

Our ref: JER8370

6-7 Lovers Walk
Brighton, East Sussex BN1
6AH
T +44 1273 546 800

Date: 26 February 2020

Lucinda Hall
Natural Resources Wales
Ty Cambria House
Cardiff

Dear Lucinda,

EPR/VP3095FS RESPONSE TO REQUEST FOR INFORMATION DATED 20 FEBRUARY 2020

Please find below further information in response to the above letter outlining further information you require to consider the response from Neal Soils Suppliers Limited (NSSL) to the Regulation 61 Notice.

1 BAT REPORT

It appears that you have not been provided with the latest version of the Regulation 61 response that was submitted to NRW.

The response to the Regulation 61 notice was originally submitted by email on 26th September 2019 at 12:26, this version contained formatting errors introduced when the report was pdf'd. A further version of the report was submitted by Ahlim Hashm via an email to Holly Nobel and cc'd to David Willey and Catriona Harvey at NRW with the formatting corrected, this version was sent at 16:16, 26th September 2019.

The updated version of the report is attached again as enclosure A.

2 BATC 1, I

The NSSL IMS is certified to ISO9001 and ISO 14001. Copies of the certificates are attached to this letter in enclosure B.

3 BATC 9, 46 & 47

As stated in the Regulation 61 response, although listed in the permit solvent reclamation or regeneration) is not and never has been undertaken within the wash plant. Consequently, the relevant BAT conclusions for this type of activity is not applicable.

4 BATC 20

The wash plant includes a water treatment system; comprising of dosing with a coagulant, flocculant, and dissolved air. Within the Plug Flow Reactor (Stage 1 of treatment) particulates will form on the addition of the flocculant agent. These particulates will then be dosed with Coagulant to form a heavy sludge. The material is then jetted with dissolved air to form an emulsified material that floats on the surface of the water. The material is then passed through to the Dissolved Air Flotation Unit (DAF Unit) – (Stage 2 of treatment) where

Our ref: JER1902

the lighter emulsified material will be skimmed from the surface while the heavy sludge will be removed from the bottom into a separate storage area. The treated effluent water will be removed and undergo pH adjustment (Stage 3 of treatment). . This corresponds to the following techniques listed in the BAT conclusion decision (a) coagulation & flocculation (precipitation) (b) neutralisation (pH Adjustment); (c) physical separation (settlement)

5 BASELINE DATA

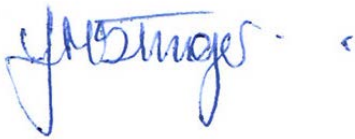
The following reports have been submitted to NRW in relation to site condition and baseline (please note there have been three report submitted).

- Site Investigation Report for Licence Area WML30348, RPS, February 2006;
- Final Interpretative Baseline and Trigger Level Surface-water and Groundwater Report, RPS, October 2006;
- Baseline Water Environment and Monitoring Report, RPS, February 2017.

As confirmed in our response, it has been agreed with David Willey that these satisfy baseline requirements as requested in the Regulation 61 Notice and no further information is needed.

We trust that the above provides the additional clarification necessary.

Yours sincerely,
for RPS Consulting Services Ltd



Jennifer Stringer
Technical Director
stringerj@rpsgroup.com

ENCLOSURES

Enclosure A	Regulation 61 Response
Enclosure B	IMS Certificates

Our ref: JER8370

Enclosure A

Regulation 61 Response

NEAL SOILS SUPPLIERS LIMITED BAT

Best Available Techniques Report – Response to Regulation 61 Notice
for Waste Treatment EPR/VP3095FS

JCD0170
NEAL SOILS SUPPLIERS
LIMITED BAT
Final

25 September 2019

Quality Management

Version	Revision	Authored by	Reviewed by	Approved by	Date
1	Rev0	Rebecca Yates	n/a	n/a	n/a
1	Rev1	Rebecca Yates	Jennifer Stringer	n/a	31/07/19
1	Rev2	Rebecca Yates	Jennifer Stringer	Jennifer Stringer	10/09/19
2	Rev0	Rebecca Yates	AH OBO Neal Soils	n/a	16/09/19
3	Rev0	Rebecca Yates	NSSL	Jennifer Stringer	25/09/19

Approval for issue

Jennifer Stringer

Technical Director



25 September 2019

File Name

190925 R JCD0170 RY Neal Soils BAT_Final

© Copyright RPS Group Plc. All rights reserved.

The report has been prepared for the exclusive use of our client and unless otherwise agreed in writing by RPS Group Plc, any of its subsidiaries, or a related entity (collectively 'RPS'), no other party may use, make use of, or rely on the contents of this report. The report has been compiled using the resources agreed with the client and in accordance with the scope of work agreed with the client. No liability is accepted by RPS for any use of this report, other than the purpose for which it was prepared. The report does not account for any changes relating to the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report. RPS does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report.

RPS accepts no responsibility for any documents or information supplied to RPS by others and no legal liability arising from the use by others of opinions or data contained in this report. It is expressly stated that no independent verification of any documents or information supplied by others has been made. RPS has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy. No part of this report may be copied or reproduced, by any means, without the prior written consent of RPS.

Prepared by:

RPS

**Rebecca Yates Bsc (Hons) Msc AMIESEnvSc
Environmental Consultant**

260 Park Avenue
Almondsbury
Bristol
BS32 4SY

T +44 1454 853 000

E rebecca.yates@rpsgroup.com

Prepared for:

Neal Soils Suppliers Limited

**John Edwards
Group Compliance Manager**

Ty-To-Maen Farm
Newton Road
Rumney, Cardiff
CF3 8EJ

T 02920 797835

E johnedwards@neal-soils.co.uk

EXECUTIVE SUMMARY

This document has been produced to demonstrate how the waste treatment activities at the Neal Soils wash plant (permit EPR/VP3095FS) located at Atlantic Ecopark is compliant with Best Available Techniques (BAT).

This is in response to the Regulation 61 notice issued by Natural Resources Wales (NRW) in April 2019, the deadline for Neal Soils Suppliers Limited to respond to the notice is 30th September 2019. In August 2018 the Waste Treatment BAT conclusions were updated therefore the notice states that Neal Soils Suppliers Limited are required to demonstrate how they are compliant with each of the updated Waste Treatment BAT Conclusions that are relevant to the activities at the site.

Following the recent updates to the sites IMS it has been assessed that the site/operator is compliant with most of the updated 2018 requirements of the BAT conclusions within the Waste Treatment BREF. Two of the applicable BAT conclusions have not yet been met and the site has until 17th August 2022 to implement improvements to become fully compliant. The outstanding non-compliant BAT conclusions and updates/measures to put in place to be compliant are outlined below:

- BAT 1 EMS/IMS: Update IMS (IMS03, IMS04 and/or IMS13) to include sectoral benchmarking. For the waste management sector Sectoral Referencing Documents (SRDs) are in progress and not yet published therefore Neal Soils must follow the Best Practice Report for Waste Management until the SRD is finalised. This requires Neal Soils to:
 - Compare its internal processes with the recommended best environmental practices and benchmarks of excellence to identify potential improvements which should be included in its environmental programme for the following year;
 - Consider the relevant sector-specific environmental performance indicators in the SRDs when choosing the specific indicators for its environmental reporting;
 - Mention in the environmental statement how the relevant best environmental management practices and, if available, which benchmarks of excellence, have been taken into account;
 - Consult the SRDs on specific topics to find inspiration about which issues to tackle next when reviewing its environmental performance.
- BAT 23 Energy Efficiency: Produce an energy efficiency plan and energy balance record. Once they have been produced update IMS (IMS03-02, IMS17 and/or Pollution Inventory Additional Info Tab) to include sections on energy efficiency. Also update relevant IMS (IMS03-02, IMS17 and/or Pollution Inventory Additional Info Tab) documents when the new wood fuel boiler is installed detailing if this has increased energy efficiency at the site.

Contents

1	INTRODUCTION	4
2	BAT CONCLUSIONS ASSESSMENT.....	5
2.1	Regulation 61 Notification Requirements.....	5
2.2	Documents Reviewed	6
3	BAT CONCLUSIONS.....	8
3.1	General BAT Conclusions.....	8
	Overall environmental performance	8
	Monitoring.....	16
	Emissions to air:	20
	Noise and Vibrations:	23
	Emissions to Water:	24
	Emissions from Accidents and Incidents:	27
	Material Efficiency:	29
	Energy Efficiency:	29
	Reuse of Packaging:	30
3.2	BAT Conclusions for the Mechanical Treatment of Waste	31
	General BAT conclusions for the mechanical treatment of waste:	31
	The mechanical treatment in shredders of metal waste:	31
	BAT conclusions for the treatment of WEEE containing VFCs and/or VHCs:	32
	BAT-associated emission levels (BAT-AELs) for channelled TVOC and CFC emissions to air from the treatment of WEEE containing VFCs and/or VHCs:	32
	BAT conclusions for the mechanical treatment of waste with calorific value:.....	33
	BAT conclusions for the mechanical treatment of WEEE containing mercury:	33
3.3	BAT Conclusions for the Biological Treatment of Waste	33
	The biological treatment of waste:	33
	The aerobic treatment of waste:.....	34
	The anaerobic treatment of waste:	35
	The mechanical biological treatment (MBT) of waste:	35
3.4	BAT Conclusions for the Physico-Chemical Treatment of Waste.....	36
	The physico-chemical treatment of solid and/or pasty waste:	36
	BAT conclusions for the re-refining of waste oil:.....	38
	BAT conclusions for the physico-chemical treatment of waste with calorific value:	38
	BAT conclusions for the regeneration of spent solvents:.....	39
	BAT conclusions for the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil:	39
	BAT conclusions for the water washing of excavated contaminated soil:	40
	BAT conclusions for the decontamination of equipment containing PCBs:	40
3.5	BAT Conclusions for the Treatment of Water-based Liquid Waste	41
	Overall environmental performance:	41
	Emissions:	41
4	CONCLUSIONS	42

Tables

Table 4-1 BAT Conclusions Assessment Outcomes.....	42
--	----

1 INTRODUCTION

- 1.1.1 Neal Soils Suppliers Limited (NSSL) have been issued a Regulation 61 Notice by Natural Resources Wales (NRW) in relation to reviewing Best Available Techniques (BAT) for the permitted waste treatment activities (permit EPR/VP3095FS) carried out at Neal Soils Atlantic Ecopark, Newton Road, Rumney, Cardiff, CF3 2EJ.
- 1.1.2 The NSSL permit authorises the soil and aggregate processing facility, waste transfer station and washing plant, however only the wash plant is a listed Schedule 1¹ activity. As a consequence the scope of this assessment is limited to the wash plant activity.
- 1.1.3 The NSSL wash plant has a throughput of 350,000 tonnes per year and is permitted to accept hazardous and non-hazardous wastes. The wash plant is a fixed unit located on an impermeable surface with a sealed drainage system (to a sealed sump). It is an enclosed system therefore all the waste used within the system is recycled as part of the wash activity, the only off site transfers are the oil based wastes from the Dissolved Air Flotation (DAF) process and the residue is skimmed from the top of the flocculation tank, these are disposed of to a suitably licensed facility.
- 1.1.4 This report will compare the permitted wash plant activities against the new BAT conclusions set out in the revised Waste Treatment BREF² and associated implementing decision.
- 1.1.5 Section 2 of this document sets out the requirements of the Regulation 61 Notice followed by the relevant BAT conclusions and our responses.
- 1.1.6 Section 3 reviews the site processes against each relevant BAT conclusion.
- 1.1.7 Section 4 outlines the outcomes of the BAT conclusions assessment.

¹ A schedule 1 activity is the site-specific waste activities permitted to take place on the site (installation) as per the sites environmental permit e.g. A1 wash plant. EPR 2016 regs

https://www.legislation.gov.uk/ukdsi/2016/9780111150184/pdfs/ukdsi_9780111150184_en.pdf

² BAT Waste Treatment <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D1147&from=EN>

2 BAT CONCLUSIONS ASSESSMENT

2.1 Regulation 61 Notification Requirements

2.1.1 Under the Environmental Permitting (England and Wales) Regulations 2016³ the Regulation 61(1) Notification requires NSSL to provide information specified in Schedule 1 of the notice in relation to BAT, issued by NRW 05/04/2019. This is due to the Waste Treatment BAT Conclusions being updated in August 2018 outlined in the IED 2018 BREF⁴. The deadline for the information to be provided to NRW is 30/09/2019.

2.1.2 The Regulation 61(1) Notification states 7 responsibilities and where relevant NSSL are required to demonstrate how they are compliant with each of the Waste Treatment BAT Conclusions. For the purpose of this document only three of the responsibilities are relevant, these are outlined below:

For each BAT conclusion, where relevant and its individual sub-elements contained within the BAT conclusions document named above; please:

1. *Confirm whether or not you currently comply with the requirements of the BAT Conclusion, including any associated emission levels, providing a description of the techniques in place and how they meet the standard.*
2. *If you do not comply with the BAT conclusion, describe how and by when you intend to meet the standard, before the 17th August 2022, being the date which, hereafter in this Notice, is referred to as the 'compliance date'.*
3. *Confirm if you intend to continue operating in a manner which would not comply with the relevant new BAT Conclusion, after the compliance date, what your justification for being allowed to do so is, and by what date you intend to come into full compliance, or a description of alternative measures to be adopted that will provide equivalent environmental protection.*

2.1.3 The four responsibilities that are not relevant are considered below:

1. *Where the BAT conclusion has a BAT Associated Emission Level (BAT-AEL) specified, with which you will not comply by the compliance date you should consider requesting a derogation. To do this you must provide sufficient technical and commercial information to demonstrate that achieving that BAT-AEL would lead to costs that are disproportionately high, compared with environmental benefits.*

There are no ELVs are included in the permit or BAT AELs which are relevant to the permitted activity and the Operator is not seeking to apply for a derogation, therefore this responsibility is not addressed within this document.

2. *Please provide a current OPRA profile, upon which your variation fee, if applicable will be based.*

As part of this response both the groundwater and surface water monitoring as detailed in Table S3.1 and S3.2 of the permit is to be removed. It has previously been agreed with the NRW that this no longer a permit requirement, although surface water monitoring will continue as part of the IMS. Removal of the monitoring requirements for groundwater and surface water will not change the OPRA score and therefore an updated assessment has not been provided.

³ Environmental Permitting (England and Wales) Regulations 2016
http://www.legislation.gov.uk/uksi/2016/1154/pdfs/ukxi_20161154_en.pdf

⁴ IED 2018 BREF http://eippcb.jrc.ec.europa.eu/reference/BREF/WT/JRC113018_WT_Bref.pdf

-
3. *Where your activity involves the use, production or release of relevant hazardous substances (as defined in Article 3(18) of the Industrial Emissions Directive) carry out a risk assessment considering the possibility of soil and groundwater contamination at the installation with these substances.*

Between 2006 and 2017 four reports providing baseline data at the facility have been issued to NRW, therefore NRW (David Willey) has confirmed (in a discussion with RPS Dr Ahlim Hashm 31/05/19) this condition has already been satisfied and does not need to be included as part of the Reg 61 submission.

4. *For all discharges to surface waters and/or sewer from the site, you must provide information for priority hazardous substances and any other relevant substances. The emissions monitoring for these substances should be carried out using the methods and standards described in the M18 guidance on “Monitoring of discharges to water and sewer”.*

There is no process discharge from the site therefore this requirement is not applicable to this facility.

- 2.1.4 The BAT Conclusions for Waste Treatment⁵ document and the associated EU decisions⁶ document have been reviewed and considered. The assessment against the BAT conclusions for the wash plant activity are detailed in section 3 below.
- 2.1.5 It should be noted that this assessment is specific to permitted the wash plant at the Neal Soils site and the assessment does not include an assessment against the BAT conclusions document for any of the other activities currently undertaken at the site or activities at the adjacent Atlantic Recycling Facility (ARF).
- 2.1.6 Where any BAT conclusions are not currently met, an indication as to whether or not the site will be compliant by 17th August 2022 has been made.

2.2 Documents Reviewed

- 2.2.1 Data has been collated and reviewed by RPS in order to complete this BAT assessment.
- 2.2.2 The following information sources have been utilised to inform the BAT assessment:
- Permit application;
 - The permit itself;
 - Operational techniques and monitoring plan;
 - Integrated management system (IMS) documents including environmental management information and operating procedures, process plant and facility description;
 - Washing plant process description;
 - Annual performance reports;
 - Pollution inventory;
 - Recruitment and Selection – policy and procedure; and
 - Other supplementary information and data together with discussions with the operator.

⁵ BAT Waste Treatment <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D1147&from=EN>

⁶ EU Decisions https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.208.01.0038.01.ENG&toc=OJ:L:2018:208:TOC

-
- 2.2.3 The site recently (Summer 2019) has been undergoing an update of all their IMS documentation. The updated IMS has been used for this assessment and will be submitted to NRW alongside this Regulation 61 notice response.

3 BAT CONCLUSIONS

3.1 General BAT Conclusions

Overall environmental performance

BAT 1

In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).

NSSL operates under an existing integrated management systems (IMS) which has been agreed with NRW. The IMS is established so that it meets the requirements of ISO 9001:2015 and ISO 14001:2015.

The management system covers all activities associated with the facility that are directly controlled as well as those that can be influenced indirectly. The previous IMS was submitted to NRW in June 2017, the updated 2019 IMS will be submitted to NRW alongside this Regulation 61 notice response.

The IMS contains the following sections/procedures:

- IMS Manual (including Environmental Policy)
- IMS01 - Aspects, Impacts & Risk
- IMS02 - Legal & Other Requirements
- IMS03 - Objectives & Targets
- IMS04 - Competence, Training & Awareness
- IMS05 - Document & Record Control
- IMS06 - Communication & Consultation
- IMS07 - External Communications & Complaints
- IMS08 - Orders & Enquiries
- IMS09 - Maintenance & Calibration
- IMS10 - Purchasing & Supplier Evaluation
- IMS11 - Internal Audit
- IMS12 - Non-Conformance
- IMS13 - Management Review
- IMS14 - Monitoring & Measurement
- IMS15 - Accident Management Plan / Odour Management Plan
- IMS17 – Neal Soil Suppliers Operations
- IMS18 - Site Users & Visitors

IMS16 covers the adjacent Atlantic site and is not applicable to NSSL.

NSSL Justification / Evidence

BAT 1

In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).

List of BAT 1 Features	See for compliance
I. commitment of the management, including senior management.	IMS Manual, IMS01, IMS02 and IMS13
II. definition, by the management, of an environmental policy that includes the continuous improvement of the environmental performance of the installation.	IMS Manual and IMS02
III. planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment.	IMS03, IMS10 and IMS13
IV. implementation of procedures paying particular attention to: (a) structure and responsibility; (b) recruitment, training, awareness and competence; (c) communication; (d) employee involvement; (e) documentation; (f) effective process control; (g) maintenance programmes; (h) emergency preparedness and response; (i) safeguarding compliance with environmental legislation.	a) covered by IMS Manual, IMS01, IMS02 and IMS13 b) covered by IMS04 and the sites recruitment and selection policy and procedure document. c) covered by IMS06 d) covered by IMS04 and IMS11 e) covered by IMS05 f) covered by IMS11 and IMS12 g) covered by IMS09 h) covered by IMS15 i) covered by IMS02 and IMS14
V. checking performance and taking corrective action, paying particular attention to: (a) monitoring and measurement (see also the JRC Reference Report on Monitoring of emissions to air and water from IED installations – ROM); (b) corrective and preventive action; (c) maintenance of records; (d) independent (where practicable) internal or external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained.	a) covered by IMS14 b) covered by IMS12 and IMS15 c) covered by IMS05, IMS11 and IMS14 d) covered by IMS11
VI. review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness.	IMS11 and IMS13

BAT 1

In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).

VII. following the development of cleaner technologies.	The new washing plant demonstrates the development and implementation of new cleaner technologies. This process is detailed within W105 – Process Description Washing Plant.
VIII. consideration for the environmental impacts from the eventual decommissioning of the plant at the stage of designing a new plant, and throughout its operating life.	Site closure plan covers this.
IX. application of sectoral benchmarking on a regular basis.	Neal soils is not currently compliant with this. The IMS (IMS03, IMS04 and/or IMS13) needs to be updated to include this.
X. waste stream management.	See BAT 2 of this document.
XI. an inventory of waste water and waste gas streams.	n/a
XII. residues management plan	IMS17
XIII. accident management plan	IMS15
XIV. odour management plan	See BAT 10 and 12 of this document and IMS15.
XV. noise and vibration management plan	See BAT 17 of this document and IMS17.

Compliant / Not Compliant

Not currently compliant with BAT 1.

Action

Update IMS (IMS03, IMS04 and/or IMS13) to include sectoral benchmarking. This requires Neal Soils to:

- Compare its internal processes with the recommended best environmental practices and benchmarks of excellence to identify potential improvements which should be included in its environmental programme for the following year;
- Consider the relevant sector-specific environmental performance indicators in the Sectoral Referencing Documents (SRDs)⁷ when choosing the specific indicators for its environmental reporting;
- Mention in the environmental statement how the relevant best environmental management practices and, if available, which benchmarks of excellence, have been taken into account;
- Consult the SRDs on specific topics to find inspiration about which issues to tackle next when reviewing its environmental performance.

⁷ SDRs https://ec.europa.eu/environment/emas/emas_publications/sectoral_reference_documents_en.htm

BAT 1

In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).

For the waste management sector SRDs are in the process of being developed and consequently are not yet published, therefore Neal Soils must follow the Best Practice Report for Waste Management⁸ until the SRD is finalised.

⁸ Best Environmental Management Practice for the Waste Management Sector <https://susproc.jrc.ec.europa.eu/activities/emas/documents/WasteManagementBEMP.pdf>

BAT 2

In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques given below:

- a) Set up and implement waste characterisation and pre-acceptance procedures
- b) Set up and implement waste acceptance procedures
- c) Set up and implement a waste tracking system and inventory
- d) Set up and implement an output quality management system
- e) Ensure waste segregation
- f) Ensure waste compatibility prior to mixing or blending of waste
- g) Sort incoming solid waste

NSSL

Justification/ Evidence

NSSL has established a waste characterisation, waste pre-acceptance and waste acceptance procedures as part of the companies operating techniques plan and IMS (IMS17 Neal Soil Suppliers Operations). In June 2017 these have been approved and accepted by NRW for the current activities undertaken. The updated 2019 IMS will be submitted to NRW alongside this Regulation 61 notice response.

These procedures identify site specific checks procedures and responsibilities at the pre-acceptance of waste stage (BAT 2 a), site acceptance and inspection of waste, waste tipping, processing/sorting, storage and record keeping (BAT 2 b). Record keeping procedures include details for waste tracking for incoming waste and export of waste (BAT 2 c). The operating IMS details the in process controls for pre-acceptance procedures to assess wastes, waste acceptance procedures and washing plant.

The wash plant pollution inventory is submitted to NRW on an annual basis. The total quantity of material treated at the wash plant in 2018 was 198,600 tonnes. In 2018 the total quantity of disposed material is 5,732 tonnes included the light sludge (63 tonnes) and the light debris (5,669.45 tonnes). The remaining 192,867 tonnes, either have been or are in the process of being recycled, an efficiency of greater than 97%. In fact, although the light debris is removed to the Atlantic site as waste, it is mostly recovered as a fuel after further processing at the Atlantic site.

Of the above recovered materials, 42,000 tonnes of filter cake, and 85,700 tonnes of aggregates have reached “end of waste” status and were provided to the market.

The sites quality management system is in the form of IMS17-01 WRAP QP for Recycled Aggregates. This document describes the processes and procedures that have been designed and implemented to ensure that all aggregate products accepted and produced by Neal Soil Suppliers meet end of waste criteria and all other legal requirements to which they subscribe (BAT 2 technique d).

Waste is appropriately sorted, assessed for compatibility and segregated using the waste water treatment process (W105 – Process Description Washing Plant) and the materials movement and storage processes (IMS17-04A and IMS17-04b) (BAT 2 technique e, f & g).

List of BAT 1 Features	See for compliance
a. Set up and implement waste characterisation and pre-acceptance procedures	IMS17, IMS17-05 and IMS17-03.
b. Set up and implement waste acceptance procedures	IMS17, IMS17-05 and IMS17-03.
c. Set up and implement a waste tracking system and inventory	IMS17, IMS17-01 (document & record control) and IMS17-05 (traceability & record keeping).
d. Set up and implement an output quality management system	IMS17-01

e. Ensure waste segregation	IMS17 (WI06 – Material Storage), IMS17-04A, IMS17-04B and IMS14-02. If issues identified then suitable actions are determined in accordance with IMS12 non-conformance.
f. Ensure waste compatibility prior to mixing or blending of waste	IMS17-05, W105 (process description washing plant).
g. Sort incoming solid waste	IMS17-05, W105 (process description washing plant).
Compliant / Not Compliant	Compliant with BAT 2.
Action	No action required at present.

BAT 3

In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates a list of features (as identified in the BAT Conclusions document).

NSSL justification/evidence	Not applicable as there are no regulated process emissions to water or emissions to air.
Compliant / Not Compliant	N/A
Action	No further action

BAT 4

In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques given below.

- a. Optimised storage location
- b. Adequate storage capacity
- c. Safe storage operation
- d. Separate area for storage and handling of packaged hazardous waste

NSSL

All wastes are stored in line with the requirements of the relevant Directives and associated guidance documents.

Justification / Evidence

All wastes received and all outputs from the site processes will be stored in designated areas as per *Drawings JCD0170:40D & JCD0170:40E*. 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 (IMS14-02) enables issues to be identified. If issues are identified, then records are made and suitable actions are determined in accordance with IMS12 – Non-Conformance.

Additional water storage capacity of 450m³ is provided within the wash plant in the buffer tank and thickening tank for any required emergency storage during heavy rain events.

Relevant IMS documents:

- WI06 – Material Storage
- IMS12 – Non Conformance
- IMS14-02 – Neal's Environmental Checklist
- IMS17 – Neal Soils Suppliers Operations (addresses BAT4 a and d)
- IMS17-01 – WRAP QP for Recycled Aggregates (addressed BAT4 d)
- IMS17-04A – Material Movement & Storage (Dry Process) (addresses BAT4 a, b, c and d)
- IMS17-04B – Material Movement & Storage (Wet Process) (addresses BAT4 a, b and d)
- IMS17-05 – Site Management Manual (addresses BAT4 a, b & c)

Compliant / Not Compliant

Compliant with BAT 4.

Action

No action required at present.

BAT 5

In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.

NSSL**Justification /
Evidence**

NSSL has established handling and transfer procedures which have been approved by NRW under the existing permit. Records of all incoming and exported waste are kept as part of IMS procedures. The wash plant pollution inventory is submitted to NRW on an annual basis. The IMS details the in process controls for the handling and transfer of waste.

IMS04 and IMS17 outlines that the handling and transfer of waste is carried out by competent staff.

IMS17-05 states to ensure traceability of input, a record system is be maintained connecting the sources of waste with delivery dates and weights. This is achieved via the use of a weighbridge system and a duty of care information recorded for every load that arrives.

All appropriate information to satisfy the requirement of duty of care and the permit is obtained and recorded. All records are maintained for inspection by NWR and IMS05 outlines the process for document and record control. The records contain the following information:

- Waste Information Form, where relevant;
- Waste transfer notes and/or Consignment Notes;
- Waste analysis reports, if appropriate;
- Weighbridge tickets and reports;
- Daily site log recording delivery details including: date, waste received (EWC code and description), quantity by weight or volume, waste carriers licence number, supplier and acceptance or rejection after tipping;
- Record of material movement including details of dates, location, size (weight or volume), nature of material (descriptive) throughout all stages of delivery, storage location, blending in a batch, treatment of a batch, and output of the patch.
- Waste rejection records (IMS12).

The operation currently benefits from an experienced and well-trained work force who are experienced in the current operations on site including appropriate waste storage and measures taken to prevent, detect and mitigate spills. Staff are trained appropriately in the handling and transfer of waste, in the use of spill kits and the requirements of the Accident Management Plan and Spill Clean-Up Procedures. All staff are trained in appropriately detecting and identifying spillages and the spill response (IMS15-01) is used when a spillage is detected. All site personnel are tasked with monitoring for evidence of spillages and leakage during their day to day routine. Any evidence of leaks or spillages are reported to the Site Manager or his nominated deputy for remedial action. The Safe System of Work (SSOW) for re-fuelling activities (IMS15-06) is used to prevent and mitigate spills.

Operation and design precautions are taken when mixing or blending wastes (e.g. vacuuming dusty/powdery wastes) is not applicable to the NSSL wash plant.

Relevant IMS documents:

- IMS04 – Competence, Training and Awareness
 - IMS05 – Document & Record Control
 - IMS12 – Non-Conformance
 - IMS15 – Accident & Emergency Management Plan
 - IMS15-01 – Spill Response
 - IMS15-06 – SSOW Re-fuelling Activities.
 - IMS17 – Neal Soils Suppliers Operations
-

BAT 5

In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.

- IMS17-01 – WRAP QP for Recycled Aggregates
- IMS17-03 – Dealing with Non-Conforming Loads
- IMS17-04A – Material Movement & Storage (Dry Process)
- IMS17-04B – Material Movement & Storage (Wet Process)
- IMS17-05 – Site Management Manual
- Pollution Inventory
- W105 – Process Description Washing Plan

Compliant / Not Compliant	Compliant with BAT 5.
----------------------------------	-----------------------

Action	No action required at present.
---------------	--------------------------------

Monitoring

BAT 6

For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).

NSSL Justification / Evidence	Not applicable to wash plant as no emissions to water.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action
---------------	-------------------

BAT 7

BAT is to monitor emissions to water with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. (See BAT Conclusions document for standards)

NSSL Justification / Evidence	Not applicable to wash plant as no emissions to water.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action
---------------	-------------------

BAT 8

BAT is to monitor channelled emissions to air with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. (See BAT Conclusions document for standards)

NSSL Justification / Evidence	Not applicable to wash plant as no emissions to air and no monitoring requirements as per the permit.
Compliant / Not Compliant	N/A
Action	No further action

BAT 9

BAT is to monitor diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value, at least once per year using one or a combination of the techniques in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant as these activities are not carried out.
Compliant / Not Compliant	Compliant / Not Compliant
Action	Action

BAT 10

BAT is to periodically monitor odour emissions.

NSSL**Justification /
Evidence**

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, Neal soils have an odour management plan in place (IMS15-02) 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 (IMS14-02). All contrary findings are reported and if necessary, actions are taken they are recorded in line with the non-conformance procedure (IMS12).

The odour assessor may not be subject to significant odour in the 30 minutes prior to the assessment. This is to ensure that the assessor is not suffering from odour fatigue and will be sensitive to any abnormal odours. Any odours found to be present onsite will be recorded and their source investigated, and steps will be taken to mitigate the sources of odours using the strategies to control odour as outlined above. The internal monitoring procedure, including a survey of odour reports will be re-assessed annually as part of the Management Review process (IMS13) undertaken in line with our Integrated Management Systems or as and when warranted due to the occurrence of odour related incidents.

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 IMS07 – External Communications and Complaints and IMS15-02 – Odour Management Plan. To date there have been no odour complaints reported at the site.

The BAT conclusion document states the following for BAT 10:

The applicability is restricted to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.

Therefore, the monitoring in place is deemed sufficient for the site and BAT 10 is not currently applicable as the nature of the sites waste presents a low risk of odour nuisance and there has been no complaints to date.

Relevant IMS documents:

- IMS15-02 – Odour Management Plan
- IMS15-02-01 – External Odour Compliant Form
- IMS15-02-02 – Internal Odour Compliant Form
- IMS17 – Neal Soil Suppliers Operations
- IMS17-05 – Site management manual

Compliant / Not Compliant

N/A

Action

No action required at present.

BAT 11

BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and waste water, with a frequency of at least once per year.

NSSL

As specified in Table S4.2 of the NSSL permit performance parameters (water, energy and raw materials) must be monitored and reported NRW on an annual basis. The IMS details the washing plant process, water use, energy use and raw materials.

**Justification /
Evidence**

No electricity from the grid is used as there is no connection infrastructure on site. The site currently uses diesel oil generators to meet the wash plant electrical demand and quantities are monitored and recorded.

The wash plant pollution inventory is submitted to NRW on an annual basis.

Water usage at the site is monitored and minimised by the recycling of the process water after appropriate treatment; the washing plant is essentially a closed loop system and the disposal of water is not required. All runoff will be collected in the sealed drainage system sump and abstracted regularly by automatic pumping to be used as 'top up water' for the Soil Wash Facility (the Facility requires c.2,000 m³ of top up water each month (24,000 m³/year) to replace that lost by evaporation). The estimated amount of runoff that will be collected and used in this manner each month does not however provide the full requirement for top up water. Therefore, there will be a need for further topping up with water from elsewhere. This additional top up water will be sourced from the cut off ditches in the vicinity of the plant as was agreed with NRW in a Water Resources. Review (RPS May 2013). The infrastructure in this location is currently subject to a planning application to increase the area of concrete. A modified Water Resource Review with different water storage requirement was submitted with the application. This procedure will be updated with the new information once the application was approved and implemented.

Relevant IMS documents:

- IMS03 - Objectives & Targets
- IMS13 - Management Review
- IMS14 - Monitoring & Measurement
- IMS17-05 - Site Management Manual
- Pollution Inventory

Compliant / Not Compliant

Compliant with BAT 11.

Action

No action required at present.

Emissions to air:

BAT 12

BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the elements specified in the BAT Conclusions document.

NSSL

Justification / Evidence

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, Neal soils have an odour management plan in place (IMS15-02) 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 (IMS14-02). All contrary findings are reported and if necessary, actions are taken they are recorded in line with the non-conformance procedure (IMS12).

Odour emissions (including waste storage and processing) are reviewed as part of the internal auditing process specified in IMS11. This detail any investigations of odour complaints (to date there have been none).

IMS15-02 states all instances of odour complaints are reviewed as part of our Management Review (IMS13) procedures. The internal monitoring procedures, including a survey of odour reports will be re-assessed annually as part of the Management Review process (IMS13) undertaken in line with the IMS or as and when warranted due to the occurrence of odour related incidents. Where necessary this odour management plan will be reviewed for effectiveness and updated accordingly.

The BAT conclusion document states the following for BAT 12:

The applicability is restricted to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.

Therefore, the system in place is deemed sufficient for the site and BAT 12 is not currently applicable as the nature of the sites waste presents a low risk of odour nuisance and there has been no complaints to date.

Relevant IMS documents:

- IMS11 – Internal Audit
- IMS13 – Management Review
- IMS15-02 – Odour Management Plan
- IMS15-02-01 – External Odour Compliant Form
- IMS15-02-02 – Internal Odour Compliant Form
- IMS17 – Neal Soil Suppliers Operations
- IMS17-05 – Site management manual

Compliant / Not Compliant

N/A

Action

No action required at present.

BAT 13

In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques specified in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant as waste accepted at the site presents a low risk of odour nuisance, residence times of potentially odours waste is minimised and there has been no complaints to date.
Compliant / Not Compliant	N/A
Action	No further action

BAT 14

In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given in the BAT Conclusions document.

NSSL Justification / Evidence	The sites permit does not mention any emissions to air but small quantities of dust is generated at the site. NSSL have a series of dust mitigation measures implemented on site to ensure dust emissions are controlled as far as is practically possible. The measures include: • Sheeting of vehicles delivering waste to the site (if necessary) (BAT 14 technique a & d); • Sheeting of vehicles transporting potentially dusty loads off site (BAT 14 technique a & d); • Use of a mobile tanker to damp down materials stockpiles, vehicle running surfaces, vehicle loads and areas on and around machinery which may give rise to dust, especially during dry and windy conditions; dousing of dusty waste using a mobile bowser will be carried out when necessary (BAT 14 technique e). • A vacuum tanker/road sweeper which is owned and operated by the permit holder is used to clean the site access road and highway as required (BAT 14 technique g). • Drop heights ALWAYS minimised to prevent dust emissions (BAT 14 technique a & d); • Site operatives will continuously monitor dust emissions whilst the site is in operation and will report back to the Site Manager for advice if required. The Site Manager will make a formal visual inspection of dust emissions at least once per week. Results of monitoring will be entered on the Weekly Checklist or in accordance with IMS12 – Non-Conformance if necessary (BAT 14 technique d).
--------------------------------------	--

These measures demonstrate the use of minimising the number of potential diffuse emission sources (BAT 14 technique a), containment, collection and treatment of diffuse emissions (BAT 14 technique d), dampening (BAT 14 technique e) and cleaning of waste treatment and storage areas (BAT 14 technique g).

A dust monitoring programme was commissioned by Neal Soil Supplies to undertake fugitive dust monitoring undertaken over a six-week period between 14th August and 25th September 2014 (dry period with the maximum potential for dust generation). The monitoring was undertaken using frisbee gauges in conjunction with adhesive strips to assess the deposition and soiling rates with directional sampling. All the deposition monitoring results that were collected during normal operational hours were substantially below the dust guideline of 200 mg m⁻²day⁻¹ from the EA M17 guidance. This suggests that the level of dust emission at the Neal Soils Supplies site is not likely to cause adverse impact on the surrounding premises. This monitoring demonstrates the use of the measures outlined above are working to reduce emissions of dust to air.

BAT 14

In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given in the BAT Conclusions document.

Relevant IMS documents:

- IMS12 – Non Conformance
- IMS14-02 – Neal's Environmental Checklist
- IMS17 – Neal Soils Suppliers Operations
- IMS17-01 – WRAP QP for Recycled Aggregates
- IMS17-04A – Material Movement & Storage (Dry Process)
- IMS17-04B – Material Movement & Storage (Wet Process)
- IMS17-05 – Site Management Manual

Compliant / Not Compliant	Compliant with BAT 14.
----------------------------------	------------------------

Action	No action required at present.
---------------	--------------------------------

BAT 15

BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given below.

a) Correct plant design

b) Plant management

NSSL Justification / Evidence	Not applicable to wash plant as there is no flare installed.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action
---------------	-------------------

BAT 16

In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given below.

a) Correct design of flaring devices

b) Monitoring and recording as part of flare management

NSSL Justification / Evidence	Not applicable to wash plant as no flare or emissions to air from flaring.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

ActionNo further action

Noise and Vibrations:**BAT 17**

In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:

- a) a protocol containing appropriate actions and timelines;
- b) a protocol for conducting noise and vibration monitoring;
- c) a protocol for response to identified noise and vibration events, e.g. complaints;
- d) a noise and vibration reduction programme designed to identify the source(s), to measure/estimate noise and
- e) vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.

NSSL**Justification /
Evidence**

The wash plant activities undertaken by Neal Soils are not considered to represent a significant risk of noise or vibration.

As specified in IMS17-05 for much of the operating hours the site will be relatively quiet, however there will be intermittent occurrences of noise when waste arrives to site, when pre-treatment takes place, and when materials leaves site. Therefore, the following controls have been introduced:

- All vehicles, equipment and plant will be maintained with a clear intention to control noise and vibration levels.
- No treatment activities will take place outside permitted working hours (no evenings or weekends – except for maintenance).
- All vehicles, equipment and plant will be switched off when not in use.
- There will be regular noise monitoring for susceptible plant and equipment.
- Where appropriate, abatement measures will be introduced.

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. No noise nuisance complaints have been received for local sensitive receptors. Should noise issues become apparent and ongoing; a noise management plan will be produced for the site.

The BAT conclusion document states the following for BAT 17:

The applicability is restricted to cases where a noise or vibration nuisance at sensitive receptors is expected and/or has been substantiated.

Therefore, the system in place is deemed sufficient for the site and BAT 17 is not currently applicable as the nature of the sites activities presents a low risk of noise and/or vibration nuisance and there has been no complaints to date.

Relevant IMS documents:

- IMS07 - External Communications & Complaints
- IMS17-05 - Site Management Manual

Compliant / Not CompliantN/A

ActionNo action required at present.

BAT 18

In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given in the BAT conclusions document

NSSL Justification / Evidence The wash plant activities undertaken by Neal Soils are not considered to represent a significant risk of noise or vibration. See response to BAT 17 above as much of this addresses BAT 18. Although the site has received no noise complaints to date appropriate management, inspection and maintenance needs to be maintained to ensure this does not become a problem in the future.

List of BAT 18 Features	See for compliance
a. Appropriate location of equipment and buildings	BAT 17, IMS07 and IMS17-05
b. Operational measures	BAT 17, IMS07 and IMS17-05
c. Low-noise equipment	BAT 17, IMS07 and IMS17-05
d. Noise and vibration control equipment	BAT 17, IMS07 and IMS17-05
e. Noise attenuation	BAT 17, IMS07 and IMS17-05

Compliant / Not Compliant Compliant with BAT 18

Action No further action

Emissions to Water:

BAT 19

In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given in the BAT conclusions document

NSSL Justification / Evidence Water usage at the site is minimised by the recycling of the process water after appropriate treatment; top up and dust suppression water is sourced from run offs from the operational area of the site and from the interceptor ditches when required. Therefore, the washing plant is a closed loop system and there is only minimal use of mains water for top up water due to losses. No waste water emissions are generated that require disposal or discharge to sewer/surface water. (BAT 19 technique a & b). A full description of the process techniques can be found in the operational techniques document which accompanied the permit application. The site is also looking into implementing low level flushes in staff conveniences.

The site has a waste water treatment process which captures waste waters from the wash plant and provides treatment to enable the wastes to be reused. The washing plant splits the material into the subsequent coarse and fine fractions each undergoing different washing and treatment techniques to optimise the end goal of increased engineering or chemical properties and reduced contamination whether physical or chemical. Process water used in washing of the material will be pumped into the thickener tank, where it then goes through a weir and into the adjacent process water treatment holding tank for treatment. The water from the holding tank is pumped into the plug flow reactor (PFR). Here coagulant (poly-aluminium chloride (PAC)) is added followed by a flocculating agent to aid the process of water treatment and then the material is aerated before entering the Dissolved Air Floatation (DAF) unit. The DAF unit splits the inlet material into three components; the first being an emulsified hydrocarbon light sludge, second being a heavy contaminated sludge and thirdly being clean process water. Once treatment has been made and a successful separation has occurred the treated effluent is then pumped off and passed

BAT 19

In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given in the BAT conclusions document

through the pH adjustment mechanism ready for re-use. This demonstrates appropriate treatment of incoming material (BAT 19 technique f). The full process description can be found within W105 Process Description Washing Plant.

All operational areas within the site are covered with impermeable concrete hardstanding (BAT 19 technique c). Runoff from the hardstanding is drained to a central collection drainage/sump system from which the water is pumped back into the system, this collection system is designed to have the capacity to cope with heavy storm waters and recycle the water in the system. The wash plant and associated drainage doesn't allow a flow over from the slab and kerb containment from the wash plant area. Additional water storage capacity of 450m³ is provided within the wash plant in the buffer tank (BAT 19 technique i) and thickening tank for any required emergency storage of additional water during heavy rain events. The process overflow procedures in place include the separator removing part of the silt/clay and debris and this is pumped into a thickener tank (BAT 19 technique d).

The toxicity of the run-off at NSSL is considered to be insignificant, the concrete infrastructure and associated drainage system is inspected regularly (IMS14-02) to ensure appropriate performance and to prevent any accidental escape of run-offs from the containment infrastructure to surface water (BAT 19 technique e).

There are no process emissions to soil or water. There will be no discharge of surface drainage water from the hardstanding of the wash plant. All runoff will be collected in the sealed drainage system sump and abstracted regularly by automatic pumping to be used as 'top up water' for the Soil Wash Facility (the Facility requires c.2,000 m³ of top up water each month (24,000 m³/year) to replace that lost by evaporation) (BAT 19 technique g). The estimated amount of runoff that will be collected and used in this manner each month does not however provide the full requirement for top up water. Therefore, there will be a need for further topping up with water from elsewhere. This additional top up water will be sourced from the cut off ditches in the vicinity of the plant as was agreed with NRW in a Water Resources. Review (RPS May 2013). The infrastructure in this location is currently subject to a planning application to increase the area of concrete. A modified Water Resource Review with different water storage requirement was submitted with the application. This procedure will be updated with the new information once the application was approved and implemented.

Daily site checks are carried out which would identify any leaks or spillages and procedures are in place to minimise any impacts from leaks or spills. Impermeable surfaces are subject to regular inspections and maintenance to minimise the risk of any fugitive emissions (BAT 19 technique h).

Relevant IMS documents:

- IMS14-02 – Neal's Environmental Checklist
- IMS17-05 - Site Management Manual
- W105 – Process Description Washing Plant

Compliant / Not Compliant	Compliant with BAT 19.
----------------------------------	------------------------

Action	No action required at present.
---------------	--------------------------------

BAT 20

In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques given in the BAT conclusions document.

**NSSL
Justification /
Evidence**

There is no discharge at the site so the BAT AELs (Table 6.1 and 6.2) are not relevant.

NSSL collect water and treat it to reduce emissions to zero. Please see response to BAT 19 above as this is also applicable to BAT 20.

As stated in BAT 11 (also applicable here) there will be no discharge of surface drainage water from the hardstanding of the wash plant. All runoff will be collected in the sealed drainage system sump and abstracted regularly by automatic pumping to be used as 'top up water'. Therefore, there will be a need for further topping up with water from elsewhere. This additional top up water will be sourced from the cut off ditches in the vicinity of the plant as was agreed with NRW in a Water Resources. Review (RPS May 2013).

Relevant IMS documents:

- IMS14-02 – Neal's Environmental Checklist
- IMS17-05 - Site Management Manual
- W105 – Process Description Washing Plant

Compliant / Not Compliant

Compliant with BAT 20.

Action

No action required at present.

Emissions from Accidents and Incidents:

BAT 21

In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1).

NSSL Justification / Evidence

NSSL has an accident management plan which includes site information and contacts list as part of the IMS. Site Operational/Accident Procedures in place are driven by risk assessment as part of the Company's own generic IMS.

The accident management plan covers the following operations:

- Transport of waste to and from the site
- Acceptance & storage of waste
- Use of plant & equipment
- Emergency incidents

The AMP covers potential impacts, risks, control, protection and mitigation measures (BAT 21 technique a). This includes detail of accessibility and details what to do in the event of an emergency including a site plan signposting where all the accident and emergency response items (fire extinguishers, water supply points and hoses, spill kits, first aid kits, assembly points and location of nearest fire hydrant) are located. NSSL employs 24 hour security that includes the services of a security guard during out of hour's operations (6pm until 6am) to protect the plant against malevolent acts. Given the type of waste accepted (non-combustible) at the site fire and explosion are not considered a significant risk at the site and NRW have confirmed a fire prevention plan is not necessary.

The site IMS contains procedures for accident and incident management such as spill response, flood management and accident & incident investigation. The operation currently benefits from an experienced and well-trained work force who are experienced in the current operations on site including appropriate waste storage and measures taken to prevent, detect and mitigate spills. Staff are trained appropriately in the handling and transfer of waste, in the use of spill kits and the requirements of the Accident Management Plan and Spill Clean-Up Procedures. All staff are trained in appropriately detecting and identifying spillages and the spill response (IMS15-01) is used when a spillage is detected. All site personnel are tasked with monitoring for evidence of spillages and leakage during their day to day routine. Any evidence of leaks or spillages are reported to the Site Manager or his nominated deputy for remedial action. The Safe System of Work (SSOW) for re-fuelling activities (IMS15-06) is used to prevent and mitigate spills (BAT 21 technique b & c).

The concrete infrastructure and associated drainage system is inspected regularly (IMS14-02) to ensure appropriate performance and to prevent any accidental escape of run-offs/leachates from the containment infrastructure to surface water (BAT 21 technique b).

Groundwater monitoring at the site was undertaken by RPS on a 6 monthly basis at WS6 – WS15 (excluding WS08 and WS09) identified on site plan in schedule 7 of the Environmental Permit. However, this ceased in May 2019 following agreement with NRW (David Willey and Mat Llwehelin). Surface water monitoring of the nearby reens has been undertaken on a quarterly basis at SW18 – SW26 for compliance with the environmental permit to assess the analysis results for the wide range of field ditches and reens in the vicinity of the site to identify any potential issues resulting from accidents/incidents. This would enable the measurement and appropriate management of any accident/incident should it occur. The results are recorded as part of the IMS procedures for the site (identified on site plan in schedule 7 of the Environmental Permit). Reports on the quality of the surface water are submitted to quarterly NRW according to the permit condition and the planning condition. NSSL have recently requested the surface water monitoring requirement to be removed from their permit and this has been verbally agreed by NRW (David Willey and Mat Llwehelin). The surface water monitoring will continue as a part of the IMS but not as a permit requirement. (BAT 21 technique b).

BAT 21

In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1).

Relevant IMS documents:

- IMS04 – Competence, Training and Awareness
- IMS05 – Document & Record Control
- IMS12 – Non-Conformance
- IMS15 - Accident and Emergency Management Plan
- IMS15-01 – Spill Response
- IMS15-02 – Odour Management Plan
- IMS15-03 - Accident & Incident Investigation
- IMS15-03-01 - Accident Incident Investigation Form
- IMS15-04 – Asbestos Identification & Removal
- IMS15-06 – Re-Fuelling Activities
- IMS17 – Neal Soils Suppliers Operations
- IMS17-01 – WRAP QP for Recycled Aggregates
- IMS17-03 – Dealing with Non-Conforming Loads
- IMS17-04A – Material Movement & Storage (Dry Process)
- IMS17-04B – Material Movement & Storage (Wet Process)
- IMS17-05 – Site Management Manual
- Pollution Inventory
- W105 – Process Description Washing Plan

Compliant / Not Compliant	Compliant with BAT 21.
Action	No action required at present.

Material Efficiency:

BAT 22

In order to use materials efficiently, BAT is to substitute materials with waste.

NSSL Justification / Evidence

Water is NSSL main raw material and as detailed in BAT 19 water is recirculated at the site demonstrating efficiency.

The site is looking into recycling the waste wood they receive to optimise material efficiency by installing a new waste wood boiler to generate electricity and heat for the site which would substitute to diesel as a resource material.

The only other raw material used on site are the chemicals needed for the wash plant processing which includes coagulant, flocculant, anti-foaming agent and acid. These are recommended by the wash plant technology provider. A review of the chemicals used was carried out and as they have specific functions it was identified that it is difficult to replace with these substances with an alternative. The only material recognised to have scope for potential substitute was the acid. The review comprised of search and considered the use of industrial pickling acid. However, after careful consideration the review concluded that there was no proof that the use of this recycled material will not compromise the treatment processes and the quality of the treated material. This is an ongoing process and NSSL are still looking into identifying alternative resources and enhance efficiency of material use.

Relevant IMS documents:

- IMS17-05 - Site Management Manual
- Pollution Inventory
- W105 – Process Description Washing Plant

Compliant / Not Compliant

Compliant with BAT 22.

Action

No action required at present.

Energy Efficiency:

BAT 23

In order to use energy efficiently, BAT is to use both of the techniques given in the BAT conclusions document.

NSSL Justification / Evidence

The washing plant is currently run via diesel oil generators. A total of 260,838 litres of diesel oil was used on site during 2018. When multiplied by NRW conversion value of 10.58 this converts to 2,759,666 kWh or 2,760 MWh.

No electricity is used on site as there is no connection infrastructure to the main.

IMS03-01 Environmental Management Objectives includes a section on reducing fuel and electricity usage across the site. Proposed measures to implement are as follows:

- Continue to modernise transport fleet with improved, more efficient models;
 - Review and improve vehicle & plant maintenance schedule;
 - All new office purchases and modifications to be low energy solutions;
 - Generation of energy on site utilising a boiler using recycled wood (awaiting the environmental permit to be issued); and
 - Planning to install other boilers to generate both electricity and heat. All these boilers will be fuelled by recycled wood.
-

IMS03-02 Environmental Management Programmes includes a section for recording energy use.

Relevant IMS documents:

- IMS03-01 Environmental Management Objectives
- IMS03-02 Environmental Management Programme
- IMS17 – Neal Soils Suppliers Operations
- Pollution Inventory additional info

Compliant / Not Compliant

Not currently compliant with BAT 23.

Action

Produce an energy efficiency plan and energy balance record.

Reuse of Packaging:

BAT 24

In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan (see BAT 1).

NSSL

**Justification /
Evidence**

The only packaging raw material on site comprises of plastic bags and drums/IBCs. The 1000L IBC (reagent containers) used on site are sent back to the supplier to be refilled and reused. The 205L plastic UN approved drums (anti-foaming agent drums) used on site are sent back to the supplier to be refilled and reused. The 25kg plastic bags used on site for coagulants and flocculants are sent to the adjacent site Atlantic Recycling Facility as part of the NSSL general waste material where they are processed and recovered.

Relevant IMS documents:

- IMS17-04A – Material Movement & Storage (Dry Process)
- IMS17-04B – Material Movement & Storage (Wet Process)
- IMS17-05 – Site Management Manual
- Pollution Inventory

Compliant / Not Compliant

Compliant with BAT 24.

Action

No action required at present.

3.2 BAT Conclusions for the Mechanical Treatment of Waste

General BAT conclusions for the mechanical treatment of waste:

BAT 25

In order to reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin-like PCBs, BAT is to apply BAT 14d and to use one or a combination of the techniques given in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant operations as no mechanical treatment of waste.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action
---------------	-------------------

The mechanical treatment in shredders of metal waste:

BAT 26

In order to improve the overall environmental performance, and to prevent emissions due to accidents and incidents, BAT is to use BAT 14g and all of the techniques given in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant operations as metal wastes are not accepted.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action
---------------	-------------------

BAT 27

In order to prevent deflagrations and to reduce emissions when deflagrations occur, BAT is to use technique a. and one or both of the techniques b. and c. given in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant operations as metal wastes are not accepted.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT 28

In order to use energy efficiently, BAT is to keep the shredder feed stable.

NSSL Justification / Evidence	Not applicable to wash plant operations as metal wastes are not accepted.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the treatment of WEEE containing VFCs and/or VHCs:

BAT 29

In order to prevent or, where that is not practicable, to reduce emissions of organic compounds to air, BAT is to apply BAT 14d, BAT 14h and to use techniques specified in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant as WEEE containing VFCs or VHCs are not accepted.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT-associated emission levels (BAT-AELs) for channelled TVOC and CFC emissions to air from the treatment of WEEE containing VFCs and/or VHCs:

BAT 30

In order to prevent emissions due to explosions when treating WEEE containing VFCs and/or VHCs, BAT is to use either of the techniques given below.

- a) Inert atmosphere
- b) Forced ventilation

NSSL Justification / Evidence	Not applicable to wash plant as WEEE containing VFCs or VHCs are not accepted.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the mechanical treatment of waste with calorific value:

BAT 31

In order to reduce emissions to air of organic compounds, BAT is to apply BAT 14d and to use one or a combination of the following techniques: Adsorption, biofilter, thermal oxidation and wet scrubbing.

NSSL Justification / Evidence	Not applicable to wash plant as there is no mechanical treatment of waste with calorific value.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the mechanical treatment of WEEE containing mercury:

BAT 32

In order to reduce mercury emissions to air, BAT is to collect mercury emissions at source, to send them to abatement and to carry out adequate monitoring.

NSSL Justification / Evidence	Not applicable to wash plant as the site does not accept WEEE containing mercury.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

3.3 BAT Conclusions for the Biological Treatment of Waste

The biological treatment of waste:

BAT 33

In order to reduce odour emissions and to improve the overall environmental performance, BAT is to select the waste input.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No biological treatment of the waste is carried out.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT 34

In order to reduce channelled emissions to air of dust, organic compounds and odorous compounds, including H₂S and NH₃, BAT is to use one or a combination of the techniques given in the BAT conclusions document. See Table 6.7 for BAT-associated emission levels (BAT-AELs) for channelled NH₃, odour, dust and TVOC emissions to air from the biological treatment of waste.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No biological treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No further action.

BAT 35

In order to reduce the generation of waste water and to reduce water usage, BAT is to use all of the techniques given in the BAT conclusions document.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No biological treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No further action.

The aerobic treatment of waste:

BAT 36

In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No aerobic treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No further action.

BAT 37

In order to reduce diffuse emissions to air of dust, odour and bioaerosols from open-air treatment steps, BAT is to use one or both of the techniques specified in the BAT conclusion document.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No aerobic treatment of the waste is carried out.
Compliant / Not Compliant	N/A

Action	No further action.
---------------	--------------------

The anaerobic treatment of waste:

BAT 38

In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No anaerobic treatment of the waste is carried out.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

The mechanical biological treatment (MBT) of waste:

BAT 39

In order to reduce emissions to air, BAT is to use both of the techniques given below.

NSSL Justification / Evidence	Not applicable to wash plant which includes physio-chemical treatment of the waste. No mechanical biological treatment of the waste is carried out.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

3.4 BAT Conclusions for the Physico-Chemical Treatment of Waste

The physico-chemical treatment of solid and/or pasty waste:

BAT 40

In order to improve the overall environmental performance, BAT is to monitor the waste input as part of the waste pre-acceptance and acceptance procedures (see BAT 2).

Monitoring the waste input, e.g. in terms of:

- content of organics, oxidising agents, metals (e.g. mercury), salts, odorous compounds;
- H₂ formation potential upon mixing of flue-gas treatment residues, e.g. fly ashes, with water.

NSSL

Justification / Evidence

NSSL has established a waste characterisation waste pre-acceptance and acceptance procedures as part of the companies operating techniques plan and IMS (IMS17 Neal Soil Suppliers Operations) please see response in relation to BAT 2 for more detail. The operating IMS details the in process controls for pre-acceptance procedures to assess wastes, waste acceptance procedures and washing plant.

NSSL ensure that the producer of the waste has provided adequate characterisation of their waste so NSSL can assess the suitability of the waste for the washing plant. NSSL may carry out their own additional characterisation (including the content of organics, oxidising agents, metals (e.g. mercury), salts, odorous compounds) if they do not consider the information provided to be adequate. All delivered waste will be required to be accompanied by testing results to determine their properties with the exception of the following:

- Wastes where a comprehensive dataset is already available from previous testing;
- Wastes which are listed in Regulations or Agency guidance as not requiring testing; or
- Wastes whose composition can be predicted from knowledge of the process producing the waste.

The H₂ formation potential is not applicable to the NSSL wash plant as no mixture of flue-gas treatment residues e.g. fly ashes with water.

Relevant IMS documents:

- IMS17 – Neal Soils Suppliers Operations (comprising pre acceptance and acceptance procedures)
- IMS17-01 – WRAP QP for Recycled Aggregates
- IMS17-03 – Dealing with Non-Conforming Loads
- IMS17-04A – Material Movement & Storage (Dry Process)
- IMS17-04B – Material Movement & Storage (Wet Process)
- IMS17-05 – Site Management Manual
- W105 – Process Description Washing Plant

Compliant / Not Compliant

Compliant with BAT 40.

Action

No action required at present.

BAT 41

In order to reduce emissions of dust, organic compounds and NH₃ to air, BAT is to apply BAT 14d and to use one or a combination of the of the following techniques: Adsorption, biofilter, thermal oxidation and wet scrubbing.

**NSSL
Justification /
Evidence**

There are no controlled point source emissions controlled by the sites environmental permit but small quantities of dust is generated at the site. As specified in BAT 14 NSSL have a series of dust mitigation measures implemented on site to ensure dust emissions are controlled as far as is practically possible. The measures include:

- Sheeting of vehicles delivering waste to the site (if necessary);
- Sheeting of vehicles transporting potentially dusty loads off site;
- Use of a mobile tanker to damp down materials stockpiles, vehicle running surfaces, vehicle loads and areas on and around machinery which may give rise to dust, especially during dry and windy conditions; Dousing of dusty waste using a mobile bowser will be carried out when necessary.
- A vacuum tanker/road sweeper which is owned and operated by the permit holder is used to clean the site access road and highway as required.
- Drop heights ALWAYS minimised to prevent dust emissions.
- Site operatives will continuously monitor dust emissions whilst the site is in operation and will report back to the Site Manager for advice if required. The Site Manager will make a formal visual inspection of dust emissions at least once per week. Results of monitoring will be entered on the Weekly Checklist or in accordance with IMS12 – Non-Conformance if necessary.

A dust monitoring programme was commissioned by Neal Soil Supplies to undertake fugitive dust monitoring undertaken over a six-week period please see BAT 14 for more detail as also applicable to BAT 41. This suggests that the level of dust emission at the Neal Soils Supplies site is not likely to cause adverse impact on the surrounding premises.

Relevant IMS documents:

- IMS12 – Non Conformance
- IMS14-02 – Neal's Environmental Checklist
- IMS17 – Neal Soils Suppliers Operations
- IMS17-01 – WRAP QP for Recycled Aggregates
- IMS17-04A – Material Movement & Storage (Dry Process)
- IMS17-04B – Material Movement & Storage (Wet Process)
- IMS17-05 – Site Management Manual

Compliant / Not Compliant

Compliant with BAT 41.

Action

No action required at present.

BAT conclusions for the re-refining of waste oil:

BAT 42

In order to improve the overall environmental performance, BAT is to monitor the waste input as part of the waste pre-acceptance and acceptance procedures (see BAT 2).

NSSL Justification / Evidence	Not applicable to wash plant as no re-refining of waste oil carried out.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT 43

In order to reduce the quantity of waste sent for disposal, BAT is to use one or both of the following techniques: Material recovery and/or energy recovery.

NSSL Justification / Evidence	Not applicable to wash plant as no re-refining of waste oil carried out.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT 44

In order to reduce emissions of organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the following techniques: Adsorption; thermal oxidation; and wet scrubbing.

NSSL Justification / Evidence	Not applicable to wash plant as no re-refining of waste oil carried out.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the physico-chemical treatment of waste with calorific value:

BAT 45

In order to reduce emissions of organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the techniques specified in the BAT conclusion document.

NSSL Justification / Evidence	Not applicable to wash plant as no treatment of waste with calorific value.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the regeneration of spent solvents:

BAT 46

In order to improve the overall environmental performance of the regeneration of spent solvents, BAT is to use one or both of the following techniques: Material recovery and/or energy recovery.

NSSL Justification / Evidence	Not applicable to wash plant as no processing of spent solvents.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT 47

In order to reduce emissions of organic compounds to air, BAT is to apply BAT 14d and to use a combination of the techniques specified within the BAT conclusion document.

NSSL Justification / Evidence	Not applicable to wash plant as no processing of spent solvents.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil:

BAT 48

In order to improve the overall environmental performance of the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil, BAT is to use all of the techniques specified within the BAT conclusion document.

NSSL Justification / Evidence	Not applicable to wash plant as no thermal treatment processing of spent activated carbon, waste catalysts and/or excavated contaminated soil.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT 49

In order to reduce emissions of HCl, HF, dust and organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the techniques specified within the BAT conclusion document.

NSSL Justification / Evidence	Not applicable to wash plant as no thermal treatment processing of spent activated carbon, waste catalysts and/or excavated contaminated soil.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

BAT conclusions for the water washing of excavated contaminated soil:

BAT 50

In order to reduce emissions of dust and organic compounds to air from the storage, handling, and washing steps, BAT is to apply BAT 14d and to use one or a combination of the following techniques: Adsorption; fabric filter; and wet scrubbing.

NSSL Justification / Evidence	There are no controlled point source emissions controlled by the sites environmental permit but small quantities of dust is generated at the site. Please see BAT 14 and BAT 41 in relation to reducing emissions of dust and organic compounds to air from the storage, handling, and washing steps, applying BAT 14d and combination of Adsorption and wet scrubbing (BAT 41).
--------------------------------------	--

Compliant / Not Compliant	Compliant with BAT 50.
----------------------------------	------------------------

Action	No action required at present.
---------------	--------------------------------

BAT conclusions for the decontamination of equipment containing PCBs:

BAT 51

In order to improve the overall environmental performance and to reduce channelled emissions of PCBs and organic compounds to air, BAT is to use all of the techniques specified in the BAT conclusion document.

NSSL Justification / Evidence	Not applicable to wash plant as no decontamination of equipment containing PCBs.
--------------------------------------	--

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

3.5 BAT Conclusions for the Treatment of Water-based Liquid Waste

Overall environmental performance:

BAT 52

In order to improve the overall environmental performance, BAT is to monitor the waste input as part of the waste pre-acceptance and acceptance procedures (see BAT 2).

NSSL Justification / Evidence	Not applicable to wash plant as no water-based liquid waste accepted onto site.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

Emissions:

BAT 53

In order to reduce emissions of HCl, NH₃ and organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the of the following techniques: Adsorption, biofilter, thermal oxidation and wet scrubbing.

NSSL Justification / Evidence	Not applicable to wash plant as no water-based liquid waste accepted onto site.
--------------------------------------	---

Compliant / Not Compliant	N/A
----------------------------------	-----

Action	No further action.
---------------	--------------------

4 CONCLUSIONS

4.1.1 The table below shows the outcomes of the BAT conclusions assessment:

Table 4-1 BAT Conclusions Assessment Outcomes

BAT Conclusion	Compliance Status
BAT 1: EMS/IMS	Not currently compliant with BAT 1
BAT 2: Environmental Performance	Compliant
BAT 3: Reduction of Emissions	N/A
BAT 4: Storage of Waste Risk Reduction	Compliant
BAT 5: Handling & Transfer of Waste Risk Reduction	Compliant
BAT 6: Inventory of Waste Water Streams	N/A
BAT 7: Monitoring Emissions to Water	N/A
BAT 8: Monitoring Channelled Emissions to Air	N/A
BAT 9: Monitoring Diffuse Emissions to Air	N/A
BAT 10: Monitoring Odour Emissions	N/A
BAT 11: Monitor Annual Consumption of Water, Energy and Raw Materials	Compliant
BAT 12: Reduce odour emissions	N/A
BAT 13: Reduce odour emissions	N/A
BAT 14: Reduce diffuse emissions to air	Compliant
BAT 15: Appropriate use of flaring	N/A
BAT 16: Reduce emissions from flares	N/A
BAT 17: Implement and Review a Noise and Vibration Management Plan	N/A
BAT 18: Reduce Noise and Vibration Emissions	Compliant
BAT 19: Optimise and Reduce Waste Water	Compliant
BAT 20: Treatment of Waste Water	Compliant
BAT 21: Prevent or Limit Environmental Consequences of Accidents and Incidents	Compliant
BAT 22: Material Efficiency	Compliant
BAT 23: Energy Efficiency	Not currently compliant with BAT 23
BAT 24: Reuse Packaging	Compliant
BAT 25: Reduce emissions of mechanical treatment of waste	N/A
BAT 26: Overall Environmental Performance	N/A
BAT 27: Prevent Deflagrations and Reduce Emissions	N/A
BAT 28: Keep Shredder Feed Stable	N/A
BAT 29: Reduce organic compounds to air.	N/A

BAT Conclusion	Compliance Status
BAT 30: Prevent emissions when treating WEEE	N/A
BAT 31: Reduce emissions when treating waste with calorific value	N/A
BAT 32: Reduce emissions of mercury when treating WEEE	N/A
BAT 33: Select Waste Input	N/A
BAT 34: Reduce Channelled Emissions	N/A
BAT 35: Reduce Waste Water and Water Usage	N/A
BAT 36: Reduce emissions to air from aerobic treatment of waste	N/A
BAT 37: Reduce emissions to air of dust, odour and bioaerosols from aerobic treatment of waste	N/A
BAT 38: Reduce emissions to air from anaerobic treatment of waste	N/A
BAT 39: Reduce emissions to air from the biological treatment of waste	N/A
BAT 40: Acceptance procedures for the physico-chemical treatment of solid waste	Compliant
BAT 41: Reduce emissions for the physico-chemical treatment of solid waste	Compliant
BAT 42: Acceptance procedures for the re-refining of waste oil	N/A
BAT 43: Reduce waste oil disposal	N/A
BAT 44: Reduce emissions of waste oil emissions to air	N/A
BAT 45: Reduce emissions to air from the physio-chemical treatment of waste with calorific value.	N/A
BAT 46: Improve environmental performance of spent solvents	N/A
BAT 47: Reduce emissions of organic compounds to air from spent solvents	N/A
BAT 48: Improve the overall environmental performance of the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil	N/A
BAT 49: Reduce emissions of the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil	N/A
BAT 50: Reduce the emission of dust and organic compounds to air from the washing of excavated contaminated soil	Compliant
BAT 51: Improve performance and reduce emissions of PCBs	N/A
BAT 52: Monitor Waste Input	N/A
BAT 53: Reduce emissions of HCL, NH ₃ and organic compounds to air.	N/A

4.1.2 Based on a review of all the available information it has been assessed that following the recent update of the sites IMS the site/operator is compliant with most of the requirements of the above applicable BAT conclusions.

4.1.3 Two of the applicable BAT conclusions have not yet been met and the site has until 17th August 2022 to implement improvements to become fully compliant. The outstanding non-compliant BAT conclusions and updates/measures to put in place to be compliant are outlined below:

- BAT 1 EMS/IMS: Update IMS (IMS03, IMS04 and/or IMS13) to include sectoral benchmarking. For the waste management sector Sectoral Referencing Documents (SRDs) are in progress and not yet published therefore Neal Soils must follow the Best Practice Report for Waste Management until the SRD is finalised. This requires Neal Soils to:

-
- Compare its internal processes with the recommended best environmental practices and benchmarks of excellence to identify potential improvements which should be included in its environmental programme for the following year;
 - Consider the relevant sector-specific environmental performance indicators in the SRDs when choosing the specific indicators for its environmental reporting;
 - Mention in the environmental statement how the relevant best environmental management practices and, if available, which benchmarks of excellence, have been taken into account;
 - Consult the SRDs on specific topics to find inspiration about which issues to tackle next when reviewing its environmental performance.
- BAT 23 Energy Efficiency: Produce an energy efficiency plan and energy balance record. Once they have been produced update IMS (IMS03-02, IMS17 and/or Pollution Inventory Additional Info Tab) to include sections on energy efficiency. Also update relevant IMS (IMS03-02, IMS17 and/or Pollution Inventory Additional Info Tab) documents when the new wood fuel boiler is installed detailing if this has increased energy efficiency at the site.

4.1.4 There are no other BAT conclusions that the operator requires derogation from at this point in time.

Our ref: JER8370

Enclosure B

IMS Certificates



Certificate of Registration

This certificate has been awarded to

Neal Soil Supplier Ltd

Atlantic Eco Park, Newton Road, Cardiff, CF3 2EJ, United Kingdom

in recognition of the organization's Quality Management System which complies with

ISO 9001:2015

The scope of activities covered by this certificate is defined below

**The Transportation, Recycling and Treatment of Hazardous Soils and
Aggregates. The Production of Recycled Aggregates, Sand and Soil
Products.**

Certificate Number:

201941/A/0001/UK/En

Date of Issue: (Original)

11 April 2019

Date of Issue:

11 April 2019

Issue No:

1

Expiry Date:

10 April 2022

Issued by:

On behalf of the Schemes Manager





Certificate of Registration

This certificate has been awarded to

Neal Soil Supplier Ltd

Atlantic Eco Park, Newton Road, Cardiff, CF3 2EJ, United Kingdom

in recognition of the organization's Environmental Management System which complies with

ISO 14001:2015

The scope of activities covered by this certificate is defined below

**The Receipt, Sorting, Cleaning and Re-Sale of Mixed Soils and
Aggregates**

Certificate Number:

201941/B/0001/UK/En

Date of Issue: (Original)

17 April 2019

Date of Issue:

17 April 2019

Issue No:

1

Expiry Date:

16 April 2022

Issued by:

On behalf of the Schemes Manager



0043

