Waste and Dust Management Plan

BGC

Concrete Batching Plan

1. Servicing and Management

Waste:

- Washout system to suit 5m^3 and 7m^3 agitator trucks, anticipate that the system will need to be cleaned out on a two (2) week cycle, dry material removed from site.

Discharges:

- Not anticipated, see below for controls.

2. Control Methods

Refer to following management plans.

We do not anticipated holding large quantities of fuel on site, all vehicles will use local service stations for fuel, charge card facility currently established by BGC for such purposes, this will be extended to plant based trucks. Small above ground self bunded diesel tank approx. 10k litres to service loader and emergency truck requirements.

Operating Hours:

Anticipated hours are generally 6:00am – 4:00pm Monday to Friday, Saturday 6:00am – 1:00pm. We do not anticipate operating the plant late Saturday pm or Sundays and will advise relevant authorities of specific openings should the need arise. We are aware of the need to comply with *Environmental Protection (Noise) Regulations 1997*.

If any further information is required please contact Phil Hobbs (08) 6220 4718 or 0417 181 022.

3. Waste Management Objectives

The following Waste and Dust Management Plan ('WDMP') addresses the general operation of the proposed concrete batching plant within Lot 105 (No. 2) Clune Street, Bassendean.

The content and requirements of the *Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998* ('the Regulations') (Attachment One) has been considered in the formulation of this WDMP.

The design, operation and management of the proposed development must comply with the Regulations at all times.

This WDMP effectively addresses the appropriate containment and disposal of waste. The WDMP has been prepared to ensure that waste is entirely contained within the subject site boundaries.

4. Waste Generation

It is acknowledged that waste generation will occur from the use of the site.

4.1 Waste Systems

The following provides guidance for 'best practice' with the most common materials that will be segregated on site and disposed of via the contracted waste removal service.

4.1.1 Colour Pigments, Steel Fibres, Silica Fume and Waterproofing Admixtures

Designated material bins to collect packaging from colour pigments, steel fibres, silica fume and waterproofing admixtures, contained within bin enclosures constructed of masonry/concrete material.

4.1.2 Silt Free Water

Settlement ponds and above ground bins will be used to accept concrete 'wash out' water. Silt free water will be recycled and reused in the manufacturing process.

4.1.3 Concrete Waste

Concrete waste will be removed from site when moisture content is less than 20% by the landowner's contractors or in the alternate BGC Transport

4.1.4 Recycling Water and Water Management

Recycling pumps with level switches will transfer waste water for storage and reuse in the manufacture of concrete. Water source for the facility will be from an approved bore to be constructed at the subject site. Licences from the Department of Water to construct a bore and take water have been obtained. The estimated annual bore water take is approved for up to 45,000kL.

All excess water draining off the loading area, used to wash out agitator trucks, or to clean up slit, drained off sealed or paved areas is to be directed into the slurry waste bin area.

4.1.5 Aggregate Recycling Facility

A recycling plant may be incorporated to recover aggregates and encourage reuse.

5. Waste Collection

Waste will be collected by the waste contractor from the waste bin locations. The waste contractor will have direct access to these areas. The waste contractor will be responsible for collecting the bins from the bin enclosures. The waste contractor will be made aware of any specific management requirements.

5.1 Waste Contractors

Waste will be collected through a private waste contractor, under BGC contract.

5.2 Frequency

The final frequency of the collection and disposal of waste will be collected as frequently as required to ensure that waste does not overflow by the stores contractor.

6. Vehicle Types and Movements

6.1 Imported Material

The following vehicles will deliver materials to the subject site:

- Aggregate deliveries (up to 27.5m in length) – approximately 10-15 per day;
- Cement deliveries (up to 27.5m in length) – approximately 2-3 per day; and
- Admixture/pigment deliveries (light trucks 3-5 tonne) – approximately 2 visits per week.

All vehicles will enter/exit the subject site via Clune Street.

6.2 Exported Material

The following vehicles will export material from the subject site:

- Concrete agitator trucks 80-100 vehicles per day;
- Concrete waste approximately 1 vehicle (road train) per fortnight; and
- Waste collection vehicles as required.

All vehicles will enter/exit the subject site via Clune Street.

7. Dust Management Plan

The following outlines the measures incorporated into the concrete batching plant design to ensure compliance with the Regulations.

7.1 Introduction

Airborne dust in concrete plants is associated with raw materials namely aggregates and cement. It has the potential to occur when material is transported onto site, transferred on site and is affected by wind conditions. Controls are required to ensure dust is managed through sound procedures, systems and the implementation of specific plant design features.

7.2 Training

All supervisory and site personnel are to receive training on dust (and noise) management as required by the Regulations.

In-house training of personnel on dust control issues will form part of the site induction process. Reinforcement of such will occur on a daily basis by supervisory plant personnel and management during routine visits. The company currently has a Production Manager, two (north and south) Plant Supervisors who are responsible for dust control in the company's existing facilities.

7.3 Plant/Equipment

The proposed plant/equipment will be fitted with the following design features to minimise dust:

- Reverse pulse cement filters x 2 (34m^2);
- High and low level audio alarm indicating levels to eliminate equipment from over filling and the filter bag being inundated;
- A Dustotech vacuum system at point of loading to direct all visual fine cement dust into silos ;
- Relief valves to be attached to the filters to ensure safe operation of plant;
- Cement filters will be serviced/replaced as necessary at six (6) month intervals;
- A spare set of filter bags to be held on-site at all times for emergency replacement; and
- Sealed penetrations to the cement silos and weigh hoppers, including inspection and service hatches.

7.4 Aggregate Delivery

All aggregate trucks will be equipped with the following measures to prevent dust:

- All aggregate trucks will be covered when arriving and departing the subject site;
- Coarse aggregate from stock piles at quarry will be moistened; and
- A water truck will be on-site to wet the ground, suppressing dust in the summer months.

It should be noted that the yard will be fully sealed to eliminate dust during on-site vehicle movements.

7.5 Raw Materials Transfer and Storage

When raw materials are to be transferred to or from the subject site, covers to the main stacker radial conveyor will be used. When storing raw materials the following measures will be in place to prevent dust:

- Reticulated ground bins to facilitate dust free loading;

- Dust covers to overhead bins to eliminate windblown dust at higher level; and
- Height limit signs will be placed on the ground bins to ensure all raw materials remain below the height of the walls.

7.6 Truck Loading and Slumping

The following measures will be used when loading trucks at the subject site:

- The loading cell will be equipped with a 'hood' which is connected to a Dustotech vacuum system to minimise dust emissions at the point of loading;
- A slump stand positioned near the exit will be used to wash down trucks prior to exiting the subject site;
- All trucks are to be free from dust on exiting the subject site.

Attachment A

Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998