

# Permitting decisions

## Bespoke permit

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We have decided to grant the permit for Hams Hall operated by Forterra Building Products Limited.

The permit number is EPR/QP3435DY.

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 provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

This decision document provides a record of the decision making process. It:

- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#).

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

Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit covers.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
<b>Consultation</b>	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <p>Public Health England, Food Standards Agency, Health and Safety Executive, North Warwickshire Borough Council (Planning and Environmental Health Departments), and Severn Trent Water (sewage authority).</p> <p>The comments and our responses are summarised in the <a href="#">consultation section</a>.</p>
<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 our guidance on legal operator for environmental permits.
<b>The facility</b>	
The regulated facility	<p>We considered the extent and nature of the facility/facilities at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1'.</p> <p>The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p>
<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 plan is included in the permit.
Site condition report	<p>The permitted facility is at an existing site that has been in operation for over 30 years, producing aerated concrete blocks from ash materials.</p> <p>Baseline data was not provided by the applicant during the permit determination and because of this, two options were available:</p> <ul style="list-style-type: none"> <li>• A condition could be included in the Permit, which would require the Applicant to undertake a site intrusive investigation to obtain the site</li> </ul>

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	<p>baseline reference data; or</p> <ul style="list-style-type: none"> <li>As an alternative approach, the Applicant can accept that there is “zero contamination” beneath the site, irrespective of the site history.</li> </ul> <p>The Applicant has accepted that there is ‘zero contamination’ beneath the site, therefore when the Operator applies to surrender the Permit, any contamination by substances used at, produced or released from the facility will be considered to have resulted from the operation of the facility. This is in accordance with the Environment Agency Guidance H5 – Site Condition Report.</p> <p>Condition 3.1.3 of the permit requires the applicant to carry out periodic monitoring of groundwater at least once every five years and soil at least once every ten years.</p> <p>We have reviewed the Site Condition Report and included Improvement Conditions in the permit to address identified issues and uncertainties relating to the design and condition of the containment measures that exist at the facility. Taking into account that it is an existing operating facility, which has been operating the same processes at the site for over 30 years, the use of improvement conditions to address these issues is considered to be appropriate, in terms of driving environmental improvements at the facility and ensuring that the containment measures are, and will continue to be, BAT.</p> <p>Improvement conditions have been included in the permit requiring the operator to existing review site drainage and containment measures, including a review of their condition and design/construction by a qualified engineer. These conditions will ensure that the measures in place meet the relevant requirements of Sector Guidance Note EPR5.06, CIRIA Guidance C736, and the groundwater protection code for fuel tanks.</p> <p>An improvement condition has also been included requiring the operator to review and where necessary update the site condition report following the completion of these improvement conditions.</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> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. The potential environmental impact of the facility’s emissions to air and water upon relevant habitat sites is detailed further in the Environmental risk section of this document.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p>
<p><b>Environmental risk assessment</b></p>	
<p>Environmental risk</p>	<p>We have reviewed the operator's assessment of the environmental risk from the facility and consider that it is satisfactory.</p>

Aspect considered	Decision
	<p>The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant with the exception of point source emissions to air of Nitrogen Dioxide (NO<sub>2</sub>) from the facility's gas fired boiler plant (see Emissions to Air section below).</p> <p><b>Emissions to Air</b></p> <p>The existing facility has a number of emission points to air, including releases from the autoclaves, the steam condenser plant and the two gas-fire boiler plant.</p> <p><u>Autoclaves and condenser plant</u></p> <p>Emissions to air from the autoclaves and steam condenser plant are comprised of water vapour and carbon dioxide. Due to the nature/composition of the emissions from the autoclaves these are considered to have an insignificant environmental impact and are not considered further in this section. However, the operation of these plant and the emissions from them are considered further in terms of the facilities energy and water efficiency (see Operating Techniques section).</p> <p><u>Particulate emissions from silos, transfer and mixing plant</u></p> <p>The site's storage silos, pneumatic transfer systems and mixing plant have emission points to air (vents) that operate during times of material delivery, transfer and mixing, respectively. All of these emissions points are provided with dust abatement in the form bag filters and cartridge filters, which, according to the application information provided, are designed and operated to maintain emissions below 10mg/m<sup>3</sup> (this is significantly lower than the benchmark emission level of 50mg/m<sup>3</sup> stated in Sector Guidance Note EPR5.06). The type of abatement equipment provided is considered to be BAT for preventing emissions of particulates to air. The silos are provided with high level alarms to prevent over-filling and all deliveries are supervised and inspected to ensure that there are no visible dust emissions. The abatement units are visually checked on a daily basis and maintenance of the filters is carried out on a 6 monthly basis. Due to the intermittent nature of these potential emissions and the abatement provided we are satisfied that emissions to from the silos are unlikely to have a significant environmental impact.</p> <p>However, no other monitoring is currently carried out on the condition/operation of the filters. Section 2.1.2 of SGN5.06 recommends that fabric filters are monitored for pressure drop and states that an opacity meter or particle impingement detector can be used to monitor performance. Monitoring has also not been undertaken to quantify/confirm the concentration of particulates emitted from them. Therefore an improvement condition has been included in the permit requiring the operator to review the monitoring arrangements in place for the operation of these filters, having regards to Sector Guidance Note EPR5.06, and implement necessary measures to ensure that the operating efficiency of these filters is monitored and maintained. An improvement condition has also been included requiring</p>

Aspect considered	Decision
	<p>the operator to undertake an agreed monitoring programme to quantify emissions of particulates released from the filters.</p> <p><u>Emissions from boiler plant</u></p> <p>Detailed dispersion modelling was undertaken to assess the potential environmental impact of the emissions from the facility's gas-fired boiler plant upon local human and ecological receptors. This assessment is summarised below.</p> <p>The gas fired boiler plant at the facility each have a thermal input capacity of 10 megawatts and only one boiler plant is ever in operation at any one time.</p> <p>The plant are only operated on gas oil during times of maintenance, typically twice per year. The gas oil used is 'low sulphur' (&lt;1% w/w Sulphur). In line with our guidance, due to the limited time the plant are operated on this back-up fuel this has not been considered in the assessment.</p> <p>We have reviewed the modelling undertaken along with the results and conclusions drawn from it. We are satisfied that the modelling and assessment undertaken is consistent with our guidance and that we are able to replicate the results provided.</p> <p><u>Human Health Impacts</u></p> <p>In terms of potential impact upon human receptors, the maximum predicted long term (annual average) process contribution of NO<sub>2</sub> in the modelled area resulting from plant emissions (ground level concentration) was 1.6µg/m<sup>3</sup>, or 4% of the relevant Environmental Assessment Level (40µg/m<sup>3</sup>). The maximum predicted environmental concentration of NO<sub>2</sub> (comprising of the process contribution attributed to plant emissions and existing background concentrations) was 22.4 µg/m<sup>3</sup> or 56% of the Environmental Assessment Level. In accordance with our guidance on Environmental Risk Assessment, it is concluded that the long term impact of NO<sub>2</sub> emissions from the facility are not significant as the predicted environmental concentration is less than 70% of the Environmental Assessment Level. The process contribution from the existing plant represents approximately 7% of this existing background concentration.</p> <p>The maximum predicted short term (1-hour average) ground level process contribution of NO<sub>2</sub> in the modelled area was 13.1µg/m<sup>3</sup>, or 7% of the relevant Environmental Assessment Level (200µg/m<sup>3</sup>). Therefore, in accordance with our guidance (which screens out emission that are less than 10% of the relevant short term assessment level), it was concluded that it would have an insignificant environmental impact. The maximum short term predicted environmental concentration of NO<sub>2</sub> was 54.7µg/m<sup>3</sup>, or 27% of relevant Environmental Assessment Level, which supports this conclusion.</p> <p><u>Ecological Impacts</u></p> <p>The facility is within 2km of two Sites of Special Scientific Interest (River Blyth and Whitacre Heath) and a number of non-statutory conservation sites (local wildlife sites and areas of ancient woodland). The impact of the plant's emissions to air upon these sites was assessed using detailed dispersion</p>

Aspect considered	Decision
	<p>modelling in terms of predicted NOx concentrations, acid deposition and nitrogen deposition.</p> <p>The assessment shows that the impact of these emissions upon the local non-statutory conservation sites can be screened out in accordance with our guidance, as they do not exceed the relevant critical loads or levels.</p> <p>In terms of the River Blyth SSSI, the impact of emissions to air from the facilities boiler plant upon the condition of the site features has been screened out in accordance with AQTAG14 (Guidance on identifying 'relevance' for assessment under the Habitats Regulations for installations with combustion processes) and therefore not assessed further. This is on the basis that the boiler plant is less than 20 megawatts in size (thermal input) and the habitat site is over 500m away from the facility.</p> <p>The notifiable feature of the Whitacre Heath habitat site is its population of wetland breeding birds and this does not have any critical levels or loads associated with it, as it is largely associated with open water features. However, the risk assessment proposed and considered critical loads/levels based upon the likely vegetation type (fen, marsh and swamp – rich fens) and soil type of the site. We agree that the levels/loads used in this assessment are precautionary/conservative in nature.</p> <p>The APIS website states that Whitacre Heath SSSI is not sensitive to acidification and therefore impacts related to acid deposition do not need to be considered, although the impact assessment shows that such emissions are less than 1% of the critical load and therefore can be screened out as insignificant.</p> <p>The detailed air modelling assessment showed that the maximum predicted environmental concentrations (ground level concentrations) of Oxides of Nitrogen (NOx) were 107% and 63% of the annual and daily mean critical levels, respectively. The predicted annual mean ground level concentration was dominated by existing background concentrations, with the process contribution from facility representing 8% of the assessment level. The process contribution from the facility represented 23.4% of the short-term daily mean assessment level. Although the predicted process contributions from the facility cannot be screened out as insignificant, we are satisfied that predicted emissions of NOx from the facility will not have a significant or detrimental impact upon the SSSI. The emissions from the facility have been predicted using conservative emission rates. Also, conservative critical levels have been applied and it is unlikely that the designated features of the habitat site will be directly sensitive to the assessed emissions. The site (as assessed) has also been operating at the site for over 30 years and the condition of the site is reported as being favourable. Existing background concentrations of NOx are high, predominantly due to road vehicle emissions, and as the site is existing and operational these background emission levels are likely to already include any contribution made by the site in question.</p> <p>The detailed air modelling assessment also considered the potential impact of nitrogen deposition upon the condition of features of Whitacre Heath SSSI. The assessment considered predicted emissions against the lower critical level associated with rich fen habitat sites, as there is no relevant critical level for the designated features of the habitat site (breeding birds). The maximum predicted process contribution associated with emissions from the facility represented 1.6% of the lower critical load for nitrogen deposition and</p>

Aspect considered	Decision
	<p>therefore could not be screened out as being insignificant. Although existing background levels of nitrogen deposition are high and are predicted to exceed the critical load used in the assessment we are satisfied that emissions from the facility will not have a significant or detrimental impact upon condition of the designated features of the SSSI. This is because the lower critical load for nitrogen deposition has been applied to provide a conservative assessment. If the mid-point or upper critical loads were applied the maximum predicted process contribution would be less than 1% of the assessment level and would screen out as insignificant. The critical load also does not directly apply to the designated features of the habitat site and therefore the assessment is considered to be very precautionary in nature. This is supported by the fact that the site has been in operation (as assessed) for over 30 years and the SSSI is reported as being in favourable condition. Emissions from the existing facility are also likely to be double-counted within the background concentrations applied in the assessment.</p> <p>In summary, we have reviewed the results of the detailed air dispersion modelling for Whitacre Heath SSSI (in terms of predicted concentrations of nitrogen dioxide, acid deposition and nitrogen deposition), including the modelling techniques and assumptions used, and agree with the conclusions drawn by this assessment; that the emissions to air from the facility are not likely to damage the features which are of special interest. The notifiable feature of the SSSI is populations of breeding birds, which is not identified as being sensitive to the assessed emissions from the facility and does not have critical loads or levels. We are satisfied that predicted emissions will not have a significant or detrimental impact upon the habitat site or its notifiable features. This conclusion is supported by the fact that the facility has been operating at the location for over 30 years and the SSSI is stated as being in "favourable" condition.</p> <p><u>Emissions to air conclusion</u></p> <p>We are satisfied that the assessed point source emissions to air from the facility will not have a significant environmental impact upon local human or ecological receptors. However, the assessment undertaken has been based upon assumed emissions levels rather than emissions data. The emission concentrations used in the assessments discussed above are likely to be conservative as they are associated with larger combustion plant (i.e. gas fired plant with a thermal input capacity of &gt;50MW).</p> <p>To ensure that the conclusions of the air quality impact assessments are appropriate and valid, an Improvement condition has set in the permit requiring the operator to undertake representative emissions monitoring for the boiler plant and repeat the H1 assessment, as necessary. For more information regarding these emissions, see section Operating techniques for emissions that do not screen out as insignificant.</p> <p>Emission limits and monitoring requirements for the two gas-fired combustion plant will be reviewed and confirmed when the Medium Combustion Plant Directive requirements are implemented nationally for existing combustion plant.</p>

Aspect considered	Decision
	<p><b>Emissions to Water</b></p> <p>The facility has one discharge to surface water (River Tame). As stated in the application, this is limited to the discharge of clean uncontaminated surface water, having passed through an interceptor chamber prior to discharge.</p> <p>The discharge to water was permitted under consent number T/16/35497/T. The consent limited the discharge to site drainage water only, which does not contain any poisonous, noxious, polluting or solid waste matter. The discharge has been incorporated into this permit from the consent with the discharge limited to 'clean uncontaminated surface water', which provides an equivalent level of environmental protection.</p> <p>The facility has one discharge to sewer, from the vehicle wash area, which also passes through an interceptor chamber prior to discharge to sewer. The sewage treatment works also discharges into the River Tame.</p> <p>Due to the nature and quantity of water discharged from the site to sewer, the provision of on-site interceptors and the treatment provided by the works, the discharge is not considered as having the potential to impact upon the condition of Whitacre Heath SSSI. This is supported by the fact that the facility has been in operation for over 30 years and the condition of the SSSI is reported as being in a favourable condition.</p> <p>There is no pathway for the sites discharge to surface water or sewer to the River Blythe; both are discharged to the River Tame and the River Blythe drains to the Tame, not vice-versa.</p> <p>An improvement condition has also been included in the permit for the collection of representative monitoring data for the facility's discharges to surface water and sewer, in order to confirm that they are as described and assessed in the application (i.e. free from relevant pollutants). Should any relevant pollutants be identified in either of the discharges then an improvement condition requires a further quantitative assessment of the discharge to be made. Following the completion of this assessment, further monitoring requirements and limits can be agreed with the Environment Agency if deemed necessary.</p> <p><b>Emissions of odour and noise</b></p> <p>The site and block manufacturing process have been operating at the site for over 30 years. The site does not have a history of complaints relating to either odour or noise and therefore it is considered unlikely that the continued operation of the facility will have a significant impact upon local amenity. The materials stored and treated on-site are not inherently odorous and are stored and treated within buildings and/or within enclosed systems. It is considered that the inclusion of the standard permit conditions for odour and noise will ensure that appropriate measures are taken on-site to prevent emissions of odour and noise from the facility and enable appropriate enforcement action to be taken should any amenity issues arise.</p>
<b>Operating techniques</b>	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.



Aspect considered	Decision
	<p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>Where we consider that they do not represent appropriate techniques for the facility we have set improvement conditions in the permit, as detailed in the sections above and below. Improvement conditions have been set in the permit with recognition that, although the facility is new to regulation by the Environment Agency under the Environmental Permitting Regulations, the concrete block manufacturing plant has been operating at the site for over 30 years and we are satisfied that the operator is committed to reviewing and improving the environmental performance of the facility on an ongoing basis through their existing Environmental Management System and the conditions of the permit.</p> <p><b>Waste pre-acceptance and acceptance</b></p> <p>The operator will obtain detailed compositional analysis for all waste received at the site as part of the facility's waste pre-acceptance procedures. Further chemical analysis and laboratory trials will also be undertaken upon the material once it has been received in order to assess and confirm its suitability for use in the block manufacturing process.</p> <p>Hazardous shale ash will be received directly from one source (power station in Estonia) and will be relatively homogenous in nature/composition. The operator is purchasing the ash directly from the producer and is reliant upon the material being of acceptable composition for use in the block manufacturing process. Samples taken of the ash material will accompany the loads received at the facility, which will be delivered in tankers.</p> <p>All waste material will be visually inspected upon arrival. Samples of waste material will be taken and tested by an accredited laboratory as part of the waste acceptance checks, to an agreed schedule.</p> <p>The treated blocks will be subject to a range of physical and chemical tests to ensure that they pass the necessary requirements for use as a building construction product. The facility has an on-site laboratory that will undertake a range of checks on the waste material (i.e. strength tests). Leachate testing will also be undertaken on the blocks.</p> <p>At the time of application and permit determination it remained unclear what specific parameters would be tested for and what specific criteria would apply to the waste pre-acceptance/acceptance checks and block leachate tests. This is because the operator was in the process of undertaking Environment Agency agreed trials at the facility using the proposed waste ash material. Because these trials had not been completed at the time of permit determination, pre-operational conditions have been included in the permit (Table S1.4A) requiring the operator to confirm the waste acceptance procedures and block testing procedures.</p> <p>The Operator also stated in the application that they may need to undertake further trials using alternative waste types in the future, to determine whether or not they can be used in the block making process. To ensure that the appropriate protocols and agreements will be in place prior to any additional trials being undertaken at the facility, a pre-operational condition for future development has been included in the permit (Table S1.4B)</p>

Aspect considered	Decision
	<p><b>Prevention of Fugitive Emissions to Land and Water</b></p> <p>The site is provided with an impermeable surface. Based upon the information provided in the application, we are satisfied that the operator will implement appropriate measures for the inspection and cleaning (housekeeping) of the facility, in order to prevent potential fugitive emissions.</p> <p>Most of the ash used in the block manufacturing process (including the hazardous shale ash and fine ash material) will be stored within contained silos. The waste materials that cannot be stored in silos (e.g. due to their higher moisture content or physical properties/size fraction) will be stored within covered buildings provided with roller bay doors.</p> <p>The waste treatment/block manufacturing process is carried out within the main process building and material is conveyed to and from the mixing process using enclosed systems. We are satisfied that the treatment plant used at the facility has been specifically designed, commissioned and operated to be fit for purpose. The treatment plant is enclosed and vented to atmosphere via an appropriate abatement system.</p> <p>Although the application states that all storage tanks and containers are (or will be) provided with containment measures that meet the requirements of the relevant guidance, we are not satisfied that all containers and tanks are provided with appropriate, independent secondary containment. Specifically, a number of tanks are stated as being double-skinned and not provided with additional independent secondary containment, which is considered BAT. Similarly, it remains unclear whether or not all bunds and bunded areas at the facility meet the requirements of EPR5.06, as set out in section 2.2.5 of this document, and CIRIA C736, in terms of bund design and construction.</p> <p>The application (BATOT report) states that all above ground tanks will be inspected daily. The facility has one underground storage tank for gas oil constructed from steel. This tank is subject to an ongoing programme of pressure testing to confirm its integrity. However, the site is reported to contain other below ground structures, including pipework, drains and other tanks, and it is unclear whether the requirements of EPR5.06 and other relevant guidance are currently being met at the facility for these, particularly with regards to inspection and maintenance procedures and leak detection measures.</p> <p>Therefore, an improvement condition has been included in the permit requiring the operator to review the containment, inspection and maintenance and leak detection measures for all infrastructure used to store or transfer potentially polluting liquids at the facility, having regards to the requirements of EPR5.06 and CIRIA C736, and provide a timetable for implementing identified improvements. This review shall include all above and below ground structures, and tanks/containers stored inside and outside of buildings.</p> <p>The site is also over 30 years old and the submitted site condition report identified some issues regarding the condition of the existing site surfacing and drainage infrastructure (e.g. damage to site surfacing). In light of this, an improvement condition has been included in the permit requiring that the design, construction and condition of the site's drainage and containment measures are reviewed by an appropriately qualified engineer against the</p>

Aspect considered	Decision
	<p>relevant guidance/standards, and that improvements are implemented to an agreed timetable.</p> <p>The Operator has stated in the application documentation that the site was surveyed in 2016, however no information has been provided regarding the findings of this survey or the standards to which existing site infrastructure and its condition was assessed against.</p> <p><b>Prevention of Fugitive Emissions to Air</b></p> <p>Due to the nature of the activities undertaken at the facility, the primary sources of potential fugitive emissions to air from the facility is dust from the storage and handling of materials used in the block production process and water vapour (steam) from the autoclaves. Fugitive emissions of water are considered further under the Water Use section below.</p> <p>Most material accepted and stored at the facility (fine ashes, cement and other dry additives) will be stored in contained silos. All silos are provided with dust abatement systems (either bag filters or cartridge filters). Material is transferred to the silos pneumatically using flexible hosing and sealed couplings. Enclosed conveyors are used to transfer the material from the silos and within the ash treatment process.</p> <p>The waste mixing process and mixing bins are abated by an air extraction system that passes air through self-cleaning filter cartridges before the air is discharged back into the process building.</p> <p>Some non-hazardous waste materials cannot be stored inside silos (e.g. conditioned ash, which has a higher moisture content than the dry ash stored inside the silos, or coarser materials), meaning that it has to be stored externally. Such materials will be stored in bays within covered three-sided buildings, provided with roller doors on the open side. Misting systems will be deployed on-site when required to prevent potential emissions of dust (for example, times of high wind). Storage areas will be inspected on a daily basis and a road sweeper or vacuum cleaner will be deployed if a build-up or spill of material is identified.</p> <p>The concrete block products are wrapped in plastic and stored on pallets in an external yard area.</p> <p>Reject blocks are transported to the 'crusher building' using an enclosed conveyor and crushed within the enclosed crusher plant. The crushed material is stored within a silo before being sent off-site for re-use. Reject materials that cannot be stored in the silo (e.g. over-sized materials) are stored within the hardcore storage barn, which is enclosed, covered and provided with a dust suppression system (water canon).</p> <p>An improvement condition has been included in the permit requiring the Operator to undertake a review of the measures to prevent fugitive emissions to air and land/water from the handling and transfer of materials not stored in silos, having regards to Section 2.2.4 and 2.2.5 of EPR5.06. We would expect this to include such measures as covering of stockpiles, minimising drop heights, ensuring vehicles used to transport materials on or off site are enclosed or covered, implementing a closed-door policy for material storage buildings, and reviewing procedures for site inspection and cleaning.</p>

Aspect considered	Decision
	<p><b>Water use</b></p> <p>Based upon the information provided in the application, we are not satisfied it has been demonstrated that all appropriate measures have been taken in order to minimise losses of water (steam) from the facility and maximise water use efficiency, having regards to Section 2.4.3 of EPR5.06. However, we appreciate that the existing facility was originally built over 30 years ago and that the operator is committed to identifying and making improvements. For example, the Operator has proposed some water efficiency improvements, including undertaking work to improve the operation of the condenser tank.</p> <p>An improvement condition has been included requiring the operator to carry out a water efficiency audit, in accordance with Section 2.4.3 of EPR5.06. The condition requires the operator to include in this a review of potential fugitive and point source releases of steam and water loss from the facility, specifically including, but not limited to releases from the autoclave plant and condenser plant, and to identify improvements with a timetable for implementation.</p> <p><b>Energy efficiency</b></p> <p>Based upon the information provided in the application, we are not satisfied it has been demonstrated that all appropriate measures for energy efficiency have been implemented at the facility. However, we appreciate that the existing facility was originally built over 30 years ago and that the operator is committed to identifying and making improvements and are accredited to ISO 50001. For example, the operator has identified and proposed energy efficiency improvements, which include fitting the existing gas boiler with new economisers to increase boiler efficiency and reduce levels of gas consumption.</p> <p>We have included an improvement condition requiring the operator to review operations against the energy efficiency requirements of Sections 2.7 of EPR5.06 and to provide a timetable for the implementation of identified improvements along with an energy efficiency plan for the facility.</p>
<p>Operating techniques for emissions that do not screen out as insignificant</p>	<p>As detailed in the Environmental Risk section above, emissions of NO<sub>2</sub> from the facility's existing gas-fired boiler plant cannot be screened out as insignificant, although are considered unlikely to have a significant environmental impact. We have assessed whether the proposed techniques are BAT.</p> <p>No monitoring data had been collected for the existing gas-fired boiler plant at the time of permit application and determination. The risk assessment provided for the plant's emissions to air was based upon conservative emission benchmark concentrations taken for plant significantly larger in size than the plant in question (i.e. &gt;50MW thermal input).</p> <p>We have therefore set an improvement condition in the permit requiring the operator to collect representative emissions monitoring data for the two gas-fired plant and review the H1 assessment provided as part of the application. If the revised assessment concludes that emissions (i.e. NO<sub>2</sub>) cannot be screened out as insignificant then the condition requires the operator to carry</p>

Aspect considered	Decision
	<p>out a BAT options appraisal for the combustion plant, having regards to Sector Guidance Note EPR1.00. The need for ongoing emission monitoring requirements will also be reviewed following the completion of this condition.</p> <p>The existing boiler plant were installed in 1999 and therefore approximately 18 years old at the time of permitting. The operator has proposed an improvement to fit the existing gas boiler with new economisers to increase boiler efficiency and reduce levels of gas consumption. The operator has also proposed to provide the existing boilers with low-NOx burners within the next 2 years.</p>
Operating techniques for emissions that screen out as insignificant	Other than emissions of NO <sub>2</sub> (as detailed above), all other emissions have been screened out as insignificant, and so, subject to the sections above and completion of the improvement conditions included in the permit, we agree that the applicant's proposed techniques are BAT for the installation.
<b>Permit conditions</b>	
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>The operator stores fuel oil on site as a back-up fuel for the natural gas-fired boiler plant. It is a condition of the permit that only low Sulphur fuel oils are used for this purpose. The use of this fuel as a back-up fuel is considered to be BAT.</p>
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> <li>• they are suitable for the proposed activities</li> <li>• the proposed infrastructure is appropriate</li> <li>• the environmental risk assessment is acceptable.</li> </ul> <p>We made these decisions with respect to waste types in accordance with EPR 5.06 Guidance for the Recovery and Disposal of Hazardous and Non Hazardous Waste.</p> <p>We are satisfied that the permitted waste types are appropriate for the permitted activities and that appropriate measures will be in places for the storage, handling and treatment of these wastes at the facility.</p>
Pre-operational conditions	Based on the information in the application, we consider that we need to impose pre-operational conditions. The reasons for the inclusion of these conditions in the permit are covered in the section above regarding General operating techniques.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. The reasons for the inclusion of these condition in the permit are covered in the relevant section above regarding Environmental risk, General operating techniques and Operating techniques for emissions that do not screen out as insignificant.
Emission limits	We have decided that emission limits are not required in the permit at the

Aspect considered	Decision
	time of determination. However, emission limits may be agreed with the Environment Agency following completion of the Improvement Conditions relating to the facility's emissions to air and water (including sewer).
Monitoring	We have decided that routine monitoring is not required in the permit at the time of determination. However, monitoring requirements may be agreed with the Environment Agency following completion of the Improvement Conditions relating to the facility's emissions to air and water (including sewer).
Reporting	We have specified reporting in the permit to ensure that the facility is operated efficiently, in terms of the water use, energy use and the treatment of waste associated with the concrete block production process.
<b>Operator competence</b>	
Management system	<p>There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Technical competence	We are satisfied that the operator is technically competent.
Relevant convictions	<p>The Case Management System and National Enforcement Database has/have been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.</p>
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
<b>Growth Duty</b>	
Section 108 Deregulation Act 2015 – Growth duty	<p>We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to vary this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p>

<b>Aspect considered</b>	<b>Decision</b>
	We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

# Consultation

The following summarises the responses to consultation with other organisations and our notice on GOV.UK for the public, and the way in which we have considered these in the determination process.

## Responses from organisations listed in the consultation section

<b>Response received from</b>
Public Health England
<b>Brief summary of issues raised</b>
<p>We recommend that any Environmental Permit issued for this site should contain conditions to ensure that the following potential emissions do not impact upon public health: fugitive and point source emissions to air from site operations and fire (including from raw materials, such as the finely powdered aluminium); and noise.</p> <p>We recommend that the EA communicate with the local authority to establish whether there have been any substantiated complaints of odour or noise associated with the operation.</p> <p>We note that the application includes a site condition report, but that baseline conditions have not been established for the site due to impermeable surfacing. We also note that Hams Hall historic landfill site lies within the sit boundary. We recommend that the EA further consider the need to establish baseline ground conditions at the site.</p>
<b>Summary of actions taken or show how this has been covered</b>
<p>Conditions have been included in the permit to ensure that emissions from the facility will not impact upon public health, including point source emissions, fugitive emissions and amenity impacts. The standard conditions of the permit template require that fugitive emissions shall not cause pollution and that emissions shall be free from noise and odour. Should any pollution (including noise or odour) occur during the operation of the installation, the conditions will ensure that appropriate enforcement action can be taken by the Environment Agency.</p> <p>The site will not accept non-hazardous combustible waste and therefore is not required to have a fire prevention plan. However, the site does have an accident management plan and the operator's Environmental Management System is accredited to ISO14001.</p> <p>We have consulted the local authority with the application and have not been made aware of any substantiated complaints regarding the operation of the facility. The operator has stated that they have not received any complaints relating to odour or noise.</p> <p>We have not required baseline data to be collected for the site through the permit determination. This means that the operator will be responsible for ensuring that the site is returned to an uncontaminated condition, should any contamination exist, upon site closure and prior to site surrender.</p>

**No other consultation responses were received during the permit determination period.**