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Our ref: JER8370

Date: 31 January 2020

Permit Receipt Centre
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

Dear Sir or Madam,

NEAL SOIL SUPPLIERS LIMITED VARIATION APPLICATION – EPR/VP3095FS

Application to include two additional waste codes for treatment at the wash plant.

Non-Technical Summary

Neal Soil Suppliers Limited (NSSL) are seeking a variation to their environmental permit (EPR/VP3095FS) for their site in Atlantic Ecopark, Newton Road, Rumney, Cardiff, CF3 2EJ. The changes covered by this variation application are to include additional waste codes beyond those already included in the permit. The additional waste codes will be added to the list of wastes that can be treated within the NSSL wash plant.

There will be no other associated changes to the permitted facility. The capacity, waste handling and storage arrangements as well as waste storage volumes will remain unchanged. The additional waste codes are all for the wash plant, which is already permitted to accept both hazardous and non-hazardous wastes. Therefore the assessment of environmental risks remains unchanged.

It is considered that this change constitutes an application to vary a permit which Natural Resources Wales (NRW) considers is of a minor technical nature. Pre-application advice has been sought from NRW prior to preparing this submission. The advice provided by NRW as a result of these discussions has confirmed that the scope of the changes proposed constitutes a minor technical variation (see copy of pre-application response in Appendix B).

Content of the Variation Application

This variation application comprises a description of the proposed changes and a consideration of the environmental risks associated with these as set out within this letter.

Supporting information is provided within the following appendices:

- Appendix A – Application Forms
- Appendix B – Pre-Application Discussions
- Appendix C – Technical Competence Certificates

Description of the proposed variation

The NSSL facility is subject to operation in accordance with environmental permit EPR/VP3095FS. Included within Schedule 2, Table S2.2A of the permit is the list of permitted waste types which can be accepted to the wash plant.

NSSL are seeking to include the following additional hazardous and non-hazardous waste codes.

Table 1 Additional Waste Codes

EWC Code	Description
19 01 11*	Bottom ash and slag containing dangerous substances
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11

The additional waste codes do not require any other associated changes to the permitted facility. The plant capacity, waste handling and storage arrangements as well as waste storage volumes will remain unchanged.

All wastes are stored in line with the requirements of the relevant Directives and associated guidance documents. All wastes received and all outputs from the site processes will be stored in designated areas as per Drawings JCD0170:40D & JCD0170:40F. However due to limited storage space around the wash plant facility the site operates a live map system which keeps track of all materials in the area, this avoids the requirement to issue a new drawing on a daily basis. To ensure that waste storage arrangements are being adhered with, weekly checks of the site are conducted utilising the 'Weekly Environmental Checklist' (IMS14-02). The weekly checklist enables issues to be identified. If issues are identified, then records are made, and suitable actions are determined in accordance with IMS12 – Non-Conformance.

The site already accepts hazardous and non-hazardous waste and the operational techniques as currently permitted would not need to be modified to accommodate treating the proposed additional waste codes.

Environmental Risks

There are no point source emissions to air, land, sewer or water from the wash plant and therefore no emission limits set within the environmental permit. This will remain unchanged following this permit variation.

There are no aqueous discharges from the facility and the proposed variation will not change this. In the case of unusual storm events when the volume of rain might exceed the bund between the operational area and the nearby reens/field ditches, additional storage tanks are available to contain excess water. Therefore the environmental risk associated with aqueous discharges will not change.

The proposed additional waste codes are expected to have a low risk of odour as they are ashes from thermal treatment of waste. They will therefore have a similar or lower odour risk to wastes already included within the permit. There is no permit requirement to monitor or report odour emissions as the nature of the waste accepted at the site presents a low risk of odour nuisance. However, NSSL have an odour management plan in place and carry out regular olfactory odour checks as part of the daily site monitoring that is conducted by the site foreman and recorded on the weekly checklist. All contrary findings are reported and if necessary, actions are taken they are recorded in line with the non-conformance procedure. Any wastes identified as giving rise to odour will be quarantined where possible and removed from site immediately where practicable. If a complaint is received regarding odour, then the details shall be recorded and investigated in accordance with the External Communications and Complaints procedure and the Odour Management Plan. To date there have been no odour complaints reported at the site. It is therefore concluded that with the permitted techniques for odour management, no additional environmental risk from odour from the proposed variation would be expected. These procedures will remain in place following this variation.

The variation to include the additional waste codes would not introduce increased or additional noise sources. The wash plant activities undertaken by NSSL are not considered to represent a significant risk of noise or vibration. As part of the IMS, the operator has systems in place for dealing with complaints and this would be relevant to any noise complaints received at the site. There have been no noise nuisance complaints received for local sensitive receptors. Consequently, there would be no change to the environmental risks relating to noise from the facility.

The treatment of the additional waste codes will not change the expected quantity or nature of residues from the facility and consequently no additional environmental risk is expected.

The only change in raw materials accepted at the facility is the addition of the waste codes subject to this variation application. No other changes to raw materials or changes to permitted storage facilities are required as a result of this variation application. The wash plant is currently permitted to accept a range of non-hazardous and hazardous wastes, the proposed IBA wastes are considered similar in nature to the permitted wastes. The waste storage and management procedures for the existing permitted wastes are suitable for the additional waste codes requested without modification. Consequently, no additional environmental risk from the receipt, handling and storage of incoming materials is expected.

The site has an integrated management system (IMS) in place which includes their environmental management procedures. Those measures proposed for the existing permitted wastes are considered equally appropriate to the proposed waste codes. In terms of fire prevention and accident management, there will be no increase in combustible materials held on site at any time and the waste codes being applied for will not present a higher fire risk than that associated with the permitted wastes. The additional waste codes comprise ash residues which, having been subject to high temperature combustion, are not considered to be combustible waste. The combustion process from which the ash is generated is designed to minimise unburned material. If present in the ash, it would form a low proportion of the residue and would also have been cooled prior to delivery to the wash plant. IBA has the potential to release hydrogen gas as a result of the high temperature incineration leading to reactive aluminium in the IBA. The aluminium in the IBA reacts with moisture to form aluminium hydroxide releasing hydrogen gas as a by product. The reaction occurs over the surface of the aluminium creating a layer of hydrated form on the surface, preventing further reaction. For this reason hydrogen production decreases over time[1]. Typically, UK incinerators utilise wet quench systems for cooling bottom ash, these system lead to oxidisation of aluminium in the bottom ash at source and prior to being delivered to the Neal Soils site. All IBA will be stored externally thereby avoiding the build-up of hydrogen that can take place where it is stored internally within an enclosed space. Any residual hydrogen generation would escape as a fugitive release.

On this basis it is concluded that there is no increased risk of accidents associated with the proposed additional waste codes.

Having regard to the existing management techniques for materials handling and storage, alongside measures for accident management, no increased risk to land is expected as a result of the proposed variation.

The proposed management and control measures as set out within the current operating procedures and within the previously submitted Environmental Risk Assessments remain appropriate.

The waste handling, transfer and storage and accident management procedures as well as the physico-chemical treatment techniques already in place at the facility are considered BAT with respect to the Waste Treatment BAT Conclusions (2018). There are no BAT conclusions specific to treatment or storage of bottom ash. Therefore, there will be no change in the BAT case for the wash plant.

[1] Evaluating the crucial factors affecting hydrogen gas generation from municipal solid waste incineration bottom ash (MSWIVBA), Masayasu Miyake, Teppei Komiya, Amirhomayoun Saffarzedeh and Takayuki Shimaoka, 31 May 2018

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We trust that the information provided in support of this application to vary the permit to include additional waste codes is sufficient. Should you have any queries please get in touch, contact details for the nominated person in relation to this application are provided within Application Form A.

Payment for the application fee has been made by BACs payment on 28th January 2020 with the reference EPRNEALSOILS0001.

Yours sincerely,
for RPS Consulting Services Ltd

Alice Gibbs
Environmental Consultant
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APPENDICES

Appendix A .....Application Forms
Appendix B .....Pre-Application Discussions
Appendix C ..... Technical Competence Certificates

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Appendix A

Application Forms

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Appendix B

Pre-Application Discussions

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Appendix C

Technical Competence Certificates