

PERMIT III



**POLLUTION PREVENTION AND CONTROL ACT 1999  
 ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS  
 2010  
 PERMIT OF PROCESS**

**THIS IS TO CERTIFY THAT** the process of blending, packing and loading of bulk cement

Operated by: **CEMEX MATERIALS EASTERN,  
 LAND OFF MESSENGER CLOSE, BISHOP MEADOW ROAD  
 INDUSTRIAL ESTATE, LOUGHBOROUGH**

**National Grid Ref:** SK 521 213 (The site location is shown on Appendix I/III)

has been duly permitted in accordance with Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 subject to the conditions outlined in this document.

Name of Operator: **CEMEX MATERIALS EASTERN**  
 Registered Office **CEMEX MATERIALS LTD, CEMEX HOUSE,  
 COLDHARBOUR LANE, EGHAM, SURREY TW20 8TD**

This Permit shall apply only to the premises occupied by the applicant, as specified and described in the Application for Permit submitted to Charnwood Borough Council. This Permit, consisting of fourteen pages, shall be subject to replacement, variation or amendment, as may be considered appropriate by Charnwood Borough Council at any time, according to provisions of Regulations, 18, 20, and 34 of the Environmental Permitting (England and Wales) Regulations 2010.

The conditions contained herein shall apply from the date of the Permit unless otherwise stated.

Signed on behalf of Charnwood Borough Council

.....  
 Beverley Green, Specialist Environmental Health Officer  
 (the delegated officer for the purpose)

Dated 13 May 2010

Counter-signed.....

Directorate of Strategic Housing and Health, Environmental Protection, Southfields, Southfield Road  
 Loughborough LE11 2TX

## **Introductory note**

### ***This introductory note does not form a part of the permit***

The following Permit is issued under Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2010 (S.I 2007/ 3538), as amended, (“the EP Regulations”) to operate an installation carrying out one or more of the activities listed in Part 2 of Schedule 1 of the EP Regulations, to the extent authorised by the Permit:

Section 3.1, Part B (b)

"Any activity of blending cement in bulk or using cement in bulk other than at a construction site, including the bagging of cement and cement mixtures, the batching of ready-mixed concrete and the manufacture of concrete blocks and other cement products”.

The responsibility you have under legislation for Health, Safety and Welfare in the workplace remains in force. In addition, the Permit does not relieve you of your obligations to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, Building Regulations approval, or some Waste Disposal Licences.

Note that the Permit requires the submission of certain information to the Local Authority (LA). In addition, the LA has the power to seek further information at any time under Regulation 60(2) EP Regulations provided that it acts reasonably.

### **Public Registers**

Considerable information relating to Permits including the Application is available on public registers in accordance with Requirement 46(1) EP Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

### **Variations to the Permit**

This Permit may be varied in the future (by the LA serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Where the Operator intends to cease the operation of an installation (in whole or in part) The LA should be informed in writing, such notification must include the information specified in Regulation 24 or Regulation 25 and Part I of Schedule 5 of the EP Regulations.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the LA considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit.

Talking to us

Please quote the Permit Number if you contact Charnwood Borough Council about this Permit. To give a Notification under Condition 12 the Operator should use the telephone number 01509 634636 or any other number notified in writing to the Operator by Charnwood Borough Council for that purpose.

Status Log

Detail	Date	Comment
Permit determined	21 September 2004	Permit determined
Variation Notice	22 February 2010	Consolidated permit issued
Variation Notice	13 May 2010	Consolidated permit issued

**Process Description**

The process involves the blending of cement and using cement in bulk for the batching of ready-mixed concrete.

**Principal Emissions**

The emissions are particulate matter (cement dust, aggregate dust) arising from the use of the following raw materials:

- 1) Washed gravel or coarse and fine aggregate including granite materials.
- 2) Cement including
  - Ordinary Portland Cement (OPC)
  - Sulphate Resisting Cement (SRC)
  - White Cement

- Pre-Blended PFA/PC
- Pre Blended GGBFS/PC
- 3) Ground Granulated Blast Furnace Slag (GGBFS)
- 4) Pulverised Fuel Ash (PFA)
- 5) Lime

### **Plant Details**

The plant consists of

- a) Batch control cabin
- b) Below ground aggregate receiving hopper
- c) Aggregate feed conveyor to storage bins
- d) Aggregate storage bins of 260 tonnes capacity
- e) Track/plant mixer wash reclaimer and storage bay
- f) Lime/cement/ash storage silo
- g) Cement and aggregate weigh hopper
- h) Mixing unit
- i) Slurry re-circulatory system
- j) Loading chute

### **Plant Operation**

Aggregate materials are delivered to the site by heavy goods vehicles and fed direct to the appropriate compartment of the enclosed overhead storage bins via the below-ground level feed hopper and inclined conveyor. The aggregates are delivered graded, and ready for use in the plant; no additional crushing or processing is necessary.

The overhead storage bins hold 260 tonnes of aggregate materials, are fully enclosed and are situated above the weigh hopper. Sand and other aggregates are delivered damp or above 5mm in size to prevent the generation of dust. Pigments used in the manufacture of ready-mixed mortar are delivered to site in sealed bags and stored in an allocated area prior to use. The receiving hopper is fitted with plastic curtains to minimise dust emissions during delivery and access to water is available for material to be conditioned if deemed necessary.

Cementitious materials are delivered to the site in bulk tankers and transferred pneumatically, powered by a compressor on the tanker, to enclosed storage silos via flexible hosing, using sealed couplings. The silos are fitted with reverse air jet filters, high level visual and audible alarms and dead-weight pressure relief valves. The internal transfer of cementitious material from the silos to the weigh hopper is totally enclosed within the plant building and is by a combination of gravity and screw feed.

From the weigh hopper the cementitious material and aggregate is screw fed into the pan mixer when water is added. The mixer is loaded in such a way as to minimise dust. This includes the simultaneous delivery of water, before, during and after the loading of cementitious material and aggregates. No 'dry leg' mixing of materials takes place. When blended, the concrete/mortar is discharged into truck mixers or tippers directly below the mixer unit.

Wastes are generated at the site through returned concrete and the washing of truck mixers and the mixer unit. Residual materials are washed from the mixers at the end of the working day into the aggregate reclamation and water system. Cement slurry is reused within the concrete batching plant and aggregates are utilised as a raw material. Any material which cannot be reused is dried and removed from site for disposal at an appropriately licensed landfill site.

The yard area is surfaced and fitted with a water supply for dust suppression purposes, as necessary. The water from this operation is collected by an oil and grit interceptor and is pumped back into the system for re-use.

Each silo is equipped with an Airmaster reverse jet RJC S18/1/36 filter and high level visual and audible alarms and dead-weight pressure relief valves.

**End of Introductory Note.**

The above named company is permitted to operate a cement batching activity subject to compliance with the following conditions:

## Permit Conditions

### Emission Limits, monitoring and other provisions

- I. The following emission limits shall be complied with:

Row	Particulate matter	Emission Limit	Type of monitoring	Monitoring frequency
1	Whole process	No visible emission across the site boundary	Operator observations. To be recorded in a log book under condition 2 below.	At least daily
2	Silo inlet and outlets	No visible emission	Operator or driver observations. To be recorded in a log book under condition 2 below. To also include start & finishing times	Every delivery

### Monitoring, investigations and recording

2. All inspections and assessments shall be recorded in a log book on a daily basis. Details of visual assessments shall include the following information when a visible emission to atmosphere is apparent: -
- I. Date and time of observation
  - II. Wind direction
  - III. Weather conditions
  - IV. Position of observation
  - V. Assessment
  - VI. Identification of observed plant

Where the assessment is that there are no visible emissions, items ii), iii) and iv) need not be recorded.

3. The log book must be retained by the operator for a minimum of two (2) years and made available for examination by a duly authorised officer of Charnwood Borough Council.

4. Any historical records kept off-site shall be made available for inspection within one working day on request from a duly authorised officer of Charnwood Borough Council.

#### Visible emissions

6. All emissions to air, other than steam or water vapour, shall be free from persistent visible emissions.
7. All emissions to air shall be free from droplets.
8. Regular visual assessments of emissions of cement and cementitious powders shall be made on a random basis, at least daily, by the operator. The visual assessment shall be made having regard to the piece(s) of plant or equipment in operation at the time and should include cement silos, loading points, aggregate conveyors, aggregate storage bins and arrestment plant. The time, location and result of the assessments shall be recorded in a log book required by condition 2.
9. Where in the opinion of a duly authorised officer from Charnwood Borough Council there is evidence of airborne dust from the process off site corrective action shall be taken without delay. If the source is uncertain the operator shall undertake an inspection and assessment, and where deemed necessary by the regulator, undertake ambient monitoring to identify the process operations giving rise to dust. Once the source is known, corrective action shall be taken without delay.

#### Abnormal events

10. A list of key arrestment plant and a written procedure for dealing with its failure shall be provided to Charnwood Borough Council.
11. When any visible escape of dust is observed or when any abnormal emissions, malfunction or breakdown likely to lead to an escape of dust is found, the operator shall:-
  - i. Investigate and undertake remedial action immediately
  - ii. Adjust the process or activity to minimise the emissions until normal operations can be restored
  - iii. Promptly record the events and actions taken in the log required by condition 2 and
  - iv. If corrective action is not immediately effective then action to mitigate any effects shall be taken.

12. For all malfunctions or any breakdown leading to abnormal emissions likely to have an effect on the local community or in the event of the failure of key arrestment plant, Charnwood Borough Council shall be informed without delay.

#### Emissions from silos

13. The silo filtration plant shall be designed to operate to an emission standard of less than 10mg/m<sup>3</sup> for particulate matter. The silo filtration plant shall be maintained to ensure this emission limit is met.
14. Visual assessment of emissions from silo inlet connections and the silo arrestment plant shall be undertaken throughout the duration of bulk deliveries. The start and finish times of all deliveries shall be recorded in the log book required by condition 2.

#### Inspection of filtration plant

15. The reverse air jet filters shall be inspected at least once a month by the Plant Supervisor and mechanically checked on a six-monthly basis by a qualified maintenance fitter. If defects are detected, corrective action shall be taken promptly and wherever possible before another delivery occurs. The operator shall record in the log book (required by condition 2) all cases where deliveries are made prior to corrective action being taken.
16. Failure of any part of the silo management system including high level alarms, reverse-air jet filter and pressure relief valve shall lead to a full investigation by the operator and corrective action taken immediately before another delivery takes place.
17. Details of all checks and inspections of the high level warning alarms and indicators attached to the silos shall be recorded in the log book (required under condition 2) on the day of inspection. These details shall include for each silo's system: -
- I. Date and time of the inspection
  - II. Description of work undertaken
  - III. Name of operative carrying out maintenance work.

#### Control Techniques

##### Silos

18. Bulk cement and all other cementitious materials held on site shall be stored in silos.

19. All silos shall be vented to suitable arrestment plant. Suitable plant is deemed to be an Airmaster reverse air jet RJCS18/1/36 filter to each silo.
20. The connection of transfer lines to the tanker discharge point and silo delivery inlet point shall be checked before the transfer of cement commences. The transfer of cement shall only commence once it has been established that the connection to these points will prevent the emission of cement dust. Any emission occurring from the transfer line shall be recorded in the log as detailed in condition 2.
21. Each storage silo shall be equipped with visual and audible high level alarms to warn of overfilling. The correct operation of such devices shall be checked weekly or before each delivery, whichever is the longer interval.
22. No emissions of dust shall be visible during cement deliveries. If emissions of particulate matter are visible from ducting, pipe-work, the pressure relief device or dust arrestment plant during silo filling, the operation shall cease, and the cause of the problem rectified prior to further deliveries taking place. Tanker drivers should be informed of the correct procedure to be followed.
23. Seating of pressure relief valves on the silos shall be checked at least once a week or before a delivery takes place whichever is the larger interval.
24. Immediately it appears that a pressure relief valve may have become unseated during silo filling, the delivery must cease and no further delivery should take place. The valve should be examined and reset or a replacement fitted if necessary. Tanker drivers should be informed of the correct procedure to be followed.
25. Deliveries from road vehicles to silos shall only be made using tankers fitted with an on-board (truck mounted) relief valve and filtration system – such that venting air from the tanker at the end of a delivery will not take place through the silo.
26. During delivery from tankers, the venting of air to the silos shall be at a limited rate to avoid pressurisation of the silos. Particular care shall be taken at the end of deliveries. Only tankers with sufficient valve work to allow gradual release and controlled venting shall be used.
27. All silos shall be fitted with an automatic system to cut off delivery in the event of pressurisation or over-filling.

Stockpiles and Aggregate Storage

28. Waste materials shall be stored in a stockpile before removal from site. The stockpile shall be stored in three-sided storage bays. The bay walls shall be a minimum height of 2.5m to reduce wind entrainment of product. Materials shall not be piled higher than the external wall of the bay and shall not be forward of the bay.
29. Aggregate delivered to the site shall be sprayed with water if necessary to prevent the generation of dust.
30. Where water is used for dust suppression, an adequate supply of water shall be available and the system shall be provided with frost protection.
31. Aggregate shall be managed to prevent overflowing of storage facilities.
32. The aggregate storage bins shall be fully enclosed, other than where the conveyor passes through the restricted aperture.
33. The aggregate receptor hopper shall be fitted with plastic sheeting to the front face to prevent emissions of dust.

Conveying

34. The main feed conveyors for aggregates into the concrete plant shall be:
  - i. Of sufficient capacity to handle maximum loads,
  - ii. Provided with protection against wind whipping,
  - iii. Arranged to minimise free-fall at all times,
  - iv. All transfer points shall be enclosed,
  - v. Provided with belt scrapers for keeping the return belt clean.
35. Planned preventative maintenance schedules shall include conveyor systems.

Process operations

36. The transfer of cement other than delivery to silo storage shall be by a fully enclosed mechanical screw feed conveyor into the cement weigh-hopper and from the weigh-hopper by screw feed into the pan mixer.

37. Truck mixers shall be loaded in such a way as to prevent or minimise airborne dust emissions. In all cases the final discharge point will be via a flexible sock. This shall be maintained in good working order.
38. Truck mixers shall be located with wet pre-mixed materials only. No dry materials shall be batched.
39. Truck mixers shall be cleaned using water and discharged into the reclaimer for recycling.

#### Fugitive Emissions

40. A high standard of housekeeping shall be maintained.
41. All spillages that may give rise to dust emissions shall be cleaned up promptly, normally by wet handling. Dry handling of dusty spillages shall not be permitted.
42. Major spillages shall be dealt with on the same day using, for example, wet handling methods or a vacuum cleaning system. It shall not normally be necessary for a vacuum cleaning system to be available on site at all times, provided that such equipment can be obtained in the event of a major spillage on the same day that it occurs. Measures to minimise emissions such as dampening the surface to create a crust shall be taken immediately.

#### Roadways

43. Vehicle exhausts shall be directed above the horizontal.
44. Roadways in normal use and any other area where there is regular movement of vehicles shall be hard-surfaced and kept clean and in good repair in order to prevent or minimise dust emissions. Hard surfacing shall comprise compacted stone chippings, Macadam or concrete.

#### Management

45. Essential spares and consumables shall be held on site or shall be available at short notice from guaranteed local suppliers for all plant and the equipment concerned with the control of emissions to the air.

Training

46. Training of staff with responsibility for operating the process shall include;
- i. Awareness of their responsibilities under the permit, in particular how to deal with conditions likely to give rise to dust emissions, such as the event of spillage
  - ii. Minimising emissions on start-up and shut-down,
  - iii. Action to minimise emissions during abnormal conditions.
47. The operator shall maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to a duly authorised officer of Charnwood Borough Council on request.

Maintenance

48. A written maintenance programme shall be kept with respect to pollution control equipment to include regular maintenance of conveyors and cleaning of process buildings. A record of the maintenance undertaken shall be kept and be made available for inspection.

Standard Conditions

49. If the operator proposes to make a change in operation of the mobile plant he shall, at least 14 days before making the change, notify Charnwood Borough Council in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change of operation' means a change in the nature, type or functioning, or an extension, of the plant which may have consequences for the environment.
50. The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the mobile plant which is not regulated by any other condition of this permit

**END OF CONDITIONS**

Location Plan

Appendix I

Site Layout

Appendix 2



## Explanatory Note

This note does not comprise part of Permit Reference No. 111 but contains guidance for Operators receiving a permit.

1. Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State. Appeals must be sent within 6 months from the date of the permit (normally the date on the bottom of the permit).
2. Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations and should be addressed as follows:

The Planning Inspectorate  
Environment Team, Major and Specialist Casework  
Room 4/04 Kite Wing  
Temple Quay House,  
2 The Square,  
Temple Quay,  
Bristol, BS1 6PN

3. Appeals against a Variation Notice do not have the effect of suspending the operation of the Notice. Appeals do not have the effect of suspending Permit conditions.
4. There are no forms or charges for appealing. However for an appeal to be valid, appellants are legally required to provide information as detailed in paragraphs 2(1) and (2) of Schedule 6 of the EP Regulations., namely:
  - I. A statement of the grounds of appeal
  - II. A copy of any relevant permit
  - III. A copy of any relevant correspondence between the appellant and the regulator
  - IV. A statement indicating whether the appellant wishes the appeal to be in the form of a hearing or dealt with by way of written representations.At the same time, the notice of appeal and documents (I) and (IV) must be sent to the Council.
5. In determining an appeal against one or more conditions, the Regulations allow the Inspector or Secretary of State to affirm or quash conditions or to add new conditions.