INSTALLATION OF TWO LECHATE HOLDING TANKS

KIRBY LODGE COMPOSTING FACILITY, KIRBY LANE, CORBY NN17 3EJ

MATERIAL CHANGE LTD

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1 DEVELOPMENT PROPOSALS

1.1 Introduction

1.1.1 This planning application has been submitted by GP Planning Ltd on behalf of Material Change Ltd, and relates to the installation of two leachate holding tanks at the Kirby Lodge In-Vessel Composting (IVC) Facility located along Kirby Lane to the north east of Corby.

1.1.2 The IVC facility presently accepts up to 40,000 tonnes per annum of green, wood and food waste to produce a compost fertiliser for sale at market. It is proposed that the leachate tanks will replace the open lagoon, thereby wholly containing the leachate associated with the composting and maturation process.

1.2 Application Documents

1.2.1 The planning application is supported by the following documents:

- Planning Application Forms
- GPP/MC/KL/13/01 Site Location Plan
- GPP/MC/KL/13/02 Site Plan
- GPP/MC/KL/13/03 Site Layout Plan
- GPP/MC/KL/13/04 Elevations
- GPP/MC/KL/13/05 Photograph Panel
- M004-05 Planning Statement
- Plan of Tanks and Bund
- End Elevation

1.3 The Site and Site Context

The Site

1.3.1 The In-Vessel Composting (IVC) facility is located just off Kirby Lane on the north east edge of Corby, 250m east of the Rockingham Speedway, 2.25km south east of Gretton Village and 2.75km west of Deene Village. Drawing GPP/MC/KL/13/01 Site Location Plan shows the site in its setting.

1.3.2 This application seeks permission for the installation of the leachate tanks within the IVC facility itself. The application site therefore relates to a small area of land that is located directly to the north of the existing stone barn and to the west of the maturation pad. To the east of the application the site the access road is located.

1.3.3 The application site is approximately 152m² in area, it is owned and operated by Material Change Ltd. The extent of the application site area and the landownership of Material Change is shown on Drawing GPP/MC/KL/13/02 Site Plan.

1.3.4 The IVC facility does not lie within a floodplain although it is adjacent to a stream with a narrow floodplain and it is not affected by a Groundwater Protection Zone.
Site Context

1.3.5 The IVC facility is located over 2.25km away from the nearest present residential receptors, the village of Gretton. The closest property, Kirby Hall Farm, is under the control of the applicants, and 1.45km away. Kirby Hall, an English Heritage property open through part of the year to the public as a visitor attraction, is located 850m to the north east.

1.3.6 The Prior's Hall sustainable urban extension is under construction and will eventually become a neighbour of the Kirby Lodge IVC facility. This lies to the south of the proposed site and Kirby Lane at a distance of over 100m. Other than a hotel site in the northwest corner of the Prior’s Hall site, the other uses close to the northern boundary are employment uses and open space. Between the proposed new development and Kirby Lane a belt 30m wide of trees and shrubs has already been planted.

1.3.7 The IVC facility has access onto the Gretton Road as detailed on drawing GPP/MC/KL/13/02 Site Plan. Gretton Road joins the main Corby highway network at the A6116 to the south and via Gretton Brook Road to the west of the site.

1.3.8 The IVC facility lies in generally undulating countryside and in particular on a north facing slope. The IVC facility is set down a shallow slope from Kirby Lane and just south of an abandoned ironworking face. The countryside is typified by large fields with boundary hedgerows, with scattered trees and copses.

1.3.9 The nearest water body to the IVC facility is the stream 20m due north of the site, being the Gretton Brook, which is classed as Main River. The watercourse runs 1m below the level of the facility site, which is located on land sloping south-north.

1.3.10 There are no Special Areas of Conservation (SACs) identified within 5 km of the site. There is one Site of Special Scientific Interest (SSSIs) 2900m south east of the facility; it is known as Weldon Park.

1.4 The Proposed Development

1.4.1 The development will see the installation of two leachate holding tanks to replace the existing leachate lagoon, which was permitted by planning permission 08/00048/WAS. The leachate storage lagoon presently collects the surface water runoff from the maturation pad.

1.4.2 Surface water runoff from the maturation pad will be diverted by the existing drainage infrastructure to the leachate storage tanks, where it will be held until it is transported off site for treatment by tankers.

1.4.3 The tanks are cylindrical in shape and measure 15.42m in length by 3m in diameter. The capacities of the tanks are 105,000 litres each. The tanks will sit on a metal cradle and a concrete plinth.

1.4.4 The two tanks will then sit within a concrete bunded area which is 19m in length by 8m in width. The bund will be 1.2m high and will sit on a concrete base which is 0.3m thick. In total, it is calculated that the tanks and its associated infrastructure will be approximately 4m tall once installed.
**Site Drainage and Storage Capacity**

1.4.5 As stated, the tanks will serve the maturation pad which is an area of approximately 0.2 hectares in size. Calculation of the required capacity for dealing with the leachate from the maturation area was based on the maximum rainfall run-off from the maturation area generated over the worst 48 hour period in 5 years. The M5 48hr Rule for this location is 58.5mm, which gives a volume of approximately 118,000 litres. The two tanks which have a combined volume of 210,000 litres is sufficient to deal with the predicted worst case scenario.

1.4.6 Surface water that collects within the bunded area will be managed through a drain fitted with a plug. The bunded area will be manually emptied at regular periods in order to maintain its retention capacity in the event of the failure of one of the leachate tanks. The floor of the bund will be laid so that is slopes to one side of the bund area to allow drainage of the surface water.

1.4.7 The management of the emptying of the tanks and the bunded area will be detailed in the Environmental Management System for the site, required by the Environmental Permit.

1.4.8 Notwithstanding the proposed alteration that is being sought by this application, the following drainage infrastructure elements will remain as permitted by planning permissions 07/00007/WAS and 08/00048/WAS:

- The main yard will continue to drain to the French drain located on the perimeter of the concrete pad. The clean run off is collected by the drains and passes through a petrol interceptor and into a ditch alongside the access road.
- The reception building, canopy and tunnel building roof will drain into a grey water storage tank located next to the reception building.
- The Access road drains to a shallow ditch which is located alongside it.
- The foul sewage from the office facilities is discharged into a septic tank.

**Landscape Planting**

1.4.9 Landscape planting will be provided as a part of the development, in order to shield views of the tanks. It is proposed that a group of Crack Willows will be planted in the area to the west of the application site, as shown by drawing GPP/MC/KL/13/03 Site Layout Plan.

1.4.10 The Willows will be planted at 3m intervals and protected with fencing to prevent damage by deer.

**Associated Development**

1.4.11 In order to allow for the installation of the leachate tanks in the required location the existing fence will be moved to skirt around the northern and western sides of the concrete bunded area.
2 PLANNING CONSIDERATIONS

2.1 Planning Policy

2.1.1 The site has been considered to be compliant with a range of planning polices as determined by planning permissions 07/00007/WAS and 08/00048/WAS.

2.1.2 The proposed changes to the In-Vessel Composting Facility at Kirby Lodge as sought by this planning application have the potential to affect both the potential for flooding and local amenity. Consideration is provided below.

2.2 Flood Risk

2.2.1 A previous planning application has considered the potential impact of the development upon risk of flooding both at the composting facility and the immediate area. The Environment Agency flood map resource indicates that the application site is situated within Flood Zone 1.

2.2.2 Gretton Brook sits approximately 20m to the north of the application site. Due to the gradient of the land the brook is approximately 2m below the application site, at the northern boundary of the site.

2.2.3 The leachate holding tanks will serve the drainage requirements for the maturation pad and it has been calculated that the tanks have sufficient capacity to deal with peak surface water flows from the maturation pad.

2.2.4 The bund containing the leachate tanks will store all surface water and emptied on a periodic basis as controlled by the Environmental Management System, controlled by the Environmental permit.

2.2.5 It is considered that the development will not increase the potential for flood risk at the site or its surroundings.

2.3 Visual Amenity

2.3.1 The tanks will stand at approximately 4m high when installed. The tanks are in keeping with the scale of the existing In-Vessel Composting facility and will therefore not generate a significant adverse impact upon surrounding visual amenity.

2.3.2 In order to mitigate the potential for adverse impact upon visual amenity, landscape planting has been incorporated into the development scheme to shield views from the west of the site, gained from Kirby Lane at the composting site access.

2.3.3 It is therefore considered that the development will not have an adverse impact upon visual amenity.
2.4 Odour

2.4.1 The leachate from the maturation pad will be wholly contained by the holding tanks and will therefore minimise the potential for odour release. The tanks will replace the open lagoon, which has proven to be the source of off-site odours. Therefore, that the leachate holding tanks will provide a positive benefit to the odour management measures that are undertaken at the composting site.
3 SUMMARY AND CONCLUSION

3.1 Summary

3.1.1 This application seeks to gain authorisation for the installation of two leachate holding tanks at the Kirby Lodge In-Vessel Composting Facility located at Kirby Lane, Corby.

3.1.2 The tanks will store the leachate associated with maturation of the compost on the designated maturation pad.

3.1.3 The tanks have been shown to be of a sufficient capacity to deal with run off from the maturation area of the composting site. It is also considered that the installation of the tanks will not have an adverse impact upon the flood risk or visual and odour amenity.

3.2 Conclusion

3.2.1 It is considered that development will not have an adverse impact upon the surrounding environment of amenity.