

Environment Agency permitting decisions

Variation

We have decided to issue the variation for East Northants Resource Management Facility operated by Augean South Limited.

The variation number is EPR/YP3138XB/V005

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Summary of application

This variation authorises the following changes:

- Addition of dredging waste temporary storage area (DWTSA), with a storage capacity of 5,000m³.
- Addition of a new activity for the screening of hazardous waste and a directly associated activity (DAA) for screening of non-hazardous waste to remove oversize fractions prior to the stabilisation process.
- Increase of permitted capacity in the stabilisation process from 100,000 tonnes to 150,000 tonnes per year.
- Five additional European Waste Catalogue (EWC) codes have been added to Table S2.3 for processing within the stabilisation plant.
- One new emission point to air (A5) has been added to table S3.1 to incorporate the dust filters from the debagging facility.

An improvement condition (IC9) has been added to the permit to ensure the operator conducts particulate monitoring of the new emission point to air A5. An improvement condition (IC10) has been added to the permit to ensure the operator conducts fugitive dust monitoring around the boundary of the soil treatment facility.

In addition to the above changes we have also consolidated the permit. The consolidated permit reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

As part of the permit consolidation, the content and layout of Table S1.1 has been updated to more accurately reflect the activities that take place on site. Following the implementation of the Industrial Emissions Directive (IED) changes have been made to the scheduled activity references, activity descriptions, recovery and disposal codes, and Directly Associated Activities (DAAs).

The references for the surface water monitoring points have been updated to reflect the site (Table S3.2 has been amended to include the new references). Also, the monitoring requirements for ambient air have been deleted from the permit, these were no longer applicable.

Design and Operation of the dredging waste temporary storage area (DWTSA)

The purpose built storage area is required to store sludge wastes that are unable to be stockpiled. Hazardous and non-hazardous dredging spoil are the only two wastes permitted for acceptance within the lagoon. The DWTSA will facilitate buffering between the rate of production of these wastes, which is contract driven, and the rate at which the waste can be processed at the

installation. Waste will be accepted in accordance with the pre-acceptance and acceptance procedures; LRP01 and LRP02 respectively.

The DWTSAs shall be comprised of a lined containment structure with a storage capacity of approximately 5,000m³. A visual level indicator will be installed and a minimum of 0.3m freeboard will be left to ensure wastes do not overtop the lagoon. The structure will be predominantly below ground level. The facility will be lined with low hydraulic conductivity clay to a minimum thickness of 1 meter. Concrete canvas and geotextile will be placed on the slopes to provide protection from emptying activities and erosion. A sump area will be constructed in the north east corner of the basal area, constructed of a reinforced concrete slab to provide additional protection during emptying activities. A 500mm thick clay sacrificial layer incorporating a geogrid shall be placed over the rest of the basal area to provide protection to the areas of low hydraulic conductivity which are not covered by the sump slab. An access route and delivery apron will also be constructed to serve the DWTSAs. The access route will have 2m safety bunds at either side. A geotextile will be placed beneath the access route. The delivery apron will be a reinforced concrete slab, with a slight fall towards the DWTSAs to aid run-off or spills. Concrete blocks will be placed along the northern edge of the delivery apron to ensure vehicles cannot reverse onto the DWTSAs perimeter slopes.

The dredging material is tipped onto the vibrating screen which is automatically activated by a motion sensor. Any oversize material (material not passing through the 50mm decks) is removed from the screen using an excavator and stockpiled on the concreted and bunded area. The screened dredgings are collected in the storage lagoon ready for pumping into the feed hopper and mixer. The screen is also fitted with a pivot on the southern side, adjacent to the discharge apron, which allows the screen to be tilted and cleaned. All oversize debris is removed from the concrete apron via dump truck to the soil treatment pad.

The detail of the design and construction of the lagoon was submitted to the Environment Agency in letters dated 2 July 2013 (Ref AU/KC/DRF/3171/01), and 22 May 2013 (Ref AU/KC/DRF/3171/01). On the 26 November 2013 the Environment Agency responded to the proposals for the lagoon (Ref CQAr/DWTSAs/261113). We confirmed that, having reviewed the proposals and completing a site inspection, we were satisfied that the works had been completed in accordance with the construction quality assurance (CQA) plan and specification. Approving the document as a record that the DWTSAs has been completed to the agreed design. The approval was given by the Environment Agency's Groundwater and Contaminated Land team.

Odour checks will be carried out at the perimeter, malodorous loads will be dealt with in accordance with the non-conformance procedures (LRP03) which we agree is appropriate for the site setting and waste types accepted. Regular inspections of the lagoons integrity will be carried out by site staff. Any defects will be reported immediately and a remediation plan put in place. Inspection records will be retained within the site diary. Bi-annually the lagoon will be drained and cleaned, following this the lagoon will be inspected.

Screening of Hazardous and Non-Hazardous Waste

As part of this variation a new recovery activity for the screening of hazardous waste and a directly associated activity (DAA) for the screening of non-hazardous waste prior to the stabilisation process, is added to the permit. Screening was already incorporated in the permit as part of the recovery activities for bioremediation and soil washing, but not for the stabilisation process.

The screening process will use; a power screen, riddling/screening bucket or similar, trommel or similar and conveyor to feed screen and a picking station where necessary.

Prior to waste being treated on the soil treatment pad (STP), material is treated using suitable screening equipment to remove oversize fractions. The removal of oversized fractions is necessary as both a recovery operation and to facilitate further treatment; by preventing obstructions in the plant during stabilisation.

Screened materials will be stockpiled before being tested and analysed to assess the nature and composition of the material. Further treatment may be required, if the material fails to meet the criteria for use on the landfill. Following the sample characterisation and waste acceptance criteria (WAC) test, a technical assessment will be carried out on the screened wastes to determine whether the waste is:

- a) classified as non-hazardous waste and sent to non-hazardous landfill
- b) classified as hazardous waste and passes WAC and sent to hazardous landfill; or
- c) classified as hazardous waste and fails WAC.

If the waste is classified as hazardous and fails WAC, it will be subject to further treatment such as crushing, washing, stabilisation or immobilisation, depending on the test result and contaminant types.

Increasing the capacity of the stabilisation process

The stabilisation process is already a permitted activity and the operator confirms the process meets the requirements stated within SGN5.06 (Guidance for Recovery and Disposal of Hazardous and Non Hazardous Wastes). This variation increases the capacity of the stabilisation process from 100,000 tonnes to 150,000 tonnes per year.

The waste stabilisation process is designed for the treatment of contaminated soil and granular waste by mixing with cement, air pollution control residues (APCR) or other lime based materials. The treatment is carried out in equipment which is purpose designed for the processes. Stabilised wastes are landfilled in the adjacent landfill site or other suitably licensed facilities.

The operator has approval for extension of the life of the site under the Development Consent Order, giving Augean permission to treat 150,000

tonnes per year of waste. The operator has requested the increase in capacity of the stabilisation process to mirror this approved capacity increase. The increase will be facilitated by the utilisation of the DWTS for storage of dredging wastes and utilisation of the upgraded above ground mixing (AGM) plant.

Above ground mixing plant (AGM) upgrade

The AGM plant is already permitted at the installation. However, the existing AGM has been relocated; it has been moved approximately 50 metres from its original position in the north of the site. The new location of the AGM is shown on the updated site plan which is included within schedule 7 of the consolidated permit. Relocating the AGM to the western side of the soil treatment centre moves the treatment plant further from the permitted boundary of the site and further from the nearest receptors.

The AGM has also been upgraded; to give a larger capacity and faster throughput. The changes that have been made improve process control with a more efficient throughput of material and to improve the control of emissions.

The upgraded AGM comprises the following:

- An enclosed mixing barrel with paddle blade continuous mixer.
- A soil in-feed hopper leading to a belt conveyor for inputting soils into the mixing barrel.
- An enclosed bag pod building adjacent to the AGM mixer, this has two input hoppers for receiving bagged air pollution control residues (ACPR).
- A screw feed for ACPR from the bag pod for bagged APCR deliveries.
- Bulk powder storage silo with a screw feed conveyor into the AGM; bulk APCR deliveries are vacuum pumped directly into the silo.
- Leachate input from a leachate storage tank.
- In feed pipework from the dredging waste temporary storage area.

The AGM is a fully enclosed mixing barrel with active dust extraction and abatement installed which creates negative pressure within the mixing barrel. All the storage vessels have level monitoring systems and emergency alarms. The silos are fitted with a silo protection system, this prevents overfilling of the silo during delivery operations. The bag pod building is fully enclosed, with dust extraction leading to a bag filter and emission point A5. The 60m³ leachate storage tank is double skinned and bunded with 110% containment capacity.

Processed material discharged from the AGM is deposited into a storage bay where it is transferred to either a stockpile or directly to the final disposal site.

Odour

Although we do not consider the soil treatment activities to be inherently odorous, the operator has confirmed that they have waste pre-acceptance and acceptance procedures in place to mitigate against any odorous emissions. All waste is subject to pre-acceptance assessment prior to arrival at site and potentially odorous waste is not accepted for treatment. Waste

arriving at site is also subject to acceptance checks on arrival, to make sure that the waste matches the pre-acceptance information supplied and to confirm that material is not odorous.

In the event that odorous wastes are delivered to site, they will be quarantined in accordance with the sites nonconforming waste loads, quarantine and rejection procedure. Malodourous loads will be covered immediately and future loads of the same material rejected from site.

Daily odour checks are carried out by a member site staff, records are made in the site diary of any odours detected, along with the weather conditions at the time and any further observations.

An environmental complaint procedure is in place and available to the public. All odour complaints will be investigated by the site management in accordance with the company's complaints procedure, with the findings being reported back to the complainant.

Emissions to Air

No air dispersion modelling has been undertaken for the soil washing, stabilisation or bioremediation activities. An assessment of the fugitive emissions will be undertaken when; the facility has been constructed, installation of abatement equipment has been carried out and once sufficient monitoring data has been collected.

The operator proposed an emission limit value for particulates from emission point to air A5 of $0.05\text{mg}/\text{m}^3$ as PM_{10} . However, the operator will be conducting post commissioning monitoring of the particulate emissions from this emission point. We have therefore decided to set an interim limit of 'no visible dust'. With any subsequent limits being incorporated within the permit following the completion of improvement condition IC9.

Dust

Dust suppression water hoses will directly spray onto dusty material prior to screening to reduce airborne dust emissions. A tractor and bowser is available for dampening down haul roads. The potential for dust blown from soils stored in stockpiles on hardstanding prior to treatment will be minimised by using water bowsers or sprays as necessary.

Boundary dust suppression sprays are in place to dampen airborne dust. The AGM plant is fully enclosed; the soil input conveyors are enclosed to prevent fugitive dust emissions.

The five new waste codes added as part of this variation all relate to ash type wastes and will be treated using the stabilisation treatment process at the site. Waste acceptance procedures and environmental controls are already in place to manage waste streams of this type. The existing environmental control measures include; enclosed storage silos, enclosed de-bagging units and a dust extraction system.

An improvement condition (IC10) has been incorporated into the permit for the operator to monitor dust at the installation boundary over a minimum two year period. The operator shall use this data, together with any other representative analysis, to carry out an assessment of the impact of fugitive dust emissions from the installation and submit a report to the Environment Agency. The report shall include proposals for amendments to existing procedures or for the implementation of additional measures for the control of fugitive dusts.

Annex 1: decision checklist

This document should be read in conjunction with the Duly Making checklist, the application and supporting information and permit/ notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Responses to consultation and web publicising	The consultation responses (Annex 2) were taken into account in the decision. The application was also publicised on our website from 19 March 2015 to 21 April 2015, no comments on the application were received in response to the publication. The decision was taken in accordance with our guidance.	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary. The operator has provided a new plan which shows the emission points to air (A1-A5) and the location of the dredging waste temporary storage area (DWTSA) (Ref:	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>AU/GEN/04-15/18597revA).</p> <p>The operator has submitted an updated plan showing the site drainage (Ref: AU/GEN/01-15/18429). This is contained within the sites Surface Water Management Plan (document ref: AUGSWMP/130115).</p>	
<p>Biodiversity, Heritage, Landscape and Nature Conservation</p>	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <ul style="list-style-type: none"> • A special area of conservation is located within 10km of the installation, Barnack Hills and Holes • A special protection area and Ramsar site is located within 10km of the installation, Rutland Water • Two sites of special scientific interest are located within 2km of the installation, Collyweston Great Wood and Easton Hornstocks and Bonemills Hollow. • A national nature reserve is location within 2km of the installation, Collyweston Great Wood and Easton Hornstocks • Two local wildlife sites are located within 2km of the installation, Fineshade Woods and Fineshade Lane. • Four areas of ancient woodland are located within 2km of the installation, Westhay Wood, Vigo Wood, Wittering Coppice and Little Wood. <p>A assessment of the application and its potential to affect the site(s) has been carried out as part of the permitting process. We consider that the application will not affect the features of the site (s).</p> <p>We have not formally consulted on the application. An Appendix 4 was completed, concluding the operation was not likely to damage. Also, an Appendix 11 was completed, concluding no likely significant effect alone or in combination. These were submitted to Natural England for information only.</p>	<p>✓</p>
<p>Environmental Risk Assessment and operating techniques</p>		
<p>Environmental risk</p>	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p>	<p>✓</p>

Aspect considered	Justification / Detail	Criteria met Yes
	<p>The operator's risk assessment is satisfactory.</p> <p>A H1 Annex A amenity risk assessment was completed by the operator and submitted on 16 January 2015 for the new screening activity; focussing on odour, noise, fugitive emissions and accident risk. The risk assessment concludes a low risk of impacting the surrounding environment. The Environment Agency agrees with the conclusions drawn from the risk assessment.</p> <p>See key issues for further information.</p>	
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <ul style="list-style-type: none"> - Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste. - How to comply with your environmental permit. <p>The key measures proposed by the Operator include the following:</p> <ul style="list-style-type: none"> • Pre acceptance testing, including pH, of the waste will be carried out. • Odour checks are currently carried out at the perimeter (eastern, western and southern boundaries) of the site and recorded in the environmental compliance log. • The lagoon will be inspected by a suitably trained and competent engineer on a 6 monthly basis, following draining and cleaning of the lagoon. • A visual level indicator is installed into the lagoon and a minimum of 0.3m freeboard will be left to ensure the waste does not overtop the lagoon. • Surface water from the operational areas of the site is collected in the surface water drainage system. • All treatment processes are located on impermeable surfaces. • On site dust suppression equipment will be used to ensure that dust emissions from the site are controlled. <p>The proposed techniques/ emission levels for priorities for control are in line with the benchmark levels contained in</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	the TGN and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.	
The permit conditions		
Updating permit conditions during consolidation.	<p>We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit(s).</p> <p>The operator has agreed that the new conditions are acceptable.</p>	✓
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>Five new waste codes are added to table S2.3 for processing within the stabilisation process. Justification of the new wastes codes was provided with further information submitted on 16 January 2015.</p> <p>EWC code 10 01 14 has been included within this list, the operator has provided further information as to how the metal will be separated and recovered; metals will be removed by a magnet and/or by screening.</p> <p>A new waste code table S2.6 is added to the permit listing the permitted waste types for the new screening process.</p> <p>A new waste code table S2.7 is added to the permit listing the permitted waste types for the dredging waste temporary storage area (lagoon).</p> <p>We are satisfied that the operator can accept these wastes different activities carried out at the site.</p> <p>We have not added the EWC code 10 01 04* Oily fly ash and boiler dust as requested to be added to table S2.3 by the operator, because the oil content could inhibit the stabilisation process. The operator has agreed with this decision.</p> <p>We made these decisions with respect to waste types in accordance with SGN 5.06.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Improvement conditions	<p>Based on the information on the application, we consider that we need to impose improvement conditions.</p> <p>The improvement condition table S1.3 has been updated for completion of existing improvement conditions (IC1-IC8).</p> <p>We have also imposed a new improvement conditions to ensure that:</p> <ul style="list-style-type: none"> ➤ the appropriate measures are in place to prevent pollution from new point source emissions to air. ➤ the appropriate measures are in place to prevent pollution from fugitive emissions to air. <p>IC9 has been incorporated within the permit for the operator to monitor the dust emissions from the new emission point to air and submit the results to the Environment Agency within 3 months of permit issue.</p> <p>IC10 has been incorporated into the permit for the operator to monitor dust at the installation boundary over a minimum two year period. The operator shall use this data, together with any other representative analysis, to carry out an assessment of the impact of fugitive dust emissions from the installation and submit a report to the Environment Agency. The report shall include proposals for amendments to existing procedures or for the implementation of additional measures for the control of fugitive dusts.</p>	✓
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Emission limits	<p>We have decided that emission limits should be set for the parameters listed in the permit.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	See key issues section for more information.	
Monitoring	<p>As part of the consolidation, the monitoring requirements for ambient air have been deleted from the permit as these were no longer applicable.</p> <p>There are no other changes to the monitoring requirements as a result of this variation.</p>	✓
Reporting	There is no change to the reporting requirements as a result of this variation.	✓
Operator Competence		
Environment management system (EMS)	<p>There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.</p> <p>The operator has an externally accredited ISO14001 approved EMS.</p>	✓

Annex 2: Consultation responses

Summary of responses to consultation and the way in which we have taken these into account in the determination process.

Response received from
Public Health England, letter dated 26 March 2015
Brief summary of issues raised
Based on the information contained in the application provided, PHE has no significant concerns regarding risk to health of the local population from the activity, providing that all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice are undertaken.
Summary of actions taken or show how this has been covered
No further action required.

Response received from
Natural England, email received 30 March 2015
Brief summary of issues raised
Confirmation that Natural England agree with the Environment Agency's conclusions recorded on consultation forms Appendix 11 and Appendix 4.
Summary of actions taken or show how this has been covered
No further action required.

We also consulted with the Local Authority Environmental Protection Department and the Health and Safety Executive; no responses were received.