

# Determination of an Application for an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2010

## Consultation on our decision document recording our decision-making process

The Permit number is:	EPR/BR9677IT
The variation number is:	EPR/BR9677IT/V007
The Applicant / Operator is:	Lafarge Aggregates Limited
The Installation is located at:	Walleys Quarry Landfill Site Cemetery Road, Silverdale Newcastle-under-Lyme Staffordshire, ST5 6DH
Consultation commences on:	04/06/2014
Consultation ends on:	01/07/2014

### What this document is about

This is a draft decision document, which accompanies a draft permit. It explains how we have considered the Applicant's Application, and why we have included the specific conditions in the draft permit we are proposing to issue to the Applicant. It is our record of our decision-making process, to show how we have taken into account all relevant factors in reaching our position. Unless the document explains otherwise, we have accepted the Applicant's proposals.

The document is in draft at this stage, because we have yet to make a final decision. Before we make this decision we want to explain our thinking to the public and other interested parties, to give them a chance to understand that thinking and, if they wish, to make relevant representations to us. We will make our final decision only after carefully taking into account any relevant matter raised in the responses we receive. Our mind remains open at this stage: although we believe we have covered all the relevant issues and reached a reasonable conclusion, our ultimate decision could yet be affected by any information that is relevant to the issues we have to consider. However, unless we receive information that leads us to alter the conditions in the draft Permit, or to reject the Application altogether, we will issue the Permit in its current form.

In this document we frequently say "we have decided". That gives the impression that our mind is already made up; but as we have explained above, we have not yet done so. The language we use enables this document to become the final decision document in due course with no more re-drafting than is absolutely necessary.

# Environment Agency permitting decisions

## Variation

We have decided to issue the variation for Walleys Quarry Landfill Site operated by Lafarge Aggregates Limited.

The variation number is EPR/BR9677IT/V007.

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:
  - leachate treatment: emissions to sewer, containment, odour, noise
  - gas engine: emissions to air, noise
  - revised groundwater trigger levels
- Annex 1 the decision checklist
- Annex 2 the consultation, web publicising and newspaper advertising responses

## Key issues of the decision

### Leachate treatment

A leachate management system is in place at Walleys Quarry Landfill through which leachate is currently pumped from the leachate holding tank situated on the landfill and then periodically tankered off site. The permit for the site previously allowed for treatment of up to 50 tonnes per day although this has never previously been put into operation. This variation authorises the installation of a leachate treatment system with the capacity to treat and dispose of 100m<sup>3</sup> of leachate per day at Walleys Quarry Landfill site. Following final restoration it is predicted that volumes will decrease to an average of nearer 10m<sup>3</sup> per day.

One of the primary constraints on the technology which has the potential to be adopted is the space limitation at Walleys Quarry. There is limited space for open lagoons or large storage tanks. The operator has included a best available techniques assessment (BAT) for a number of different types of leachate plants available. A standard aerobic sequencing batch reactor (SBR) is the technology which has been selected by the operator. SBRs use the principles of activated sludge but with the biological treatment and final settlement all taking place within the same vessel. We agree that this technology represents best available techniques (BAT) for this site.

### Emissions to sewer

A trade effluent discharge consent with Severn Trent Water has been in place since 2007 for the discharge of 100m<sup>3</sup> per day treated leachate to sewer but has not previously been utilised. The sewer takes the leachate to Strongford Sewage Treatment Works for treatment.

Leachate analysis data from 2010 to 2012 was submitted with the application to demonstrate the leachate quality at the site. The two primary contaminants for treatment are ammoniacal nitrogen and dissolved organic compounds measured as chemical oxygen demand (COD) and biological oxygen demand (BOD). Leachate strength is likely to change with time and the plant has been designed to allow for an increase in strength of 25%.

Details of the discharge and the resulting impact of the emission on controlled waters following treatment at the sewage treatment works is included in an H1 assessment submitted with the application and are summarised in the table below. An effluent sampling point will be installed within the leachate compound at the outflow from the effluent discharge tank.

The existing surface water emission points will be used for discharge of uncontaminated surface water from the external concreted areas around the leachate treatment and gas plants.

An H1 assessment for emissions to sewer was submitted with the application, the results of which are shown in the table below.

Substance	AA <sup>Note 1</sup> - EQS µg/l	Long term PC µg/l	% PC of EQS	< 4% of EQS
Ammonia as N	600	5.860657	0.98	Yes
COD	-	2734.973	-	-
BOD	500	3.907105	0.78	Yes
Chloride	250000	2120.993	0.85	Yes
Sulphate	400000	10.34972	0.003	Yes
Cyanide	1	0.004251	0.43	Yes
Sulphide	-	10.34972	-	-
Arsenic	50	0.132834	0.009	Yes
Cadmium	0.15	0.00082	0.55	Yes
Copper	10	0.002125	0.02	Yes
Iron	1000	1.315131	0.13	Yes
Lead	7.2	0.003516	0.49	Yes
Mercury	0.05	0	0	Yes
Nickel	20	0.093349	0.47	Yes
Zinc	75	0.033851	0.05	Yes
Naphthalene	2.4	0	0	Yes
Toluene	50	0	0	Yes
Phenols	7.7	0.033192	0.43	Yes
Mecoprop	18	0.011895	0.07	Yes
Note 1: Average annual (AA) standard				

The process contribution (PC) for all parameters was found to be less than 4% of the environmental quality standard (EQS) concentrations and have therefore been screened out as insignificant.

### Containment

The main storage and treatment vessels will consist of a leachate balancing tank, an SBR tank and an effluent discharge tank. The vessel sizes were calculated based on the quantity and strength of leachate produced at the site. It is proposed that the SBR will initially operate on the basis of one batch per day, treating and discharging 75m<sup>3</sup> per batch.

The plant is designed for an operational life of 20 years. A planned preventative maintenance programme for all elements of the plant will be put in place which includes regular inspection of storage vessels.

The tanks will be glass fused to steel, in line with standards set out in BS EN ISO 28765:2011. The tanks will be constructed with a '3 coat, 2 fire' application, ensuring the tanks are suitable for use at pH 2-11. All tanks will be equipped with glass reinforced plastic self supporting roofs.

The plant will comprise:

- 75m<sup>3</sup> bunded balancing tank
- 1,200m<sup>3</sup> bunded SBR tank
- 75m<sup>3</sup> bunded effluent tank with pumps for sewer discharge
- 15m<sup>3</sup> bunded caustic soda storage tank
- Concrete base and bund for containment of SRB, effluent and caustic tanks

- Pipeline to the sewer manhole with sampling point and flow meter
- Control room
- SCADA systems
- Dosing systems for caustic soda and antifoam.

Failure of the sewer connection would result in treated leachate flowing to the sump from where it can be pumped back. There will be a number of valves regulating this. There is a tanker connection point at the balancing tank.

Each tank will be separately bunded, double skinned with the bunding having a capacity to hold 110% of the tank contents. Pipework penetrating bunds will also have secondary containment.

The existing leachate pumping system will be intercepted and directed into the proposed leachate balancing tank. Filling of the tank will be controlled by a pressure transducer and tank levels will be linked to and displayed on a SCADA system. A back up switch will be present to prevent filling in the event that the transducer fails.

The biological treatment will occur within the SBR tank with aerators. Ammonia and pH probes will be fitted to the tank to enable automatic control of the process. A floating off-take device will be fitted to enable effluent to be decanted from just below the liquid surface by gravity via a flexible hose to the effluent discharge tank.

Effluent will enter the discharge tank at a high level and exit near the bottom via two discharge pumps.

### Odour

The site will not be dealing with any additional leachate but it will go through a phase of treatment prior to disposal following the installation of the leachate treatment plant. There is a potential for odour release from untreated leachate. Leachate will only be stored for a relatively short period of time in the balancing tank prior to treatment. The potential to release odours from a well designed well operated SBR plant should be minimal and there should be no detectable odour from such a plant. To minimise the risk of odour release, the SBR tanks are enclosed and raw leachate will enter the balancing tank through an internal pipe extending vertically downwards to submerge the pipe end. The balancing tank vent will be connected to a biofilter.

The new biofilter is a separate filter serving the leachate treatment plant leachate balancing tank and is the same design as the biofilter connected to the previously used leachate storage tank. The main addition to the proposed biofilter is an array of four automated water spray nozzles to ensure the filter matrix doesn't dry out. The spray nozzles will be fed with mains water in to the top of the biofilter once a day.

The planned preventative maintenance programme will include maintenance measures for the biofilter such as routine checks of the automated spray system and routine olfactory testing.

The Odour Management Plan for the site will be updated to reflect the changes introduced by the variation as outlined in the variation application. The Operator will undertake regular odour monitoring along the site perimeter.

## Noise

The application identifies the pumps and mixers as the primary potential source of noise from the new leachate treatment plant. The operator has confirmed that the plant output specification includes a performance guarantee that noise emissions at the nearest noise sensitive receptors will not exceed the background noise limits defined in the planning permission. Following plant commissioning a background noise survey will be undertaken to assess whether the actual noise emissions are as predicted or whether further noise control techniques, such as acoustic fencing, are required.

The reduction in intermittent tanker movements which previously collected the leachate to remove for disposal will result in a reduction in site noise.

## **Gas engine**

### Emissions to air

The decomposition of biodegradable waste within the landfill produces biogas which is burned within two existing engines to produce electricity for the National Grid. An air quality assessment was undertaken for the landfill site to assess what impact an additional 3MW<sub>th</sub> landfill gas engine would have on the air quality. With only two engines at the site, significant volumes of landfill gas were being flared off. Two 3MW<sub>th</sub> engines utilise approximately 1100m<sup>3</sup>/h if run at full capacity compared to the landfill gas extraction volumes of 1500m<sup>3</sup>/h.

The assessment was undertaken using GasSim 2.5 which is an in-built AERMOD dispersion model. The existing conceptual model for the site was updated with waste inputs and recent monitoring data. The model was further modified to reflect the actual current landfill gas extraction rates. The resulting landfill gas generation model has a resulting landfill gas generation peak in the years 2015 – 2019. The screening was undertaken for the year 2019 as this represents the 'worst case' year. Two scenarios were run; '3 engines'; and 'flare only'.

Emission rates for NO<sub>2</sub> and CO were based on the emission limit values outlined in the permit and emissions of SO<sub>2</sub> were calculated using the maximum value of SO<sub>2</sub> recorded for the existing two engines which was 402mg/m<sup>3</sup>.

The modelling was based on three engines operating at full capacity.

Background concentrations of NO<sub>2</sub> and SO<sub>2</sub> were obtained from the Department for Environment, Food and Rural Affairs (DEFRA) Local Air Quality Management (LAQM) website.

The input parameters were validated using the Environment Agency air quality assessment Air Quality Modelling and Assessment Unit (AQMAU) Screening tool. Although we did not agree with the specific values generated by the screening, we agree with the overall conclusions.

The site is located approximately 1.5km west of Newcastle-under-Lyme and 0.5km east of Silverdale in Staffordshire. The site is bounded by agricultural land but with residential dwellings and industrial estates beyond in all

directions. The closest receptor is a residential caravan site that is located directly adjacent (approximately 30m) to the south of the site boundary.

There are no Air Quality Management Areas in the vicinity of the site.

The following parameters were used to carry out the assessment:

**Table 1 – engine emission parameters**

Parameter	Stack Height (m)	Exit Diameter (m)	Discharge velocity (m/s)	Temperature (°C)	Total flow (m <sup>3</sup> /hr)
Engine 1	7	0.35	45	520	5200
Engine 2	7	0.35	45	520	5200
Engine 3	7	0.25	25	487	4398

**Table 2 – EALs and emissions characteristics for engines**

Emission parameter	Long Term EAL (µg/m <sup>3</sup> )	Short Term EAL (µg/m <sup>3</sup> )	Emission concentration (m <sup>3</sup> /hr)	Emission rate – engines 1 & 2 (g/s)	Emission rate – engine 3 (g/s)
NO <sub>x</sub> (as NO <sub>2</sub> )	40	200	500	0.72	0.61
SO <sub>2</sub>	20	266	402	0.58	0.41
CO	-	30,000	1400	2.02	1.71

The long term emission limit value (ELV) for SO<sub>2</sub> is for the protection of vegetation and ecosystems rather than for the protection of human health and is included in the below table for information only. There is no long term EAL for CO.

The following long term maximum process contributions (PCs) and PECs Predicted Environmental Concentration (PECs) predicted at the sensitive receptors by the AQMAU screening tool were indicated as follows:

**Table 4 – Long term maximum process contributions at receptors**

Parameter	Background Concentration (µg/m <sup>3</sup> )	Long term max PC (µg/m <sup>3</sup> )	Long term max PC as % EAL	Long term max PEC (µg/m <sup>3</sup> )	Long term max PEC as % EAL
NO <sub>x</sub> (as NO <sub>2</sub> )	15.5	8.8	22	24.3	61
SO <sub>2</sub>	4.67	6.6	13	11.27	23

Although the maximum long term PCs cannot be classified as insignificant, the PEC values are less than 70% of the relevant EAL for SO<sub>2</sub> and NO<sub>2</sub>, indicating that there is little likelihood of any environmental quality standards being exceeded (as outlined in H1 guidance). The screening has been based on a worst case scenario of all engines operating at the maximum ELVs which is a conservative assumption and we conclude that an exceedence of the NO<sub>2</sub> long term EAL is unlikely.

The following short term maximum PCs were predicted by the AQMAU screening tool:

**Table 5** – Short term maximum process contributions at receptors

Parameter	Background Concentration ( $\mu\text{g}/\text{m}^3$ )	Short term max PC at receptors ( $\mu\text{g}/\text{m}^3$ )	Short term headroom between EAL and 2 x background ( $\mu\text{g}/\text{m}^3$ )	Short term max % of headroom
NO <sub>x</sub> (as NO <sub>2</sub> )	15.5	59.9	169	35.4
SO <sub>2</sub> (15 minute)	4.67	142.0	256.66	55.3
CO (1 hour)	376	429	29,248	1.5

The short term hourly mean PC for CO is less than 20% of the headroom between the EAL and twice the background concentration and it can therefore be concluded that there is no likely significant environmental impact. The maximum short term hourly mean PC for NO<sub>2</sub> is over the 20% threshold at 35% however, there is still adequate headroom between the PEC and the EAL to conclude that an exceedence of the NO<sub>2</sub> short term EAL is unlikely. The maximum short term 15 minute mean PC for SO<sub>2</sub> is over the 20% threshold at 55% however, there is still adequate headroom between the PEC and the EAL to conclude that an exceedence of the SO<sub>2</sub> short term EAL is unlikely.

As above, the emission parameters submitted by the Operator are based on a worst case scenario of three CHP engines running with the maximum emission concentrations.

The use of gas engines to burn the biogas to recover energy from the landfill emissions is considered Best Available Techniques (BAT) within Environment Agency Technical Guidance Note 'EPR 5.02 How to comply with your environmental permit, Additional guidance for: Landfill' and the corresponding BREF Note. The third engine will divert biogas from the flares which would burn the biogas with no associated recovery.

The volume of gas being burnt will not change as a result of this variation, it is only the method of combustion that will change.

In terms of global impacts, carbon dioxide (CO<sub>2</sub>) will unavoidably be produced by the combustion process as methane is oxidised to CO<sub>2</sub> and water. However, the alternative of releasing methane, which has a Global Warming Potential 21 times that of CO<sub>2</sub> (over 100 years), would have a far greater impact.

The nearest nature conservation site is Pool Dam Marshes Local Nature Reserve approximately 500m to the north east of the gas management compound. There are no Sites of Special Scientific Interest within 2km of the site. The closest European Site is Midland Meres & Mosses – Phase 1 at 8.3km from the site. This installation is not considered '*relevant*' for assessment under the Agency's procedures which cover the Conservation (Natural Habitats &c.) Regulations 1994 (Habitats Regulations) because the combustion plant has an aggregated thermal input of less than 20MW and is 0.5km from the nearest habitat site. This was determined by referring to the Agency's guidance 'AQTAG014: Guidance on identifying '*relevance*' for



assessment under the Habitats Regulations for installations with combustion processes.’

### Noise

The new engine will be containerised with built in noise attenuation measures. A planned preventative maintenance programme is in place for all critical equipment and infrastructure, including procedures for engine maintenance. The additional engine will result in a greater volume of biogas being combusted within an engine and less being flared. The combustion of gas in the additional engine will remove such frequent requirement of the operation of the flare and reduce noise associated with the flare.

### **Revised groundwater trigger levels**

Following the completion of improvement condition 3 (IC3) which required the operator to complete a review of groundwater compliance limits, table S4.5 (previously table S4.4) which specifies trigger levels for emissions to groundwater has been revised. The trigger levels for mercury, tributyltin (TBT) and mecoprop have been amended as follows.

<b>Monitoring point reference</b>	<b>Parameter</b>	<b>Previous limit</b>	<b>Revised limit</b>
Downstream groundwater monitoring point labelled as ‘Pumped groundwater discharge in lagoon – groundwater compliance point’ on drawing number 1184.06 (dated 16/09/11)	Mercury	0.00001mg/l	0.0001mg/l
	Mecoprop	0.00004mg/l	0.0016mg/l
	Tributyltin	0.000001mg/l	0.00002mg/l
Note 1: Limits amended from original permit through variation EPR/BR9677IT/V004			

The proposed amendments to the trigger levels for mercury and tributyltin were originally proposed in the report ‘Groundwater Improvement Condition 3 Report’, dated March 2013 submitted by the Caulmert (on behalf of Lafarge) to address IC3. Caulmert stated that the original trigger levels in Table S4.4 of the permit (0.00001mg/l and 0.000001mg/l respectively) could not be achieved by the testing laboratory. On the basis of leachate quality data in both the 2011 HRA review and the 2013 Annual Report, neither mercury nor TBT appear to be contaminants that are notably elevated in the leachate and accordingly, are unlikely to represent a high risk to groundwater. The 2013 Annual Report records all mercury and TBT concentrations to be below their respective limits of detection in the leachate. Given the above, and the fact that the receiving groundwater is in the Etruria Marl of Mercia Mudstone Group, and therefore of low sensitivity, the changes to the limits for mercury and TBT, based on the laboratory limits of detection, are accepted but suggest that at the next HRA review alternative and potentially more appropriate substances, which are present in the leachate at elevated concentrations, are selected for the application of groundwater compliance

limits. An improvement condition reflecting this conclusion has been included in the permit.

At the time of IC3 an interim position had been adopted whereby Mecoprop had been listed as a non-hazardous substance. Mecoprop remains an interim non-hazardous substance and therefore, the position remains unchanged from that which prevailed in March 2013. The proposed compliance limit is based on the maximum recorded concentration of 1.6µg/l which was observed in BH206s prior to landfilling. This is considerably lower than the standard for protection of surface water as defined by the River Basin Districts Typology, Standards and Groundwater Threshold Values (Water Framework Directive) (England and Wales) Directions 2010, of 18µg/l, and the World Health Organisation Drinking Water Standard of 10µg/l. Therefore, the proposed amended limit for mecoprop has been accepted.

## 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
<b>Yes</b>		
<b>Consultation</b>		
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, web publicising and newspaper advertising	The web publicising, consultation and newspaper advertising responses (Annex 2) were taken into account in the decision.  The decision was taken in accordance with our guidance.	✓
<b>Operator</b>		
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.	✓
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
<b>The site</b>		
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. The site boundary has not changed as a result of this variation.  A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.  An assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites.  <b>See key issues section above for further information.</b>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	We have not formally consulted on the application. The decision was taken in accordance with our guidance.	
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p><b>See key issues section above for further information.</b></p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p><b>See key issues above for further information on operating techniques.</b></p> <p>The proposed techniques/ emission levels for priorities for control are in line with the benchmark levels contained in the following guidance notes and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.</p> <ul style="list-style-type: none"> <li>• Sector Guidance Note 'S5.03 Guidance for the Treatment of Landfill Leachate'.</li> <li>• Technical Guidance Note 'LFTGN 03 Guidance on the Management of Landfill Gas'.</li> <li>• Technical Guidance Note 'LFTGN 08 Guidance for Monitoring Landfill Gas Engine Emissions'.</li> <li>• Technical Guidance Note 'EPR 5.02 How to comply with your environmental permit, Additional guidance for: Landfill'</li> </ul> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p>	✓
<b>The permit conditions</b>		
Improvement conditions	<p>Based on the information on the application, we consider that we need to impose improvement conditions.</p> <p>We have imposed improvement conditions to ensure that:</p> <ul style="list-style-type: none"> <li>➤ The appropriate measures are in place to prevent pollution from noise</li> <li>➤ the appropriate measures are in place to prevent pollution from odour.</li> <li>➤ The appropriate measures are in place to ensure that an adequate gas management plan is in place.</li> </ul>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Updating permit conditions during consolidation	<p>We have consolidated the existing permit and subsequent variations into one document through this variation.</p> <p>The following conditions have been updated to the modern format:</p> <p>Condition 3.2.4(b) has been amended to reflect that hydrogeological risk assessments are now only required every 6 years rather than every 4 years.</p> <p>The condition requiring a Site Protection and Monitoring Programme has been removed as these are no longer specified as a requirement in the modern landfill template. Such a programme is expected to be incorporated into the operating techniques through the environmental management system required by permit condition 1.1.1.</p> <p>References to the Landfill Directive have been removed from the text as this has been superseded by the EP Regulations.</p> <p>A landfill permit review is scheduled to be carried out for Walleys Quarry Landfill through which all conditions in the permit will be updated to the modern conditions outlined in the current Environment Agency landfill template.</p> <p>The operator has agreed that the consolidated conditions are acceptable.</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> <p>The following substances have been identified as being emitted in significant quantities and ELVs have been set for those substances.</p> <p>ELVs for oxides of nitrogen (NO<sub>2</sub>), carbon monoxide (CO) and total volatile organic compounds (VOCs) have been set for the new 3MW gas engine as follows:</p> <p>NO<sub>2</sub> - 500 mg/m<sup>3</sup>  CO - 1400mg/m<sup>3</sup>  VOCs - 1000 mg/m<sup>3</sup></p> <p>The trigger levels for emissions into groundwater have</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>been amended for mercury, tributyltin and mecoprop. The revised trigger levels are outlined in table S4.5.</p> <p><b>See key issues section above for further information on gas engine ELVs and revised groundwater trigger levels.</b></p> <p>The requirement to monitor Non Methane Volatile Organic Compounds (NMVOCs) from the fixed and mobile landfill gas flares has been removed from the permit in line with current Environment Agency guidance on the monitoring of flares LFTGN05.</p> <p>It is considered that the ELVs described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment secured.</p>	
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>We made these decisions in accordance with the following guidance notes:</p> <ul style="list-style-type: none"> <li>• Sector Guidance Note 'S5.03 Guidance for the Treatment of Landfill Leachate'.</li> <li>• Technical Guidance Note 'LFTGN 03 Guidance on the Management of Landfill Gas'.</li> <li>• Technical Guidance Note 'LFTGN 08 Guidance for Monitoring Landfill Gas Engine Emissions'.</li> <li>• Technical Guidance Note 'EPR 5.02 How to comply with your environmental permit, Additional guidance for: Landfill'.</li> </ul> <p>Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS (Environment Agency's monitoring certification scheme) certification or MCERTS accreditation as appropriate.</p>	✓
Reporting	<p>We have specified reporting in the permit for the following reasons:</p> <p>i) to ensure emissions are within ELVs and equivalent parameters,  ii) that the installation is being operated in an efficient manner.</p> <p>We made these decisions in accordance with the</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>following guidance notes:</p> <ul style="list-style-type: none"> <li>• Sector Guidance Note 'S5.03 Guidance for the Treatment of Landfill Leachate'.</li> <li>• Technical Guidance Note 'LFTGN 03 Guidance on the Management of Landfill Gas'.</li> <li>• Technical Guidance Note 'LFTGN 08 Guidance for Monitoring Landfill Gas Engine Emissions'.</li> <li>• Technical Guidance Note 'EPR 5.02 How to comply with your environmental permit, Additional guidance for: Landfill'.</li> </ul>	
<b>Operator Competence</b>		
Environment management system	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.	✓
Technical competence	Technical competency is required for activities permitted. The operator is a member of an agreed scheme.	✓
Financial provision	<p>There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.</p> <p>The financial provision arrangements satisfy the financial provisions criteria.</p>	✓

## **Annex 2: Consultation, web publicising and newspaper advertising responses**

Summary of responses to consultation, web publication and newspaper advertising and the way in which we have taken these into account in the determination process. (Newspaper advertising is only carried out for certain application types, in line with our guidance.)

### **A) Advertising and Consultation on the Application**

#### **1) Consultation Responses from Statutory and Non-Statutory Bodies**

Response received 18/02/14 from
Newcastle-under-Lyme Borough Council – Environmental Health Department
Brief summary of issues raised
<p>The Environmental Health Department stated that there is a potential proposal for the development of housing up to the site boundary and that developers have been asked to consider relevant noise mitigation measures. A map outlining the potential area for new developments was enclosed.</p> <p>The Environmental Health Department confirmed the following:</p> <ul style="list-style-type: none"><li>• No complaints have been received alleging non-compliance with any planning conditions relating to noise within the past three years.</li><li>• No formal planning enforcement actions have been taken for noise related conditions within the last three years.</li><li>• No complaints have been received alleging a noise nuisance within the past three years.</li><li>• There are no noise initiatives in the vicinity of the installation.</li></ul>
Summary of actions taken or show how this has been covered
No planning application has been submitted for the housing development and therefore it will not be taken into account within the environmental assessment for this permit variation. If a planning application is submitted for this development the Newcastle-under-Lyme Planning Department will consult with the Environment Agency through the Environment Agency's Sustainable Places team. No further action required.

Response received 11/03/14 from
Newcastle-under-Lyme Borough Council – Planning Department
Brief summary of issues raised
Confirmation that a delegated letter has been issued relating to planning decision (WDL.709/216 MW) for Walleys Quarry Landfill. The letter confirms that planning permission has been granted for a third landfill gas engine.
Summary of actions taken or show how this has been covered
No further action required



Response received from
Health and Safety Executive
Brief summary of issues raised
No response received
Summary of actions taken or show how this has been covered
No further action required

Response received 07/05/14 from
Severn Trent Water
Brief summary of issues raised
<ul style="list-style-type: none"> <li>This site has a discharge to sewer which is subject to a Trade Effluent Consent/Agreement issued by Severn Trent Water Limited. The site has an agreement for leachate and also a consent for contaminated site drainage.</li> <li>Our monitoring of the trade effluent discharge has indicated some minor compliance failures of the quality conditions of the discharge consent. The site has contaminated drainage discharge consent and there has been minor compliance failures however we have only had one sample and the report has not been issued to the customer as the sample point code is not currently live. Leachate plant has not yet been set up so no discharge has been made from there, therefore, we cannot comment on compliance.</li> </ul>
Summary of actions taken or show how this has been covered
An H1 assessment for discharges to sewer was submitted with the application – see key issues section for further information. Regular monitoring will be required by Severn Trent Water Limited. No further action required

**2) Consultation Responses from Members of the Public and Community Organisations**

Response Received from	
Brief summary of issues raised:	Summary of action taken / how this has been covered
No responses received	No further action required

**B) Advertising and Consultation on the Draft Decision**

This section reports on the outcome of the public consultation on our draft decision carried out between <insert date> and <insert date> and the public drop-in event held on <insert date> at <insert venue>.

In some cases the issues raised in the consultation were the same as those raised previously and already reported in section A of this Annex. Where this is the case, the Environment Agency response has not been repeated and reference should be made to section A for an explanation of the particular concerns or issues.

Also some of the consultation responses received were on matters which are outside the scope of the Environment Agency's powers under the Environmental Permitting Regulations. Our position on these matters is as described previously.

**1) Consultation Responses from Statutory and Non-Statutory Bodies**

Response Received from:	
Brief summary of issues raised:	Summary of action taken / how this has been covered

Response Received from:	
Brief summary of issues raised:	Summary of action taken / how this has been covered

**2) Consultation Responses from Members of the Public and Community Organisations**

Response Received from:	
Brief summary of issues raised:	Summary of action taken / how this has been covered

Response Received from:	
Brief summary of issues raised:	Summary of action taken / how this has been covered