TECHNICAL NOTE

Job Name: Docksway Disposal Site – Permit Revision Application

Job No: 14739

Note No: PR003

Date: March 2015

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Subject: **Non-Technical Summary**

Background

Newport City Council (NCC) is applying to vary the existing Environmental Permit (EPR DP3733BK) for Area 2 at Docksway Disposal Site. This note presents a non-technical summary of the application.

Introduction

Docksway Disposal site has been used for the disposal of waste materials since the 1930's, although the site has only been operated by NCC since the 1980's. Historically the site has accepted commercial, industrial, household and inert waste from Newport and surrounding areas.

The site is located in the docks area of Newport with the River Usk around 1km to the east and the River Ebbw adjacent to the western boundary of the site.

The site comprises two separate landfill areas called Area 1 or Phase 1 and Area 2 or Phase 2. Area 1 at Docksway is the older dilute and disperse landfill area and is closed. Area 2 at Docksway is the currently active landfill area. It is a modern engineered landfill and the variation application relates solely to this area of the site.

Proposals

The existing Environmental Permit (EP) allows the disposal of a variety of non-hazardous waste types (such as domestic, industrial, commercial, inert) into defined areas called cells that have previously been prepared and engineered to fully contain the wastes and associated by-products (such as landfill gas and leachate).

The landfill side slope angles and the final height of the landfill are defined by drawings that are referred to in the existing EP.

The permit variation proposals comprise the inclusion of a Stable Non Reactive Hazardous Waste (SNRHW) cell within the existing permitted boundaries of the site, for the disposal of asbestos waste, and amendments to both the landfill side slope angles and final restoration height of the landfill, to maximise the available void space.

The existing EP allows the disposal of up to 90,000 tonnes of non-hazardous waste at the site each

DOCUMENT ISSUE RECORD

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year. It is not proposed to vary this annual limit.

Site Design and Operations

The Engineering Design Philosophy and engineering construction details for the proposed changes will not differ from the currently agreed and accepted methods. That is to say that the remaining cells that will be developed, will be designed and constructed on full containment principles. The agreed engineered barrier system (EBS) that provides the basal lining part of the containment, in accordance with guidance provided by the EA, is already suitable for the disposal of SNRHW without addition or amendment.

Additionally, the proposed SNRHW cell will be constructed to be separate from adjacent cells for non-hazardous wastes and will have leachate extraction and management systems that are isolated from other leachate extraction and management systems. There will be no landfill gas management system within the SNRHW cell and the potential migration of landfill gas into the SNRHW cell from adjacent cells will be minimised by the construction details of the separation bund and by active gas management within the non-hazardous cells.

Leachate extracted from the SNRHW cell will be passed first through a sand filter to remove any loose asbestos fibres before being tested and discharged to the surface water drainage system.

Capping System

The proposed capping system for the remaining cells in Area 2 will not change from the currently agreed and accepted methods, but for the SNRHW cell, will include a 2m thick top cover prior to the construction of the capping system, in accordance with guidance given in LFD 1 – Understanding the Landfill Directive.

Restoration and Aftercare

Proposed amended pre-settlement and post-settlement contours are shown on Figures 2 and 3. These adopt a settlement ratio of 15% as previously adopted and accepted, and include increased side slope angles up to 1(v):4(h), and an increased final height of 40m AOD. A revised stability assessment has been carried out and the analysis indicates that at these gradients the stability of the waste mass and capping is acceptable.

Management Systems

A new asbestos construction and operational plan (NCC, 2015) has been prepared for the proposed SNRHW cell, to supplement the existing management systems for the non-hazardous waste cells that have been agreed and accepted.

Risk Assessment for Nuisance and Health Issues

A separate risk assessment for the proposed SNRHW cell has been prepared as part of the asbestos construction and operational plan, and supplements the existing environmental, health and amenity impact assessments that were previously carried out for the original EP application.