Triassic Sandstone.

**Economic Geology and Landfills**

There are no landfills within 1km of the St Helens site.

The site is in an area affected by coal mining but is not in an area affected by instability.

1**CONTROLLED WATERS**   
**Surface Waters**

Information on surface water bodies was obtained from the environmental agency and OS plans of the site and surroundings. Details of water bodies identified in the vicinity of the site are

**Table 4: Summary of surface water bodies identified in the vicinity of the site**

**Water Body Location Direction of**

**Flow Quality\* Comment**

Sutton brook 300m south brook N/A

**PREVIOUS SITE INVESTIGATIONS**

No prior investigation has been made of the site.

1**EMERGENCY RESPONSE**

Gtb have in place adequate emergency response procedure and formal environment procedures for addressing on-site environmental emergencies such as spillages, leaks and abnormal occurrences.

**SITE RECONNAISSANCE**

1**STORAGE TANKS, PIPE WORK, BUNDS, TESTING AND HARDSTANDING**   
**Storage Tanks**

There are no storage tanks associated with the installation.   
**Non-Bulk Storage of Raw Materials**

All materials delivered are stored internally received in drums or other containers. The waste is stored on hard standing which is of high integrity. There is no runoff to surface waters or the surface water drainage system from internal areas.

**Water and Effluent Treatment**

There is no trade effluent generated or surface water management required by the operation of the installation.

4**Hardstanding**

Hard standing throughout the installation is high integrity concrete construction and was noted to have no sign of spillage or cracking. Joins between hard standing slabs are sealed.

**VEGETATION AND SURFACE WATER FEATURES**

There are no vegetation or surface water features within the installation.

**NATURE OF THE STORAGE AND HANDLING OF MATERIALS**

Housekeeping at the installation follows prescriptive procedures already in place for the wider site. Gtb Already conforms to the operating and handling procedures already set down in the company’s management system.

**OTHER OBSERVATIONS**

Gtb currently operates non-permitted activities at the wider facility. There have been no issues of non-compliance or complaint for the last 30 years.

5B**ASSESSMENT OF LAND POLLUTION POTENTIAL**

Based on information obtained during the site inspection and from review of associated information, the risk of land pollution has been assessed with respect to:

 Pre-existing land pollution (i.e. historical contamination); and

 Adequacy of planned infrastructure to prevent / minimize the release of potentially polluting

substances in the future.

**POTENTIALLY POLLUTING SUBSTANCES**

A list of all materials and wastes to be handled and stored at the installation is contained in the EPR application.

**CURRENT LAND POLLUTION POTENTIAL**

All infrastructure associated with the receipt and storage of raw materials, processing, Despatch and storage of associated wastes takes place above ground. Tertiary containment is provided in the form of concrete hard standing of adequate integrity. All primary and tertiary containment will be visually inspected on a regular basis and further checks undertaken periodically as part of the company’s planned preventative maintenance system. Only trained personnel are permitted to operate the installation or oversee waste movements, deliveries and handling of materials.

Therefore, there is little potential for land pollution from proposed activities.

**OFF-SITE LAND POLLUTION POTENTIAL**

The installation is located adjacent to a wider industrial estate that has had continuous industrial occupation pre 1970’s.

**ASSESSMENT OF THE LIKELIHOOD OF LAND POLLUTION**

The likelihood of contamination from hazards identified at the installation and in the surrounding area is detailed in Table 8 below.

**Table 8: Potential contamination hazards identified in the installation**

**Source Location Pathway Risk and Likely extent of**

**contamination Justification**

**From Historical Activities**

Land has not been previously developed. **From Observations and Discussion**

Raw materials are brought to site in drums or containers. These are stored internally in dedicated storage areas depending on the nature of the material. There are no surface water or process drains in internal areas. Hard standing

Storage and   
handling of raw and waste materials

Storage and   
handling of waste materials

Internal dedicated waste   
storage/handling

External dedicated waste   
storage/handling

Direct release to concrete hard standing and vertical migration of materials through any cracks in bunding/hard standing.

Run-off from waste storage area to drains/concrete hard standing and vertical migration of materials through any cracks in bunding/hard standing.

Little likelihood of contamination.

Little likelihood of contamination.

in these areas was of high integrity.

Delivery procedures and infrastructure inspection procedures are in place as part of the company’s management system to minimize the potential for uncontrolled release and ensure that the integrity of the primary, and tertiary containment remains adequate. All equipment and tertiary containment will be subject to the company’s planned preventative maintenance procedure.

The risks to human health and environmental receptors are considered to be low as the site is extensively hard surfaced.

Only general waste is stored externally in skips. The installation is isolated from surface water and over 250m from the nearest borehole.

**From Off-Installation/on site sources**

Other site based   
activities – storage,

Direct release to   
concrete hard

standing and vertical   
migration of released

Little likelihood of

The same approach to the protection of ground and groundwater resources

processing and   
warehousing

Site

liquids through any   
cracks in bunding/hard standing.

contamination

are afforded to all areas of the wider site.

**Source Location Pathway Risk and Likely extent of**

**contamination Justification**

**From Off-Installation**

Surrounding

industrial activities

Adjacent industrial park.

On-site migration via groundwater flow

Little likelihood of contamination

Adjacent to the site are other industrial or commercial units. The potential risk to human health and environmental receptors.

b Assessment of likelihood of contamination based on the following criteria:

• **High** – Known contamination identified through intrusive investigation and sampling;

• **Moderate** – Contamination likely, based on known or probable accidental releases to ground but no intrusive investigation conducted; • **Low** – Environmental risk minimal and/or containment measures considered sufficient to minimize risk of contamination

**.**

**SUMMARY OF SITE AND INSTALLATION SETTING**

The installation is not located in area of environmental sensitivity. The site is not located within a source protection zone or a flood plain. There are no sites designated as RAMSAR/SPA/SAC/SSSI sites within 2km of the installation.

30B**SENSITIVE RECEPTORS**

Sensitive receptors identified on this site in relation to ground and groundwater contamination are detailed in X9X below:

**Table 9: Environmental receptors potentially at risk from the identified hazards**   
**Category Receptor Location Comments**

The presence of hard standing across the

Humans

Installation workers,

users and visitors Whole Installation

Workers and residents on neighboring

properties

installation minimizes the likelihood of direct contact with ground or groundwater contamination; there is little possibility for land pollution.

The presence of hard standing across the installation minimizes the likelihood of direct contact with ground or groundwater contamination, there is little possibility for land pollution

Adjacent to site

There is no process effluent generated by the installation nor surface water runoff discharges to controlled water. Th

Sutton brook 300m from site

An inspection program is in place, as well as delivery, storage, handling and spillage procedures, minimize the potential for runoff to the controlled waters.

**ZONING**

It is not possible to differentiate the site into separate discrete areas of potential environmental concern. Based upon the site setting and the location of potentially polluting substances the whole installation has been determined to represent the same risk in terms of current and future likelihood of contamination.

**SUMMARY CONCEPTUAL SITE MODEL**

The findings of the desk study and site reconnaissance have been used to develop the site conceptual model, which is based on the source-pathway-receptor linkages that may be present at the site.

The key pathways by which contaminants could be transported to potentially sensitive receptors are identified in Table 8 and 9.

The potentially sensitive receptors to current and future contamination from the installation include:   
 On-site workers;

 Employees of neighboring firms, and residents.

 Controlled waters.

1

3**CONCLUSIONS AND RECOMMENDATIONS**

The following conclusions can be drawn in relation to the Gtb’ s activities and pollution control measures:

 Pollution prevention measures are in place for the process and associated activities, including:   
primary containment and tertiary containment afforded by concrete hard standing. All raw materials will be stored internally isolated from drains.

 The preventative measures are deemed adequate to prevent the emissions to land or groundwater   
of substances stored within the installation and are therefore considered to be represent BAT. There   
are no subsurface structures within the installation. All primary containment will be regularly   
inspected with no significant issues reported. Adequate tertiary containment in the form of concrete   
hard standing is provided; and

• Formal materials, receipt, storage and handling procedures are implemented as part of the   
Environmental Management System (EMS). The EMS also includes provision of environmental   
training to employees. The company are committed to maintaining ISO 14001 certification for the   
site.

It is considered that there is little possibility for future land or groundwater pollution to occur within the installation that can be associated with the prescribed process or directly associated activities. Therefore, no further intrusive investigation is required.