An application to vary Environmental Permit No. EPR/ZP3831DX for the Fiddlers Ferry Ash Processing Plant Site operated by Titan Cement UK Limited to install new plant and equipment at the site to facilitate the storage and processing of CDFA

Non-Technical Summary

1.1 MJCA is commissioned by Titan Cement UK Limited (Titan) to prepare an application to vary Environmental Permit number EPR/ZP3831DX (the permit) for the Ash Processing Plant (APP) at Fiddlers Ferry, Widnes Road, Cuerdley, Warrington, Cheshire, WA5 2UT (the site). The site will be operated by Titan and is permitted for the 'Recovery or a mix of recovery and disposal of non-hazardous waste involving treatment of slags and ashes'. The site is centred approximately at National Grid Reference (NGR) SJ 54716 86035.

1.2 This variation application is made in order to install new plant and equipment at the site to facilitate the storage and processing of Coal Derived Fly Ash (CDFA) at the site consistent generally with the activity which is already permitted to be undertaken at the site under Activity reference S5.4 A(1)(b)(iii) of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR 2016).

1.3 The list of waste (LoW) code permitted to be accepted at the site will comprise the waste code 10 01 02 'coal fly ash'. There are no proposed changes to the waste type or to the annual waste throughput which remains at 500,000 tonnes per year. There are no changes to the permit boundary as part of this variation application.

1.4 The application was the subject enhanced pre-application advice provided by the Environment Agency. The application has been prepared based on the pre-application advice.

1.5 The treatment process is carried out via a two stage process comprising drying of CDFA using Atritor Dryer Pulverisers, which deagglomerate the material and dry it in one process using streams of warm air followed by separation of the mineral and carbon materials in the dried, deagglomerated CDFA using electrostatic separators. All treatment activities are undertaken in enclosed vessels within an enclosed building. Output materials are stored in silos.

1.6 Air emissions from the heater and exhausts from the dryers will be fed into six new stacks protruding from the roof of the processing building with 1 stack serving each individual dryer. The stack emissions will be subject to abatement and monitoring as specified in the application and a quantitative air dispersion air quality modelling assessment of the predicted emissions from the stacks has been undertaken.

1.7 The mineral particles recovered in the process are used as a direct replacement for cement in concrete, lowering the overall CO_2 content of the finished concrete product, as well as improving concrete properties such as overall strength and improved permeability performance. The carbon particles recovered in the process have potential value as a fuel and while the recovery of the carbon is not the driver of the process, it provides a significant additional benefit from the process.

1.8 It was intended that the APP would use the mains electricity supply already in place at the site. However, due to the practicalities associated with the redevelopment of the wider area around the former Fiddlers Ferry power station as part of the Development Framework authorised by Warrington Borough Council, a mains electricity supply will not be available in the short term and may not be installed for several years. Accordingly, in the short term the ash treatment process will be powered by two gas fuelled generators (1.4MW capacity each). There will also be two smaller diesel fuelled generators (0.4MW capacity each) that are used infrequently for start-ups of the processing equipment, where the gas generator cannot run at such a low power. Based on the size (MWth) of the proposed generators, the generators comprise Medium Combustion Plant (MCP) and fall under the requirements of the Medium Combustion Plant Directive (MCPD). The emissions from the MCP have been assessed as part of the quantitative air dispersion air quality modelling assessment.

1.9 A review of nature conservation information available through the DEFRA MAGIC website has identified that the site is not located within 1km of a Site of Special Scientific Interest (SSSI), a Special Area of Conservation (SAC), a Special Protection Area (SPA), a Marine Conservation Zone (MCZ) or a Ramsar site. One Local Nature Reserve (Oxmoor Wood LNR) is identified within 2km of the site. According to the DEFRA UK Air Information Resource website[1] the site is not located in an Air Quality Management Area (AQMA). There are currently no residential receptors located within 500m of the site.

1.10 In order to demonstrate that, following the requested variations to the permit, the installation can continue to be operated in accordance with the requirements of relevant legislation and the conditions of the permit, a number of assessments have been undertaken to evaluate the potential risks of the proposed activities to human health and the environment and a number of management plans and technical documents have been prepared to explain how the activities will be operated and the control measures that will be implemented.

1.11 The application is supported by a qualitative Environmental Risk Assessment (ERA) for accidents, odour, noise and fugitive emissions. The ERA assesses the potential impacts to the surrounding environment from the proposed activities at the site. In the ERA it is concluded that the proposed changes to the APP will not have a significant potential for nuisance impacts on the surrounding environment. Based on the

[1] https://uk-air.defra.gov.uk/

assessment presented in the ERA it is unnecessary to provide with this application a pest management plan or an odour management plan. The EA confirmed in the pre-application advice that a Fire Prevention Plan is not required.

1.12 The application is supported by a Best Available Techniques (BAT) assessment[2] and an H1 risk screening assessment for air emissions which has been prepared using the Environment Agency H1 tool and identifies the need for quantitative dispersion modelling to assess the potential impacts of the emissions. In the Air Quality Assessment (AQA) it is concluded that there is 'no realistic potential for a breach of the air quality objectives at residences (or ecological sites)'.

1.13 A dust and emissions management plan (DEMP) is presented and identifies the operations at the site which may have the potential to have an impact on air quality as a result of emissions of particulate matter, presents the details of the operational controls which are implemented to minimise emissions and describes the monitoring which will be carried out to confirm the effectiveness of the management controls.

1.14 A noise impact assessment (NIA) has been undertaken. The NIA concluded that the activities associated with the permit variation application are likely to have a low impact and that there will be no significant or unacceptable adverse impacts at existing noise-sensitive premises in the vicinity of the site. Based on the assessment presented in the NIA it is unnecessary to provide a noise management plan with the variation application.

1.15 The site will be managed in accordance with an environmental management system (EMS) pursuant to Condition 1.1.1(a) of the permit using sufficient competent persons and resources pursuant to Condition 1.1.1(b) of the permit.

1.16 Titan is committed to training its staff so that they are technically competent to undertake the waste operations and uses the formal Chartered Institution of Wastes Management/Waste Management Industry Training and Advisory Board (CIWM/WAMITAB) scheme for these purposes. The training standards set out in the CIWM/WAMITAB scheme, as applicable to the operation of the APP, are adopted for training purposes.

[2] BAT Assessment based on the "COMMISSION IMPLEMENTING DECISION (EU) 2018/1147 of 10 August 2018 establishing BAT conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council