"AAC BLOCKS PROJECT BY MOHIT INDUSTRIES LIMITED, GUJARAT, INDIA"

Document Prepared By Earthood Services Private Limited

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Summary:

Earthood has performed the VCS verification of the project "AAC blocks project by Mohit Industries Limited, Gujarat, India"; VCS ID 1238, against VCS Standard Version 3.5.

The scope of verification includes confirming the implementation of the monitoring plan of the registered VCS PDD (version 07.1) dated 01/12/2015 and the application of the monitoring methodology "Fuel switch, process improvement and energy efficiency in brick manufacture", AMS-III.Z, Version 04 dated 11/05/2012. The verification is consisted of three phases: i) desk review of the project; ii) follow-up onsite visit and interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted following Earthood internal quality procedures.

During the verification process 07 CARs, 00 CL and 00 FARs were raised. All the findings have been closed satisfactorily and the same has been discussed in Appendix 2.

Earthood confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The emission reductions from the project activity "AAC blocks project by Mohit Industries Limited, Gujarat" in India during the period 01/01/2015 – 31/08/2017 (including both days) amount to 122,954 tonnes of CO_2e.

Vintage wise representation of the emission reductions is as follows:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01/01/15-31/12/15	95,591	17,130	30,973	47,488
01/01/16-31/12/16	1,00,357	18,476	33,830	48,051
01/01/17-	60,254	11,719	21,120	27,415

31/08/17				
Total	**2,56,202**	**47,325**	**85,923**	**1,22,954**

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1 INTRODUCTION

1.1 Objective

Mohit Industries Limited (now named as Big Bloc Construction Limited) has commissioned Earthood Services Private Limited (Earthood) to perform VCS Verification of the 'AAC blocks project by Mohit Industries Limited, Gujarat' in India (hereafter called project). The objective of this verification is a thorough and independent assessment of registered VCS project activities against the applicable VCS requirement by the DOE. The verification process shall determine whether the proposed project activity complies with the requirements of latest VCS guidelines, applicability conditions of the selected methodology, relevant host country regulations and guidance issued by the VCS Board. This project has been registered under VCS with a reference number of 1238.

1.2 Scope and Criteria

The scope of verification is to assess the claims and assumptions made in the VCS project document (PD), VCS monitoring report (MR) against the VCS & CDM criteria, including but not limited to, VCS standard, CDM PS, CDM VVS, applied methodology and other relevant rules and requirements established for VCS project activities.

The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarification and/or correction actions request may have provided inputs for improvement of the project design.

1.3 Level of Assurance

A draft verification report that is prepared by assessment team will be reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable VCS and CDM (Clean Development Mechanism) requirements as appropriate. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the validation team. The report approved by Quality Manager is endorsed by Managing Director, who is overall responsible to ensure quality, before final release. The further details of applicable procedures and responsibilities about Earthood Quality Management System (QMS) are available on its website (www.earthood.in).

1.4 Summary Description of the Project

The project activity is a greenfield project situated in Valsad district in Gujarat, India. It involves production of autoclaved aerated concrete (AAC) blocks that contains thermal power plant derived waste fly ash as a major component (72.11%). The project activity involves manufacturing of the AAC blocks through autoclaving process, which replaces the energy intensive production procedure of conventional baked clay bricks, which are the most common building material. The project activity results in reductions of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and also plays beneficial role in the mitigation of climate change.

The capacity of the unit is 300,000 m^3/annum which could be verified from sales contract/37/. The project was implemented on 25/11/2012 which was verified from the production details of the plant dated November 2012/10/.

The manufacturing of blocks involves cement, lime, gypsum and fly ash as major ingredient mixed with aluminium powder in lesser amount. The slurry of all the ingredients is set and it is cut into bricks of desirable sizes and shape. Then the blocks are baked with the help of autoclaving with steam which is produced in coal fired boiler. The onsite assessment carried out by Earthood team confirms that the process was in place.

The brick manufacturing unit was fully functional and the assessment team verified this during the site visit. The assessment team confirms that the total emission reductions achieved under this monitoring period (01/01/2015 – 31/08/2017) are 122,954 tCO_2e.

2 VERIFICATION PROCESS

The registered VCS project is undergoing second verification, the approach adopted to ensure the quality of emission reductions is described in the following sections.

2.1 Method and Criteria

Earthood assessed and determined whether the proposed implementation and operation of the project activity, and the steps taken to report emission reductions comply with the criteria and relevant guidance provided by the VCS Board. The verification process consist of the following three phases;

- A desk review of the VCS PD/1/ and VCS MR/3/
- Site visit and follow up interviews with project stakeholders
- The resolution of outstanding issues and issuance of final report and opinion

2.2 Document Review

The verification is performed primarily as a document review of the VCS PD/1/, MR/3, 4/ and associated documents as stated in details in appendix 1 of this document. The assessment is performed by a verification team using a protocol. The cross checks between information provided in the Monitoring report, VCS PD and information from sources other than those used, if available, the team's sectoral or local expertise and, if necessary, independent background investigations.

2.3 Interviews

The site visit for the project location, by the assessment team, was conducted on 05/10/2017 and the following stakeholders were interviewed.

S.N	Name	Organisation	Position
1.	Tejas Dhoot	Big Bloc Construction Limited	Department Head
2.	Gautam Maity	Big Bloc Construction Limited	Commercial Manager
3.	Jimmy Sah	Infinite Solutions	VCS Consultant

The topics covered during interview ranges from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system and data collection, recording and archiving procedures. The assessment was drawn based on the feedback received during interview coupled with the documentation, on-site observations and independent study.

2.4 Site Inspections

A site visit was undertaken by Earthood team on 05/10/2017 to carry out the following;

a. An assessment of the implementation and operation of the registered project activity as per the registered VCS PD/1/ and VCS MR/3/;
b. A review of information flows for generating, aggregating and reporting the monitoring parameters;
c. Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PD;
d. A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
e. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
f. A review of calculations and assumptions made in determining the GHG data and emission reductions;
g. An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

The objective of this step is to identify, discuss and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and onsite assessment. The verification team prepares and/or updates a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

CAR (Corrective Action Request) is raised if one of the following occurs:

- Non-compliance with the monitoring plan, the methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. All CARs and CLs raised by the Earthood during verification shall be resolved prior to submitting a request for issuance.

FAR (Forward Action Request) is raised during verification if the monitoring and reporting require attention and/or adjustment for the next verification period.

During the verification process 07 CARs, 00 CL and 00 FARs were raised. All the findings that are raised and communicated to project participant during the verification are included under appendix 2. The section also includes the response, if provided, by the project participants and an assessment by the verification team if it was closed out or otherwise.

2.5.1 Forward Action Requests

The project activity is undergoing first verification; there were no FARs raised during the VCS verification.

2.6 Eligibility for Validation Activities

Not applicable.

3 VALIDATION FINDINGS

Not applicable.

3.1 Participation under Other GHG Programs

Not applicable.

3.2 Methodology Deviations

Not applicable.

3.3 Project Description Deviations

There has been following project description deviations which were verified in the previous monitoring period:

1. **Measurement of Raw Material Consumption (using Weigh- Bridge)**

The details of the weigh-bridge used for monitoring the consumption of raw material was found to be missing in the registered VCS PD. Additionally, the calibration frequency has been set as once in a year in the registered PD.

2. **The parameters Df,y & FRf,m has been used to compute the leakage emissions.**

The purpose of monitoring of parameter “Return trip road distance between the origin and destination of freight transportation activity f” (Df,y) and “Total mass of freight transported in freight transportation activity f” (FRf,m) was given as project emission in the registered PD. However it has been changes to leakage emission in the revised PD/01/ which is inline to the applied methodology.

3. **Accuracy class of the energy meter**

In the registered PD, accuracy class of the energy meter was written as 0.55 for active and 1.05 for reactive. PP explained it as a typo error. It has been corrected to 0.5S for active and 1.0S for reactive. It was verified on-site/7/ and with the energy meter test report/32/ as well.

For current monitoring period, following deviation from registered PD has been involved:

A DG set was installed onsite for the purpose of backup source of electricity. A parameter for monitoring of diesel consumption has been added and project emissions has also been calculated from it.

3.4 Grouped Project

. Not applicable.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity consists of one AAC block manufacturing unit installed at Khatalwada village in Umargaon Tehsil of Valsad district in Indian state of Gujarat. The manufacturing unit was commissioned on 25/11/2012 which was verifier through the production records and validation report for the project/2, 10/. The capacity of the unit is 300,000m^3/annum as verified from the sales contract between supplier and PP/37/. The AAC division of Mohit Industries Limited has been demerged into Bigbloc construction limited as verified through court order issued by Gujarat High Court/45/.

Assessment team concludes the following:

a) The implementation status of project activity was found to be in compliance with registered PD.

b) DOE has conducted the on-site visit to confirm the implementation status of the project.

c) The commissioning date of the project activity was found to be accurately and consistently recorded.

d) The actual operation of project activity was found to be in compliance with the flow diagram provided in registered PD.

e) The emission reductions are calculated inline to the requirements of methodology, registered PD and any other applicable tools.

The project activity contributes to the sustainable development contributions by utilising waste generated by the thermal power plant to in making autoclaved aerated concrete (AAC) which replaces fired clay bricks which otherwise would have lead to higher GHG emissions as they are fuel intensive.

Further the GHG emission reductions generated by the project activity has not been included by any other an emissions trading program or any other mechanism that includes GHG allowance trading. Also, the project has not received any other form of environmental credit and has not been participated/rejected under any other GHG programs. It was verified through independent review by assessment team from freely available data on respective websites of various carbon offsetting programs.

Further the project has been implemented as described in the project description. The total emission reductions achieved in this monitoring period i.e. from 01/01/2015 to 31/08/2017 are 1,22,954 tCO_2e .

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

The project monitoring has been carried in accordance with the registered VCS PD/1/. The monitoring plan laid in the registered PD is being followed at the site/7/. The assessment team has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the MR/4/.

The emission reductions are purely based on net emission reduction as a result of quantification of baseline emission, leakage emission and project emission. PP has provided all the sufficient data for current monitoring period. The values of used in deriving the GHG emission reduction could be very well correlated between the data sets and ER spreadsheet/5/ provided by PP. the verification of each monitoring parameter has been discussed later in section 4.3.

The calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e. AMS.III.Z version 4.0/09/. Since project activity is a brick manufacturing unit, leakage emission and project emission has been quantified separately.

4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

The below tables describe how each parameter, which is to be measured according to the monitoring plan, has been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are met.

a) Compressive strength of AAC blocks, N/mm^2

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	The parameter is monitored and recorded once in 6 months.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring and reporting frequency is not followed. There is a gap fo few days between the testing. However, since this does not impact the emission reduction calculation, it has been accepted by assessment team.
Monitoring equipment	Not applicable as this is monitored by third party laboratory/26.
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Testing frequency /interval:	Once in six months

Is the testing interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Testing has been done on 04/02/2015, 07/09/2015, 27/11/2015, 19/09/2016, 19/11/2016, 23/03/2017 and 16/06/2017/26/
Is the testing carried out by an accredited person or institution?	The testing has been done by Curve Surveys & Lab (accredited by JAS-ANZ and also CRISIL certified with a NSIC CRISIL rating of SE-3B/26/), Global Lab (Certification No. NABL/T/2287, NABL/T/2288) and Bhumi Research Center (ISO 9001:2008 certified)/26/
Is(are) testing(s) valid for the whole reporting period?	Yes, the testing is applicable for whole monitoring period
How were the values in the monitoring report verified?	The values have been averaged per year and verified with the actual reports issued by third party/26/. the values verified are as follows:
If applicable, has the reported data been cross-checked with other available data?	Reported data was cross-checked with other available literature regarding AAC Blocks for its compressive strength/19, 20, 49/. It was found to be in accordance to the prevelent industry standards.
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes

Period	Compressive Strength N/mm^2
2015	3.75
2016	3.95
2017	3.80

b) Density of AAC blocks, kg/m^3

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	The parameter is monitored and recorded once in 6 months.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Not applicable as this is monitored by third party laboratory/26/

Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Testing frequency /interval:	Once in six months
Is the testing interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Testing has been done on 04/02/2015, 07/09/2015, 27/11/2015, 19/09/2016, 19/11/2016, 23/03/2017, 16/06/2017/26/
Is the testing carried out by an accredited person or institution?	The testing has been done by Curve Surveys & Lab (accredited by JAS-ANZ and also CRISIL certified with a NSIC CRISIL rating of SE-3B/26/), Global Lab (Certification No. NABL/T/2287, NABL/T/2288) and Bhumi Research Center (ISO 9001:2008 certified)/26/
Is(are) testing(s) valid for the whole reporting period?	Yes, the testing is applicable for whole monitoring period
How were the values in the monitoring report verified?	The values have been averaged per year and verified with the actual reports issued by third party/26/. the values verified are as follows:
If applicable, has the reported data been cross-checked with other available data?	Not applicable
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes

Period	Density (kg/m$^{3)}$
2015	551
2016	552.6
2017	580.45

c) The annual production of the facility in year y, $P_{PJ,y}$, m^3

Criteria/Requirements	Assessment/Observation

Measuring /Reading /Recording frequency	The parameter is monitored continuously and recorded daily.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	For the purpose of monitoring the annual production of the facility, daily counting of the blocks was done annually and recorded.
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
Is(are) calibration(s) valid for the whole reporting period?	Not applicable
Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried	Not applicable

<table>
<tr><td>out?</td><td></td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in the MR/4/ were verified with the plant records/28/ onsite. The verified values are as follows:
<table><tr><th>Period</th><th>Total Production(m^3)</th></tr><tr><td>01-Jan-2015 to 31-Dec-2015</td><td>239,399</td></tr><tr><td>01-Jan-2016 to 31-Dec-2016</td><td>251,334</td></tr><tr><td>01-Jan-2016 to 31-Aug-2017</td><td>150,900</td></tr><tr><td>Total</td><td>641,633</td></tr></table>The recording frequency of the parameter is daily, however annual readings has been demonstrated in MR and ER sheet. This has been done for ease of reporting. Annual readings as reported in MR and ER sheet were cross-checked using the summation of daily readings for the specific duration from plant records. They were found to be consistently reported.</td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>Yes. The reported data has been cross-checked with the documentary evidence provided by Central Board of Excise and Customs (Ministry of Finance, Department of Revenue) for the quantity manufactured by the facility. It was done during on-site visit by assessment team.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>The readings are being recorded by operators in block selling records and block stocks for each day. Efficiency of transfer of data is being monitored by supervisor onsite. On site verifications reveal that inventorisation of data has been done efficiently and data management procedures has been followed for both hard and soft versions of data/7, 28/

Additionally, PP is an ISO 9001:2008 certified organisation/38/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring. Thus it can be concluded that all the QA/QC requirements are in place.</td></tr>
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d) Quantity of coal combusted by the project activity boiler during the year y, $FC_{coal,y}$, kT

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Continuously monitored and daily recorded

<table>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes</td></tr>
<tr><td>Monitoring equipment</td><td>The purchase of coal is monitored using an electronic weighbridge with following specifications:<table><tr><td>Make</td><td>Endeavour Industries Pvt. Ltd</td></tr><tr><td>Model Number</td><td>WB-E-50T</td></tr><tr><td>Serial Number</td><td>26/12-13</td></tr><tr><td>Capacity</td><td>50T</td></tr><tr><td>Accuracy Class</td><td>III</td></tr></table>The value of total coal combusted is calculated by subtracting the amount of closing stock from the sum of opening stock and total purchase.</td></tr>
<tr><td>Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer’s specification?</td><td>The accuracy class given in the monitoring plan as per the registered PD/1/ is consistent with onsite observation and information given in the MR/4/.</td></tr>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>Accuracy is valid for the entire measuring range./30/</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Calibration frequency is annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</td><td>Yes, calibration interval in line with the monitoring plan/30/. Calibrations has taken place on 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016 and 26/09/2017 which keeps the annual frequency intact. There has been no delay in calibration observed.</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes the calibration is valid for the whole reporting period /30/</td></tr>
</table>

<table>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes calibration has been carried out for the measuring range comparable with the range for which measurements have been carried out</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in MR/4/ has been verified with plant log books during onsite assessment/7, 29/. The verified values are:
<table><tr><th>Period</th><th>Coal Consumption(kt)</th></tr><tr><td>01/01/2015 to 31/12/2015</td><td>5618.74</td></tr><tr><td>01/01/2016 to 31/12/2016</td><td>6126.72</td></tr><tr><td>01/01/2017 to 31/08/2017</td><td>3866.46</td></tr></table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data has been cross-checked with the invoices issued to the PP by the coal supplier namely Krishna Kala Traders, Adani Group and Shree Hari Coal Corporation/29/. The values were also checked from the log books maintained at the boiler and main gate.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite.

Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.</td></tr>
</table>

e) Weighted average net calorific value of coal in the year y, $NCV_{,coal,y}$, TJ/kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	The parameter is monitored with every update of IPCC standard values and is recorded annually.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes.

Monitoring equipment	Not applicable
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
Is(are) calibration(s) valid for the whole reporting period?	Not applicable
Is the calibration carried out for a measuring range comparable with the 0.range for which measurements have been carried out?	Not applicable
How were the values in the monitoring report verified?	The value of 26 as given in MR/4/ was verified from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Page 1.18./23/ The value was found to be accurate.
If applicable, has the reported data been cross-checked with other available data?	Not applicable
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary	The data management system is effective and reliable.

QA/QC processes in place?	

f) Weighted average CO_2 emission factor of coal in the year y, $EF_{coal,y}$, tCO_2/TJ

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	The parameter is monitored with every update of IPCC standard values and is recorded annually.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Not applicable
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
Is(are) calibration(s) valid for the whole reporting period?	Not applicable

Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not applicable
How were the values in the monitoring report verified?	The value of 100 as given in MR/4/ was verified from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Page 1.23./23/ The value was found to be accurate and in line with monitoring report.
If applicable, has the reported data been cross-checked with other available data?	Not applicable
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The data management system is effective and reliable.

g) Quantity of electricity consumed by the project activity in year y, $EC_{PJ,y}$, MWh

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	The parameter is monitored continuously and recorded daily
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Electricity consumption is being monitored using an ER-300P L&T Electronic Trivector meter of serial number 09512220. The accuracy class being 0.5S for active and 1.0S for reactive. The information was verified by assessment team through on-site observation. Energy meter with same specifications as mentioned above was found installed onsite. The meter observed onsite was installed on 12/06/2015 as verified through meter change record made available to assessment team onsite.
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the	The registered monitoring plan stated the accuracy to be 0.55S for active and 1.05S for reactive. However, during onsite assessment, the accuracy class of the meter was discovered to be 0.5S for active and 1.0S for reactive. Thus a deviation from project design has been included in the MR/4/ and verification report. Appropriate changes has been done in the revised

<table>
<tr><td>manufacturer's specification?</td><td>PD as well.</td></tr>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>Accuracy is valid for the entire measuring range</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?</td><td>The energy meter (including the previously installed meter) has been calibrated by Dakshin Gujarat Vij Company Ltd (DGVCL) on 20/06/2014, 12/06/2015, 06/06/2016 and 30/06/2017 breaching the annual frequency from a duration of 06/06/2017 to 30/06/2017/32/. A correction factor of +0.5% has been applied to keep the calculation conservative. However, the energy meter is a property of DGVCL thus testing is done solely by the authority and PP has no role to play in it.</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Yes, it is being carried out by Dakshin Gujarat Vij Company Ltd (DGVCL)/32/ which is the state authority for electricity distribution.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes.</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes.</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>Values in the MR has been verified using the plant records for electricity consumption/32/ and the values used for ER calculation has been found to be accurate. The verified values are:
<table>
<tr><th>Period</th><th>Electricity Consumption(MWh)</th></tr>
<tr><td>01-Jan-2015 to 31-Dec-2015</td><td>1571.96</td></tr>
<tr><td>01-Jan-2016 to 31-Dec-2016</td><td>1606.67</td></tr>
<tr><td>01-Jan-2017 to 31-Aug-2017</td><td>1048.28</td></tr>
</table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>Not applicable.</td></tr>
</table>

Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The data management system is effective and reliable.

h) Quantity of cement purchased for producing AAC blocks in the year y, $RMP_{cement,y}$, kT

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded monthly.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications which was verified through onsite visit: **Equipment**: Electronic Weighbridge **Make**: Endeavour Industries Pvt. Ltd **Model Number**: WB-E-50T **Serial Number**: 26/12-13 **Capacity**: 50T **Accuracy Class**: III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Yes
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes the accuracy is valid for entire measuring range
Calibration frequency /interval:	Annual
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per	Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/

the manufacturer's specifications?	
Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.
Is(are) calibration(s) valid for the whole reporting period?	Yes the calibration is valid for the whole reporting period /30/
Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes calibration has been carried out for the measuring range comparable with the range for which measurements have been carried out.
How were the values in the monitoring report verified?	The values in MR/4/ has been verified with plant log books, which contained daily readings, during onsite assessment/7, 29/. The verified values are:
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross-checked with the invoices issued to the PP by the cement supplier namely ACC, JK Lakshmi, Sanghi Cement and UltraTech Cement/41/. The values were also checked from the log books maintained at the main gate.
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.

Period	Cement Purchase(kt)
01/01/2015 to 31/12/2015	25.961
01/01/2016 to 31/12/2016	26.293
01/01/2017 to 31/08/2017	18.304

i) Quantity of cement consumed for producing AAC blocks in the year y, $RMC_{cement,y,}$ kt

Criteria/Requirements	Assessment/Observation

<table>
<tr><td>Measuring /Reading /Recording frequency</td><td>Monitored with every purchase of raw material and recorded daily.</td></tr>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes</td></tr>
<tr><td>Monitoring equipment</td><td>The parameter is monitored using an electronic weighbridge of the following specifications:
<table><tr><td>Equipment</td><td>Electronic Weighbridge</td></tr><tr><td>Make</td><td>Endeavour Industries Pvt. Ltd</td></tr><tr><td>Model Number</td><td>WB-E-50T</td></tr><tr><td>Serial Number</td><td>26/12-13</td></tr><tr><td>Capacity</td><td>50T</td></tr><tr><td>Accuracy Class</td><td>III</td></tr></table></td></tr>
<tr><td>Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer’s specification?</td><td>The accuracy of the monitoring equipment is as per the registered monitoring plan.</td></tr>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>The accuracy is valid for the entire measuring range</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</td><td>Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration has been carried out by Mettler Toledo India. Pvt. Ltd which conforms to the ISO 17025, Measuring Instruments Directive, EURAMET, USP, GLP and GMP, and NIST Handbook 44 and OIML</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes</td></tr>
</table>

Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes
How were the values in the monitoring report verified?	The values in the MR/4/ were verified by consumption log book maintained by PP onsite/34/. The verified values are: **Period** / **Cement Consumption(kt)** 01/01/2015 to 31/12/2015 – 25.404 01/01/2016 to 31/12/2016 – 30.795 01/01/2017 to 31/08/2017 – 17.887
If applicable, has the reported data been cross-checked with other available data?	The reported data was cross verified with the cement purchase invoice
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.

j) Quantity of flyash purchased for producing AAC blocks in the year y, $RMP_{flyash,y}$, kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded monthly.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications: **Equipment** – Electronic Weighbridge **Make** – Endeavour Industries Pvt. Ltd **Model Number** – WB-E-50T **Serial Number** – 26/12-13

	Capacity 50T **Accuracy Class** III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Yes
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes the accuracy is valid for entire measuring range
Calibration frequency /interval:	Annual
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/
Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.
Is(are) calibration(s) valid for the whole reporting period?	Yes the calibration is valid for the whole reporting period /30/
Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes calibration has been carried out for the measuring range comparable with the range for which measurements have been carried out.
How were the values in the monitoring report verified?	The values in MR/4/ has been verified with plant log books during onsite assessment/7, 29/. The verified values are:

Period	Flyash Purchase(kt)
01/01/2015 to 31/12/2015	175.61
01/01/2016 to 31/12/2016	212.52
01/01/2017 to 31/08/2017	165.80

If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross-checked with the invoices issued to the PP by the flyash supplier namely Gujarat State Electricity Corporation Ltd. and Reliance/29/. The values were also checked from the log books maintained at the main gate.
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.

k) Quantity of flyash consumed for producing AAC blocks in the year y, $RMC_{flyash,y}$, kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded daily.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	**Equipment**: Electronic Weighbridge **Make**: Endeavour Industries Pvt. Ltd **Model Number**: WB-E-50T **Serial Number**: 26/12-13 **Capacity**: 50T **Accuracy Class**: III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment is as per the registered monitoring plan.

<table>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>The accuracy is valid for the entire measuring range</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</td><td>Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration has been carried out by Mettler Toledo India. Pvt. Ltd which conforms to the ISO 17025, Measuring Instruments Directive, EURAMET, USP, GLP and GMP, and NIST Handbook 44 and OIML</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in the MR/4/ were verified by consumption log book maintained by PP onsite/34/. The verified values are:<table><tr><th>Period</th><th>Flyash Consumption(kt)</th></tr><tr><td>01/01/2015 to 31/12/2015</td><td>127.70</td></tr><tr><td>01/01/2016 to 31/12/2016</td><td>126.77</td></tr><tr><td>01/01/2017 to 31/08/2017</td><td>72.821</td></tr></table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data was cross verified with the flyash purchase invoice</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite.

Additionally, PP is an ISO 9001:2008 certified</td></tr>
</table>

	organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.

l) Quantity of Lime purchased for producing AAC blocks in the year y, $RMP_{Lime,y}$, kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded monthly.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications: **Equipment**: Electronic Weighbridge **Make**: Endeavour Industries Pvt. Ltd **Model Number**: WB-E-50T **Serial Number**: 26/12-13 **Capacity**: 50T **Accuracy Class**: III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Yes
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes the accuracy is valid for entire measuring range
Calibration frequency /interval:	Annual
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/

<table>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes the calibration is valid for the whole reporting period /30/</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes calibration has been carried out for the measuring range comparable with the range for which measurements have been carried out.</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in MR/4/ has been verified with plant log books during onsite assessment/7, 29/. The verified values are:
<table><tr><th>Period</th><th>Lime Purchase(kt)</th></tr><tr><td>01/01/2015 to 31/12/2015</td><td>10.33</td></tr><tr><td>01/01/2016 to 31/12/2016</td><td>9.96</td></tr><tr><td>01/01/2017 to 31/08/2017</td><td>6.97</td></tr></table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data has been cross-checked with the invoices issued to the PP by the lime supplier namely Dhehradun Calcium Minerals Pvt. Ltd./29/.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite.

Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.</td></tr>
</table>

m) Quantity of lime consumed for producing AAC blocks in the year y, $RMC_{Lime,y}$, kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded daily.

<table>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes</td></tr>
<tr><td>Monitoring equipment</td><td>The parameter is monitored using an electronic weighbridge of the following specifications:<table><tr><td>Equipment</td><td>Electronic Weighbridge</td></tr><tr><td>Make</td><td>Endeavour Industries Pvt. Ltd</td></tr><tr><td>Model Number</td><td>WB-E-50T</td></tr><tr><td>Serial Number</td><td>26/12-13</td></tr><tr><td>Capacity</td><td>50T</td></tr><tr><td>Accuracy Class</td><td>III</td></tr></table></td></tr>
<tr><td>Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer’s specification?</td><td>The accuracy of the monitoring equipment is as per the registered monitoring plan.</td></tr>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>The accuracy is valid for the entire measuring range</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</td><td>Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes</td></tr>
</table>

Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes
How were the values in the monitoring report verified?	The values in the MR/4/ were verified by consumption log book maintained by PP onsite/34/. The verified values are: **Period** | **Lime Consumption(kt)** 01/01/2015 to 31/12/2015 | 10.797 01/01/2016 to 31/12/2016 | 10.300 01/01/2017 to 31/08/2017 | 6.852
If applicable, has the reported data been cross-checked with other available data?	The reported data was cross verified with the lime purchase invoice
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) revealed that employees were well verse of the QA/QC procedures to be followed for data monitoring.

n) Quantity of gypsum purchased for producing AAC blocks in the year y, $RMP_{gypsum,y}$, kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded monthly.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications: **Equipment** | Electronic Weighbridge **Make** | Endeavour Industries Pvt. Ltd **Model Number** | WB-E-50T

	Serial Number 26/12-13 **Capacity** 50T **Accuracy Class** III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Yes
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes the accuracy is valid for entire measuring range
Calibration frequency /interval:	Annual
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/
Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.
Is(are) calibration(s) valid for the whole reporting period?	Yes the calibration is valid for the whole reporting period /30/
Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes calibration has been carried out for the measuring range comparable with the range for which measurements have been carried out.
How were the values in the monitoring report verified?	The values in MR/4/ has been verified with plant log books during onsite assessment/7, 29/. The verified values are: **Period** | **Gypsum Purchase(kt)** 01/01/2015 to 31/12/2015 | 1.004 01/01/2016 to 31/12/2016 | 0 01/01/2017 to 31/08/2017 | 0

If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross-checked with the invoices issued to the PP by the gypsum supplier namely Mahendra Bros./29/. The values were also checked from the log books maintained at the main gate.
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) also suggested that employees were well verse of the QA/QC procedures to be followed for data monitoring.

o) Quantity of gypsum consumed for producing AAC blocks in the year y, $RMC_{gypsum,y}$, kt

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded daily.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications: **Equipment**: Electronic Weighbridge **Make**: Endeavour Industries Pvt. Ltd **Model Number**: WB-E-50T **Serial Number**: 26/12-13 **Capacity**: 50T **Accuracy Class**: III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national	The accuracy of the monitoring equipment is as per the registered monitoring plan.

<table>
<tr><td>standards, or as per the manufacturer's specification?</td><td></td></tr>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>The accuracy is valid for the entire measuring range</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?</td><td>Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in the MR/4/ were verified by consumption log book maintained by PP onsite/34/. The verified values are:
<table>
<tr><th>Period</th><th>Gypsum Consumption(kt)</th></tr>
<tr><td>01/01/2015 to 31/12/2015</td><td>1.085</td></tr>
<tr><td>01/01/2016 to 31/12/2016</td><td>0.027</td></tr>
<tr><td>01/01/2017 to 31/08/2017</td><td>0</td></tr>
</table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data was cross verified with the gypsum purchase invoice</td></tr>
</table>

Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) also suggested that employees were well verse of the QA/QC procedures to be followed for data monitoring.

p) Quantity of Aluminium purchased for producing AAC blocks in the year y, $RMP_{aluminium,y}$, kT

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded monthly.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications: **Equipment**: Electronic Weighbridge **Make**: Endeavour Industries Pvt. Ltd **Model Number**: WB-E-50T **Serial Number**: 26/12-13 **Capacity**: 50T **Accuracy Class**: III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Yes

<table>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</td><td>Yes the accuracy is valid for entire measuring range</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Annual</td></tr>
<tr><td>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</td><td>Annual Calibration frequency has been kept intact which could be verified from the calibration certificates issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes the calibration is valid for the whole reporting period /30/</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes calibration has been carried out for the measuring range comparable with the range for which measurements have been carried out.</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in MR/4/ has been verified with plant log books during onsite assessment/7, 29/. The verified values are:
<table>
<tr><th>Period</th><th>Aluminium Purchase(kt)</th></tr>
<tr><td>01/01/2015 to 31/12/2015</td><td>0.106</td></tr>
<tr><td>01/01/2016 to 31/12/2016</td><td>0.114</td></tr>
<tr><td>01/01/2017 to 31/08/2017</td><td>0.077</td></tr>
</table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data has been cross-checked with the invoices issued to the PP by the aluminium powder supplier namely MMP Industries Limited/29/. The values were also checked from the log books maintained at the main gate.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be</td></tr>
</table>

	accurate. All the required documentation was available and maintained retrievably onsite. Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) also suggested that employees were well verse of the QA/QC procedures to be followed for data monitoring.

q) Quantity of aluminium powder consumed for producing AAC blocks in the year y, $RMC_{aluminium,y}$, kT

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored with every purchase of raw material and recorded daily.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	The parameter is monitored using an electronic weighbridge of the following specifications: **Equipment**: Electronic Weighbridge **Make**: Endeavour Industries Pvt. Ltd **Model Number**: WB-E-50T **Serial Number**: 26/12-13 **Capacity**: 50T **Accuracy Class**: III
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment is as per the registered monitoring plan.
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	The accuracy is valid for the entire measuring range
Calibration frequency /interval:	Annual
Is the calibration interval in line with the monitoring plan and/or	Annual Calibration frequency has been kept intact which could be verified from the calibration certificates

<table>
<tr><td>methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?</td><td>issued by Endeavour Instruments Pvt. Ltd on dates 03/03/2014, 24/02/2015, 15/10/2015, 29/09/2016, 26/09/2017/30/</td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Calibration of the electronic weighbridge is being carried out by Endeavour Industries Pvt. Ltd. For the purpose of calibration, Endeavour uses the Standard Weights traceable to the Department of Metrology, Government of India /30/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values in the MR/4/ were verified by consumption log book maintained by PP onsite/34/. The verified values are:
<table>
<tr><th>Period</th><th>Aluminium Consumption(kt)</th></tr>
<tr><td>01/01/2015 to 31/12/2015</td><td>0.109</td></tr>
<tr><td>01/01/2016 to 31/12/2016</td><td>0.120</td></tr>
<tr><td>01/01/2017 to 31/08/2017</td><td>0.072</td></tr>
</table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data was cross verified with the aluminium purchase invoice</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC procedures were intact with a high level of efficiency as revealed by onsite audit. The transfer of values from log books to daily stock record and finally to monthly stock statement, as done by operator and checked by supervisor, was checked and found to be accurate. All the required documentation was available and maintained retrievably onsite.

Additionally, PP is an ISO 9001:2008 certified organisation/40/ which adds on the reliability of quality management of the industry. Interview with the onsite personnel (given in section 2.3) also suggested that employees were well verse of the QA/QC procedures to be followed for data monitoring.</td></tr>
</table>

r) Quantity of diesel consumed in the year y, $DG_{y,}$ litre

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored Batch-wise/Every time Diesel is filled in DG set and recorded monthly.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Measuring Can/Drums are used to fill Diesel
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
Is(are) calibration(s) valid for the whole reporting period?	Not applicable
Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not applicable

How were the values in the monitoring report verified?	The values in the MR/4/ were verified by consumption log book maintained by PP onsite/35/. The verified values are: **Period** / **Consumption (litre)** 01/01/2015 to 31/12/2015 — 23958 01/01/2016 to 31/12/2016 — 13437 01/01/2017 to 31/08/2017 — 10432
If applicable, has the reported data been cross-checked with other available data?	Not applicable
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be reliable and robust.

s) Return trip road distance between the origin and destination of freight transportation activity f in monitoring period m, $D_{f,y}$, Km

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Online maps
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the	Not applicable

<table>
<tr><td>monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?</td><td></td></tr>
<tr><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Not applicable</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Not applicable</td></tr>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Not applicable</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The values were verified with purchase invoices /27/. The verified values are:
<table>
<tr><th>Raw Mat.</th><th>From</th><th>To</th><th>Roundtrip Distance</th></tr>
<tr><td>Cement</td><td>Surat</td><td>Umargaon</td><td>296</td></tr>
<tr><td>Flyash</td><td>Dahanu</td><td>Umargaon</td><td>60</td></tr>
<tr><td>Lime</td><td>Nagaur</td><td>Umargaon</td><td>1946</td></tr>
<tr><td>Gypsum</td><td>Rajkot</td><td>Umargaon</td><td>1143</td></tr>
<tr><td>Aluminium Powder</td><td>Nagpur</td><td>Umargaon</td><td>1672</td></tr>
<tr><td>Coal</td><td>Mundra Port</td><td>Umargaon</td><td>1483</td></tr>
</table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The distance between origin and destination was cross-checked using online tools like google map.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC procedures were found to be reliable and robust.</td></tr>
</table>

t) Total mass of freight transported in freight transportation activity f in monitoring period m, $FR_{f,m}$, Tonne

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	It is monitored continuously and recorded monthly
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes /	Yes

No)	
Monitoring equipment	Not applicable
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
Is(are) calibration(s) valid for the whole reporting period?	Not applicable
Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not applicable
How were the values in the monitoring report verified?	The values in the MR/4/ were verified using purchase invoices issued by raw material suppliers /41 – 44/
If applicable, has the reported data been cross-checked with other available data?	The data was cross-checked with purchase records/33/

Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be reliable and robust.

u) The vehicle class used for freight transportation, The vehicle class used

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored continuously and recorded with every receipt of raw material onsite
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Not applicable
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable
Calibration frequency /interval:	Not applicable
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
Is(are) calibration(s) valid for the whole reporting period?	Not applicable

Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not applicable
How were the values in the monitoring report verified?	Values in the MR/4/ were verified by way bills.
If applicable, has the reported data been cross-checked with other available data?	Not applicable
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be reliable and robust.

4.3.1 Parameters fixed ex ante:

a) **EF_{BL} ;** tCO_2e/m^3: it is the annual production specific baseline emission factor fixed at the time of project registration. The mentioned value of 0.3993 tCO_2e/m^3 is consistent with the registered CDM PDD/1/.

b) **$COEF_{cement}$;** tCO_2/kt : it is CO_2 emission factor of cement production fixed at the time of project registration. The mentioned value of $0.638x10^3$ tCO_2/kt is consistent with the registered CDM PDD/1/.

c) **$COEF_{aluminium}$;** tCO_2/kt : it is the CO_2 emission factor of aluminium production fixed at the time of project registration. The mentioned value of 1.7×10^3 tCO_2/kt is consistent with the registered CDM PDD/1/.

d) **$COEF_{lime}$;** tCO_2/kt : it is the CO_2 emission factor of lime production fixed at the time of project registration. The mentioned value of $0.75x10^3$ tCO_2/kt is consistent with the registered CDM PDD/1/.

e) **$COEF_{gypsum}$;** -tCO2/t : it is the CO_2 emission factor of gypsum production fixed at the time of project registration. The mentioned value of 0.01 $-tCO_2/t$ is consistent with the registered CDM PDD/1/.

f) **$EF_{CO2,f}$;** $gCO_2/t\text{-}km$: it is the Default CO_2 emission factor for freight transportation activity f fixed at the time of project registration. The mentioned value of 245 for light vehicles and 129 for heavy vehicles is consistent with the registered CDM PDD/1/.

g) **D_{brick} ;** kg/m^3: it is the density of each baseline brick produced fixed at the time of project registration. The mentioned value of 1920 kg/m^3 is consistent with the registered CDM PDD/1/.

h) **W_{brick} ;** kg: it is the weight of each baseline brick produced fixed at the time of project registration. The mentioned value of 3.75 kg is consistent with the registered PD/1/.

i) **$EF_{CO2,brick}$;** $kgCO_2$/brick: it is the CO_2 emission per baseline brick produced fixed at the time of project registration. The mentioned value of 0.78 $kgCO_2$/brick is consistent with the registered CDM PDD/1/.

j) **$EF_{EL,plant,y}$;** tCO_2/MWh: it is the emission factor for electricity used in project plant in year y fixed at the time of project registration. The mentioned value of 1.3 tCO_2/MWh is consistent with the registered CDM PDD/1/.

k) **$TDL_{plant,y}$;** %: it is the Average technical transmission and distribution losses for providing electricity to project plant in year y fixed at the time of project registration. The mentioned value of 20% is consistent with the registered CDM PDD/1/.

4.3.2 Calibration

During the site visit, the verification team visited the location where the energy meter, weighbridge and load cell have been installed. It was found that no meter has been replaced during the current monitoring period; therefore there is no change in the accuracy class of the meters. The details of the monitoring equipment have been provided below:

Equipment	Serial Number	Accuracy Class	Calibration Date	Next Calibration
Weighbridge	26/12-13	III	03-Mar-2014	03-Mar-2015
			24-Feb-2015	24-Feb-2016
			15-Oct-2015	14-Oct-2016
			29-Sep-2016	20-Sep-2017
			26-Sep-2017	26-Sep-2018
Energy Meter	09512220	0.5S for Active 1.0S for Reactive	12-Jun-2015	11-Jun-2016
			06-Jun-2016	06-Jun-2017
			30-Jun-2017	30-Jun-2018

4.3.3 GHG Calculations

4.3.3.1 Baseline emission

Baseline emission has been quantified in accordance with the applied methodology i.e. AMS.III.Z. The formula used for calculation is as follows:

$$BEy = EF_{BL} * P_{PJ,Y} \quad \text{..... (1)}$$

Where,

Bey = baseline emissions in year y, tCO_2e
EF_{BL} = the annual production specific baseline emission factor = 0.3993tCO_2/m^3
$P_{PJ,Y}$ = The annual net production of the facility in year y

Therefore the Baseline Emissions for each year are:

Period	Baseline Emission BE_y (tCO_2e)
01/01/2015 to 31/12/2015	239399 x 0.3993 = 95,591
01/01/2016 to 31/12/2016	251334 x 0.3993 = 100,357
01/01/2017 to 31/08/2017	150900 x 0.3993 = 60,254
Total	**256,202 tCO_2e**

4.3.3.2 Project emission

The project activity involves two sources of project emission: (i) emissions from electricity consumption and (ii) emissions from coal consumption in the boiler for steam generation

(i) Project emission from electricity consumption

Emissions resulting from electricity consumption within the project boundary has been calculated in accordance with "Tool to calculate baseline, project and/or leakage emission from electricity consumption, Version 01". The equation being used is:

$$PE_{elec,y} = \sum EC_{PJ,j,y} * EF_{EL,j,y} * (1+TDL_{j,y}) \quad \ldots\ldots(2)$$

Where:

$PE_{elec,y}$ = Project emissions due to electricity consumption in year y, tCO_2/year

$EC_{PJ,j,y}$ = Quantity of electricity consumed by the project emission source j in year y, MWh/year

$EF_{EL,j,y}$ = Emission factor for electricity generation for source j in year y, tCO_2/MWh

$TDL_{j,y}$ = Average technical transmission and distribution losses for providing electricity to source j in year y, %

Thus, the resulting calculations are as follows:

Period	Electricity Consumption ($EC_{PJ,j,y}$)	Emission factor for electricity generation for source j in year y ($EF_{EL,j,y}$)	Average technical transmission and distribution losses for providing electricity to project ($TDL_{j,y}$)	Project Emissions from electricity consumption within the project boundary
	MWh/year	tCO_2/MWh	%	tCO_2
01/01/2015 to 31/12/2015	1571.96	1.3	20	2453
01/01/2016 to 31/12/2016	1606.67	1.3	20	2507
01/01/2017 to 31/08/2017	1048.28	1.3	20	1636

(ii) Project emission from coal consumption in the boiler for steam generation

Emissions resulting from coal consumption in the boiler for steam generation has been calculated in accordance with "Tool to calculate project or leakage CO_2 emission from fossil fuel combustion, version no. 2". The equation being used is:

$$PE_{FC,y} = \sum FC_{i,y} * \ldots\ldots(3)$$

Where:

$PE_{FC,y}$ = Project emission due to fossil fuel consumption in the year y, tCO_2

$FC_{i,y}$ = Quantity of fossil fuel type i combusted by the project activity equipment during the year y, kt

$COEF_{i,y}$ = CO_2 emission coefficient of fuel type i in the year y, tCO_2/kt

CO_2 emission coefficient has been calculated as:

$$COEF_{i,y} = NCV_{i,y} * EFi_{,y} \quad \ldots\ldots(4)$$

Where:

$COEF_{i,y}$ = CO_2 emission coefficient of fuel type i in the year y, tCO_2/kt

$NCV_{i,y}$ = Net calorific value for fuel type i in year y

$EFi_{,y}$ = Emission factor of CO_2

Using equation 3 and 4, project emission from coal combustion comes out to be:

Period	Project Emissions from Coal Consumption (tCO_2)
01/01/2015 to 31/12/2015	14,069
01/01/2016 to 31/12/2016	15,930
01/01/2017 to 31/08/2017	10,053

Project emissions from diesel consumption in the DG set within project boundary.

As per the project emissions tool calculation, CO2 emission from fossil fuel combustion are calculated based on quantity of fuels combusted and the CO2 emission co-efficient of these fuels.
The applicable equation is:

$$PE_{FC,j,y} = \sum_{i} FC_{i,j,y} \times COEF_{i,y}$$

Where:

$PE_{FF,y}$	Are the CO2 emissions from fossil fuel combustion in process j during the year y (tCO2/yr)
$FC_{i,y}$	Is the quantity of fuel type i combusted in process j during the year y (mass or volume unit/yr)
$COEF_{i,y}$	Is the CO2 emission coefficient of fuel type i in year y (tCO2/mass or volume unit)

As per the tool, the CO_2 emission coefficient can be calculated using one of the options, depending on the availability of data.

- Option A: Based on the chemical composition of the fossil fuel type i
- Option B: Based on the net calorific value and the CO_2 emission factor of the fuel type i.

Based on availability of data, Option B has been used to calculate the CO_2 emission co-efficient as follows:

$$COEF_{i,y} = NCV_{i,y} \times EF_{CO2,i,y}$$

Where:

$COEF_{i,y}$	Is the CO2 emission coefficient of fuel type i in year y (tCO2/mass or volume unit)
NCVi,y	Is the weighted average net calorific value of the fuel type i in year y (GJ/mass or volume unit)
EFi, *y*	Is the weighted average CO2 emission factor of fuel type i in year y (tCO2/GJ)

$PE_{Diesel.y}$ = DG_y*$COEF_{Diesel.y}$*Density of Diesel _____Equation 5

$COEF_{Diesel}$, y = NCV_{Diesel}, y *EF_{Diesel}, y _____Equation 6

$PE_{Diesel.y}$	tCO_2/yr	Project emissions due to Diesel consumption in year y
DGy	TJ/Gg	Quantity of Diesel consumed by the project emission source j in year y
$COEF_{Diesel,y}$	tCO2e/ TJ	Emission factor for Diesel generation for source j in year y

Density of Diesel	KG/litres	Density of Diesel

For the project activity

Diesel consumption for the period 01-01-2015 to 31-12-2015 = 23,958 Litres
Diesel consumption for the period 01-01-2016 to 31-12-2016 = 13,437 Litres
Diesel consumption for the period 01-01-2017 to 31-08-2017 = 10,432 Litres
Using equation 5 and equation 6

Period	Diesel Consumption	Weighted average net calorific value of Diesel	Weighted average CO2 emission factor of Diesel	Project Emissions from Diesel Consumption
	Litres	TJ/Gg	tCO_2/TJ	tCO_2
01-01-2015 to 31-12-2015	23,958	43	74.1	68
01-01-2016 to 31-12-2016	13,437	43	74.1	39
01-01-2017 to 31-08-2017	10,432	43	74.1	30

Total project emission comes out to be:

Period	Project Emissions from electricity consumption within the project boundary (tCO_2)	Project Emissions from Coal Consumption (tCO_2)	Project Emission from Diesel Consumption (tCO_2)	Total Project Emissions from the Project Activity (tCO_2)
01/01/2015 to 31/12/2015	2,453	14,609	68	17,130
01/01/2016 to 31/12/2016	2,507	15,930	39	18,476
01/01/2017 to 31/08/2017	1,636	10,053	30	11,719
		Total		**47,325**

4.3.3.3 Leakage emission

There are two sources of leakage emission in the project: (i) leakage emission due to raw material production (ii) leakage emission due to raw material transportation

(i) Leakage emission due to raw material production
Formula used for calculation is as follows:

$LE_{rm,prod,y} = RMC_{cement,y} * COEF_{cement} + RMC_{lime,y} * COEF_{lime} + RMC_{gypsum,y} * COEF_{gypsum} + RMC_{aluminium,y} * COEF_{aluminium}$.....(5)

Where:

			Source
$LE_{rm,prod,y}$	=	Leakage emission from raw material production in the year y, tCO_2	-
$RMC_{cement,y}$	=	Quantity of cement consumed for producing AAC blocks in the year y, kt	Monitored data
$COEF_{cement}$	=	CO_2 emission factor of cement production, tCO_2/kt	http://www.wbcsdcement.org/pdf/tf1_co2%20protocol%20v3.pdf
$RMC_{lime,y}$	=	Quantity of lime consumed for producing AAC blocks in the year y, kt	Monitored data
$COEF_{lime}$	=	CO_2 emission factor of lime production, tCO_2/kt	IPCC Guidelines 2006 for NGGI (Vol 3 Ch 2 Eqn 2.8)
$RMC_{gypsum,y}$	=	Quantity of gypsum consumed for producing AAC blocks in the year y, kt	Monitored data
$COEF_{gypsum}$	=	CO_2 emission factor of gypsum production, tCO_2/kt	http://ec.europa.eu/clima/policies/ets/cap/allocation/docs/bm_study-gypsum_en.pdf
$RMC_{aluminium,y}$	=	Quantity of aluminium powder consumed for producing AAC blocks in the year y, kt	Monitored data
$COEF_{aluminium}$	=	CO_2 emission factor of aluminium production, tCO_2/kt	IPCC 2006 Report, Volume 3 Chapter 1 Table 4.10 for Soderberg smelting technology

The calculations for the monitoring period are:

Period	Freight Type	Raw Material consumed	Specific GHG Emissions	Leakage Emissions from Raw Material Production
01-01-2015 to 31-12-2015	**Raw Material**	**Tonnes**	**tCO_2/tonne of raw material**	**tCO_2**
	Cement	25404.07	0.638	**16,208**
	Flyash	127709.47	0	**0**
	Lime	10797.43	0.75	**8,099**
	Gypsum	1085.17	0.01	**11**
	Al.Powder	109.96	1.7	**187**
	Coal	5618.74	0	**0**
01-01-2016 to 31-12-2016	**Cement**	30795.21	0.638	**19,647**
	Flyash	126776.34	0	**0**
	Lime	10300.67	0.75	**7,725**
	Gypsum	27.42	0.01	**0.27**
	Al. Powder	120.81	1.7	**205**
	Coal	6126.72	0	**0**
01-01-2017 to 31-08-2017	**Cement**	17887.12	0.638	**11412**
	Flyash	72821.14	0	**0**

	Lime	6851.93	0.75	**5139**
	Gypsum	0.00	0.01	**0**
	Al.Powder	72.00	1.7	**123**
	Coal	3866.46	0	**0**

(ii) Leakage emission due to raw material transportation

$LE_{rm,trans,y} = \sum D_{f,y} * FR_{f,y} * EF_{CO2,f} * 10^{-6}$……..(6)

Where:

$LE_{rm,trans,y}$ = Leakage emission from road transportation of freight in monitoring period m, tCO_2

$D_{f,y}$ = Return trip road distance between the origin and destination of freight transportation activity f in monitoring period m, km

$FR_{f,m}$ = Total mass of freight transported in freight transportation activity f in monitoring period m, tonne

$EF_{CO2,f}$ = Default CO_2 emission factor for freight transportation activity f, gCO_2/t-km

F = Freight transportation activities conducted in the project activity in monitoring period m

The calculations for the monitoring period are:

Period	**Freight Type**	**Raw Material Transported**	**Total Roundtrip distance**	**Default CO2 Emission Factor for Freight Transportation activity**	**Leakage Emissions from Raw Material Transportation**
01-01-2015 to 31-12-2015	**Raw Material**	**Tonnes**	**kms**	**gCO2/t-km**	**tCO2**
	Cement	**25961.81**	**296**	**129**	**992**
	Flyash	**175611.41**	**60**	**129**	**1360**
	Lime	**10333.52**	**1946**	**129**	**2595**
	Gypsum	**1004.00**	**1143**	**129**	**149**
	Al.Powder	**106.59**	**1672**	**129**	**23**
	Coal	**7050.62**	**1483**	**129**	**1349**
01-01-2016	**Cement**	**26293.91**	**296**	**129**	**1005**

to 31-12-2016					
	Flyash	**212521.85**	**60**	**129**	**1645**
	Lime	**9965.61**	**1946**	**129**	**2502**
	Gypsum	**0.00**	**1143**	**129**	**0**
	Al. Powder	**114.99**	**1672**	**129**	**25**
	Coal	**5601.35**	**1483**	**129**	**1072**
01-Jan-2017 to 31 Aug-2017	**Cement**	**18304.09**	**296**	**129**	**699**
	Flyash	**155071.89**	**60**	**129**	**1284**
	Lime	**6438.73**	**1946**	**129**	**1751**
	Gypsum	**0.00**	**1143**	**129**	**0**
	Al.Powder	**70.62**	**1672**	**129**	**17**
	Coal	**3628.5**	**1483**	**129**	**695**

Total leakage emissions:

Period	Leakage Emissions from Raw Material Production (tCO_2)	Leakage Emissions from Raw Material Transportation (tCO_2)	Total Leakage Emissions from the Project Activity (tCO_2)
01/01/2015 to 31/12/2015	24505	6468	30973
01/01/2016 to 31/12/2016	27581	6249	33830
01/01/2017 to 31/08/2017	16674	4446	21120
Total			85,923

4.4 Non-Permanence Risk Analysis

The data variable used for the calculation of emission reductions was overall net electricity supplied by the project activity. The parameter has been monitored through electronic meters therefore the likelihood of error is purely systematic in nature. The energy meters are state utility owned and undergo a calibration check. The monthly sheets for the energy generated issued by the state utility have been submitted to the assessment team and 100% of the data has been verified.

Therefore assessment team is of the opinion that the emission reductions are free from any omissions, misstatement and material errors.

5 VERIFICATION CONCLUSION

Earthood Services Private Limited (Earthood), contracted by Mohit Industries Limited (now named as Big Bloc Construction Limited), has performed the independent verification of the emission reductions for the VCS project activity Ref number 1238 "AAC blocks project by Mohit Industries Limited, Gujarat, India" in India for the monitoring period 01/01/2015 to 31/08/2017 (including both days) as reported in the Monitoring Report Version 04 dated 28/11/2017.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity

Earthood commenced the verification on the basis of the baseline and monitoring methodology AMS.III.Z version 04.0, the monitoring plan contained in the VCS PD Version 6 and VCS guidelines version 3.5, Monitoring Report Version 04 dated 28/11/2017 as per the process described under Section 2 of this report.

Earthood's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated. In our opinion the GHG emissions reductions reported for the project activity for the period 01/01/2015 to 31/08/2017 are fairly stated in the Monitoring Report Version 04 dated 28/11/2017. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology AMS.III.Z version 04.0, and the VCS standard.

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01/01/2015 to 31/12/2015	95,591	17,130	30,973	47,488
01/01/2016 to 31/12/2016	1,00,357	18,476	33,830	48,051
01/01/2017 to 31/08/2017	60,254	11,719	21,120	27,415
Total	**2,56,202**	**47,325**	**85,923**	**1,22,954**

Approved by

Dr. Kaviraj Singh
Managing Director
Earthood Services Privated Limited

Date: 18/01/2018
Place: Gurgaon, Haryana

APPENDIX 1: REFERENCES

S.No	Title of Document	Version	Date
1.	Registered VCS PD	07.1	01/12/2015
2.	CDM Validation Report, prepared by SGS United Kingdom Limited, Report ID CCP.VOL969 VCS VAL	02	24/11/2014
3.	VCS Monitoring Report	2	-
4.	VCS Monitoring Report (Final)	04	28/11/2017
5.	ER spreadsheet (corresponding to the final monitoring report)	-	-
6.	VCS Standard	3.5	25/03/2015
7.	On-site assessment	-	05/10/2017
8.	VCS webpage for the project, VCS ID 1238; http://www.vcsprojectdatabase.org/#/project_details/1238	-	Last accessed on 16/11/2017
9.	Methodology AMS.III.Z Fuel Switch, process improvement and energy efficiency in brick manufacture.	4	11/05/2012
10.	Production details for monitoring period	-	-
11.	Guidelines on the demonstration of additionality of small-scale project activities	09	20/07/2012
12.	Tool to calculate baseline, project and/or leakage emissions from electricity consumption	01	16/05/2008
13.	Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion	02	02/08/2008
14.	Tool to calculate project and leakage emissions from road transportation of freight	01.1.0	23/11/2012
15.	License to work a factory issued to PP by Directorate Industrial Safety & Health, Gujarat State for registration no. 2145/26933/2012. License No. 16460	-	17/09/2012
16.	Clearance from District Industries Centre, Valsad, issued to Mohit Industries Limited	-	01/08/2012
17.	Consent to Operate from Gujarat Pollution Control Board. Consent Order No. AWH-51299		18/12/2012
18.	Permission for Erection of Boiler from Office of the Director of Boilers, No. DOB/TECH/2012/8729	-	21/04/2012
19.	Brick and ceramic sector report by Asian Institute of Technology	-	2003
20.	Energy conservation and Pollution Control in brick kilns report by Sameer Maithel, N Vasudevan, Lt. Col. Rakesh Joshi	-	-
21.	Central Excise Registration Certificate issued to PP, Registration number AABCM5903EEM004	-	26/07/2012
22.	CO_2 and Energy Accounting and Reporting Standard for the Cement Industry by Cement Sustainability Initiative (CSI)	3.0	May 2011
23.	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Page 1.18	-	-
24.	Methodology for free allocation of emission allowances in the EU ETS post 2012, Sector report for the gypsum industry	-	November 2009
25.	http://www.reade.com/Particle_Briefings/spec_gra2.html	-	Last accessed on 16/11/2017

26.	Compressive strength and density report issued by- 1) Curve Surveys and Lab: a) Ref: CSL/BLK/69203/2015 2) Global Lab: a) Ref: GLOBAL/15/MRD-2286/TR-46883 3) Bhumi Research Center: a) Ref: BRC-REP-MT-11-2015-V-AAC-853 b) Ref: BRC-REP-MT-09-2016-V-S-AAC-572 c) Ref: BRC-REP-MT-11-2016-V-S-AAC-722 d) Ref: BRC-REP-MT-03-2017-V-S-AAC-220-01 e) Ref: BRC-REP-MT-06-2017-V-S-AAC-414		07/02/2015 10/09/2015 08/12/2015 26/09/2016 16/12/2016 23/03/2017 22/06/2017
27.	*http://www.distancesfrom.com*	-	Last accessed on 16/11/2017
28.	Plant records for annual production of the facility, blocks selling data and blocks stocks data		For monitoring period
29.	a) Plant log book for quantity of coal combusted daily by project activity b) invoices issued by coal suppliers to PP		For monitoring period
30.	Calibration certificate of weighbridge		For monitoring period
31.	Electricity consumption logbook		Jan 01 – Aug 17
32.	Energy Meter test reports for serial no. 09512220	-	12/06/2015, 06/06/2016, 30/06/2017
33.	Purchase records for quantity of raw material purchased	-	Jan 01 – Aug 17
34.	Consumption records for quantity of raw material consumed	-	Jan 01 – Aug 17
35.	Consumption record for quantity of Diesel consumed	-	Jan 01- Aug 17
36.	Boiler purchase order issued to M/s. Cethat Limited	-	07/07/2011
37.	Sales contract for autoclave issued by Changzhou Mingjie Building Material Equipment Manufacturing Co., Ltd	-	01/07/2011
38.	ISO 9001:2008 certificate issued to Mohit Industries Ltd, registered by Nimbus Certifications Private Limited. Certificate No. MAH/Q-2258/2	-	02/07/2015
39.	Strength and Elastic Properties of Aerated Concrete Blocks (ACBs), International Journal of Chemical, Environmental & Biological Sciences (IJCEBS) Volume 1, Issue 2 (2013) ISSN 2320–4087	-	-
40.	Endeavour Industries Pvt Ltd Website http://www.endeavourweigh.com/	-	Last accessed on 16/11/2017
41.	Invoice from ACC, JK Lakshmi, Sanghi Cement and UltraTech Cement raised to PP	-	Jan 15 – Aug 17
42.	Invoice issued by D.K Lime Industries, Dhehradun Calcium Minerals Pvt. Ltd, Diwan Transport Company, Shri Rana Chemicals and Shree Vianayaka Lime Industries for purchase of lime	-	Jan 15 – Aug 17
43.	Invoice issued by Giriraj Minerals and Navkar Traders for purchase of gypsum	-	Jan 15 – Aug 17
44.	Invoice issued by MMP Industries Limited for purchase of	-	Jan 15 – Aug 17

	aluminium powder		
45.	Order from Gujarat High Court for demerger of AAC block of Mohit Industries Limited into Bigbloc construction limited	-	18/03/2016

APPENDIX 2: FINDINGS

Table 1. Remaining FAR from validation and/or previous verification

There is no finding from validation or previous verification report.

Table 2. CL from this verification

None

Table 3. CAR from this verification

CAR ID	01	**Section no.**		**Date :** 11/10/2017
Description of CAR				
The details of energy meter reported in MR were found to be inconsistent with the meter installed onsite.				
Project participant response				**Date :** DD/MM/YYYY
The energy meter was replaced in December 2015. The details provided along with meter change certificate.				
Documentation provided by project participant				
DOE assessment				**Date:** 06/11/2017
The revised MR contains the corrected information. Thus this CAR is **closed**.				

CAR ID	02	**Section no.**		**Date :** 11/10/2017
Description of CAR				
As per onsite assessment, a diesel generator has been installed onsite for backup which is used while grid is off for maintenance or other purposes. However, description of it has not been added in the MR. Also, it has not been accounted for in the project emissions. The appropriateness of the same is not clear.				
Project participant response				**Date :** DD/MM/YYYY
A DG Set has been installed at site for usage during emergency period. The Diesel consumption has been added in the revised MR Version 2.				
Documentation provided by project participant				
DOE assessment				**Date:** 06/11/2017
Section 2.1 of MR does not mention the installation of DG set and the technical specifications for the same has also not been given.**Thus this CAR stands open.**				
Project participant response				**Date :** 07/11/2017
Techincal Specifications of the DG Set is now mentioned in the section 2.1 of MR. The supportings for technical details of DG sets are attached herewith.				
Documentation provided by project participant				
MR Version 03, DG Set details				
DOE assessment				**Date:** 10/11/2017
PP has now included the technical specifications of the DG Set in the section 2.1 of MR. Thus this CAR is **closed**.				

CAR ID	03	**Section no.**		**Date :** 11/10/2017

Descriptionof CAR	
The values of various monitored parameters were found be reported inconsistently in the ER sheet as compared to source of values (log books/plant records reviewed onsite).	
Project participant response	**Date :** 07/11/2017
Values in ER sheet is consistent with the various monitored parameters, please refer the same.	
Documentation provided by project participant	
DOE assessment	**Date:** 14/11/2017
The reported values are consistent within ER sheet. Thus this CAR is **closed**.	

CAR ID	04	**Section no.**		**Date :** 11/10/2017
Description of CAR				
Requirements related to local stakeholder consultation has not been given in MR under section 2.4.2 inline to the MR template and VCS standard.				
Project participant response				**Date :** DD/MM/YYYY
Communication procedure with local stakeholder has been developed for periodic communications and feedback from local stakeholders. The same has been shared with DOE.				
Documentation provided by project participant				
DOE assessment				**Date:** 06/11/2017
The submitted procedure for local stakeholder consultation was found to be appropriate, however no details regarding the procedure has been incorporated in MR inline to MR template. Thus, this CAR is **open**.				
Project participant response				**Date :** 07/11/2017
The MR version 03 has been revised to incorporate the communication procedure with local stakeholders.				
Documentation provided by project participant				
DOE assessment				**Date:** 10/11/2017
PP has now included the details of the communication procedure with local stakeholders which is inline with MR template. Thus this CAR is **closed**.				

CAR ID	05	**Section no.**		**Date :** 11/10/2017
Description of CAR				
For the purpose of leakage calculation, freight of coal has not been considered. This is not inline to the requirements of applied methodology and registered PD.				
Project participant response				**Date :** DD/MM/YYYY
Leakage emissions due freight of coal for the monitoring period has been and emission reduction calculations are revised accordingly.				
Documentation provided by project participant				
DOE assessment				**Date:** 06/11/2017
Freight of the coal has been considered for the leakage emission calculation and the emission reduction calculations has been revised. The end date for leakage emission calculation in ER sheet (worksheet "Leakage emissions", cell B33) is not in line with that mentioned in MR. **Thus the CAR stands open**.				
Project participant response				**Date :** DD/MM/YYYY
The ER sheet is updated as per the relevant information of available resource.				
Documentation provided by project participant				
DOE assessment				**Date:** 10/11/2017
The ER sheet has been revised appropriately. Thus the CAR is **closed**.				

CAR ID	06	Section no.		Date : 11/10/2017
Description of CAR				
As per onsite observation and interviews, gypsum is no longer used as a raw material in making of blocks. However, no information regarding the same has been added to MR.				
Project participant response				**Date :** DD/MM/YYYY
During the current monitoring period the PP had gradually tried and tested to reduce the consumption of Gypsum and could finally eliminate the usage. However, the properties of AAC blocks even without gypsum are comparable to the baseline (i.e. strength and density of blocks).				
Documentation provided by project participant				
DOE assessment				**Date:** 06/11/2017
The revised MR (version 2) mentions the reduction in consumption of Gypsum on yearly basis, thus this CAR **closed.**				

CAR ID	07	Section no.		Date : 11/10/2017
Description of CAR				
As observed during onsite audit, name of PP (company) has changed from Mohit Industries Limited to Bigbloc Construction Limited. However no information regarding the same is reflected in MR or on VCS registry.				
Project participant response				**Date :** DD/MM/YYYY
Change in the name of company's entity has been made in the revised MR.				
Documentation provided by project participant				
DOE assessment				**Date:** 06/11/2017
The MR version 2 mentions the change in the name of company entity, however no evidence for this name change has been provided. Thus the CAR stands **open**.				
Project participant response				**Date :** 07/11/2017
Please refer to page 5 of certified copy of Gujarat High Court Order for the de-merger of Mohit Industries Limited into Big Bloc Construction Limited. Further, a copy of factory license application is attached for your reference highlighting the change of name.				
Documentation provided by project participant				
Certified copy of Gujarat High Court order, Factory license application				
DOE assessment				**Date:** 10/11/2017
PP has now incorporated the evidences supporting change in the name of company's entity and the de-merger of Mohit Industries Limited into Big Bloc Construction Limited. Thus the CAR is **closed**.				

Table 4. FAR from this verification

There is no FAR from this verification

APPENDIX 3: CV OF VERIFICATION TEAM

Competence Statement			
Name	Anshika Gupta		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	2 Year +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.A., AMS-II.G., ACM0002, AMS-III.A.V.		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	Yes (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	**Date**	20/07/2017
Approved by	Ashok Kumar Gautam	**Date**	20/07/2017

Competence Statement			
Name	Akhilesh Joshi		
Country	India		
Education	B.Tech. (Chemical Engineering), MNIT Jaipur MBA (Oil & Gas), UPES Dehradun		
Experience	13 Years +		
Field	Cement, Energy Efficiency, Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.G., AMS-II.J.,ACM0001, ACM0002, ACM0004		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	YES (TA 1.2, TA 3.1, TA 4.1)		
Reviewed by	Abhishek Mahawar	**Date**	09/09/2016
Approved by	Ashok Kumar Gautam	**Date**	09/09/2016

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	5 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	**Date**	20/07/2017
Approved by	Ashok Gautam	**Date**	20/07/2017

Competence Statement			
Name	Harshita Kulshrestha		
Country	India		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	1 Year +		
Field	Climate Change		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Methodology Expert	NO		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	NO		
Reviewed by	Abhishek Mahawar	**Date**	01/12/2017
Approved by	Ashok Kumar Gautam	**Date**	01/12/2017

Competence Statement	
Name	Sparsh Agarwal
Country	India

Education	M.Tech (Environmental Engineering and Management), IIT Delhi		
Experience	3 months		
Field	Environmental Engineering & Climate Change		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	NO		
Trainee	YES (Validator/ Verifier)		
Reviewed by	Abhishek Mahawar	**Date**	04/12/2017
Approved by	Ashok Kumar Gautam	**Date**	04/12/2017

Competence Statement			
Name	Rajat Mukherjee		
Country	India		
Education	M.Sc. (Chemistry), APS University, Reva (M.P.)		
Experience	19 Years		
Field	Cement Production		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	YES (TA 4.1)		
Reviewed by	Abhishek Mahawar	**Date**	12/12/2016
Approved by	Ashok Kumar Gautam	**Date**	12/12/2016