Beckermet Estates Ltd

Regrading of Iron Ore Spoil Bank to Provide Additional Commercial Floor Space and Extensive Landscaping

Noise and Dust Management Plan

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1.0 Introduction

Beckermet Estates Ltd commissioned WYG Planning and Environment (WYG) to prepare a Noise and Dust Management Plan (N&DMP) for the re-grading of iron ore spoil bank including additional commercial floor space and extensive landscaping within an existing industrial estate at Hold Engineering. Conformance with the N&DMP will ensure that construction noise and dust levels from the development site do not have an adverse impact upon any local sensitive receptors.

A general overview of the site and location of sensitive receptors is provided below.

1.1 General Overview

The current site comprises of a mixture of grass/pasture land and an iron ore spoil mound to the immediate south making up the southern flank of the site boundary. An existing industrial estate is located immediately to the south of the site. The proposed works comprise of the re-grading of land including a spoil heap within the existing industrial estate.

There are no sensitive receptors located within close proximity to the site with the closest residential dwellings located approximately 450m to the north west and 400m to the east of the site.

The proposed plants used for earthmoving are:

- A D6 type bulldozer (2 of)
- A 33 ton tracked excavator (1 of)
- A 25 ton dump truck (2-4 of depending on travel distance)
- A 17 ton roller for compaction on developable areas
- Eventually some incidental smaller plant for drainage and ponds

A site location plan is presented in Appendix A.

2.0 Action Plan

2.1 Noise Control

Given the distance of the sensitive receptors from the site, it is not considered that the proposed groundworks will have an adverse impact upon amenity levels at the receptor locations. However, methodology stated within this CEMP will limit the amount of impact at these locations.

Over the course of the works the Contractor will comply with 'Best Practice', measures outlined in BS 5228:2009+A1:2014 Part 1. Compliance with the 'Best Practice' guidance will insure that minimum disturbance will be caused to local sensitive receptors.

Details of measures that will be undertaken to minimise noise from groundworks at the site are presented below.

2.1.1 Operating hours

No noise generating construction works that could be audible at the site boundary will be undertaken outside the hours of 07:30 to 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays. No work will be carried out on Sundays or Bank Holidays. Outside of these hours, no 'noisy' operations which would be audible outside of the site will occur.

2.1.2 Liaison

Good relations with people living and working in the vicinity of site operations are of paramount importance. Early establishment and maintenance of these relations throughout the carrying out of site operations will go some way towards allaying people's fears. It is suggested that good relations can be developed by keeping people informed of progress and by treating complaints fairly and expeditiously.

The Contractor carrying out work on site will appoint a responsible person to liaise with the public in the event of any complaints.

2.1.3 General Measures

In additional to the restriction of working hours, a number of noise control measures will be implemented to minimise noise during the works and their potential effects within the local environment. The measures which will be implemented, as a minimum, are as follows:

- Careful selection of working methods and programme;
- Where applicable, selection of quietest working equipment available;

- Where practicable, positioning equipment behind physical barriers, i.e. existing features, hoarding, etc;
- Ensuring that regularly maintained and appropriately silenced equipment is used;
- Handling all materials in a manner which minimises noise, such as minimising drop heights;
- Stationary plant, such as crushers, should be screened or located as far as possible from identified receptors as far as practicable;
- Noise during the night-time relating to any generators employed on site should also be considered. Where possible generators should be screened or located as far as possible from identified receptors;
- Switch all audible warning systems to the minimum setting required by the Health and Safety Executive. Reverse warning alarms should be fitted with white noise (broadband) systems; and
- In terms of on-site employees, appropriate actions will take place with regard to the Noise at Work Regulations including the requirement for the use of ear defenders and appropriate warning notices.

2.2 Relevant Guidance

- BS 5228: 2009+A1:2014 Noise and Vibration Control on Construction and Open Sites – Parts 1
- Health Technical Memorandum 08-01: Acoustics
- Control of Pollution Act 1974
- The Control of Noise at Work Regulations (2005)

3.0 Air Quality/Dust

3.1 Legislative Framework

The following legislation has been referenced to produce this Dust Management Plan:

- Planning Policy Statement 23: Planning and Pollution Control, Office of the Deputy Prime Minister, 2004
- Guidance on the assessment of dust from demolition and construction, IAQM, 2009
- Health and Safety at Work Act 1974
- Building Act 1984
- Environmental Protection Act 1990
- Environmental Permitting Regulations 2007

3.2 Pollutant Sources

Other than negligible emissions from construction vehicles and equipment the main emissions during construction are likely to be dust and particulate matter generated during earth moving (particularly during dry months), or from construction materials. In respect of fires on site it should be noted that suitable management strategies will be in place to prevent burning of any material during the construction phase. The main potential effects of particulates/dust are:

- Visual – dust plume, reduced visibility, coating and soiling of surfaces leading to annoyance, loss of amenity, the need to clean surfaces;
- Physical and /or chemical contamination and corrosion of artefacts;
- Coating of vegetation and soil contamination;
- Health effects due to inhalation e.g. asthma or irritation of the eyes.

A number of other factors such as the amount of precipitation and other meteorological conditions will also greatly influence the amount of particulate matter generated.

Construction activities can give rise to short-term elevated dust/PM_{10} concentrations in neighbouring areas. This may arise from vehicle movements, soiling of the public highway, demolition or windblown stockpiles.

3.3 Methodology

The construction phase assessment utilises the IAQM Guidance on the Assessment of Dust from Demolition and Construction document published in February 2014.

The area around the site was reviewed for potentially sensitive ecological receptors using the MAGIC mapping facility. Following this review, the following sensitive site was identified within 1km of the site:

- Haile Great Wood SSSI

The dust risk categories have been determined for each of the four construction activities. The assessment has determined that the potential impact significance of dust emissions associated with the construction phase of the proposed development is 'low risk' at the worst affected receptors as outlined in Table 3.3.

Table 3.1 Dust Emission Magnitude

Construction Process	Dust Emission Magnitude
Demolition	N/A
Earthworks	Small
Construction	Small
Trackout	Small

The sensitivity of the surrounding area to each construction process has been determined following Stage 2B of the IAQM guidance. The assessment has determined the area sensitivities as shown in the Table 3.2. One ecological receptor was found within 1km of the site, Haile Great Wood SSSI, and therefore this has been included within the assessment.

Table 3.2 Sensitivity of the Area

Source	Area Sensitivity		
	Dust Soiling	Health Effects of PM_{10}	Ecological
Demolition	N/A	N/A	N/A
Earthworks	Medium	Low	Low
Construction	Medium	Low	Low
Trackout	Medium	Low	Low

The dust emission magnitude determined in Table 3.1 has been combined with the sensitivity of the area determined in Table 3.2, to determine the risk of impacts prior to the implementation of appropriate mitigation measures. The potential impact significance of dust emissions associated with the construction phase, without mitigation, is presented below in Table 3.3.

Table 3.3 Impact Significance of Construction Activities without Mitigation

Source	Summary Risk of Impacts Prior to Mitigation		
	Dust Soiling	Health Effects of PM_{10}	Ecological
Demolition	N/A	N/A	N/A
Earthworks	Low	Low	Low
Construction	Low	Low	Low
Trackout	Negligible	Low	Low

Four construction processes are considered; these are demolition, earthworks, construction and trackout. For each of these phases, the significance of the potential dust impacts is derived following the determination of a dust emission magnitude and the distance of activities to the nearest sensitive receptor, therefore assessing worst case impacts.

3.4 Measures to be implemented

The proposed dust management mitigation measures are laid out below for each specific site activity.

General

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
- Carry out regular site inspections to monitor compliance with this DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

On Site activities

- Erect solid screens or barriers around dusty activities or the site boundary which are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.

- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Avoid scabbling (roughening of concrete surfaces) if possible.

Materials and Stockpiling

- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover the equipment appropriately.
- Cover, seed or fence stockpiles to prevent wind whipping.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Vehicles and Plant

- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.

Waste

- Use enclosed chutes and conveyors and covered skips
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.

- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
- Avoid bonfires and burning of waste materials.

Appendices

Appendix A – Site Location Plan

Client:
Beckermet Estates Ltd

Project:
Energy Coast
Business Park North

Project Number:
A099303

Drawing Title / Scenario:
Site Location Plan

Drawing Number:
SK01

Scale : Not to scale

WYGE Leicester 26.08.16

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