



# North Quay Goods Yard Newhaven

## Design, Access And Sustainability Statement

Extension of permitted activities to include the receipt storage and management of Bottom Ash from the adjacent Newhaven Energy Recovery Facility, with associated buildings, surfacing and ancillary development

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## **1.0 Introduction**

- 1.1 Martin O'Brien and Associates are Consulting Engineers and have been instructed by the applicant, Day Group Ltd, to prepare designs and working drawings for the storage of incinerator bottom ash (IBA) from the adjacent Veolia Energy Recovery Facility (ERF)
- 1.2 The Practice was established in 1976 and specialises in the development of facilities for the mineral processing, bulk handling and ready mix concrete industries.
- 1.3 Since the beginning of 1997 we have developed a close working relationship with Day Group and have been involved in the development of various new facilities at their depots throughout the London area, including new rail unloading and storage systems at Purley, Battersea and Tolworth.
- 1.4 This Design, Access and Sustainability Statement has been produced to outline the means in which the design and layout of these application proposals have been developed. It is intended to demonstrate the range of issues that have been taken into account in developing the application proposals and details how the particular conditions of the site and surrounding land uses have influenced design decisions.
- 1.5 This application envisages the erection of a portal framed storage building, concrete hardstanding and rail loadout area and associated mess and parking facilities.
- 1.6 Our initial assessment was favourable in that the site comprises an existing railhead and is located in an industrial location, adjacent to the ERF from which the ash will be generated.

## **2.0 The design process**

- 2.1 Over the years in which Martin O'Brien and Associates have been involved in this type of development we have amassed a detailed understanding of our Client's operation and requirements, and successfully developed proposals for aggregate facilities in a number of distinct locations both adjacent or near to other commercial development or indeed residential development.
- 2.2 In general terms with this type of development we follow the basic concept of modern industrial design which is "Form follows function" i.e. if a facility has to perform a certain function, it's design must support that function to the fullest extent possible.
- 2.3 On a site by site basis we then have regard to the particular characteristics of the site, which in this instance include changes in levels across the site, existing railway lines and an existing fixed access point. Regard has also been had to the surrounding land uses. We have taken on board the fact that the proposals will be viewed in the context of existing industrial buildings and the new ERF.
- 2.4 We have also considered the relevant information of DEFRA's 2008 guide on the design of waste management facilities. Regard has also been had to the requirements of Planning Policy Statement 1, Delivering Sustainable Development (PPS1) and in particular the guidance it provides with regard to the fact that good design should result in developments which are integrated into the existing urban form and the natural and built environments.

### 3.0 Key elements of the proposals

3.1 The principal essential elements of the proposed facility comprise the following:

- a) IBA bulk storage
- b) Operational yard area

3.2 There are a number of means, from an operational and technical perspective, in which each of these required elements can be constructed and operated. The various options each have differing implications in terms of potential impacts particularly in terms of noise and dust. The various options for each of the elements of the proposed development are detailed below.

a) IBA bulk storage

3.3 Options available for the storage of 4500 tonnes of IBA are:

- (i) Open stockpiles
- (ii) Stock bays with concrete or post and sleeper walls
- (iii) Enclosed storage

3.4 Option (i) has the potential to give rise to air borne dust as dust suppression on a large open pile is not possible.

3.5 With Option (ii) the material is only contained on three sides and there is still potential for air borne dust.

3.6 Option (iii), in conjunction with the natural properties of the IBA and additional mitigation of dust suppression sprays ensures that there will be minimal air borne dust.

3.7 Given the location of the site and surrounding land uses an enclosed storage building is considered to be the most appropriate design solution.

3.8 Water run-off from the dust sprays will be collected in a series of gullies along the rear of the building and discharged to a carrier drain and thence a collection chamber for recycling back into the dust suppression system.

b) Operational yard area

- 3.9 The IBA will be brought by dumper truck or lorry from the adjacent Veolia ERF and deposited directly into the storage building, subsequently being pushed back into the building by loading shovel.
  
- 3.10 Surface water run-off from the external yard area (including water from the external dust suppression sprays) will be collected in a separate drainage system and recycled within the site.
  
- 3.11 The entire operational yard area will be hard surfaced in concrete.

#### **4.0 Visual impact, layout and appearance**

- 4.1 Having determined the most appropriate means in which each of the proposed operations should be undertaken the following part of the design process considered how those structures could be located and designed to ensure that they do not materially affect visual amenity considerations.
- 4.2 The main visible component of the proposals comprises the IBA storage building. As has already been described, the design of such structures is to a large extent a process of “form following function” and is dictated by the quantity of material to be stored, the characteristics of the material (i.e. angle of repose, density etc) and the location of the incoming material and outgoing rail loading point.
- 4.3 In this case there is only one possible location for the storage building which is as shown on the drawings.
- 4.4 Within these parameters, however, the approach taken in developing these design proposals has been to ensure as far as practicable that the height of the structure is minimised. It will also be significantly less than the ERF building which is the dominant adjacent feature.
- 4.5 It is anticipated that details of materials and colours to be used for the structures to be erected as part of this application will be agreed via discharge of an appropriate condition. However, it is envisaged that structures will comprise profile steel cladding in a muted colour such as grey to minimise visual impact.
- 4.6 On the basis of the above it is our opinion that the structures proposed would be entirely in keeping with the general surrounding uses and are entirely acceptable in visual and design terms.

## **5.0 Access and Highways considerations**

- 5.1 There is an existing access road from the Veolia ERF to the Day Group site which will be the route for incoming material.
- 5.2 All material will be exported by rail for recycling.
- 5.3 The only vehicles accessing the site via North Quay Road will be employees' private cars, occasional fuel deliveries and vans for essential maintenance (e.g. of on-site machinery, rail wagons or trackwork).
- 5.4 As a major employer Day Group take their responsibilities under the Disability Discrimination Act 1995 very seriously and we have been instructed to design the proposed facilities accordingly. However, this has to be done in the context of the fact that this is proposed to be an operational industrial site whereby the activities carried out are predominantly manual in nature.
- 5.5 On this basis the provision of an inclusive environment will be restricted to the messroom at the main entrance which will be the point of entry for all visitors to the site. This will be achieved by the following means:
- 1 No dedicated disabled car parking space adjacent to the messroom will be provided 4.8m long x 2.4m wide with 1.2m clear between and to the front of the space.
  - The route to the site office will be clearly signed
  - A clear route will be provided to the site office min 940mm wide with suitable access into the office.
  - The messroom shall incorporate 1 mixed ladies/disabled WC cubicle.

## **6.0 Sustainability**

6.1 Day Group are a major supplier of rail borne aggregates within the London Area and have existing depots at Brentford, Purley, Greenwich, Woking, Crawley, Battersea and Tolworth.

6.2 Day Group are also a major producer of recycled aggregates, principally from three 'state of the art ' static Construction & Demolition (C&D) recycling plants at their Brentford, Greenwich and Purley depots and an Incinerator bottom ash (IBA) recycling plant at Brentford.

6.3 In keeping with Day's major commitment to recycling and sustainability, we have, therefore, been instructed to include the following features within our design:

- All yard areas will be concreted and surface run-off collected and re-used for dust suppression of material stockpiles
- Buildings will be clad to provide both sound insulation and energy conservation



## **7.0 Conclusion**

- 7.1 Having considered all the design parameters discussed at length in the preceding paragraphs of this statement we believe that the design solution which we have developed for the site is an entirely appropriate one and is wholly acceptable in terms of size, height, location, relationship with other neighbouring developments and appearance.
- 7.2 The immediate area in which the proposals will be viewed and will operate is primarily an industrial area with the new Veolia ERF being the dominant adjacent structure.
- 7.3 On this basis the application proposals are considered to comprise an entirely appropriate design solution, which integrates well with the surrounding built form and addresses, in design, access and sustainability terms, all of the relevant considerations.

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(Director)