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ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT



NORTHUMBERLAND COUNTY COUNCIL

POWBURN DEPOT

NON-TECHNICAL SUMMARY

MAY 2021

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DRAWINGS

Drawing number	Drawing Title	Scale
NT14520-002	Permit Boundary	1:2,500

1 INTRODUCTION

- 1.1.1 Northumberland County Council (NCC) is responsible for the maintenance and improvement of existing roads and bridges as well as the construction of new roads and structures within the Council area. It currently operates a waste transfer station at Powburn Depot for storage and treatment of non-hazardous wastes comprising of road planings, topsoil, bitmac, concrete, clay/subsoil and topsoil (EAWML 10224/ Permit PP3898EW/A001). The waste treatment comprises of sorting, separation, screening and crushing operations and the treated waste is reused/recycled for road construction/improvements.
- 1.1.2 NCC intends to expand its current recycling programme to include processing of asphalt waste containing coal tar (AWCCT). Asphalt waste is created when material is removed from paving structures, for example in the repair and refurbishment of roads and pathways. Where the binder used within the structure is bitumen only, asphalt waste is usually non-hazardous. However, where the binding agents contain coal tar and exceed the relevant hazardous waste threshold, the asphalt waste will be classed as hazardous waste and is referred to as AWCCT.
- 1.1.3 The new permit will allow the facility to accept up to 20,000 tonnes per annum of AWCCT and store a maximum of 3,000 tonnes of AWCCT. The treatment/processing will include crushing and screening of the material and encapsulation of the asphalt waste using a cold foam treatment process using bitumen as a binder.
- 1.1.4 The foaming process will be carried out in a batching plant and cement, water and Pulverised Fly Ash (PFA) will be added to the plant to prepare a strong and durable cement mixture which is suitable for reuse in the subsurface layers as Cold recycled bound material (CRBM). The proposed process will avoid costly disposal of hazardous wastes and will reduce the transportation and energy requirements resulting in carbon savings.
- 1.1.5 The waste processing will be carried out only during months of April to October and for the remainder months, the waste will be stored on an impermeable surface within the site. The waste will be stored in bays provided with impermeable pavement and a sealed drainage system.
- 1.1.6 The storage and treatment (sorting) of AWCCT (hazardous waste) of more than 10 tonnes per day means this activity falls under Schedule I Part 2 of the Environmental Permitting (England and Wales) Regulations 2016, making it an 'installation':

Section 5.3 Part A(1) (a)

Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities—

(ii) physico-chemical treatment

Section 5.6 Part A(1) (a)

Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3

1.1.7 The permit boundary is shown in Drawing NT14520-002.

2 ENVIRONMENTAL PERMIT APPLICATION

2.1.1 The permit application includes:

- Application Forms A, B2, B3 and F1
- Non-Technical Summary
- Operating Techniques
- BAT Assessment, including energy, waste and raw material quantification
- Amenity and Accident Risk Assessment
- Dust Management Plan
- Odour Management Plan
- Drawings

3 SITE OPERATIONS

3.1.1 Incoming waste deliveries will be met at the site entrance where acceptance checks will be carried out. Transfer notes will be reviewed and where possible each load will be subject to visual inspection to ensure it appears in line with the pre-acceptance information. Loads will initially be inspected by suitably trained personnel to ensure that only permitted waste is accepted and to establish that the wastes are safe to offload.

3.1.2 The AWCCT waste or coal tar road planings will be treated by crushing, grinding and screening processes. Cold bitumen foam mix will be used as a binder to encapsulate the coal tar contaminated planings. Foamed bitumen is produced by the injection of cold water with air into hot penetration grade bitumen. The foaming process will be carried out in a batching plant and cement, water and Pulverised Fly Ash (PFA) will be added to the plant to prepare a strong and durable cement mixture. The cement mixture will meet the requirements within the Specification for Highways Works.

4 POLLUTION CONTROL MEASURES

4.1.1 The potential risks to the environment posed by the site could include odour and dust arising from the battery components during treatment. To prevent emissions from the site as far as possible the following controls are in place.

4.1.2 The site will be operated in accordance with an Environmental Management System, providing written procedures for the management of the facility, including effective maintenance of plant, equipment and site infrastructure. All operations at the site will be managed by a Technically Competent Manager who will ensure that the procedures in the EMS are followed.

4.1.3 Treatment will be carried out in a purpose designed system which is fully enclosed. The site will be provided with impermeable pavement and a sealed drainage system. Dedicated storage will be provided for different waste streams.

4.1.4 Further information is provided in the Operating Techniques report. An assessment of the environmental risks and the appropriate mitigation is provided in the Amenity and Accident Risk Assessment report. Dust and Odour management plans have also been prepared for the facility which details out measures to manage fugitive emissions from site.

STOKE-ON-TRENT

Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)178 227 6700

BIRMINGHAM

Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

CARDIFF

Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE

Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)122 855 0575

EDINBURGH

Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW

2 West Regent Street
Glasgow
G2 1RW
Tel: +44 (0)141 433 7210

LONDON

46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

MANCHESTER (City Centre)

76 King Street
Manchester
M2 4NH
Tel: +44 (0)161 817 5038

MANCHESTER (Greater)

41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)120 422 7227

NEWCASTLE UPON TYNE

City Quadrant
11 Waterloo Square
Newcastle Upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

SHEFFIELD

Unit 5
Newton Business Centre
Newton Chambers Road
Thornccliffe Park
Chapelton
Sheffield
S35 2PH
Tel: +44 (0)114 245 6244

TRURO

Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International offices:

ALMATY

29/6 Satpaev Avenue
Regency Hotel Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

MOSCOW

21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: +7(495) 626 07 67