

15 DEC 2014



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11th December 2014

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Our Ref: W:\Environmental\IPPC\Permit TP3639BH\Scrap Screening December 2014\TP3639BH_Screening Notification Letter_1112014.doc

Dear Gareth,

RE: Tremorfa Melt Shop Environmental Permit TP3639BH Formal Notification of Proposed Changes

In accordance with CELSA Manufacturing UK Ltd Tremorfa Melt Shop Environmental Permit (EPR) TP3639BH, please find below our formal notification of the proposed process changes for the use of a mobile screen for scrap screening in the Mineral Site at the Tremorfa Works.

1.0 Introduction

CELSA Manufacturing UK Ltd is regulated under section 12 of the Environmental Permitting Regulations 2010 (as amended) to operate an installation which carries out activities as defined within section 2.1 A(1)(b) 'Producing, melting or refining iron or steel or any ferrous alloy, including continuous casting'. As such the company is permitted in accordance to the terms and conditions of EPR Permit TP3639BH.

Section 4.3.5 of EPR TP3639BH states:

'Where the operator proposes to make a change in the nature or functioning, or an extension to the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- a) *The Environment Agency shall be notified at least 14 days before making the change;*
and
- b) *The notification shall contain a description of the proposed change in operation.'*

2.0 Proposed Changes

2.1 Scrap Screening

2.1.1 General

CELSA intend to use a mobile plant to enable further processing of the scrap sweepings which are currently produced at the site. This process change forms part of an ongoing investment programme into the installation and its processes, to allow the processing output of secondary steel manufacture to be more efficient. The proposed equipment will be located at the Mineral Site as detailed in *Appendix 1*. The proposed use of the mobile plant for scrap screening will be for four weeks.

The main driver for this modification is to provide the following:

- Separate the ferrous and non ferrous elements within the scrap sweepings
- Increase Tremorfa Melt Shop yield; and
- Reduce EAF dust generated by the Melt Shop process.

2.1.2 Scrap Screening Process Description

The proposed trial mobile scrap screen will be located at the Mineral Site as detailed in *Appendix 1*.

The mobile plant equipment to be used is as follows:

- Power screen 800;
- Hyundai 210LC-7 Excavator; and
- Hogmag Eddy Current Magnetic Separator

The Power Screen 800 is designed for the small end user for whom versatility and transportability are of key importance. The machine is a multi-purpose heavy duty incline 2 deck screen, capable of stockpiling, 3 way splitting or scalping before and after crushing units. For CELSA's application the Power Screen 800 will work as an aggregate screener on its own as a frontline screening machine, thus a Part B EP is not required. The technical specifications of the Power Screen 800 are attached in *Appendix 2*. The benefits and key features of the Eddy Current Separator are attached in *Appendix 4*.

The screening machine will be operated by the mobile plant hire company.

3.0 Environmental Impact

A detailed method statement for the Power Screen 800 has been undertaken by the mobile plant provider and is attached in *Appendix 3*. In addition to this, CELSA have assessed the environmental impacts in accordance with the requirements of EP TP3639BH, and these are listed below.

3.1 Raw Materials

Diesel oil and Engine oil will be used by the Power Screen 800. Double skinned tanks are fitted to the vehicle to prevent any losses from the plant machinery. The Eddy Current Magnetic Separator will require the use of electricity and therefore, a diesel generator will be required at the Mineral Site. Spill kits will be in place in the event of a spillage. The diesel oil will be supplied by CELSA's service contractors, Harsco, under normal site operating procedures.

3.2 Water Use

The Power Screen 800 has dust suppression atomising water spray which will be used to damp down any fugitive emissions that may be produced. The water will be supplied to the mobile screening plant from a bowser. The bowers are permanently on site and can be used to assist with dust suppression.

It is anticipated that this water use will not significantly change the current volumes of water used at the Installation.

3.2 Emissions to Water

No emissions to water will be produced by the proposed mobile plant equipment.

There are no anticipated fugitive emissions to surface water, sewer and groundwater.

3.3 Emissions to Air

Emissions to air comprising of fine particulate matter can occur from scrap screening. The Power Screen 800 is fitted with dust suppression atomising water spray which will damp down any fugitive emissions that may be produced. Water to the Power Screen 800 will be provided by a water bowser. The dust suppression water spray atomisers are recognised as an indicative BAT requirement in Environmental Permitting Sector Guidance Note PPC S2.01 version June 2004.

Water bowers are permanently on site at the Mineral Site and will be used to assist with dust suppression during machine operation. CELSA do not anticipate that the activity will give rise to dust complaints as the machinery will be located within the Mineral Site and dust suppression will be in operation.

3.4 Odour

The scrap screening operations undertaken are not deemed odorous.

3.5 Waste

No waste will be produced from the scrap screening activity, as ferrous material will be used in our process, whilst low-grade non ferrous scrap arisings will be sent for further processing off-site.

3.6 Energy

The main uses of energy at the installation will not change as the Power Screen 800 will be provided by diesel fuel. The Eddy Current Magnetic Separator shall require the use of electricity and therefore, a diesel generator will be required. The Eddy Current Separator has low energy usage due to the machine's energy efficient motors as described in *Appendix 4*.

3.7 Noise and Vibration

Anticipated noise levels for the Power Screen 800 have been provided by the manufacturer and are attached in *Appendix 5*. As you will see the noise levels for the Power Screen 800 at 10m are between 80dB and 86dB which are less than the current Tremorfa Melt Shop metal sorting activity noise levels at 89.6dB¹. It must also be noted that the machinery will be sited within the Mineral Site and only in operation between 08:00 and 16:00 hours.

Therefore, CELSA do not anticipate that the operational activity of the scrap screening will give rise to complaints.

CELSA do not anticipate that the scrap screening will give rise to any vibration source.

In summary CELSA do not anticipate that the scrap screening will cause any additional environmental impact from the site operations.

¹ Innovate Acoustics Meltshop – Predictive Noise Assessment Technical Report 09-IAC040, Page 12

4.0 Timescales

15 CELSA intend to operate the proposed plant equipment for 4 weeks from the 8th of January 2014. The operational hours for this activity will be between 08:00 and 16:00. Following final confirmation from the machinery hire company, we will advise of the start of the operations and also notify once operations are complete and the machinery has been removed.

5.0 Conclusions

The above process change form part on an ongoing investment programme into the installation and its processes, such that the processing output of secondary steel manufacture can be made more efficient.

In summary CELSA do not anticipate that scrap screening activity will cause any additional environmental impact from the site operations.

We hope that the above text provides enough information for your needs. As detailed above, due to the fact that the environmental impact is minimal we believe that these process changes are small enough to warrant a formal notification rather than a 'variation' to our process as essentially all of the process operations and authorised release points will remain unchanged.

Should you require any further information regarding these works please do not hesitate to contact me.

Yours sincerely

S. Jones

Sara Jones
Environment Advisor

APPENDIX 1: TP3639BH SITE BOUNDARY



Scrap screening location



APPENDIX 2: POWER SCREEN 800 INFORMATION BROCHURE

WARRIOR

Warrior 800



The Powerscreen® Warrior 800 has been specifically designed for the small end user for whom versatility and transportability are of key importance. The machine is a multi-purpose heavy duty incline 2 deck screen, capable of stockpiling, 3 way splitting or scalping before and after crushing units. Its highly aggressive screen can accept bofor bars, finger screens, woven mesh and punch plates.

User benefits include a rapid set-up time and ease of operation aided by hydraulic folding tail and side conveyors, rigid feed hopper sides and two speed tracks. Simplified slide out tail conveyor facilities aid media access and screen media changes.

Features & Benefits

- Variable speed hopper featuring impact bars, rigid hopper and rollers
- Folding rear hopper wall for direct feeding
- Robust, heavy duty, fixed angle 2 bearing, 2 deck screen
- Hydraulic "slide out facility" on tail conveyor, maximum bottom deck access
- Hydraulic folding conveyors with excellent stockpiling capacity

Options

- Radio controlled tracking
- Screen walkway
- Quick release screen wedge tensioning
- Auto lubrication system
- Dust suppression
- Screen blanket
- Plain/chevron belt conveyors
- Hopper extensions
- Wheel mobile



Output Potential: up to 280 tph (308 US tph)*

Weight (Est)	16,700kgs (36,817lbs)
Transport width	2.5m (8'2")
Transport length	9.22m (30'3")
Transport height	3.09m (10'1")
Working width	14.09m (46'3")
Working length	11.11m (36'5")
Working height	3.92m (12'10")
Screen unit	2.77m x 1.22m (9'x 4')

APPENDIX 3: METHOD STATEMENT

COTSWOLD CRUSHER HIRE LIMITED

Method statement for metal recovery from scrap bay sweepings

Job summary

The constant filling and emptying of scrap bays on site with imported and in house metals generates over a period of time a build-up in the bottom of the bays of unwanted elements i.e. small wood pieces, plastic, glass, soils, dust etc which are all undesirable elements to be taken into the furnaces.

So periodically the scrap bays are completely emptied (zeroed). The larger usable metals continue through the process. The fines elements (sweepings) are removed and stock piled for further sorting (metal recovery). This has formally been done off site which is proving to be very expensive, which is the reason for our trial to design and provide a more cost effective solution.

Method

Our suggested method for the metal recovery, is to screen the mixture of the materials over a vibrating screen deck which was primarily designed for use in the aggregate industry and has undergone extensive alterations to fit our purpose. Which included the removal of both screen decks and replacing only the top deck with a purposely cut 70mm aperture punch plate. The additional fitting of a support frame over the rear fines conveyor to carry an over-band magnet.

The operation

After siting our screening plant adjacent to a stockpile to be sorted, we load the materials onto the screener with excavator bucket, the larger pieces of metal stay on the top of the screen and then fall off the end to be stock piled. All of the remaining material which is minus 70mm and contains soils, dusts, paint flecks, rusts, small wood pieces, small pieces of plastics and also some small pieces of metals all fall through the holes onto a belt conveyor which conveys the materials under a powerful over-band magnet which removes the ferrous metals and deposits them off to one side of the main conveyor. The remainder then comes off the end of the conveyor for disposal of, or subsequent further sorting, possibly by hand picking over a picking station as the fines still contains valuable non ferrous metals, copper, brass etc.

The operation continued

The three separated piles which have now been generated are individually loaded onto a dump truck and weighed, weights recorded and three separate stockpiles formed for further inspection and quantification.

The trial is being carried out personally by the managing director of Cotswold Crusher Hire Ltd, Mr Peter Hannam, who has a mutual vested interest in seeing that the trial is successful in every aspect.

APPENDIX 4: EDDY CURRENT SEPARATOR INFORMATION BROCHURE

THE HOGMAG EDDY CURRENT SEPARATOR – METAL RECOVERY WITH EASE!



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Today's waste streams more than often contain metals, these can be recovered to obtain a cash value, to enhance overall separation quality and minimise material to landfill, and also protect valuable equipment in waste separation processes by removing ferrous and non ferrous metals that could cause damage and downtime.

Enhancing further separation capability, our HogMag Separator is the latest addition to the Ecohog range, a mobile Eddy Current magnetic separator with integrated vibrating pan, magnetic drum and stockpiling conveyors.

KEY FEATURES:

- Flexible use – mobile
- 3 integrated stockpiling conveyors
- High throughput
- Heavy duty abrasion resistant belts
- Energy efficient motors
- Sealed shell bearings
- Low maintenance
- Low energy
- Easily integrated with existing systems

SUITABLE FOR:

- Aluminium can recycling
- Scrap metal processing
- Brass / copper recovery
- Automotive fragment
- Wood processing
- Biomass
- Shredder material
- Municipal waste
- Incinerator slag
- Foundry Sand
- Glass (MRF) clean up
- Electronic Scrap (WEEE)
- Batteries
- C&I
- C&D

Additional Options include skid mounted, and a range of Control packages.



HUNGRY FOR WASTE

APPENDIX 5: POWER SCREEN 800 NOISE LEVELS

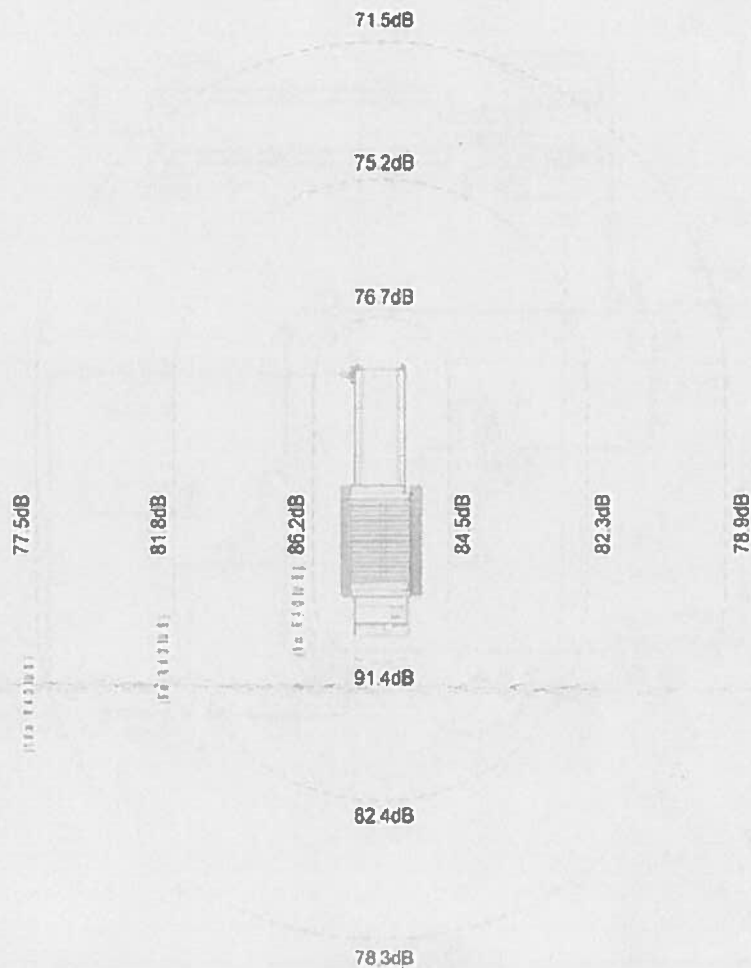


Appendix

Powerscreen
Issue 02EG
72 14 463
Page 9

10.1.8 Noise levels

Noise levels for the POWERTRACK with BF4L1012C engine, (running on empty)



Powerscreen International Distribution Ltd., Dungannon, N. Ireland.

