AAC BLOCK PROJECT BY AEROCON BULDWELL PVT.LTD. (EKIESL-JUNE 2016-02)

VKU Certification Pvt. Ltd.

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Summary:

VKU Certification Pvt. Ltd. (here after referred as VKU) has been contracted by Aerocon Buildwell Pvt Ltd (here after referred as PP) *and* Infinite Environmental Solutions LLP (Client/Responsible Party). VKU, has verified greenhouse gas emission reductions reported for the project activity **"AAC Block Project by Aerocon Buildwell Pvt. Ltd. (EKIESL- June- 2016-02)" (VCS ID 1549)** for the period 01-January-2021 to 30-April-2023. (Inclusive of both start and end dates) with regard to the relevant requirements for VCS Standard version 4.5 /B02/.

The project activity involves manufacturing of Autoclaved Aerated Concrete (AAC) blocks bricks in Ujjain, India and part of the KEMKER and GOYAL Group.

Purpose: The purpose of the verification is to have an independent review of ex-post determination of the monitored reductions in GHG emission reductions and verify that the monitoring methodology has been implemented according to the monitoring plan and monitoring data used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive and presented in a concise and transparent manner for 3rd Monitoring period from 01-January-2021 to 30-April-2023. (Inclusive of both start and end dates) under first renewable crediting period from **15-July-2014 to 14-July-2024** (Inclusive of both start and end dates).

The verification scope of the project is:

- To verify that the project is implemented as described in the registered VCS Joint PD&MR /03/
- To assess the project's compliance with other relevant rules including the Indian legislation.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary carbon units without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation
- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement

The method and criteria used for verification: Verification was conducted as per the VKU's procedures which is in line with the requirements specified in VCS Program guide 4.4/B01/, VCS Standard Version 4.5/B02/, VCS Validation and Verification Manual version 3.2/B06/ and applying standard auditing techniques.

The verification consisted of desk review, on-site assessment and the resolution of outstanding issues and the issuance of the final verification report and certification.

VKU followed the rule-based approach to perform this verification. During the course of verification, related to operation, monitoring and GHG emission reduction calculation of the VCS project activity in relation to all relevant VCS requirements for the project activity and the applied baseline and

monitoring methodology. A total of **13** findings were raised, which includes: **04** Clarification Requests (CLs), **09** Corrective Action Request (CARs); and **00** Forward Action Requested (FAR). All the findings were raised and successfully resolved by the PP. The same has been discussed in Appendix-B of this verification report. The verification team ensured that the reported emission reductions are complete and accurate in accordance with applicable VCS requirements in order to be certified therefore the verification team has detected no further uncertainties.

The GHG emission reductions were calculated on the basis of the approved "CDM applied methodology "AMS III.Z. Fuel Switch, process improvement and energy efficiency in brick manufacture version 06'" and the monitoring plan included in the registered VCS Joint PD&MR Version 2.0 dated 09-July-2016

The project has also referred to following documents.

- Tool 07 to calculate the emission factor for an electricity system/B08/
- VCS Standard, version 4.5 dated 29-August-2023/B02/
- VCS Program Guide, version 4.4 dated 29-August-2023 /B01/
- VCS Validation and Verification manual version 3.2 dated 19-October-2016 /B06/
- VCS Program Definitions version 4.4 dated 29-August-2023/B03/
- VCS: Monitoring report template Version 4.2/B04/

Summary of the verification opinion: VKU confirms that the project "AAC Block Project By Aerocon Buildwell Pvt. Ltd. (EKIESL- June 2016-02)" has been implemented in accordance with the registered joint VCS PD&MR/3/. Project meets all relevant requirements for VCS standard and guidelines and correctly applies the baseline and CDM applied methodology "AMS III.Z. Fuel Switch, process improvement and energy efficiency in brick manufacture".

The monitoring system is in place and the emission reductions are calculated without material misstatement. Hence, VKU is able to certify that the emission reductions from the project during the period 01-January-2021 to 30-April-2023 (inclusive of both start and end days) under **first crediting period** from 15-July-2014 to 14-July-2024 (Inclusive of both dates) amounts to 52,866 tons of CO_2e.

The vintage wise Net GHG emission reduction and removal for the current monitoring period are from 01-January to 2021 to 31-December-2021 is 21,727 tCO_2e, from 01-January -2022 to 31 December-2022 is 20,808 tCO_2e and from 01-January-2023 to 30-April-2023 is 10,331 tCO_2e.

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1 INTRODUCTION

1.1 Objective

Aerocon Buildwell Pvt. Ltd. (PP party) and Infinite Environmental Solutions LLP (Client/Responsible Party) contracted VKU Certification Pvt. Ltd. (here after referred as VKU) to carry out the third verification of project "**AAC Block Project by Aerocon Buildwell Pvt Ltd (EKIESL-June 2016-02**)" (VCS ID 1549) in Ujjain, India for the period from 01-January-2021 to 30-April-2023 (Inclusive of both start and end dates) under 1st crediting period from 15-July-2014 to 14-July-2024 (Inclusive of both dates). The project activity follows a renewable crediting period of 10 years, which can be extended a maximum of two times, as outlined in **section 1.6** of VCS Joint Project Description and monitoring report version 2.0 dated 09-July-2016/03/.

This is the 3rd periodic verification under the first crediting period for the monitoring period from 01-January-2021 to 30-April-2023 (inclusive of both start and end dates) under 1st crediting period from 15-July-2014 to 14-July-2024 (Inclusive of both dates). VKU confirmed the continuity of monitoring period through cross checking of all previous verifications/05//06/.

The objectives of this verification exercise are, by review of objective evidence, to establish that;

- To have an independent evaluation of project activity by an accredited validation and verification body against the requirements of the VCS Program Guide Version 4.4/B01/, VCS standard version 4.5/B02/ and UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting, on the basis of the registered VCS Joint PD&MR/03/.
- The project activity has been implemented and operated as per the registered VCS joint PDMR/03/ and its validation verification report/04/ that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place.
- Monitoring report/01/ and its corresponding ER sheet/02/ for the current monitoring period and other supporting documents are complete.
- The data is recorded and stored as per the monitoring methodology/B07/ and approved monitoring plan in registered VCS joint PDMR/03/.
- To confirm that the monitoring system is implemented and fully functional to generate Verified Carbon Units (VCUs) without any double counting/07/

- To establish that the data reported are accurate, complete, consistent, transparent and free from material error or omission by checking the monitoring records and the emissions reduction calculations.

The verification process is conducted with the goal of smooth execution and complete operational effectiveness of the monitoring system, assuring the precise generation of Verified Carbon Units (VCUs) without encountering any double counting/07/. Furthermore, a thorough examination of the monitoring records and emissions reduction calculations was performed to ensure the data's comprehensiveness, coherence, transparency, and absence of significant errors or omissions, all in pursuit of establishing the trustworthiness and credibility of the data.

1.2 Scope and Criteria

The Scope of verification is the independent, objective review and ex-post determination of the monitored reductions in GHG emissions from the "**AAC Block Project by Aerocon Buildwell Pvt Ltd (EKIESL-June 2016-02)" (VCS ID 1549)** in India for the period from **01-January-2021 to 30-April-2023** (Inclusive of both start and end dates). The verification of this project was based on the validated & registered VCS Joint PD&MR/03/ and monitoring report/01/ along with supporting documents submitted by the project proponent to the VKU Assessment team. The documents thus submitted to the VKU Assessment team were reviewed against the following guidance & protocols:

- VCS Programme Guide Version 4.4 /B01/
- VCS Standard Version 4.5 /B02/
- VCS Program Definitions Version 4.4 /B03/
- VCS Validation and Verification Manual version 3.2/B06/
- CDM Approved methodology "AMS III.Z. "Fuel Switch, process improvement and energy efficiency in brick manufacture", Version: 6.0, EB 85 Annex 18 "/B07/
- Tool for the demonstration and assessment of additionality- Version 07.0.0 (EB 70, Annex 08)/B20/
- Tool to calculate the emission factor for an electricity system - Version 07.0 (EB 100, Annex 04/B19/

The steps involved are as follows:

- To verify that the project is implemented as described in the registered VCS Joint PD & MR/03/;
- To assess the project's compliance with other relevant rules including the host country legislation;
- To confirm that the monitoring system is implemented and fully functional to generate VCUs without any double counting/07/;
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation;

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- To verify that reported GHG emission data is sufficiently supported by evidence (details are mentioned in section 2.2 of this verification report).

The verification method and criteria encompassed several phases, including

- Desk review of VCS Joint Project Description & Monitoring report, registered under version 02 /03/and other supporting documents listed in **Table-03**;
- Site Visit including onsite interviews & Focussed Group Discussions with Stakeholders & PP representatives involved in project's implementation;
- Resolution of outstanding issues and Completeness/Quality Check and
- Final issuance of the verification report and applicable VCS Verification Deed of Representation.

The verification is not meant to provide any consulting towards the project participant (PP). However, stated requests for clarification and corrective actions may have provided inputs for improvement of the project design.

1.3 Level of Assurance

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent VKU's procedure, with a **Reasonable level of assurance,** as per section 04 clause 4.1.2 clause 4.1.10 (1) of the VCS Standard version 4.5/7/B02/.

The threshold for quantitative materiality with respect to the aggregate of errors, omissions, and misrepresentations, relative to the total reported GHG emission reductions and/or removals was to 5% percent, as required by clause 4.1.10 of the VCS Standard version 4.5/B02/.

As the given project activity falls under the project category whose estimated reduction is less than 300,000 tonnes of CO_2e per year. The materiality of the project on actual emission reductions achieved is 5% of 52,866 tCO_2e which is equal to 2,643.3 tCO_2e as per the final version 06 of MR for the current monitoring period. The verification report is based on the Monitoring report/01/, registered VCS Joint PD&MR /3/ and supporting documents listed in "Table 03 "below.

VKU verifies sufficient amount of physical, documentary, and testimonial evidence to ensure the reasonable confidence that no material errors are present.

VKU has also performed site visit which includes field assessment checklist, evidence gathering plan, evidence gathering activities, risk assessment and its corresponding strategic analysis plan, and onsite audit plan for the given project activity.

Table 01: The Assessment Team Members are as follows:

Role/Qualification	Last Name	Middle Name	First Name
VCS Team Leader	Kathuria	NA	Sunil
Technical Expert (TA 4.1)	Kathuria	NA	Sunil
Validator/Verifier	Sharma	NA	Deepali
Validator/Verifier Trainee	Verma	NA	Aastha
Project Trainee	Dhankar	NA	Anil
Local Expert (India)	Kathuria	NA	Sunil

The technical review was performed by a technical reviewer qualified in accordance with VKU's qualification procedure.

Table No 02: The Technical Reviewer's Team is as follows-

Role/Qualification	Last Name	Middle Name	First Name
Technical Reviewer	K	Kumar	Sanjay
Technical Expert (T.A.4.1)	Chouhan	NA	Rakesh

1.4 Summary Description of the Project

The company Aerocon Buildwell Pvt. Ltd. is the project proponent, involved in manufacturing of Autoclaved Aerated Concrete (AAC) blocks and fly ash bricks in Ujjain, India. AAC Blocks are high quality walling material which is used in place of conventional Red Bricks. The project is a small-scale activity and verification team could confirm it by review of registered joint PD&MR/03/ and through onsite inspection.

The spatial extent of project boundary is manufacturing unit of AAC Blocks and Fly Ash bricks and sources of procured raw materials used in manufacturing. The geographic co-ordinate of the project activity is latitude N 23.177946 and longitude E 75. 698998. Location of the project was verified through Google Map (https://www.google.com/maps) during the site visit and found to be consistent with the registered joint PD&MR/03/.

As per the registered joint PD&MR/03/ the project activity is a new Greenfield facility. The primary goal of the project is to create a superior walling material and thermally insulating building material through an energy-efficient brick production method, as opposed to the high energy-intensive process of Clay Brick Bull's trench kilns (BTKs). The objective is to positively influence both the energy consumption in brick production and building operation levels. Simultaneously, the project aims to decrease greenhouse gas emissions linked to energy

consumption, including both fossil fuels and electricity, in the energy-intensive BTKs, by adopting an energy-efficient brick-making technology.

This technology revolves around the formulation of raw materials and their chemical composition, combining fly ash from thermal plants with lime, cement, gypsum, aluminium powder, stone dust, and plaster of Paris. This mixture imparts the necessary mechanical properties to the blocks during the hydration and curing process, eliminating the need for sintering. The recipe of AAC block are follows;

Ingredients	Raw material consumption per Cum AAC Blocks (Kg/Cum)	Source
Fly ash	370	Plant Records- purchase book (Raw Material Consumption)
Cement	100.8	
Plaster of Paris	10.41	
Lime	68	
Aluminium	0.336	
Stone Dust	--	
Total solid	549.546	
Total water	395.6	

As per the applied methodology and registered joint PD&MR/03/ there is accounting of leakage done, due to use of raw materials for manufacturing of AAC Blocks/Fly Ash bricks.

The VCS project activity has applied the baseline monitoring methodology (AMS.III.Z Version 06.0) /B07/. Coal used in the baseline scenario is replaced by briquettes and grid electricity in the project activity, which is related to the emission reductions.

The start date as well as date of actual operation for project activity is 15-July-2014. This has been confirmed through, VCS joint PD&MR/03/ and Validation & Verification Report/04/and Previous monitoring reports/04/.

The verification team has also verified name plate details of all the equipment's (Boiler, Air Compressor, Vacuum pump, Autoclave Machine, DG Sets) installed at site during onsite verification & also taken their latest photographs/26/. The project activity is undergoing third verification and description of project activity & continuity of monitoring periods have also been cross checked through previous verification records /03//04//05/ and /06/ which is concluded by other VVBs (EPIC SUSTAINABILTY) on 05-July-2016 and by ESPL on 09-June-2021.

Based on the assessment of the documents, the verification team is able to confirm that the project activity is functional and implemented as described in the registered VCS PD& MR/03/ Version 2.0 dated 09-July-2016. There is project deviation which is further described in the section 3 (sub section 3.3). The assessment team confirms that the **total emission reductions**

achieved under this monitoring period from 01-January-2021 to 30-April-2023 (inclusive of both dates) are **52,866 tCO_2e.**

2 VERIFICATION PROCESS

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

2.1 Method and Criteria

Verification was conducted using VKU's procedures in line with the requirements specified in the VCS rules and requirements which includes VCS Standard v4.5/B02/, VCS program guide v4.4/B01/, VCS Program definition v4.4/B03/, and VCS validation and verification Manual v3.2/B06/. The GHG emission reductions are based on approved Baseline and monitoring methodology.

Methodology: AMS III. Z. - Fuel Switch, process improvement and energy efficiency in brick manufacture Version 6.0. /B07/.

Scope: 04 Manufacturing Industries

Type: III Other Project Activity

Tools used for GHG calculation are as follows as per registered PD&MR/03/.

Tool 07 :"Tool to calculate the emission factor for an electricity system" Version 7.0, Annex 4 of EB 100/B19/.

Tool 03 "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" Version 03.0, Annex 4, EB96/B18/.

Tool 05 "Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation", Version 3.0, Annex 5, EB 96/B08/.

Tool 12 "Project and leakage emissions from transportation of freight" Version 1.1.0, Annex 23 of EB70/B07/.

During onsite inspection/B10/ verification team reviewed 100% data related to AAC blocks manufacturing and no sampling is involved in this.

Monitoring mechanisms used in the project were checked and as mentioned in MR/01/ and VCS Joint PD & MR/03/, sales records /09/, Invoices of material used in manufacturing /10/, electricity import invoices/18/, third party laboratory test/13/, desk review as well as on site assessment supporting document list provided in the section 2.2 of this monitoring report.

The VKU's procedures or approaches consist of the following phases:

1. **Planning:** The assessment team plans the GHG programme site visit and starts with a desk review (supporting documents mentioned in the section 2.2 of this report). Assessment

team also shared a NOVS Form 15 business days before the initial meeting with the project proponent.

2. **Strategic Analysis:** The assessment team conducted a strategic analysis to gain insights into the organization's, project's, or product's activities. This analysis was aimed at determining the scope and scale of the verification activities and will be utilized in the risk assessment process.
3. **Risk Assessment;** The assessment team carried out a risk assessment of the GHG statement to identify the likelihood of a substantial error or noncompliance with the established criteria.
4. **Evidence Gathering Activity:** Using a risk-based approach, the team determines evidence gathering activities, preparing a plan to collect sufficient and appropriate evidence for each GHG-related activity characteristic, using a risk-based approach. The requirement for a site visit is recognized, and subsequently, the planning for the site visit is undertaken. Decision to take site visit was based on independent risk assessment, as defined in section 4.1.13 of VCS standard version 4.5/B02/.
5. **Audit & Sampling Plan:** An audit plan is prepared, including all sub-elements required for an integrated verification process aligned with the contract, scope, objectives, level of assurance, and materiality.
6. **Evidence Gathering Plan:** The evidence-gathering plan is formulated in accordance with the risk assessment conducted by VKU Assessment Team. This plan is structured to reduce the verification risk to a level considered acceptable. As a result, the evidence-gathering plan outlines the specific nature and scope of the evidence collection activities.
7. **Client Confirmation:** The site visit audit plan is sent to the client for confirmation.
8. **Document Review:** Relevant documents, such as the verification report, monitoring plan, methodology, VCS PD&MR, and QA/QC procedures, are thoroughly reviewed.
9. **On-Site:** This includes interviews and evaluation of the actual project scenario in order to check that project is line with the registered joint PD&MR/03/ and VCS standard version 4.5/B02/.
10. **Resolution of Discrepancies:** Any Non-Conformities identified during the assessment are addressed and resolved.
11. **Independent Review:** A technical reviewer provides an independent assessment of the project.
12. **Final Verification:** After completeness check, the verification report, Deed of representation issued in respect of verification. and certification are issued.

2.2 Document Review

The verification is performed primarily based on the review of the monitoring report (MR)/01/ and emission reduction calculation spreadsheet/02/ through the submitted supporting documents (table 03) as desk review which is further verified with onsite audit. In addition, the

registered VCS joint PD&MR/03/ is also reviewed in particular to cross check the baseline estimations and the monitoring plan for the project.

As per section 3.26 and clause 3.26.3 of the VCS Standard version 4.5/B02/. It is an obligation for the project proponent to make available to the assessment team the required supporting documents and data needed to support statements and data as documented in the monitoring report/01/. Thus, the assessment team reviewed the following documents during verification:

Table No: 03 Lists of the documentation that was reviewed during the current verification -

S.No.	List of Documents	Dated and Version
01	Monitoring Report for the project activity "AAC Block Project by Aerocon Build well Pvt. Ltd. (EKIESL- June 2016-02)" of 3rd monitoring period from 01-January-2021 to 30-April-2023 (both dates inclusive)	Version 01, Dated: 20-May-2023 Version 02, Dated: 01-August-2023 Version 03, Dated: 10-November-2023 Version 04, Dated: 18-December-2023 Version 05, Dated: 29-January-2024 Version 06, Dated: 27-May-2024 Version 07, Dated: 03-June-2024 Version 08, Dated: 11-July-2024
02	Emission Reduction Calculation Spread Sheet for the corresponding Monitoring Report of 3rd monitoring period from 01-January-2021 to 30-April-2023(both dates inclusive)	Version 01, Dated: 20-May-2023 Version 02, Dated: 01-August-2023 Version 03, Dated: 10-November-2023 Version 04, Dated: 18-December-2023 Version 05, Dated: 29-Januray-2024 Version 06, Dated: 27-May-2024
03	Joint Project Description & Monitoring Report prepared by EKI Energy Services Limited	Version 02, Dated: 09-July-2016

04	Joint Validation and Verification Report prepared by EPIC Sustainability	Version 1.0, Dated: 09-July-2016
05	Monitoring Report for the second monitoring period from 01-July-2016 to 31-December-2020 (both dates inclusive) prepared by Infinite Solutions	Version 02, Dated: 02-August-2021
06	Verification Report for the second monitoring period from 01-July-2016 to 31-December-2020 (both dates inclusive) prepared by ESPL	Version 03, Dated: 22-October-2021
07	Certificate of No Double Counting declaration for the crediting period from 15-July-2014 to 14-July-2024	Dated: 30-April-2023
08	• No Objection Certification (NOC) by Madhya Pradesh Control Board (Application No: 1132277) • Grant of Renewal of consent Application Receipt No. 12277287 • Air consent Number AWH-58632 valid up to 15th April, 2024	Dated 12-April-2022 Dated: 20-June-2023 Dated: 27-July -2023
09	Records of sale Invoice of AAC blocks for current monitoring period Records of purchase Invoice of raw material for current monitoring period	From 01-January-2021 to 30-April-2023
10	Plant Records (Purchase of raw material) issued by the PP for the current monitoring period • $D_{f,m,Lime}$ • $D_{f,m,cement}$ • $D_{f,m,flyash}$ • $D_{f,m,aluminium}$ • $Q_{biomass\ briquettes,}$ • $Q_{cement,}$ • $Q_{lime,}$ • $Q_{Aluminium,}$ • $Q_{flyash,}$ • $P_{PJ,\ Y}$	From 01-January-2021 to 30-April-2023
11	Certificate of Incorporation (Corporate Identity Number: U45200MP2012PTC029608)	29-November-2012
12	Grievance register Suggestion box or complaint box pictures	From 01-January-2021 to 30-April-2023

13	Laboratory report for the current monitoring period from verified laboratory for the compressive strength test and Thermal Conductivity (Kailtech test & research centre Pvt. Ltd and Integrated Research & Analysis Centre) for the current monitoring period	18-December-2022 10-June-2022 16- December-2021 20-June-2022
14	Boiler Certificate (Boiler No. MP.5010) Certificate No. P/190/2022 by Madhya Pradesh Boiler inspection department certificate for the use of a boiler	Dated: 20-June-2022
15	Flow chart of process of Manufacturing od AAC Blocks Details of work responsibility and hierarchy	NA
16	Attendance sheet of Employees for the Aerocon Buildwell Pvt.Ltd. for the current monitoring period as evidence of Total number of employees and worker details	From 01-January-2021 to 30-April-2023
17	• Copy of certificate of Star Fire & Safety Devices training • Pictures of Training Record	Dated: 25-April-2023
18	Invoices raised by State Electricity Board to PP (M.P. Paschim Kshetra Vidyut Vitran Co.Ltd.	From 01-January-2023 to 30-April-2023
20	Copy of Standard Operating Procedure of • Boiler • Instruction & Daily Check points • Mixing Section • Rising • EOT Crane • Cutting Machine (Scrape Slurry Tank Pump) • Segregation (Operator & Fitter)	NA
21	Calibration Certification of Digital Compression Testing Machine Digital Weighing Balance Test Certificate of 100T Electronic, Non-automatic Weighing Instrument issued by “Controller of Legal Metrology (Weights & Measure)” Government of Madhya Pradesh, India	Certificate No: FRI/08/21/13477, Dated: 05/10/2023 Certificate No: BBT/343/JUL/22, Dated: 20/09/2024 Test certificate No. RS/435/2929/52/2023, Dated: 07/07/2023

22	List of Equipment used in the project activity	NA
23	List of Vehicle category and vehicle operator	NA
24	Product Catalogue of bricks	NA
25	Pictures of Project Site taken by assessment team through GPS camera application (N 23.177946 E 75.698998)	03-June-2023
26	Tally ERP software (Tally).	NA
27	Sampling spread Sheet for calculations of 271samples/M. Records of samples testing.	NA
	Background Documents	
B01	VCS Program Guide	Version 4.4, Dated: 29-August-2023
B02	VCS Standard	Version 4.5, Dated: 04-October-2023
B03	VCS Program Definitions	Version 4.4, Dated: 29-August-2023
B04	VCS Monitoring Report Template	Version 4.2
B05	VCS Verification Report Template	Version 4.2
B06	VCS Validation and Verification Manual	Version 3.2, Updated: 19 October 2016
B07	CDM applied methodology "AMS III.Z. Fuel Switch, process improvement and energy efficiency in brick manufacture"	Version 06
B08	Tool 05 "Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"	Version 3.0, Annex 5, EB 96
B09	Tool 12 "Project and leakage emissions from transportation of freight"	Version 1.1.0, Annex 23 of EB70
B10	VKU.F64W.Field Assessment Checklist for Onsite visit VKU.VER.27.23_VCS 1549	03-June-2023
B11	VKU.F46W.Attendance sheet on site Audit VKU.VER.27.23_VCS 1549	03-June-2023

B12	VKU.F56W.Risk Assessment_VKU.VER.27.22_VCS_1549	29-May-2023
B13	VKU.F70W.Strategic Analysis Plan_VKU.VER.27.22_VCS_1549	29-May-2023
B14	VKU.F71W.Evidence Gathering Activities_VKU.VER.27.22_VCS_1549	29-May-2023
B15	VKU.F72W.Evidence Gathering Plan_VKU.VER.27.22_VCS_1549	29-May-2023
B16	Google Earth Application	NA
B17	GPS camera android application	NA
B18	Tool 03 "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion"	Version 03.0, Annex 4, EB96
B19	Tool 07 "Tool to calculate the emission factor for an electricity system"	Version 7.0, Annex 4 of EB 100
B20	Tool for the demonstration and assessment of additionality	Version 07.0.0 (EB 70, Annex 08)

2.3 Interviews

An on-site inspection has been performed by the assessment team. Representative of the PP and O&M team members were interviewed personally by assessment team on **03-June-2023** in Ujjain, Madhya Pradesh i.e., **Table 04** provides a comprehensive overview of the onsite interview process/B11/ conducted during the physical verification. These tables outline the personnel involved in the interviews, along with their respective roles. The interviews specifically targeted individuals responsible for monitoring the project activity, data collection and management, as well as those involved in the quality assurance and quality control (QA/QC) procedures. The table serves to identify the individuals interviewed and provide relevant information regarding their roles within the project.

Table no 04: Details of Personal Interview, Focused Group Discussion, & Stakeholders with Verification Team present Onsite.

Name	Organization and Position	Topic Covered and Details of Interview	Interview taken by
Dr. Alok Kumar Khore (Male)	Infinite Environmental		

	Solution LLP, Consultant	• Brief Introduction of AAC Block Production plant. • Project Implementation, data management, recording, monitoring and archiving. • Project Implementation and technical details of the Project like breakdowns details, calibration of meters and monitoring of required monitored parameters and implementation of QA/QC Procedure. • Data archiving, details and maintenance of project equipment, monitoring equipment, production records, electricity used, raw material used records, recipes ingredient quantity records, trainings records, attendance sheets, transport used in project activity records.	• Sunil Kathuria (Team Leader cum Technical Expert T.A.4.1) • Deepali Sharma (Validator/Verifier) • Aastha Verma (Validator/Verifier Trainee) • Anil Dhankar (Project Trainee)
Suresh Yadav (Male)	Aerocon Buildwell Pvt Ltd, Plant Manager		
Rahul Dani (Male)	Aerocon Buildwell Pvt Ltd, Accountants and Inventory Management	• AAC Blocks productions log and sales invoice. • Raw material purchasing invoices and details • Transportation details	
Lakhan Rathore (Male)	Aerocon Buildwell Pvt Ltd, Boiler Attendant	• Fuel used in boiler • Volume of boiler • Operating process of boiler • Duration of boiler operation • Have any breakdowns occurred?	
Suman Kumar (Male)	Aerocon Buildwell Pvt Ltd, Electricity Maintenance	• Details of electricity import from power grid to project activity plant. • Calibration details and meters used technical details.	

		• Backup in absence of electricity.	
Dragpal Singh Yadav (Male)	Aerocon Buildwell Pvt Ltd, Internal Lab Incharge (Local Stakeholder Category)	Working since more then 4 years, Discussion on compressive strength of Bricks	
Ravi Singh (Male)	Aerocon Buildwell Pvt Ltd, Shift Incharge)	He is working from 6 years. Roles and Responsibilities are checking recipe of block's mould and maintaining data on the same	
Babulal (Male)	Labour (Contractual Procedure) (Local Stakeholder Category)	• Safety Equipment are provided • Salary on time • Taken care of Labour Rights	
Shankar (Male)	Aerocon Buildwell Pvt Ltd, Supervisor	He is working here from 9 years. Responsibilities include taking care of records of raw materials used in the project activity.	
Virupakshappe (Male)	Aerocon Buildwell Pvt Ltd, Maintenance Manager	His responsibilities include taking care of the smooth running of plant.	

Table No.5 : Details of Personal Interview, Focused Group Discussion, with Local Stakeholders with Verification Team present Onsite

S. No.	Name & Gender	Category	Topics of Discussions
01	Raja Babu Tamboli (Male)	Local Stakeholder	• Execution of Project activity and its impact on the economic, social and environmental parameters on the local people of the area & around the situated project activity
02	Gokul (Male)	Local Stakeholder	
03	Tejpal Singh (Male)	Local Stakeholder	

			• The ongoing communication procedure and the addressal of their grievance by the project proponent • The employment generation due to project activity implementation.

The topics covered during interview ranged from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system, data collection, recording, emergency procedures, personal training and archiving procedures. The assessment was based on the feedback received during onsite interview coupled with documentation in **VKU.F64W.Field Assessment Checklist for Onsite Visit & VKU.F46W.Attendace Sheet for Audit/B10/**.

During Onsite Visit, Assessment team also interviewed the local stakeholders involved in the projects (Names included in Table-5 above) to verify the implementation and process of grievance resolution as claimed and mentioned in the monitoring report/01/ (refer section 2.2 of MR) by the PP. The assessment team could confirm of the sustainable development claims and also make assessment of socio-economic impact of the project on the local community. Assessment Team also checked the records and observed that the PP has provided opportunities for the locals to express their opinions and grievances, with efforts to resolve any issues through consultation with stakeholders. Assessment Team thus verified all the above statements via focussed group discussions and personal interview/B11/ with stakeholders and could confirm that PP has well defined procedure for involving local stakeholders in the project implementation and that their grievances are resolved appropriately. VKU assessment team meticulously documented information obtained during the interview with site personnel/B10/. This data was recorded using VKU's dedicated form, specifically VKU.F46W.Attendance sheet of Onsite Audit/B11/. Through a comprehensive process involving documentation, desk review, document verification, and interviews with site personnel VKU affirms that no negative comments were received during the on-site interviews conducted by the team. For further details related to local stakeholder consultation, please refer to section 4.2.2 below.

2.4 Site Visits

Site Location Visited: Village Jalal Khedi, Tehshil Ambodia, District Ujjain, of Madhya Pradesh, India.

The project location and co-ordinates mentioned in the MR/01/ cross verified by the Google Earth application/B16/ and GPS Camera/B17/ and found that project location and coordinates are correct as per onsite assessment and compliance with the registered PD&MR/03/.

An On-site visit was undertaken by the verification team on the 03-June-2023 at the abovementioned project site to carry out the following;

A. An assessment of the implementation and operation of the registered project activity as per the registered VCS joint PD & MR /03/ and VCS MR for second verification /05/
B. A review of information flows for generating, aggregating and reporting the monitoring parameters;
C. Interview with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the VCS joint PD&MR/03/.
D. A cross 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;
E. 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;
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 phase of the verification is to resolve any outstanding issues which need to be clarified for VKU's positive conclusion on the project description. To guarantee transparency a verification protocol has been customised for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria. The verification protocol consists of three situations described below:

- A corrective action request (CAR) is raised if one of the following occurs:
- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made with a direct influence on project results requiring adjustments of the VCUs monitoring report. Consequently, such aspects should receive a special focus during the consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions.
- Issues identified in FAR during validation and previous verifications to be verified during verification have not been resolved by the project participants.
- A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

A forward action request (FAR) is also raised in cases where any required deviation/information is not fulfilled in current verification and thus needs to be taken up in consequent verification for better transparency thus holding the applicability of the methodology eligible to the project

activity and there is no impact of the same on additionality, baseline scenario & emission reduction calculation of project.

In summary, 04 CLs, 09 CARs and 00 FARs were raised as findings during this verification which were closed successfully and details are given under Appendix B of this report.

2.5.1 Forward Action Requests

The project activity is undergoing third verification in VCS; there were no FARs raised during the previous verification/06/ which needs to be closed during this verification and no FAR has been raised during current verification.

2.6 Eligibility for Validation Activities

VKU has not undertaken any validation activities as part of the verification and does not hold accreditation for validation of any relevant sectoral scope Hence this section is not applicable. It is to further conclude that during current verification there is no validation assessment undertaken either by VKU itself or parallelly by other certification bodies, as the same was confirmed with focussed group discussions and interview with the PP /B11/ during site visit. Assessment team assessed the VERRA's website https://verra.org/validation-verification/vku-certification-pvt-ltd/#vcs wherein the scope of services of VKU certification Pvt. Ltd. is mentioned as verification only. Thus, ensuring that the accreditation details mentioned in FVR is consistent and correct.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project has not applied under any other GHG program except VCS for current monitoring period. The project is registered under VCS only with the project ID 1549. This was confirmed by checking VERRA registry website and similar exercise was performed for CDM/GS/GCC/UCR registries with similar project tittle/capacity and project proponents but the assessment team could not find any such project registered on these registries. Thus, it was confirmed that the project does not claim any emission reduction from other registries. This was supported from the declaration/07/ submitted by the PP in which they have mentioned that they will not claim same GHG emission reductions of the project from any other GHG program except VCS. Thus, ensuring emission reduction generated from the project activity for current monitoring period from 01-January-2021 to 30-April-2023 (both dates are included) will not be double counted. Hence accepted by the assessment team.

Assessment team has also verified the issuance of VCUs claimed in previous verification against the VCU issuance records registry. Thus, ensuring emission reduction generated from the project activity will not be double counted. Hence, accepted by the assessment team.

The details of the registries checked are as follows:

1. https://www.recregistryindia.nic.in/
2. http://cdm.unfccc.int/
3. http://www.goldstandard.org/
4. https://cri.nccf.in/
5. GCC projects portal (globalcarboncouncil.com)
6. https://www.ucarbonregistry.io/
7. Carbon Registry-India

Rejection by other GHG programms

The Project is not rejected by other GHG programs. A declaration/07/ for the same is checked and found correct by the assessment team. Also, assessment team independently verified with the following registries and checked projects from the PP matching the same project design and found that no such project either exists or were rejected by the registries. The details of the registries checked are as follows:

1. http://cdm.unfccc.int/
2. http://www.goldstandard.org/
3. https://cri.nccf.in/
4. International Carbon Registry
5. GCC PROJECTS PORTAL (globalcarboncouncil.com)

6. https://www.ucarbonregistry.io/
7. Carbon Registry-India

3.2 Methodology Deviations

There is no methodology deviation identified during the current monitoring period as per the information given in the section 2.1, 2.2 and 2.3 of this verification report by the verification team of VKU. And as per the cross verification from registered joint PD&MR/03/ and its corresponding joint validation and verification report/04/, previous verification reports/05/ and the CDM applied methodology **AMS III. Z.** - Fuel Switch, process improvement and energy efficiency in brick manufacture Version 6.0. /B07/. It is found that, PP has used registered methodology and tools for the ER calculation as per the inspection of ER sheet and MR through the supporting documents.

Therefore, VKU Certification verification team confirms that there is no methodology deviation ever taken in previous as well as current monitoring period. In conclusion, this section is not applicable for current monitoring period.

3.3 Project Description Deviations

During the current monitoring period**, two project description deviation is requested** by the PP.

1. **Project Description Deviation:** The fly ash brick production has been discontinued since June 2016 due to insufficient demand in the market.
2. **Project Description Deviation:** In the registered PDD two fixed parameters $EF_{Biomass\ briquettes}$ and EF_{gypsum} are missed from section 4.1 Data and Parameters Available at Validation and Five monitored parameters Q_{coal}, Q_{Gypsum} , $D_{f,m,\ gypsum}$, $D_{f,m,\ Briquettes}$ and $D_{f,m,\ Coal}$ are missed from section 4.2 Data and Parameters Monitored so, the missed parameters are incorporated in the respective sections the justification to add the parameters is as follows:

S.No.	Parameter	PP's Justification / reason to add the parameter
1	Q_{coal}	Quantity of coal is used in boiler for steam generation in emergency cases whenever Bio mass Briquettes are not available. Hence, it is used to calculate project emission. The parameter is monitored parameter so it is considered under section 4.2 Data and Parameters Monitored.
2	Q_{Gypsum}	Gypsum is a raw material used in the production of AAC blocks and it is mentioned in the PDD but the monitoring parameter Quantity of Gypsum is missed and it is used in the calculation of Leakage emission. The parameter is monitored parameter so it is considered under section 4.2 Data and Parameters Monitored.

3	$D_{f,m,\ gypsum}$	Return trip road distance between the origin and destination of gypsum transportation is more than 200 KM. Hence, it is used to calculate leakage emission. The parameter is monitored parameter so it is considered under section 4.2 Data and Parameters Monitored.
4	$D_{f,m,\ Briquettes}$	Return trip road distance between the origin and destination of Biomass Briquettes transportation is more than 200 KM. Hence, it is used to calculate leakage emission. The parameter is monitored parameter so considered under section 4.2 Data and Parameters Monitored.
5	$D_{f,m,\ Coal}$	Return trip road distance between the origin and destination of Coal transportation is more than 200 KM. Hence, it is used to calculate leakage emission The parameter is monitored parameter so considered under section 4.2 Data and Parameters Monitored.
6	$EF_{Biomass\ briquettes}$	Biomass briquettes are used in boiler for steam generation hence emission factor of biomass briquettes production is used to calculate leakage emission. It is a fixed parameter so considered under section 4.1 Data and Parameters Available at Validation.
7	EF_{gypsum}	Gypsum is used as a raw material the same is mentioned in s.no 2 of above hence emission factor of gypsum production is used to calculate leakage emission. It is a fixed parameter so considered under section 4.1 Data and Parameters Available at Validation.

VVB's Assessment:

For Deviation 01:

As per the registered joint PD&MR/03/ section 2.5, and its corresponding joint validation and verification report/04/ section 3.3.5, assessment team could confirm that that PP has demonstrated additionality through choosing "Investment Barrier". PP has calculated Post Tax IRR for each stream of production i.e., AAC block and Fly ash brick separately at the time of validation. Therefore, in view of discontinuity in production of flyash bricks due to lack of demand will not impact additionality of AAC blocks during current monitoring period.

Moreover, baseline scenario is still the same (coal is the fossil fuel, used in the traditional brick manufacturing) and it does not get effected due to the discontinuity in fly ash bricks production.

It was further verified by checking below listed documents;

1. The registered PD&MR/03/ and its corresponding joint validation and verification report/04/.

2. Monitoring Report/05/and its corresponding verification report from the 2nd Monitoring period/06/.
3. Onsite Inspection, Interview and Sales Invoices of production/09/ and supporting documents as mentioned in Table 03 of this report.

For Deviation 02:

Q_{coal}:

During the current monitoring period 151 tonne of coal is used in boiler for steam generation in emergency cases due to non-availability of biomass briquettes. Therefore, PP has to incorporate a parameter Q_{coal} for measure the quantity of coal used in current monitoring parameter in section 4.2 of MR Version 06 dated 27-May-2024. PP has accounted the project emission for the usage of coal. Assessment team has checked the plant log book records which were cross checked by the invoices raised by the suppliers for the purchase of coal.

Q_{Gypsum}:

Gypsum is a raw material used in the production of AAC blocks and it is mentioned in the PD as Plaster of Pariss There is no Parameter in VCS PD for the measurement of quantity of gypsum used in ACC Blocks production. Therefore, PP has incorporated a parameter i.e., Q_{Gypsum} for measure the quantity of gypsum used in current monitoring parameter in section 4.2 of MR Version 06 dated 27-May-2024. PP has accounted the project emission for the usage of gypsum. Assessment team has checked the plant log book records which were cross checked by the invoices raised by the suppliers for the purchase of gypsum.

$D_{f,m,\ Coal}$:

As mentioned above, PP has used coal for steam generation in emergency situation during the non-availability of biomass briquettes in current monitoring period. As per the applied methodology and section 3.24.7 PP has calculated the project leakages (under scope 3 emissions) associated with the transportation of coal from supplier to the project site. Therefore, PP has incorporated a parameter i.e., $D_{f,m,\ Coal}$ for measure the Return trip road distance between the origin and destination of Coal transportation in current monitoring parameter in section 4.2 of MR Version 06 dated 27-May-2024. It is important to note that PP has procured the coal from suppliers not directly from the mines. Assessment team has checked the plant log book records, Bill of supply which were cross checked by the invoices raised by the suppliers for the purchase of coal and also performed an independent assessment by checking the distance on google maps between the origin and destination of material.

$D_{f,m,\ Briquettes}$:

PP has procured biomass briquettes for steam generation from external suppliers. In the registered PDD it was estimated that briquettes will be procured from distance < 50KM, hence this parameter was not accounted for. Since the distance is >50KM, As per the applied

methodology section 3.24.7 PP has calculated the project leakages (under scope 3 emissions) associated with the transportation of briquettes from supplier to the project site. Therefore, PP has incorporated a parameter i.e., $D_{f,m,\ biomass\ briquettes}$ for measure the Return trip road distance between the origin and destination of Biomass Briquettes transportation in current monitoring parameter in section 4.2 of MR Version 06 dated 27-May-2024. Assessment team has checked the plant log book records, Bill of supply which were cross checked by the invoices raised by the suppliers for the purchase of briquettes and also performed an independent assessment by checking the distance on google maps between the origin and destination of material.

$D_{f,m,\ gypsum}$:

As mentioned above, PP has used gypsum as a raw material in the production of AAC blocks and it is mentioned in the PD as Plaster of Paris. As per the applied methodology and section 3.24.7 PP has calculated the project leakages (under scope 3 emissions) associated with the transportation of gypsum from supplier to the project site. Therefore, PP has incorporated a parameter i.e., $D_{f,m,\ gypsum}$ for measure the Return trip road distance between the origin and destination of gypsum transportation in current monitoring parameter in section 4.2 of MR Version 06 dated 27-May-2024. It is important to note that PP has procured the gypsum from suppliers directly and not from the mines. Assessment team has checked the plant log book records, Bill of supply which were cross checked by the invoices raised by the suppliers for the purchase of gypsum and also performed an independent assessment by checking the distance on google maps between the origin and destination of material.

$EF_{Biomass\ briquettes}$:

As per the applied methodology and project nature PP has used the biomass briquettes in the project activity for the steam generation which is inline with the section 1.8 (Description of the project activity) of VCS PD. As per the section 3.2 of VCS PD and section 5.3.2 paragraph 26 of the applied methodology Specific GHG emission from biomass briquettes production shall be calculate but there is not any fixed or monitored parameter in registered VCS joint PD&MR Version 02 dated 09-July-2016. Therefore, PP has added the parameter for the same i.e., $EF_{Biomass\ briquettes}$ (Carbon emission factor of biomass briquettes production) to calculate the project emission from biomass briquettes production under section 4.1 of MR Version 06 dated 27-May-2024.

As the host country for the project activity is India, the validation and verification body (VVB) was unable to find any specific standard values or calculations for the emission factor of biomass briquettes. According to the methodology, when local or national data is unavailable, IPCC values should be used. The VVB checked the IPCC records but could not find any specific values for the emission factor of biomass briquettes. VVB has further cross-checked above value with a mathematical model “Energy and Environmental Assessment of Straw Production for Power

Generation[1]". The model concludes that Carbon Dioxide emissions vary between 43 to 61 $KgCo_2e$/ton of straw. Assessment team confirms that the value of 0.04923 tCO_2e/Tonne[2] opted by PP of is appropriate.

Assessment team has checked the DEFRA,2021 Bioenergy (Biomass)/Excel sheet for Conversion factors 2021.

EF_{gypsum}:

As mentioned above, PP has used gypsum as a raw material in the production of AAC blocks and it is mentioned in the PD. As per the applied methodology and section 3.24.7 PP has calculated the project leakages (under scope 3 emissions) associated with the Production of gypsum. Therefore, PP has incorporated a parameter i.e., **$EF_{,gypsum}$** to calculate the project emission from raw material production in current monitoring parameter in section 4.1 of MR Version 06 dated 27-May-2024.

As the host country for the project activity is India, the validation and verification body (VVB) was unable to find any specific standard values or calculations for the emission factor of gypsum. However, a study indicated a value of 0.0037[3] from the India Construction Materials Database of Embodied Energy and Global Warming Potential, prepared in partnership with the European Union. According to the methodology, when local or national data is unavailable, IPCC values should be used. The VVB checked the IPCC records but could not find any specific values for the emission factor of gypsum. Therefore, the value of 0.01[4] considered by the project proponent (PP) from sector reports for the gypsum industry was deemed appropriate due to the lack of reliable national and international data. The PP opted for this higher value, which results in higher Leakages, as a conservative approach. The assessment team reviewed the source of this considered value and found it to be conservative.

Hence, it is concluded that the requested project description deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in conformance with the applied methodology. The project boundary is within the AAC block plant installation, Manufacturing processes, boiler that uses renewable briquette, Briquette production site, NEWNE grid (Unified Indian Grid) from where electricity is received by the project activity. Briquette is sourced from a biomass seller and not cultivated. Briquette is not processed prior to combustion. Project emissions include emission due to

[1] https://www.e3s-conferences.org/articles/e3sconf/pdf/2021/04/e3sconf_ccgees2021_01010.pdf

[2] https://assets.publishing.service.gov.uk/media/61ee7495e90e07037c8d6176/conversion-factors-2021-condensed-set-most-users.xls

[3] https://edgebuildings.com/wp-content/uploads/2022/04/IFC-India-Construction-Materials-Database-Methodology-Report.pdf

[4] 091102 Gypsum (europa.eu)

combustion of coal. Leakage emissions include emission due to usage of gypsum. Project emission includes emission due to electricity consumption in the AAC/flyash and briquette production. Leakage emission includes emission due to emissions occur due to following:

1) Production of raw materials/additives

2) By consumption of raw materials/additives at the project site

3) By transportation of raw materials/additives to the site

As per the para 19 of the applied methodology, the project boundary is the physical, geographical site where the brick production takes place during the baseline scenario and the current scenario.

As per onsite visit and desk review, assessment team found that there were no modification or replacement in registered facilities so, no production capacity addition happened and production is in between the +- 10% of registered baseline capacity. The same has been stated in below section and the same has been compliance with para 11 b of applied methodology.

Verification Team also confirms that the deviation is described and justified in the monitoring report as per the VCS standard v4.5 clause 3.21.2, point 2. Deviation 01 is temporary in nature and Deviation 02 is permanent in nature. Production of flyash bricks may resume if market demand for the same increases.

3.4 Grouped Project

Not Applicable for this Project activity as it is a stand-alone project activity. Based on the following listed documents:

- VCS standard 4.5/B02/,
- Registered joint PD&MR v02, dated: 09-July-2016 /03/

Verification Team Confirms that the given project “AAC Block Project by Aerocon Build well Pvt. Ltd. (EKIESL-June 2016-02)” is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity "AAC Block Project by Aerocon Build well Pvt. Ltd. (EKIESL- June 2016-02)" is an initiative to manufacturing 150,0000 cubic meters per annum of AAC blocks in Ujjain, India as per the registered Joint PD&MR/03/. It is confirmed that project is a greenfield project manufacturing AAC Blocks. There was never a clay brick manufacturing facility ever before.

Table 06: The Project Location and Geo-Coordinates

Project ID and Title	Location	Geo-Coordinates	Assessment
VCS 1549 AAC Block Project by Aerocon Build well Pvt. Ltd. (EKIESL-June 2016-02)	Village: Jalal Khedi, Tehsil: Ambodia Badnaga, District: Ujjain and State: Madhya Pradesh Country: India	Latitude: N 23.177946 Longitude: E 75.698998 The verification Team confirms that the given latitude and longitude is covering entire plant where manufacturing of bricks and loading if bricks happen.	The assessment team also conducted a verification of the project location. This was accomplished through desk review using google earth/B16/ and during the onsite visit using GPS map camera application/B17/. The latitude and longitude coordinates specified in the registered VCS PD&MR/03/, & it's joint validation and verification Report/04/, and VCS MR/01/ were confirmed to be accurate.

The Project Proponent is Aerocon Buildwell Pvt Ltd and found commercial operation date to be 15-July-2014 which is taken as start date of the project activity as per registered joint validation and verification report/04/.

Table 07: Technical Specification; Description of major equipment used in AAC block manufacturing

Machines	Technical Specification		Number of machines in use	Assessment by VVB
Boiler	TPH	8	01	As per the boiler technical specification on boiler certificate/14/ and onsite inspection, it is confirmed that PP's technical specification details mentioned in MR is in compliance with joint PD&MR/03/. Assessment team confirms that PP used briquettes as fuel. PP used few amounts of coal which is calculated and considered as project emission. Boiler has remained certified through out the monitoring period as verified with Boiler Inspection certificates/14/.
	Boiler Pressure	17.5 kg/cm2		
	Boiler Capacity	8000kg/hr		
	Type	Coal/Biomass Fired Boiler		
Air Compressor	Air Receiver Capacity	1.0 m3	02	Verification Team confirms that the given details are correct as per the onsite inspection and it is consistent with the registered PD&MR/03/.
	Free Air Delivery	462 cfm		
	Motor Input (Power)	75KW (110 Hp)		
Vacuum Pump	Capacity Final Pressure	2000 m3/hr (0.3 Bar Atm)	01	
Auto Clave	Steam Pressure	12 bars	06	

DG Set5	Capacity	250 kVA	02	

The monitoring plan mentioned in section 4.3 of MR is following the applied methodology i.e., AMS III. Z, version 06/B07/. The monitoring plan allows accurate and correct measurement of emission reduction achieved over the current monitoring period.

However, there is one project description deviation requested during the current monitoring period. The production of fly ash bricks was discontinued since June 2016 due to the lack of demand for fly ash bricks. That project description deviation does not impact the additionality and baseline scenario of the project activity for further information, refer Section 3.3 of the verification report.

The description about the fixed ex-ante parameters and monitored parameters are reported in section 4.1 & 4.2 of the MR has been checked and was found in accordance with the project scenario. The data has been well calculated and was traceable and credible.

VKU has conducted on site visit and conducted interviews with the operation, maintenance personal, shift in-charge based on the sectoral expertise. The assessment team confirms that monitoring arrangements described in the monitoring plan are feasible within the project design and the project participant has deputed competent personal to execute the monitoring approach and to follow the monitoring plan.

The roles & responsibilities and institutional arrangements for data collection and archiving included in the MR. The uncertainty levels, methods, and the associated accuracy level of measuring instruments to be used for various parameters and variables are included.

The assessment team has verified 100% data through onsite inspection and verification of supporting documents (details mentioned in section 2.2 of this report) corresponding to ER calculation sheet and observed that, calculation procedures are correct. PP fulfills all compliance to the requirement of methodology, and follow conservative approach. Calculations are transparently described in ER calculations sheet/02/, to calculate accurate determination of emission reductions achieved by the project activity.

Assessment team concludes the following:

a) There are no material discrepancies between project implementation and the project description provided in the registered PD & MR/03/ with the exception of discontinuation of Fly ash bricks. This is described as one project description deviation which is transparently mentioned in the MR section 3.1 and its assessment in section 3.3 of this report.

[5] Fuel Consumption at 100% Load (LPH) is 56.40 l/hr and at 75% load (LPH) 42.30

b) The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling and analysing the monitored data and parameters) is appropriate for the production of AAC Blocks.
c) There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology/B07/.
d) The GHG emission reductions or removals generated by the project have not included in an emissions trading program or any other mechanism that includes GHG allowance trading/07/.
e) The project has not received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification/04//05/, and /06/. The project is registered under VCS only.
f) The project activity is complying with indicators for sustainable development in the interim approval guideline for Clean Development Mechanism (CDM) projects from India as discussed under section 1.11 of MR.
g) Scope 3 emissions: The emissions associated with acquiring raw materials are classified as leakage emissions when calculating the project's emission reductions. Conversely, the sales of finalized manufactured products and their associated emissions are excluded from the project's scope and have not been factored into the calculations.

The project activity contributes to the sustainable development contributions by making autoclaved aerated concrete (AAC)/Fly Ash Bricks which replaces fired clay bricks which otherwise would have led to higher GHG emissions as they are fuel intensive.

Further the GHG emission reductions generated by the project activity has not been included under any other 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-January-2021 to 30-April-2023 (inclusive of both dates) are 52,866 tCO_2e which is approximately 27.55% lesser than the estimated emission reductions 72,964 tCO_2e for the current monitoring period.

The Project Activity has implemented activities that results in only one SDG which is 13.0.

SDG 13.0 (Tonnes of greenhouse gas emissions avoided or removed)

Due to commissioning of this project activity PP has prevented the release of the emission of 212,676 tCO2e (40,695 tCO2e in 1st verification + 119,115 tCO2e in 2nd Verification + 52,866 tCO2e during current MP) in the atmosphere till the end of the current monitoring period. Thus, providing that the project generates eco-friendly, GHG free power which contributes to sustainable development of the region. VVB has referred previous reports/05/, /06/, sales

records/09/, Invoices of raw materials/10/ and, thus VKU found the above claimed Tonnes of greenhouse emissions avoided or removed is correct.

Table 08: Audit History Table

Audit Type	Monitoring Period Dates (Inclusive of Both start and end dates)	Program	Number of Years	VVB Name	Conclusion
Joint Validation and Verification	From 15-July-2014 to 30-June-2016	VCS	01 Year 11 Months 16 Days	EPIC Sustainability Services Pvt. Ltd.	The joint validation & verification was conducted by EPIC Sustainability and approved project documents can be referred from VERRA Webpage.
2nd Verification	From 01-July-2016 to 31-December-2020	VCS	04 Year 06 Months 00 Days	Earthhood Services Pvt. Ltd.	The verification was conducted by ESPL and approved project documents can be referred from VERRA Webpage.
3rd Verification (Current)	01-January-2021 to 30-April-2023	VCS	02 Years 04 Months 00 Days	VKU Certification Pvt. Ltd.	This verification is conducted by VKU Certification and concluded on 02-February-2024.
Total	15-July-2014 to 30-April-2023	VCS	08 years 09 months 16 days	--	Total emission Reductions prevented by the project activity since commissioning has been verified by assessment team through project documents available on the VERRA webpage.

4.2 Safeguards

4.2.1 No Net Harm

The following Environmental and Socioeconomic impact are applicable to the project activity.

Environmental impact:

- Air quality: Through the project implementation the need for dumping of waste in landfills, or incineration is avoided. Hence the project activity has a positive impact on air quality in and around the project boundary.
- Soil quality: By using the fly ash, soil quality is improved in and around the project boundary. fly ash which creates environmental pollution by increasing dust levels of atmosphere.
- Biodiversity and ecosystem health: Local wildlife and organisms are positively impacted by the reduction of fly ash in natural ecosystems.
- Mining activities: The project is not obtaining any raw materials from direct from mining; hence, it is not in the scope of PP.

Socioeconomic impact:

- **Economic Growth:** The salary given to all the workers is better than the Minimum Wages Act [6] requirements. PP is also ensured that the wage is living wage is sufficient to meet basic needs if the employee wishes to work overtime, the pay is done based on over time working hours. The employees and the workers are made aware of proper worker's employment rights, working hours, health, and safety protocols during the project activity.
- **Poverty and Inequality:** Better wages help lift workers and their families out of poverty, reducing income inequality and enhancing overall societal well-being.

Health and Safety: Project proponent ensures that stakeholders face the minimal health risk by providing safe working conditions There are SOPs in place for proper handling of machineries to prevent any potential accidents related to health and safety. wherein the staff is instructed on safety procedures Proper sanitation practices and hygienic conditions are maintained. In every 6 months PPE kits[7] are distributed because it is also part of safety and health of employees.

- **Education:** The trainings are provided to all the employees for improve their skills. Training is crucial for individual and organizational development, economic growth, and social progress, ensuring a skilled workforce ready to meet future challenges.

[6] https://clc.gov.in/clc/node/684

[7] Helmets, safety goggles, masks, gloves, safety footwear and protective clothing are distributed.

- **Child Labour prohibition:** No child is forced to or allowed to work in the project activity and PP is following Child Labour (Prohibition and Regulation) Act, 1986[8]: This act includes key features like Prohibition of Child Labour, Regulation of Adolescent Labour, Working Hours and Conditions and Penalties for Violation.
- **Anti-Discrimination:** PP operates with firm anti-discrimination practices and PP prepared Anti-discrimination Policy before implementation of the project activity. Facility employees are hired and contracted without discrimination based on gender, race, caste, national origin, religion, age, disability, marital status, sexual orientation, cooperative membership, or political affiliation.

[8] https://labour.gov.in/sites/default/files/act_2.pdf

Verification team has reviewed MoEFCC notification dated 1st Dec 2009 and observed that the project activity does not fall under positive list of projects for which Environment Impact Assessment (EIA) is required. Hence, the project activity does not require Environment Impact Assessment to be conducted. The validation team has reviewed the approvals given by State Pollution Control Board dated 26thSeptember 2014 and licence to establish the plant given by Inspector of Factories dated 27th February 2015.

Verification Team has cross checked evidence like Air consent AW-5351 dated 15-April-2022, valid up 15-April-2023 & Renewed consent #AWH 58632 dated 27-July-2023 & valid up to 15-April-2024/08/ for verifying the claimed environmental Impact and found appropriate. Verification Team has cross checked evidence like salary Slips of employees/workers, Attendance log sheets, work policies, Training Records, Safety Measures, PPE kits (Provided by PP to employees/workers). Also, a Thorough interviews conducted with local stakeholders, employees/workers of the project activity and based on that assessment team confirms that the project activity is not violating any conditions of the consent to operate this plant, Minimum Wages Act requirements, Child Labour (Prohibition and Regulation) Act, 1986 & the factories ACT, 1948. VKU concludes that there are no potential negative environmental and socio-economic impacts of the given project activity & could confirm that the project has contributed in adherence to the section 3.19, clause 3.19.1 of VCS Standard version 4.5/B02 /. Overall, the project has demonstrated a improved local-socio economic development through creating career opportunities and a net positive impact on environmental aspects.

The following conditions are applicable to establish that the project activity is environment friendly:

1. There shall be no nuisance due to industrial activity to surroundings.
2. Handling of fly ash i.e., transport, loading and storage shall be done in a scientific manner so as to avoid fugitive emissions and nuisance.
3. Water shall be sprinkled on stored fly ash to avoid fugitive emissions.

Project activity has obtained Consent to establish & operate from “Madhya Pradesh Pollution Control Board” and No Objection Certificate from the Gram Panchayat, to establish and operate a manufacturing unit of Autoclaves Aerated Concrete (AAC) Blocks by using fly ash as the main raw material which is the by-product of the thermal power stations. Documents are transparent and latest and valid for the current monitoring period. The validity Date is 15-April-2023 of Auto renewal Order, and new consent order application reference number COW-1277287, dt: 20/06/2023. Project is complying to all legal requirements required under Madhya Pradesh Pollution Control Board. Under this act project has been given consent to operate under Air act/08/.

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation meeting:

As per the registered VCS Joint MR & PD/03/ local stakeholder consultation meeting for the project activity has been conducted at project site on 16th May 2014 at the time of project registration prior to validation.

On-going communication:

For on-going communication with stakeholders, PP have maintained a "Grievance Register" & also a feedback/complaint box at the site office, where the local stakeholders can drop letters with their issues. For the current monitoring period, Verification Team could verify that neither there has been any receipt of grievance, nor any feedback/complaint in complaint box.

Grievance redress procedure:

1. Submission of Grievance: The first step involves the individual formally submitting their grievance in the grievance register which is placed at entrance gate of the project. Security In charge is responsible for record the grievance.
2. Acknowledgment and Analysis: Upon receiving the grievance, the organization acknowledges receipt of the complaint and do the analyse that the grievance is genuine or not. Site In charge is responsible for acknowledge and analyze the grievance, after that he will forward the grievance to respective department keeping a copy to HR department.
3. Resolution of Grievance: Based on the findings of the investigation, the organization works towards resolving the grievance. This could involve taking corrective actions, implementing changes in policies or procedures, providing compensation or restitution. The respective department head is resolving the grievance and share the information to the HR.
4. Documentation: Throughout the entire process, detailed documentation is maintained. This includes records of the grievance, investigation findings, actions taken. HR is responsible for maintaining the documents.

Overall, the project has demonstrated a commitment to continuous interaction with stakeholders and maintaining transparency throughout the project's implementation and operation. Hereby VKU confirms that PP has a process of recording the stakeholder feedback and grievance mechanisms that ensure that local stakeholders' concerns are considered and addressed appropriately with respect to the set guidelines defined in section 3.18, clause 3.18.5 VCS Standard version 4.5/B02/. For the current monitoring period, Verification Team verified that neither there has been any receipt of grievance in the grievance register, nor any feedback/complaint in complaint box. Therefore, no any Grievance redress procedure followed or performed in current monitoring period.

4.3 AFOLU-Specific Safeguards

The Project Activity deals with manufacturing Industries under the category of fuel switch, process improvement and energy efficiency in brick manufacturing. So, this section is not applicable to this project activity as the project comes under the category of Non AFOLU project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Monitoring of project has been carried out in accordance with registered VCS joint PD&MR/03/. Monitoring plan laid in the registered PD&MR/03/ is being followed at project site. VKU has verified the information flow (from data generation, aggregation, to records, calculation, and reporting for these parameters including the values) in the MR for current monitoring period/01/.

Project emission reductions are purely based on net emission reduction as a result of quantification of baseline emissions, leakage emissions and project emissions as per the AMS III. Z. version 06.0/B07/. All the requested documents (mentioned in the section 2.2 of this report) and requisite data for this verification has been provided by PP to VKU. Numerical values used in deriving GHG emission reduction could be well correlated between the data sets and ER spreadsheet corresponding to current monitoring/02/. Data sets in the updated monitoring report/01/ are cross verified with supporting documents provided by PP. Verification of each monitoring parameter has been carried out by cross checking with the data stored in "Tally ERP software **(Tally)/26/.**

The verification of each parameter monitored has been discussed in section 4.5 of this report

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

During verification, all relevant documents were checked to assess the correctness and quality of data submitted by the project participants, which are used to determine emission reductions.

VKU reviewed the records required for monitoring, ensuring that they were archived in accordance with the registered monitoring plan. The purpose of this review was to confirm that the project had followed the prescribed procedures for data collection, storage, and reporting. No significant issues, lack of evidence, or missing data were identified during the verification process. This indicates that the project's monitoring system is effective in ensuring the quality of the monitored data. VKU also confirmed that the project had implemented appropriate quality assurance and quality control measures for its internal data.

By conducting a comprehensive review of the relevant documents and data, the verification team ensures the integrity and accuracy of the project's monitoring system, providing confidence in the reported emission reductions.

The monitoring parameters in the project activity is as following;

Table 09: Data/Parameter to be monitored

Data/Parameter	$P_{PJ, y}$ (Gross annual production of AAC blocks) Unit: m^3	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	The parameter is monitored continuously and recorded in "Daily log sheet". Daily value is computed by multiplying the number of blocks produced of a particular size by its respective volume. Further the daily data is entered in Inventory Management module of "Tally". Random records were cross verified during onsite inspection. Monthly/Annual production of the facility is computed through Tally Reports/26/.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered joint PD&MR/03/ and monitoring methodology/03/.
	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.
	Calibration frequency /interval:	Not applicable.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not	Not applicable.

<table>
<tr><td></td><td>specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, pending until the findings are closed or as per the manufacturer's specifications?</td><td></td></tr>
<tr><td></td><td>Is the calibration of measuring equipment carried out by an accredited person or institution?</td><td>Not applicable.</td></tr>
<tr><td></td><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Not applicable.</td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The values in the MR/01/ were verified with the plant records/10/ & cross checked with Tally generated monthly and yearly Reports.
<table><tr><th>Period</th><th>Total Production (m^3)</th></tr><tr><td>2021</td><td>101,245.92 m^3</td></tr><tr><td>2022</td><td>96,560.22 m^3</td></tr><tr><td>2023</td><td>48,207.8 m^3</td></tr><tr><td>Total</td><td>246,013 m^3</td></tr></table>The recording frequency of the parameter is daily, from Daily records, monthly values are computed in ER sheet. Annual values are reported in MR/01/. ER sheet/02/ were cross-checked using the summation of daily readings for the specific duration from plant records & Tally Reports. They were found to be consistently reported.</td></tr>
<tr><td></td><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 like Daily Logs & Sales invoices provided by project proponent.</td></tr>
<tr><td></td><td>Does the data management ensure correct transfer of data and reporting of emission</td><td>The readings are being recorded by operators in Daily Plant Records & then data is entered in Tally: inventory management software and block selling</td></tr>
</table>

	reductions and are necessary QA/QC processes in place?	records and block stocks for each day. Efficiency of transfer of data is being monitored by supervisor onsite. During onsite verification it has been found that the inventories have been maintained efficiently through Tally: inventory management software). 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.
Findings	CAR #02 and CL #03 have been raised and resolved.	
Conclusion	Parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/03/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Since 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	**Compressive Strength of AAC Blocks and Bricks** Unit: N/mm² (Newton per mm^2)	
Means of Verification	**Criteria/Requirement**	**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. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/03/. However, it is found that due to COVID pandemic there was delay in testing but as PP also has a continuous monitoring of this parameter in their own laboratory. Verification team found it acceptable and concluded that the compressive strength result conducted in in-house laboratory are consistent with those conducted by external laboratories.

	Monitoring equipment	Not Applicable as this is monitored by third party laboratory/13/.
	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
	Calibration frequency /interval:	Not Applicable (As this parameters' source of data is issued from nationally accredited 3rd Party Laboratory).
	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, pending until the findings are closed 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 Moreover, testing is carried out by integrated research & analysis centre, Kailtech test & research Centre Pvt Ltd which is NABL (National Accreditation Board for Testing and Calibration Laboratories) and by its own/13/. Verification Team confirm that PP submitted the calibration certificate of its Digital Compression Testing Machine and tested by Accutech Technical services Private Limited and its validity is within monitoring period.
	Is(are) testing report(s) valid for the whole reporting period?	The reports for 3rd party testing is not valid for whole monitoring period. It is

<table>
<tr><td></td><td></td><td>found that due to COVID pandemic there was delay in testing but as PP also has a continuous monitoring of this parameter in their own laboratory. Verification team found it acceptable and concluded that the compressive strength result conducted in in-house laboratory are consistent with those conducted by external laboratories Kailtech test & research Centre Pvt Ltd. Verification Team confirms that inhouse testing is done transparently and correct as per the submitted calibration records of its Digital Compression Testing Machine/13/ which is done by third party.</td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The values have been averaged per year and verified with the actual reports issued by third party laboratory/13/, and in its own laboratory due to COVID pandemic. The values were verified and found acceptable.
<table>
<tr><th>Sr. No.</th><th>Date</th><th>AAC Blocks (Kg/cm$^{2)}$ and (N/mm^2)</th></tr>
<tr><td>1</td><td>18-December-2022</td><td>38.03 or 3.72947</td></tr>
<tr><td>2</td><td>10-June-2022</td><td>37.86 or 3.71280</td></tr>
<tr><td>3</td><td>16-December-2021</td><td>39.12 or 3.83636</td></tr>
<tr><td>4</td><td>20-June-2021</td><td>38.42 or 3.76771</td></tr>
</table></td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>As per the 3rd Party Test Report, it was found to be in accordance with the prevalent industry standards (IS 2185 (P3):1984. Further results obtained</td></tr>
</table>

		from in house testing conducted during Covid times were consistent with results obtained from external laboratory.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensure correct transfer of data and reporting of emission reductions management. QA/QC processes are in place.
Finding	No findings raised	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Since 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	Q_{cement} (Tons of cement used during project activity production (AAC block) for AAC block Unit: Tonne	
Means of Verification	Criteria/Requirement	Assessment/Observation
	Measuring /Reading /Recording frequency	Recording frequency of the parameter is daily, from "Daily Plant Records", monthly/annual values are computed in ER sheet/02/ and MR /01/. Values have been cross-checked from daily production & consumption reports, Tally generated Reports, & Suppliers invoices. Values are found to be correct and consistently reported.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD&MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	ARVIN Make Electronic Non-Automatic Weighing Instrument of Class III of 100T capacity.

	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?	Name plate as well as it's Test certificate shows it has an Error Value of 10Kg. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011.
	Calibration frequency /interval:	Testing is carried out at frequency of one year by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011/21/.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009(Of Government of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test certificates. https://cwnm.nic.in/ContactUs.html
	Is(are) calibration(s) valid for the whole reporting period?	Test Certificates have been found to be continued throughout the reporting period/21/.

<table>
<tr><td rowspan="4"></td><td>How were the values in the monitoring report verified?</td><td>The values of monitoring report have been verified during the onsite inspection of inventory management module “Tally” and it is found that PP records all purchase, consumption and inventory data in module and records of all sales invoices are maintained.

The values in MR/01/ has been further verified with plant records, which contained daily consumption of material values has been cross checked with purchase records. The verified values are:

<table><tr><th>Period</th><th>Cement consumption (Tonnes)</th></tr><tr><td>2021</td><td>7,488</td></tr><tr><td>2022</td><td>7,104</td></tr><tr><td>2023</td><td>3,679</td></tr><tr><td>Total</td><td>18,271</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 first checked with plant record and it’s software tally and then has been further cross checked with the invoices issued by suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.</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>Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that 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.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Finding</td><td colspan="2">CAR#02, CAR#03 and CL#03 are raised and resolved.</td></tr>
</table>

Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Since 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.

Data/Parameter	Q_{lime} (Tons of Lime used during project activity production (AAC block) for AAC block Unit: Tonne
Means of Verification	

Criteria/Requirement	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored along with daily production & Consumption record. with every purchase of raw material and recorded monthly. The recording frequency of the parameter is daily, From Daily records monthly values are computed in ER sheet. Annual value is reported in MR/01/. ER sheet "Production & Consumption"/02/ were cross-checked with daily readings for current monitoring period with plant records & Tally Reports. They were found to be consistently reported.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/01/ and monitoring methodology/B07/.
Monitoring equipment	Weigh Bridge records cross checked with quantity mentioned on supplier's invoice.
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	Name plate as well as it's Test certificate shows it has an Error Value of 10Kg. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011.

	comply with local/national standards, or as per the manufacturer's specification?	
	Calibration frequency /interval:	Testing is carried out at frequency of one year by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to "The Legal Metrology Act 2009" (Of Government Of India) effective from 01-April-2011/21/.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009" (Of Government Of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test certificates. https://cwnm.nic.in/ContactUs.html
	Is(are) calibration(s) valid for the whole reporting period?	Test Certificates have been found to be continued throughout the reporting period/21/.
	How were the values in the monitoring report verified?	The values of monitoring report have been verified during the onsite inspection of inventory management module "Tally" and it is found that PP records all purchase, consumption and inventory data in module and records of all sales invoices are maintained. The values in MR/01/ has been further verified with plant records, which contained daily consumption of material

<table>
<tr><td rowspan="4"></td><td></td><td>values has been cross-checked with purchase records. The verified values are:<table><tr><th>Period</th><th>Lime consumption (Tonnes)</th></tr><tr><td>2021</td><td>4,488</td></tr><tr><td>2022</td><td>4,527</td></tr><tr><td>2023</td><td>2,289</td></tr><tr><td>Total</td><td>11,304</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 further cross checked with the invoices issued to the suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.</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>Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that 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.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Finding</td><td colspan="2">CAR#02, CAR#03 and CL#03 are raised and resolved.</td></tr>
<tr><td>Conclusion</td><td colspan="2">The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.</td></tr>
</table>

Data/Parameter	$Q_{Aluminium}$ (Tons of Aluminium used during project activity production (AAC block) for AAC block

	Unit: Tonne
Means of Verification	

Criteria/Requirement	Assessment/Observation
Measuring /Reading /Recording frequency	Recording frequency of the parameter is daily, from "Daily Plant Records", monthly/annual values are computed in ER sheet/02/ and MR /01/. Values have been cross-checked from daily production & consumption reports, Tally generated Reports, & Suppliers invoices. Values are found to be correct and consistently reported.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD&MR/03/ and monitoring methodology/B07/.
Monitoring equipment	ARVIN Make Electronic Non-Automatic Weighing Instrument of Class III of 100T capacity.
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?	Name plate as well as it's Test certificate shows it has an Error Value of 10Kg. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011.
Calibration frequency /interval:	Testing is carried out at frequency of one year by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011/21/.

	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test certificates. https://cwnm.nic.in/ContactUs.html
	Is(are) calibration(s) valid for the whole reporting period?	Test Certificates have been found to be continued throughout the reporting period/21/.
	How were the values in the monitoring report verified?	The values of monitoring report have been verified during the onsite inspection of inventory management module "Tally" and it is found that PP records all purchase, consumption and inventory data in module and records of all sales are maintained. The values in MR/01/ has been further verified with plant records, which contained daily consumption of material values has been cross checked with purchase records. The verified values are follows:
	If applicable, has the reported data been cross-	The reported data first checked with plant record and cross checked with records maintained in Tally. This further cross

Period	Aluminium consumption (Tonnes)
2021	36
2022	29
2023	18
Total	83

	checked with other available data?	checked with the invoices issued by the suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that 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.
Finding	CAR#02, CAR#03 and CL#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$Q_{Fly\ ash}$ (Tons of FlyAsh used during project activity production (AAC block) for AAC block Unit: Tonne	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Recording frequency of the parameter is daily, from "Daily Plant Records", monthly/annual values are computed in ER sheet/02/ and MR /01/. Values have been cross-checked from daily production & consumption reports, Tally generated Reports, & Suppliers invoices. Values are found to be correct and consistently reported.

	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD&MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	ARVIN Make Electronic Non-Automatic Weighing Instrument of Class III of 100T capacity.
	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?	Name plate as well as it's Test certificate shows it has an Error Value of 10Kg. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011.
	Calibration frequency /interval:	Testing is carried out at frequency of one year by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011/21/.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009 (Of Government of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test

<table>
<tr><td></td><td></td><td>certificates.
https://cwnm.nic.in/ContactUs.html</td></tr>
<tr><td></td><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Test Certificates have been found to be continued throughout the reporting period/21/.</td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The values of monitoring report have been verified during the onsite inspection with inventory management module “Tally” and it is found that PP records all purchase, consumption and inventory data in module and records of all sales invoices are maintained.

The values in MR/01/ has been verified with plant records, which contained daily consumption of material values has been cross checked with purchase records. The verified values are follows:
<table>
<tr><th>Period</th><th>Fly Ash consumption (Tonnes)</th></tr>
<tr><td>2021</td><td>52,828</td></tr>
<tr><td>2022</td><td>46,285</td></tr>
<tr><td>2023</td><td>23,084</td></tr>
<tr><td>Total</td><td>1, 22, 197</td></tr>
</table></td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data first checked with plant record and its software tally and then has been further cross checked with the invoices issued by the suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.</td></tr>
<tr><td></td><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>Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that 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</td></tr>
</table>

		documentation was available and maintained retrievably onsite.
Finding	CAR#02, CAR#03 and CL#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$Q_{biomass\ briquettes}$ (Tons of Biomass Briquettes used during project activity production (AAC block) for AAC block **Unit:** Tonne	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Recording frequency of the parameter is daily, from "Daily Plant Records", monthly/annual values are computed in ER sheet/02/ and MR /01/. Values have been cross-checked from daily production & consumption reports, Tally generated Reports, & Suppliers invoices. Values are found to be correct and consistently reported.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	ARVIN Make Electronic Non-Automatic Weighing Instrument of Class III of 100T capacity.
	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	Name plate as well as it's Test certificate shows it has an Error Value of 10Kg. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011.

	with local/national standards, or as per the manufacturer's specification?	
	Calibration frequency /interval:	Testing is carried out at frequency of one year by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011/21/.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test certificates. https://cwnm.nic.in/ContactUs.html
	Is(are) calibration(s) valid for the whole reporting period?	Test Certificates have been found to be continued throughout the reporting period/21/.
	How were the values in the monitoring report verified?	The values of monitoring report verified during the onsite inspection with inventory management software "Tally" and it is found that PP records all data on the given software and further has been maintained in the log book. The values in MR/01/ has been further verified with plant records, which contained daily consumption of material values has been cross

<table>
<tr><td></td><td></td><td>checked with purchase records. The verified values are follows:<table><tr><th>Period</th><th>Biomass Briquettes consumption (Tonnes)</th></tr><tr><td>2021</td><td>2,733</td></tr><tr><td>2022</td><td>884</td></tr><tr><td>2023</td><td>1,474</td></tr><tr><td>Total</td><td>5091</td></tr></table></td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The reported data first checked with plant record and records maintained in Tally and then has been further cross checked with the invoices issued by the suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.</td></tr>
<tr><td></td><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>Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that 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.</td></tr>
<tr><td>Finding</td><td colspan="2">CAR#02, CAR#03 and CL#03 are raised and resolved.</td></tr>
<tr><td>Conclusion</td><td colspan="2">The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/0/.</td></tr>
</table>

<table>
<tr><td>Data/Parameter</td><td>Q_{coal} (Tonnes of Coal used during project activity production (AAC block) for AAC block

Unit: Tonne</td></tr>
<tr><td>Means of Verification</td><td>
<table>
<tr><th>Criteria/Requirement</th><th>Assessment/Observation</th></tr>
<tr><td>Measuring /Reading /Recording frequency</td><td>Recording frequency of the parameter is daily, from “Daily Plant Records”, monthly/annual values are computed in ER sheet/02/ and MR /01/. Values have been cross-checked from daily production & consumption reports, Tally generated Reports, & Suppliers invoices. Values are found to be correct and consistently reported.</td></tr>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD&MR/03/ and monitoring methodology/B07/.</td></tr>
<tr><td>Monitoring equipment</td><td>ARVIN Make Electronic Non-Automatic Weighing Instrument (Weighbridge) of Class III of 100T capacity.</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>Name plate as well as Test certificate of Weighbridge shows it has an Error Value of 10Kg. This conforms to “The Legal Metrology Act 2009” (Of Government of India) effective from 01-April-2011.</td></tr>
<tr><td>Calibration frequency /interval:</td><td>Testing is carried out at frequency of one year by “Controller of Legal Metrology (Weights & Measure)” Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to “The Legal Metrology</td></tr>
</table>
</td></tr>
</table>

		Act 2009" (Of Government of India) effective from 01-April-2011/21/.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test certificates. https://cwnm.nic.in/ContactUs.html
	Is(are) calibration(s) valid for the whole reporting period?	Test Certificates have been found to be continued throughout the reporting period/21/.
	How were the values in the monitoring report verified?	The values of monitoring report have been verified during the onsite inspection of inventory management module "Tally" and it is found that PP records all purchase, consumption and inventory data in module and records of all sales are maintained. The values in MR/01/ has been further verified with plant records, which contained daily consumption of material values has been cross checked with purchase records. The verified values are follows:

Period	Coal consumption (Tonnes)
2021	152
2022	0
2023	0
Total	151

	If applicable, has the reported data been cross-checked with other available data?	The reported data first checked with plant record and cross checked with records maintained in Tally. This further cross checked with the invoices issued by the suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that 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.
Finding	CAR#07 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	Q_{Gypsum} (Tons of Gypsum used during project activity production (AAC block) for AAC block Unit: Tonne	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Recording frequency of the parameter is daily, from "Daily Plant Records", monthly/annual values are computed in ER sheet/02/ and MR /01/. Values have been cross-checked from daily production &

		consumption reports, Tally generated Reports, & Suppliers invoices. Values are found to be correct and consistently reported.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD&MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	ARVIN Make Electronic Non-Automatic Weighing Instrument (Weighbridge) of Class III of 100T capacity.
	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?	Name plate as well as Test certificate of Weighbridge shows it has an Error Value of 10Kg. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011.
	Calibration frequency /interval:	Testing is carried out at frequency of one year by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India and a test certificate is issued which is valid for one year. This conforms to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011/21/.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Testing interval is in accordance to "The Legal Metrology Act 2009" (Of Government of India) effective from 01-April-2011. The most recent Test Certificate issued by "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India shows the validity of certificate as One year /21/.

	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes "Controller of Legal Metrology (Weights & Measure)" Government of Madhya Pradesh, India is authorised to carry out testing and issue Test certificates. https://cwnm.nic.in/ContactUs.html
	Is(are) calibration(s) valid for the whole reporting period?	Test Certificates have been found to be continued throughout the reporting period/21/.
	How were the values in the monitoring report verified?	The values of monitoring report have been verified during the onsite inspection of inventory management module "Tally" and it is found that PP records all purchase, consumption and inventory data in module and records of all sales are maintained. The values in MR/01/ has been further verified with plant records, which contained daily consumption of material values has been cross checked with purchase records. The verified values are follows:
	If applicable, has the reported data been cross-checked with other available data?	The reported data first checked with plant record and cross checked with records maintained in Tally. This further cross checked with the invoices issued by the suppliers. It is also confirmed that invoice belongs to 3rd party, there is no control of PP on it.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions management. QA/QC processes are in place. As per the onsite inspection and interview with responsible personnel, assessment team confirms that the transfer of values from log books to daily stock record and finally to monthly stock

Period	Gypsum consumption (Tonnes)
2021	1,169.80
2022	1,081.20
2023	505.00
Total	2,756.00

		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.
Finding	CAR#02, CAR#03 and CL#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	**NCV** $_{Biomass}$ (Net calorific value of Biomass Briquetted) Unit: Kcal/Kg	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Monitored Once only in first year of crediting period.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	Not Applicable as same was determined from external laboratory
	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 as same was determined from external laboratory
	Calibration frequency /interval:	Not Applicable as same was determined from external laboratory

	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, pending until the findings are closed or as per the manufacturer's specifications?	Not Applicable as same was determined from external laboratory
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not Applicable as same was determined from external laboratory
	Is(are) calibration(s) valid for the whole reporting period?	Not applicable
	How were the values in the monitoring report verified?	Measurement in laboratories according to relevant national/international standards. Would be measured only in First year of crediting period. Value was determined by, taking at least three samples for each measurement. The average value is being used for the rest of the crediting period. 3,600 KCal/Kg.
	If applicable, has the reported data been cross-checked with other available data?	Assessment Team Confirm that the given monitoring period is fall in 1st crediting period so, as per the registered Joint PD &MR The average value would be used for the rest of the crediting period VKU has cross checked this with previous verifications/05//06/ and could conclude that the value is correct and consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensure correct transfer of data and reporting of emission reductions management. QA/QC processes are in place.,
Finding	CAR#02, CAR#03 and CL#03 are raised and resolved.	

Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/.

Data/Parameter	$D_{f,m,flyash}$ (Return trip road distance between the origin and destination of fly ash transportation activity f in monitoring period m) Unit: Km

Means of Verification

Criteria/Requirement	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes. VKU confirms that PP has determined distance for each year i.e 2021,2022 & 2023 for supplier through online method using Google Map application.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/0/ and monitoring methodology/B07/.
Monitoring equipment	PP has used Google maps to determine a reference trip VVB confirms that values are correctly determined & have cross checked it with the 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 as value is determined using online Google maps
Calibration frequency /interval:	Not applicable as value is determined using online Google maps

		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, pending until the findings are closed or as per the manufacturer's specifications?	Not applicable as value is determined using online Google maps
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable as value is determined using online Google maps
		Is(are) calibration(s) valid for the whole reporting period?	Not applicable as value is determined using online Google maps
		How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices / Transporter documents /10/ and their distance from the project location through google maps. Distance shown by maps has been multiplied by 2 to determine this parameter value Transported data in ER sheet was cross checked. And found that the verified value is 540 Km [9] for year 2021-2022 & 2023
		If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
		Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification of address mentioned on purchase invoices of flyash with the online google map and onsite interview with the concern person, it is confirmed that QA/QC

[9] Verification Team confirms that value of parameter $D_{f,m,\text{flyash}}$ *for current monitoring period is lower than the previous monitoring period a*nd reason is, *PP bought raw material form near suppliers plant* to save the transportation cost. *The same has been confirmed through interview* with *PP representative and also cross checked with address mentioned in Invoice*s and found it correct, transparent, consistent and compliance with registered joint PD & MR.

		procedures were found to be reliable and robust.
Finding	CAR#02, and CAR#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$D_{f,m,cement}$ (Return trip road distance between the origin and destination of cement transportation activity f in monitoring period m) Unit: Km	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes. VKU confirms that PP has determined distance for each year i.e 2021,2022 & 2023 for supplier through online method using Google Map application.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	PP has used Google maps to determine a reference trip. VVB confirms that values are correctly determined & have cross checked it with the 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	Not applicable as value is determined using online Google maps.

	equipment comply with local/national standards, or as per the manufacturer's specification?	
	Calibration frequency /interval:	Not applicable as value is determined using online Google maps.
	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, pending until the findings are closed or as per the manufacturer's specifications?	Not applicable as value is determined using online Google maps.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable as value is determined using online Google maps.
	Is(are) calibration(s) valid for the whole reporting period?	Not applicable as value is determined using online Google maps.
	How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices / Transporter documents /10/ and their distance from the project location through google maps. Distance shown by maps has been multiplied by 2 to determine this parameter value Transported data in ER sheet was cross checked. And found that the verified value is 492 [10]Km.

[10] Verification Team confirms that value of parameter $D_{f,m,cement}$ for current monitoring period is lower than the previous monitoring period and reason is, PP bought raw material form near suppliers plant to save the transportation cost. The same has been confirmed through interview with PP representative and also cross checked with address mentioned in Invoices and found it correct, transparent, consistent and compliance with registered joint PD & MR.

	If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification of address supplier which is mentioned on purchase invoices of cement with the online google map and onsite interview with the concern person, it is confirmed that QA/QC procedures were found to be reliable and robust.
Finding	CAR#02, and CAR#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$D_{f,m,lime}$ (Return trip road distance between the origin and destination of lime transportation activity f in monitoring period m)[11] Unit: KM
Means of Verification	

Criteria/Requirement	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. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
Monitoring equipment	Not Applicable (VVB verify the data from the 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
	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, pending until the findings are closed 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
	How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices/transporter documents/10/ and their distance from the project location through google maps. Distance shown by maps has been multiplied by 2 to determine this parameter value. The Transported data given in ER sheet was further cross verified with raw material purchase invoices/10/.

		And found that the verified value is 1,198 [12]KM.
	If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification address of supplier given on purchase invoices of lime with the online map and onsite interview with the concern person, it is confirmed that QA/QC procedures were found to be reliable and robust.
Finding	CAR#02, CAR#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/03/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$D_{f,m,Aluminium}$ (Return trip road distance between the origin and destination of Aluminium transportation activity f in monitoring period m) Unit: Km	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes. VKU confirms that PP has determined distance for each year i.e 2021,2022 & 2023 for supplier through online method using Google Map application.

[12] Verification Team confirms that value of parameter $D_{f,m,Lime}$ for current monitoring period is lower than the previous monitoring period and reason is, PP bought raw material form near suppliers plant to save the transportation cost. The same has been confirmed through interview with PP representative and also cross checked with address mentioned in Invoices and it is found correct, transparent, consistent and compliance with registered joint PD & MR..

	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	PP has used Google maps to determine a reference trip. VVB confirms that values are correctly determined & have cross checked it with the 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 as value is determined using online Google maps
	Calibration frequency /interval:	Not applicable as value is determined using online Google maps
	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, pending until the findings are closed or as per the manufacturer's specifications?	Not applicable as value is determined using online Google maps
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable as value is determined using online Google maps
	Is(are) calibration(s) valid for the whole reporting period?	Not applicable as value is determined using online Google maps
	How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices / Transporter documents /10/ and their distance from the project location through google maps. Distance shown

		by maps has been multiplied by 2 to determine this parameter value The values were verified with Transported data given in ER sheet and further cross verified with raw material purchase invoices/10/. And found that the verified value is 1,084 KM[13].
	If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification of address of supplier given on purchase invoices of aluminium with the online google map and onsite interview with the concern person (PP representative), it is confirmed that QA/QC procedures were found to be reliable and robust.
Finding	CAR#02, CAR#03 are raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$D_{f,m,gypsum}$ (Return trip road distance between the origin and destination of gypsum transportation activity f in monitoring period m) Unit: Km	
Means of Verification	**Criteria/Requirement**	**Assessment/Observation**

[13] Verification Team confirms that value of parameter $D_{f,m,Aluminum}$ for current monitoring period is lower than the previous monitoring period and reason is, PP bought raw material form near suppliers plant to save the transportation cost. The same has been confirmed through interview with PP representative and also cross checked with address mentioned in Invoices and it found correct, transparent, consistent and compliance with registered joint PD & MR.

	Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes. VKU confirms that PP has determined distance for each year i.e., 2021,2022 & 2023 for supplier through online method using Google Map application.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
	Monitoring equipment	PP has used Google maps to determine a reference trip. VVB confirms that values are correctly determined & have cross checked it with the 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 as value is determined using online Google maps
	Calibration frequency /interval:	Not applicable as value is determined using online Google maps
	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, pending until the findings are closed or as per the manufacturer's specifications?	Not applicable as value is determined using online Google maps
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable as value is determined using online Google maps

	Is(are) calibration(s) valid for the whole reporting period?	Not applicable as value is determined using online Google maps
	How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices / Transporter documents /10/ and their distance from the project location through google maps. Distance shown by maps has been multiplied by 2 to determine this parameter value The values were verified with Transported data given in ER sheet and further cross verified with raw material purchase invoices/10/. And found that the verified value is 1,268 KM.
	If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification of address of supplier given on purchase invoices of gypsum with the online google map and onsite interview with the concern person (PP representative), it is confirmed that QA/QC procedures were found to be reliable and robust.
Finding	CAR#07 is raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$D_{f,m,\ Briquettes}$ (Return trip road distance between the origin and destination of Biomass Briquettes transportation activity f in monitoring period m) Unit: Km
Means of Verification	

Criteria/Requirement	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes. VKU confirms that PP has determined distance for each year i.e., 2021,2022 & 2023 for supplier through online method using Google Map application.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
Monitoring equipment	PP has used Google maps to determine a reference trip. VVB confirms that values are correctly determined & have cross checked it with the 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 as value is determined using online Google maps
Calibration frequency /interval:	Not applicable as value is determined using online Google maps
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, pending until the findings are closed or as per the manufacturer's specifications?	Not applicable as value is determined using online Google maps
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable as value is determined using online Google maps

	Is(are) calibration(s) valid for the whole reporting period?	Not applicable as value is determined using online Google maps
	How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices / Transporter documents /10/ and their distance from the project location through google maps. Distance shown by maps has been multiplied by 2 to determine this parameter value The values were verified with Transported data given in ER sheet and further cross verified with raw material purchase invoices/10/. And found that the verified value is 566 KM.
	If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification of address of supplier given on purchase invoices of Biomass Briquettes with the online google map and onsite interview with the concern person (PP representative), it is confirmed that QA/QC procedures were found to be reliable and robust.
Finding	CAR#07 is raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Data/Parameter	$D_{f,m,\ coal}$ (Return trip road distance between the origin and destination of Coal transportation activity f in monitoring period m) Unit: Km
Means of Verification	

Criteria/Requirement	Assessment/Observation
Measuring /Reading /Recording frequency	Monitored and recorded whenever road trip changes. VKU confirms that PP has determined distance for each year i.e., 2021,2022 & 2023 for supplier through online method using Google Map application.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency is in line with the monitoring plan as outlined in the registered PD& MR/03/ and monitoring methodology/B07/.
Monitoring equipment	PP has used Google maps to determine a reference trip. VVB confirms that values are correctly determined & have cross checked it with the 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 as value is determined using online Google maps
Calibration frequency /interval:	Not applicable as value is determined using online Google maps
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, pending until the findings are closed or as per the manufacturer's specifications?	Not applicable as value is determined using online Google maps
Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable as value is determined using online Google maps

	Is(are) calibration(s) valid for the whole reporting period?	Not applicable as value is determined using online Google maps
	How were the values in the monitoring report verified?	The values were verified with locations mentioned on purchase invoices / Transporter documents /10/ and their distance from the project location through google maps. Distance shown by maps has been multiplied by 2 to determine this parameter value The values were verified with Transported data given in ER sheet and further cross verified with raw material purchase invoices/10/. And found that the verified value is 312 KM.
	If applicable, has the reported data been cross-checked with other available data?	The distance between origin and destination was cross-checked using online tools like google map.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	As per the verification of address of supplier given on purchase invoices of Biomass Briquettes with the online google map and onsite interview with the concern person (PP representative), it is confirmed that QA/QC procedures were found to be reliable and robust.
Finding	CAR#07 is raised and resolved.	
Conclusion	The parameter has been monitored appropriately in accordance with the registered monitoring plan/0/ and applied methodology/B07/. The monitored data was recorded consistently as per the approved frequency in monitoring plan/03/. Hence, 100% data has been monitored and verified, the verification team can ascertain that the values used for calculation of emission reduction are free from material errors. Implementation of the project is as per the registered monitoring plan/03/.	

Quality of the Product

Assessment team also could verify that Tests for verifying quality of the product have been conducted throughout the monitoring period to validate that the project AAC Blocks meet the performance requirements and specifications of base line product. PP validated this by choosing minimum four samples from each batch of production. Throughout the entire

monitoring period pp conducted test to determine "dry compressive strength" of 271 samples each month. This calculation of sample size meets the requisite criteria (As per Registered PDD) for calculating number of samples -

$$n \geq [1.645^2 \times N \times p(1-p)] \div [(N-1) \times 0.1^2 \times p^2 + 1.645^2 \times p(1-p)]$$

Where:

n - Sample size

N - Total Number of Blocks Produced

p - Our expected proportion (0.50)

1.645- Represents the 90% confidence required

0.1 -Represents the 10% relative precision

Assessment team could confirm the same through review of sample spread shift and plant records of samples results /27/**Parameters fixed ex ante:**

EF_{BL}; $tCO_2e/m3$: it is the annual production specific baseline emission factor fixed at the time of project registration. The mentioned value of 0.3592435 tCO_2e/m^3 is consistent with the registered VCS PD & MR/03/.

EF_{cement}; tCO_2e/Tonne of cement: it is CO_2 emission factor of cement production fixed at the time of project registration. The mentioned value of 0.638 tCO_2e/Tonne of cement is consistent with the registered VCS PD & MR/03/.

$EF_{Aluminium}$; tCO_2e/Tonne of Aluminium: it is the CO_2 emission factor of aluminium production fixed at the time of project registration. The mentioned value of 1.7 tCO_2e/Tonne of cement is consistent with the registered VCS PD & MR/03/.

EF_{Lime}; tCO_2e/Tonne of Lime: it is the CO_2 emission factor of lime production fixed at the time of project registration. The mentioned value of 0.75 tCO_2e/Tonne of lime is consistent with the registered VCS PD & MR/03/.

$EF_{Biomass\ briquettes}$: tCO_2e/t biomass briquettes: it is the CO_2 emission factor of biomass briquettes production. PP has added this Parameter in section 4.1 of MR though a Project description deviation in section 3.2.2 of MR. The mentioned value of **0.04923 tCO_2e/Tonne** of biomass briquettes production is consistent with the DEFRA[14],2021 Bioenergy (Biomass)[15].

EF_{gypsum}: tCO_2e/tonne gypsum: it is the CO_2 emission factor of gypsum production. PP has added this Parameter in section 4.1 of MR though a Project description deviation in section 3.2.2 of MR. The mentioned value of **0.01 tCO_2e/Tonne** of biomass briquettes production is consistent

[14] The Indian source and IPPC data is not available so DEFRA is used as a source.

[15] https://assets.publishing.service.gov.uk/media/61ee7495e90e07037c8d6176/conversion-factors-2021-condensed-set-most-users.xls

with the Sector report for the gypsum industry Default emission factor of gypsum production is used for the value [16].

EF_{flyash}; tCO_2e/Tonne of flyash: it is the CO_2 emission factor of lime production fixed at the time of project registration. The mentioned value of **0 tCO_2e/Tonne of flyash (ZERO)** is consistent with the registered VCS PD & MR/03/.

$EF_{CO2, t}$; g tCO_2e/Tonne 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 gCO_2/KM for light vehicles and 129 gCO_2/KM for heavy vehicles is consistent with the registered VCS PD & MR/03/.

$EF_{grid,OM,y}$; tCO_2/MWh: it is the operating margin emission factor of Indian grid fixed for the entire crediting period and the value is considered as 0.9941 tCO_2e/MWh, that is consistent with the registered VCS PD and MR/03/.

$EF_{grid,BM,y}$; tCO_2/MWh: it is build margin emission factor of Indian grid fixed for the entire crediting period and the value is considered as 0.9285 tCO_2e/MWh, that is consistent with the registered VCS PD and MR/03/

$EF_{grid,CM,y}$; tCO_2/MWh: it is the combined margin emission factor of Indian grid fixed for the entire crediting period and the value is considered as 0.9613 tCO_2e/MWh, that is consistent with the registered VCS PD and MR/03/.

EF_{FO}; tCO_2e/TJ; it is the carbon emission factor for furnace oil. The mentioned value of 78.8 tCO_2e/TJ is consistent with the registered VCS PD & MR/03/.

NCV_{FO}; TJ/kt; it is the net calorific value of furnace oil. The Mentioned value of 41.7 TJ/kt is consistent with the registered VCS PD & MR/03/.

EFcoal; tCO_2e/TJ; it is the carbon emission factor of coal. The Mentioned value of 94.6 tCO_2e/TJ is consistent with the registered VCS PD & MR/03/.

Specific electricity consumption per MT of briquette; kWh/MT; it is the Specific electricity consumption per MT of briquette. the mentioned value of 38 kWh/MT is consistent with the registered VCS PD & MR/03/.

TDL; %; it is the transmission & distribution losses; the Mentioned value of 10% is consistent with the registered VCS PD & MR/0/.

Density of furnace oil; Litre/kg; it is the density of furnace oil; the mentioned value of 0.98 Litre/kg is consistent with the registered VCS PD & MR/03/.

GHG Calculations:

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

$$BE_y = EF_{BL} * PP_{J, Y}$$

[16] 091102 Gypsum (europa.eu)

Where,

BE_y = Baseline emissions in year y, tCO2e

EF_{BL} = The annual production specific baseline emission factor = 0.3592 tCO_2e/Cum

$PP_{J,Y}$ = The annual net production of the facility in year

Table no: 10 Total Baseline Emission for the current monitoring period

Monitoring Period	AAC Blocks (m^3)	EF_{BL} (tCO_2e/cum)	Total Baseline Emission (tCO_2e) rounded off value
01-January-2021 to 31-December-2021	101,246	0.3592435	36,371
01-January-2022 to 31-December-2022	96,560		34,688
01-January-2023 to 30-April-2023	48,208		17,318
Total	**246,013 (m^3)**		**88,377 tCO_2e**

Project Emissions

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

1. **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".

The equation being used is: $PE_{EC,y} = \Sigma ECy * EFy * (1+TDLy)$

Where:

$PE_{EC,y}$	-	Project emissions due to electricity consumption in year y, tCO_2/year
EC_y	-	Quantity of electricity consumed by the project emission source j in year y, MWh/year
EF_y	-	Emission factor for electricity generation for source j in year y, tCO_2/MWh
TDL_y	-	Average technical transmission and distribution losses for providing electricity to source j in year y, %

Table No: 11 Total Project Emission from electricity consumption and Biomass Briquette consumption for the current monitoring period

Monitoring Period	Electricity Consumption (EC_y) (MWh/Year) by project (From electricity in project and biomass briquette)	Emission Factor for electricity generation for source J in year y(EF_y) (tCO_2/MWh)	Average technical transmission and distribution losses for providing electricity to project (TDL_y) (%)	Project Emission from electricity consumption within the project boundary ($tCO_2e/Year$) (Rounded off Values)
01-January-2021 to 31-December-2021	797 MWh/Year	0.9613	10%	843 tCO_2e
01-January-2022 to 31-December-2022	615 MWh/Year			651 tCO_2e
01-January-2023 to 30-April-2023	317 MWh/Year			336 tCO_2e
Total	**1,729 MWh**			**1,829 tCO_2e**

2.Project emissions from coal consumption in the boiler for steam generation

Table No: 12 Total Project Emission from fossil fuel (coal) consumption for the current monitoring period

Monitoring Period	Coal consumption year (FC_{FO}) (m^3)	Carbon Emission Factor for coal (EF_{FO}) tCO_2	Net Calorific Value of coal (NCV_{FO}) (TJ/tonn)	Project Emission from electricity consumption within the project boundary
01-January-2021 to 31-December-2021	151	94.6 tCO_2	0.02541	363 tCO_2e
01-January-2022 to 31-December-2022	0			0
01-January-2023 to 30-April-2023	0			0
Total	**151 m^3**			**363 tCO_2e**

Table No: 123 Total Project Emission for the current monitoring period

Monitoring Period	PE due to Coal	PE due to electricity consumption	Total PE
01-January-2021 to 31-December-2021	363 tCO_2e	843 tCO_2e	1,207 tCO_2e
01-January-2022 to 31-December-2022	0 tCO_2e	651 tCO_2e	651 tCO_2e
01-January-2023 to 30-April-2023	0 tCO_2e	336 tCO_2e	336 tCO_2e
Total	**363 tCO_2e**	**1829 tCO_2e**	**2,194 tCO_2e**

Leakage Emission

There are two sources of leakage emission in the project:

a) Leakage emission due to raw material production

b) Leakage emission due to raw material transportation

Leakage emission due to raw material production

Formula used for calculation is as follows:

$LE_{rm,prod,y} = Q_{cement} * EF_{cement} + Q_{lime} * EF_{lime} + Q_{aluminium} * EF_{aluminium}$

$LE_{rm,prod,y}$: Leakage emissions associated with consumption of raw and/or additive materials in the year y

Q_{cement}: Quantity of cement consumed for the production of AAC blocks in the year y

EF_{cement}: CO_2 emission factor of the cement production

Q_{lime}: Quantity of lime consumed for the production of AAC blocks in the year y

EF_{lime}: CO2 emission factor of the lime production

$Q_{aluminium}$: Quantity of Aluminum Powder consumed for the production of AAC blocks in the year y.

$EF_{Aluminium}$: CO2 emission factor of the Aluminium production

Table: 14 Total Leakage from Production & Transportation of raw material for current monitoring period

Vintage Year	Total Leakage from Raw Material used (tCO_2e) production	Total leakage from transportation of raw material (tCO_2e)	Total leakage (tCO_2e) (Rounded off values)

01-January-2021 to 31-December-2021	8351 tCO_2e	508.6tCO_2e	8860 tCO_2e
01-January-2022 to 31-December-2023	8032 tCO_2e	519.7 tCO_2e	8551 tCO_2e
01-January-20234 to 30-April-2023	4172 tCO_2e	247.9 tCO_2e	4419 tCO_2e
Total leakage during current monitoring period (round off)	**20,554 tCO_2e**	**1276 tCO_2e**	**33,317 tCO_2e**

Total Leakage emissions (LEy)= $LE_{rm,prod,y}+LE_{TR,m}$

= 20,554 tCO_2e + 1,276 tCO_2e

= **33,317 tCO_2e** (Rounded Up as per ER Sheet)

The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified.

Hence Net Emission Reduction for current monitoring period is

= BE_y - PE_y – LE_y

= 88,377 tCO_2e - 2,194 tCO_2e -33,317 tCO_2e

= **52,866 tCO_2e**

Table No:15 Net Emission Reduction for the current monitoring 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)
Year 2021 (01-January-2021 to 31-December-2021)	36,371 tCO_2e	1,207 tCO_2e	13,437 tCO_2e	21,727 tCO_2e
Year 2022	34,688 tCO_2e	651 tCO_2e	13,229 tCO_2e	20,808 tCO_2e

(01-January - 2022 to 31 December-2022)				
Year 2023 (01-January - 2023 to 30-April-2023)	17,318 tCO_2e	336 tCO_2e	6,651 tCO_2e	10,331 tCO_2e
Total (01-January - 2021 to 30-April-2023)	**88,377 tCO_2e**	**2,194 tCO_2e**	**33,317 tCO_2e**	**52,866 tCO_2e**

VKU is of the opinion that this method of calculation of emission reductions is accurate and results in conservative estimation of emission reduction and is in line with the applicable VCS requirements set out in section 3.15 of VCS Standard version 4.5/B02/ and that the verification of the GHG statement was conducted in in accordance with ISO 14064-3; 2019).

4.6 Non-Permanence Risk Analysis

Since this is a non-AFOLU projects there is no non-permanence risk that could lead to material errors, omissions or misstatements rating determined by the project proponent for the project activity and no risk was identified in the audit/verification plan hence not applicable.

5 VERIFICATION OPINION

VKU Certification Pvt. Ltd. has performed the third verification for monitoring period 01-January-2021 to 30-April-2023 (inclusive of both start & end date) of the first crediting period from 15-July-2014 to 14-July-2024 (inclusive of both start & end date) for project activity "AAC Blocks Project by Aerocon Build well Pvt. Ltd. (EKIESL-June 2016-02)" with regards to the requirements for VCS activities. As described in the report from section 1 to 4, VKU has performed the entire verification according to the verification criteria for projects and their GHG emission reductions or removals set out in VCS standard Version 4.5/B02/.

Project participant of the "AAC Blocks Project by Aerocon Build well Pvt. Ltd. (EKIESL-June 2016-02)" is responsible for:

- Preparation of greenhouses gas emissions data and the reporting of greenhouse gas emission reductions from the project on the basis set out in the monitoring, contained in the registered VCS joint PD & MR v2, dated: 09-July-2016/03/.
- Development and maintenance of records and reporting procedures in accordance with that plan, including calculation and determination of greenhouse gas emission reductions of the project.
- It is the responsibility of VKU to express an independent verification opinion about the project's conformity with requirements of VCS Standard version 4.5/B02/ and GHG program applied, on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment, VKU can confirm:

- The project has been implemented and operated as per the registered VCS Joint PD & MR /03/.
- The monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Standard version 4.5/B02/ requirements;
- The monitoring is in place as per the applied baseline and monitoring methodology.
- The monitoring plan in the registered VCS Joint PD & MR 02 dated 09-July-2016/03/ is as per the applied baseline and monitoring methodology.

VKU Certification 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. VKU Certification planned and performed the verification by obtaining evidence and other information and explanations that VKU Certification considered necessary to give **Reasonable level of assurance** that reported GHG emission reductions are fairly stated.

It is VKU's opinion, the GHG emission reduction stated in updated the monitoring report for the "AAC Blocks Project by Aerocon Build well Pvt. Ltd. (EKIESL-June 2016-02)" for the period from 01-January-2021 to 30-April-2023 (inclusive of both dates) are fairly stated. The GHG emission reductions are calculated on the basis of approved methodology "AMS III.Z. "Fuel Switch, process improvement and energy efficiency in brick manufacture", Version: 6.0, EB 85 Annex 18 and the monitoring plan included in the registered VCS P&MR v2/03/.

Hence VKU is able to certify that the emission reduction from the project during the current monitoring period from 01-January -2021 to 30-April-2023 (Inclusive of both dates) amounts to **52,866 tCO_2e.**

VKU is an approved ISO 14064-3:2019 accredited Validation/Verification Body the assessment team meticulously followed the prescribed steps outlined in the standard, starting with Strategic Analysis, followed by Risk Assessment and the development of an Evidence Gathering plan. Subsequently, the team diligently executed the planned activities to collect the necessary evidence. To ensure comprehensive evaluation, an Audit plan was prepared, and an Onsite visit was conducted accordingly. Onsite activities were carried out in accordance with the pre-established Evidence Gathering plan. Following the completion of the onsite activities, VKU proceeded with the post-site evaluation, which involved scrutinizing supporting documents, Monitoring Reports (MR), and Emission Reports (ER). The project then underwent Independent Technical review. Adhering to the stipulated requirements, the assessment team formed a positive opinion based on their findings.

Table No: 16 The verification Opinion is stated below-

Opinion	Final Documents	Monitoring Period	Emission Reductions achieved	Remarks
Positive opinion ☒ Negative Opinion ☐	Monitoring Report Version 08, Date: 11-July-2024 Emission Reduction Sheet Version 06, Date: 27-May-2024-January-2024	01-January -2021 to 30-April- 2023 (Inclusive of both the dates)	52,866 tCO_2e	The GHG emission reductions are calculated on the basis of approved methodology AMS III.Z. "Fuel Switch, process improvement and energy efficiency in brick manufacture", Version: 6.0, EB 85 Annex 18/B07/ and the monitoring plan included in the registered VCS Joint PD & MR /03/
Adverse Opinion ☐ Unmodified Opinion ☒ Modified Opinion ☐				

Hence, VKU is able to certify that the emission reduction from the project during the current monitoring period 01-January-2021 to 30-April-2023 (Inclusive of both dates) amounts to **52,866 tCO_2e** assessed in line with the applicable VCS requirements set out in section 3.15 of VCS Standard version 4.5/B02/

Hence the VVB hereby issue a positive and unmodified opinion in accordance with section 09 of ISO 14064-3; 2019 and section 9.7 specifically clause 9.7.1.6 & 9.7.2 of ISO 14065;2020 which is meeting the requirement stipulated under ISO/IEC 17029:2019 section 9.7 with a reasonable level of assurance for the reported GHG emission reduction data which is free from any material misstatement and is sufficiently supported by evidences provided to VVB by PP tabulated in Table No 05 of this report.

The following table show the Net Emission Reduction from 01-January-2021 to 30-April-2023 (Inclusive of both Dates) of first crediting period. Verified GHG emission reductions and removals in the above verification period:

Table No 17: 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)
Year 2021 01-January -2021 to 31–December-2022	36,371	1,207	13,437	21,727
Year 2022 01-January -2022 to 31-December-2022	34,688	651	13,229	20,808
Year 2023 01-January-2023 to 30-April-2023	17,318	336	6,651	10,331
Total 01-January-2021 to 30-April-2023	**88,377 tCO_2e**	**2,194 tCO_2e**	**33,317 tCO_2e**	**52,866 tCO_2e**

Table No: 18 Difference between Ex-ante and achieved emissions

Year	Ex-ante emissions reductions/ removals	Achieved emissions reductions/removals	Percent difference	Justification for the difference
Year 2021 (01-January -2021 to 31-December-2021)	31,332 tCO_2e	21,727 tCO_2e	-30.66 %	Actual emission reduction is approximately 27.55% lower than the estimated and due to less production of AAC blocks and zero production of Fly Ash blocks for the current monitoring period. Assessment Team confirms reason behind that less production and zero production of fly ash is due to market demand as per the interview of responsible person of PP.
Year 2022 (01-January -2022 to 31 December-2022)	31,332 tCO_2e	20,808 tCO_2e	-33.59 %	
Year 2023 (01-January -2023 to 30-April-2023)	10,300 tCO_2e	10,331 tCO_2e	+0.30 %	
Total 01-January -2021 to 30-April-2023)	72,965 tCO_2e	52,866 tCO_2e	12 %	

APPENDIX A: ABBREVIATIONS

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Abbreviations	Full texts
BE	Baseline Emissions
BEF	Baseline Emission Factor
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
EF	Emission Factor
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
MR	Monitoring Report
NA	Not Applicable
OSV	On Site Visit
PAI	Project Activity Instances
PD	Project Description
PP(s)	Project Proponent(s)
QA/QC	Quality Assurance /Quality Check
Ref.	Document Reference
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCU	Verified Carbon Unit
VCS	Verified Carbon Standard
VKU	VKU Certification Ltd.
VVS	Validation and Verification Standard
VVB	Validation and verification body

APPENDIX B: AUDIT FINDINGS

Type			Date	09-June-2023
CL 01			Reference	Section 1
Description of the Non-Conformance				
Sub-Section 1.8 1. Verification Team finds inconsistency in Methodology and Tools versions in the section 1.8 of MR with registered joint PD & MR. PP is requested to clarify that is there any methodology deviation for current monitoring period. 2. PP is requested to provide the NOC at state and Panchayat level.				
1st Response from PP			**Date**	06-July-2023
Sub-Section 1.8 1. No methodology deviation for the current monitoring period. 2. Kindly refer the ref. document no.2 for NOC.				
1st Assessment by Audit Team	**Status**	Open	**Date**	24-July-2023
Sub-Section 1.8 1. MR has been revised to state that no deviation in methodology is sought in current monitoring period. However, the tools mentioned in MR are inconsistent with that mentioned in Registered PD & MR. PP to clarify. Hence, finding is still open. 2. Assessment team finds that NOC (Consent) submitted by the PP is only valid till 15/04/2023 while the Monitoring Period end date is 30/04/2023.PP is required to submit the most current NOC. Hence, finding is still open.				
2nd Response from PP			**Date**	06-Sept-2023
1. PP has updated the MR according to the Registered PD & MR. **2.** PP has to Submitting most current NOC. PP has submitted the revised consent which is valid up to 30.06.2028.				
2nd Assessment by Audit Team	**Status**	Closed	**Date**	10-Jan-2024
1. Assessment team confirms that MR has been updated in accordance with registered PD & MR. Hence, accepted. #Closed. 2. Assessment team confirms PP has submitted the most current NOC which is valid throughout the monitoring period. Hence, accepted. #Closed. **CL#01 Closed**				

Type			Date	09-June-2023
CL 02			Reference	Section 3
Description of the Non-Conformance				
Sub-Section 3.1` 1. As per the site visit & also through interview of Plant Manager, Verification Team could verify, that production of AAC blocks is taking place only in the plant. There was no production facility for manufacturing of fly-ash bricks. PP is requested to provide the complete details and justification on the same by including the date of discontinuation of manufacturing of fly-ash bricks.				
1st Response from PP			**Date**	06-July-2023
Sub-Section 3.1` 1. The production of fly-ash -brick are discontinued since June 2016 because of no demand, the production facility of fly ash brick is now used as scrapyard of rejected AAC block. The appointment of Plant manager was done in 2018 so he is not aware about the fly ash brick production.				
1st Assessment by Audit Team	**Status**	Open	**Date**	24-July-2023
Sub-Section 3.1 In view of discontinuation of manufacturing of Fly Ash Bricks since June 2016, please provide clarification for the following: - a) Why Sections 1 & 3.1 of revised MR are not reflecting current Implementation status of project. b) Why Section 3.2.2 of MR is not including the requirements of VCS Standard 4.4 section 3.20 on "Project Description Deviation". Hence Finding is still open.				
2nd Response from PP			**Date**	06-Sept.-2023
a) Section 1& 3.1 of the revised MR ver 2.0 has been updated according to the current implementation status of the project. In current scenario there is only production of AAC Blocks. b) PP has included the section 3.2.2 Please refer revised MR version 2				
2nd Assessment by Audit Team	**Status**	Closed	**Date**	29-Jan-2024
a) Assessment team confirms required sections have been updated in the revised MR. Hence, accepted. #Closed. b) Assessment team confirms Section 3.2.2 of the MR has been updated to include information on the project description deviation. Hence, accepted. #Closed. **CL#02 Closed**				
Type			**Date**	09-June-2023

CL 03	Reference	Section 4
Description of the Non-Conformance		
Sub-Section 4.2 1. Under section 4.2, the stated values of all listed parameters are not consistent with their respective values in ER sheet and evidences provided. Hence, PP is requested to clarify the same and provide the updated ER sheet, MR along with requisite evidence. 2. PP is requested to clarify that why PP has used assumed value of "specific consumption of electricity" instead of using "Total consumption of electricity" (Measured through Electricity Meter) for calculation.		
1st Response from PP	**Date**	06-July-2023
Sub-Section 4.2 1. Under section 4.2, correction has done. Also update in ER sheet, and the stated values of all listed parameters are consistent with their respective values in ER sheet and evidences please refer document no.7 and 8. **2.** PP has considered actual data of electricity consumption please refer ER sheet.		

1st Assessment by Audit Team	**Status**	Open	**Date**	24-July-2023
Sub-Section 4.2 1. PP has used the actual values of electricity consumption for calculations of emissions reductions in ER sheet however, some values have been found inconsistent in ER sheet which have been highlighted with yellow colour for PP to update and interlink the values in ER sheet. Hence, finding is still open. 2. Assessment team confirms that PP has used actual data for electricity consumption. Hence, finding is closed.				
2nd Response from PP			**Date**	06-Sept-2023
1. Correction has been done and interlink the value request you please refer the revised ER sheet.				

2nd Assessment by Audit Team	**Status**	Closed	**Date**	29-Jan-2024
1. Assessment team confirms PP has updated the ER sheet. Hence, accepted. #Closed. **CL#03 Closed**				

Type	**Date**	09-June-2023
CL 04	**Reference**	Section 5

Description of the Non-Conformance				
Sub-Section 5.2 1. The verification team finds that there is inconsistency in the value of $EC_{PJ,j,y}$ and the project emission ER sheet. Hence, PP is requested to clarify the value of Quantity of electricity consumed by the project emission. 2. The verification team finds that the value of parameter $PE_{EC,y}$ is not consistent with the value mentioned in the PE sheet of ER calculation excel. So, PP is requested to clarify the same. **Sub- Section 5.3** 3. Verification Team, during site visit could not confirm usage of "Furnace oil" as fuel in manufacturing plant. It is not clear, why PP is providing the value of furnace oil in the ER sheet. Please, clarify & submit revised ER and MR. 4. From the plant records it was observed that steam coal was consumed in boiler for year 2020-21, while the registered PD states that no fossil fuel will be consumed in the plant. $PE_{fuel,y}$ is 0. Please clarify and include the same for calculating project emissions. 5. PP is requested to clarify on the consumption of raw materials which is only for 8 Months in year 2022 as per the table 3rd and 4th given in MR under section 5.3. **Sub-Section 5.4** 6. Verification team finds inconsistency in calculation of estimated emission reduction for the current monitoring period as per the registered joint PDMR. Hence, PP is requested to clarify the calculation of estimated emission reduction for the current monitoring period (01-January-2021 to 30-April-2023).				
1st Response from PP			**Date**	06-July-2023
Sub-Section 5.2 1. PP has had consider actual data of electricity consumption. kindly refer ER sheet. Also consider in project emission sheet. 2. PP has had consider actual data of electricity consumption. kindly refer ER sheet. Also consider in project emission sheet. **Sub- Section 5.3** 3. There is no consumption of Furness oil PP has corrected ER sheet and MR. Kindly refer revised MR and ER sheet. 4. PP has included steam coal and its emission in project emission sheet. Kindly refer revised MR and ER sheet. 5. PP has corrected consumption of raw material in section 5.3. kindly, refer revised MR. **Sub-Section 5.4** 6. PP has corrected calculation of estimated emission reduction for the current monitoring period. (01-January-2021 to 30-April-2023).				
1st Assessment by Audit Team	**Status**	Open	**Date**	24-July-2023
Sub-Section 5.2				

1. Assessment team confirms PP has considered actual electricity consumption data. However, there have been some typos which can be eliminated by interlinking the values in ER sheet. PP to update the same. Hence, finding is still open.
2. Assessment team confirms PP has considered actual electricity consumption data. However, there have been some typos which can be eliminated by interlinking the values in ER sheet. PP to update the same. Hence, finding is still open.

Sub- Section 5.3

3. Verification Team finds that Furnace oil is used by the PP as adhesive agent only not used fuel, so there is no emission from project due to the furnace oil. The corresponding ER sheet of given project activity is also revised and verification team finds it correct. Hence, finding is closed.
4. PP has added steam coal and its emissions in project emissions sheet of ER. Hence, finding is closed.
5. Verification Team finds PP added consumption of raw materials in ER sheet. Hence, finding is closed.

Sub-Section 5.4

6. Verification Team finds that the value of estimated ERs for the current monitoring period is not correct as per the registered joint PD&MR. Moreover, PP has not added table in Section 5.4 as per VCS MR template. Hence, finding is still open.

2nd Response from PP	Date	06-Sept.-2023

1. PP has updated the Interlink Electricity Value.
2. PP has updated the Interlink Electricity Value.
6. PP has added table in Section 5.4 as per VCS MR template. Please refer revised MR version 2 Value of estimated ERs has been revised.

2nd Assessment by Audit Team	Status	Closed	Date	29-Jan-2024

1. Assessment team confirms PP has updated the required values. Hence, accepted. #Closed.
2. Assessment team confirms PP has updated the required values. Hence, accepted. #Closed
6. Assessment team confirms that required table has been added in Section 5.4 of updated MR. Value of estimated ERs has also been corrected. Hence, accepted. #Closed.

CL#04 Closed

Type	Date	09-June-2023

CAR 01	Reference	Introductory Table and section 1

Description of the Non-Conformance

Introductory Table

1. PP is requested to update format of “date” as per the filling guidelines of Monitoring Report template, version 4.2.

Content Table

2. Verification Team finds “page numbers” missing from the footer of entire document. So, PP is requested to update the MR.

Sub-section 1.1

3. PP is requested to update the font colour as per “VCS MR Template version 4.2”. Also update the same in entire MR.
4. Verification team finds that there is inconsistency between MR version 01 for current monitoring period and registered joint PD&MR in the estimated ERs value over the crediting period of 10 years. PP is requested to update the Total estimated ERs value.
5. Verification Team finds that there is inconsistency in names of VVB as verified from registered joint Validation & Verification Report and registered verification report for second monitoring period. And same for current monitoring period. PP is requested to update the VVB names.

Sub-Section 1.2

6. PP is requested to mention the sectoral scope number as per the guidelines MR template version 4.2.

7. PP is requested to also mention that whether the project is AFOLU or not as per the filling guideline of MR template version 4.2.

Sub-Section 1.3

8. PP is requested to update the font size and font colour as per the filling guideline of MR template version 4.2 in each table of entire MR version 01.

Sub-Section 1.10

9. PP is requested to provide the No Declaration form for not having GHG credits claimed under other environmental credits.
10. PP is requested to mention point third "Supply chain (scope 3) Emission. If the point is not applicable for project PP needs to give justification as per the filling guidelines of MR template version 4.2.

Sub-Section 1.11

11. PP is requested to provide details and records of total numbers of employees and workers.
12. PP is requested to fill all column of table 1 as per the filling guidelines of MR template 4.2. No section should be left blank.
13. Verification team finds that the “Flow chart” of production process of AAC Blocks is not consistent with the existing facility. PP is requested to update the same.

1st Response from PP	Date	06-July-2023

Introductory Table

1. PP has updated format of “date” as per the filling guidelines of Monitoring Report template, version 4.2. Hence, accepted. #Closed

Content Table

2. PP has updated the page numbers in the footer of entire document. Please refer revised MR.

Sub-section 1.1

3. PP has updated the font colour as per “VCS MR Template version 4.2”. Also update in entire MR. Kindly refer revised MR.
4. PP has corrected that inconsistency between MR version 01 for current monitoring period and registered joint PD&MR in the estimated ERs value over the crediting period of 10 years. Also updated the Total estimated ERs value. Request you please refer revised ER sheet.
5. PP has corrected that inconsistency in names of VVB as verified from registered joint Validation & Verification Report and registered verification report for second monitoring period. And same for current monitoring period. PP also updated the VVB names. Please Refer Revised MR.

Sub-Section 1.2

6. PP has mentioned the sectoral scope number as per the guidelines MR template version 4.2. Kindly refer revised MR.
7. PP has mention that project is AFOLU or not as per the filling guideline of MR template version 4.2. Kindly refer revised MR.

Sub-Section 1.3

8. PP has corrected and update the font size and font colour as per the filling guideline of MR template version 4.2 in each table of entire MR version 01. Request you please refer revised MR.

Sub-Section 1.10

9. Declaration form by PP for not having GHG credits claimed under other environmental credits is provided kindly refer the document no.1 for the same.
10. PP has to mention point third "Supply chain (scope 3) Emission. As per the template 4.2 requirement kindly refer to revised MR.

Sub-Section 1.11

11. Total numbers of employees and workers list is provided kindly refer the document no.6 for the same.
12. PP has filled all column of table 1 as per the filling guidelines of MR template 4.2. No section is left blank.
13. PP has updated “Flow chart” of production process of AAC Blocks it is consistent with the existing facility. Kindly refer revised MR.

1st Assessment by Audit Team	Status	Open	Date	24-July-2023

Introductory Table

1. Format of "date", in revised MR is now as per "filling guidelines of Monitoring Report template, version 4.2". However, version & revision date of MR has not been revised. Additionally, font size used in "Introductory table is not as per guidelines i.e. Arial or Century Gothic 10.5 point, black, regular (non-italic). Hence, finding is still open.

Content Table

2. Content table is not indexed properly. Project details is on page no 6, similarly other section's page numbers are also not correctly mentioned in the content table. Hence, finding is still open.

Sub-section 1.1

3. Font colour is not updated in the revised MR and it is not in compliance with VCS MR template v4.2. Hence, finding is still open.
4. Value of average estimated emission reduction, over 10 years crediting period has been corrected and now is in compliance with the registered joint VCS PD&MR version2, dated; 9-July-2016. Hence, finding is closed.
5. VVB Names have been updated in section 1.1 of revised MR. This is now aligned as per the registered VCS joint validation and verification report and previous consecutive verification reports for the given project activity. Hence, finding is closed

Sub-Section 1.2

6. Scope number is included in the section 1.2. of revised MR. It is confirmed that included number of sectoral scopes "4" is correct as per registered joint PD & MR version 2 dated: 9-July- 2016. Hence, finding is closed.
7. PP has appropriately stated that given project activity is not AFOLU, and also not a grouped project activity in revised MR. Hence, finding is closed.

Sub-Section 1.3

8. Font size and font colour are as per the filling guideline of MR template version 4.2 in each table of revised MR. Hence, finding is closed.

Sub-Section 1.10

9. PP has submitted a document in which it is confirmed, that there would not be any double counting for the said project & it will be only claiming VER benefits under VCS Mechanism. Hence, finding is closed.
10. PP has added supply chain (scope 3) emissions description in revised MR. Verification Team finds that the project activity does not consider the sales of manufactured finished products and emission involved with it, are outside the project boundary. Hence finding is closed

Sub-Section 1.11

11. Attendance sheet of month April is submitted by PP listing 79 employees. But in the revised MR, section 1.11 is found to be inconsistent. Revised MR is not as per the VCS MR template v4.2. Hence, finding is still open.
12. Correction done in the table of Sustainable Development Contributions. Only SDG 13 is considered by the PP. This conforms to VCS MR template V4.2 and VCS standard v4.4. However, PP to remove "filling instructions" from table. Hence, finding is still open.

13. PP has corrected the flow chart of production process of AAC blocks & updated flow chart is now consistent with the on-site facility n. Hence, finding is closed.

2nd Response from PP	Date	06-Sept.-2023
1. Correction has been done. Please refer revised MR version 2. 2. Now Content table is indexed properly and page numbers have been added. 3. Font colour is updated in the revised MR. 11. Correction has been done. Please refer revised MR version 2. 12. Filling Instructions have been removed.		

2nd Assessment by Audit Team	Status	Closed	Date	29-Jan-2024
1. Assessment team confirms required corrections have been done. Hence, accepted. #Closed 2. Assessment team confirms that content table is indexed properly and all page numbers are showing. Hence, accepted. #Closed. 3. Assessment team confirms that font color has been updated in the revised MR. Hence, accepted. #Closed. 11. Assessment team confirms correction has been done. Hence, accepted. #Closed. 12. Assessment team confirms “filling instructions” have been removed. Hence, accepted. #Closed. **CAR#01 Closed**				

Type	Date	09-June-2023
CAR 02	Reference	Section 4
Description of the Non-Conformance		
Sub-Section 4.2 1. PP is requested to provide the Monthly records of sales Invoices, gross production of AAC blocks (size vise), fly ash bricks and raw material consumption. 2. In section 4.2 no value is mentioned for parameter “Compressive strength of AAC Blocks and Bricks”. Please provide and ensure that all monitored parameters have respective values in this section and should match with ER sheet. **Sub-Section 4.3** 3. Verification Team finds the sentences are futuristic. Meanwhile project is in verification period. So, PP is requested to update the same. 4. Verification team finds that there is repetition of heading quality of the product hence, PP is requested to update the section 4.3 in MR. 5. Verification team finds that the line is futuristic. Hence, PP is requested to clarify if any trainings were held or not?		

1st Response from PP	Date	06-July-2023

Sub-Section 4.2

1. Only AAC block has been manufactured in the current this monitoring period and document for the same has been provided kindly refer document no. 3.
2. Section 4.2 has corrected and all monitored parameters have respective values in this section and should match with ER sheet. For parameter "Compressive strength of AAC Blocks" refer document no.7.

Sub-Section 4.3

3. PP has been updated section. Kindly refer revised MR.
4. PP has updated section.
5. Section has updated kindly refer revised MR. Further evidence please refer document no.9 & 10

1st Assessment by Audit Team	Status	Open	Date	24-July-2023

Sub-Section 4.2

On review of revised MR, ER sheet, documents, Production data following issues have surfaced. Hence, finding is still open.

1. In VCS ER sheet "Consumption & Production Data" & Leakages
   a. Column "AC" is showing quantity of Rubbles. It is not clear what this material is & how it qualifies as a "brick", defined in methodology AMS III Z. Additionally why its quantity is included for calculating baselines emissions.
   b. Calculation Method for parameter $P_{PJ,y}$ "Production = (Number of Blocks/ Bricks) x Standard Volume" is not followed to arrive at Total production in a Month/year
   c. PP has submitted the monthly records of sales Invoices but assessment team is not able to match the data of invoices to that of ER sheet. PP is required to mention quantity of sales of blocks size wise also, as provided in the invoices.
   d. In VCS ER Sheet "Leakages" how the number of trips & Distances have been recorded for each raw material. No records/ evidence have been submitted to verify these values.
2. The compressive strength mentioned in the MR is only for year 2022.Please include values for the years 2020-2021 in MR. Hence, finding is still open.

Sub-Section 4.3

3. PP has corrected all the futuristic sentences in the revised MR. Hence finding is closed
4. Repetition of heading "quality of the product" is now corrected in the revised MR. Hence, finding is closed.
5. PP has corrected the futuristic sentence as typo mistake. in the revised MR as per the filling guidelines of VCS templated v4.2. PP has provided photograph of training, and documents pertaining to fire and safety as evidence. Hence, finding is closed.
6. In VCS ER Sheet "Leakages" how the number of trips & Distances have been recorded for each raw material. No records/ evidence are submitted to verify these values. Hence, finding is still open.

2nd Response from PP			Date	06-Sept.-2023
1. a) Column AC is removed entire calculation sheet PP has removed. b) No. of Blocks is added in ER sheet. c) PP has submitted sales invoice as a supporting document. d) PP has to revised ER sheet and address the trip and distance. Please refer revised ER sheet. 2. PP will submit the record also mention in MR Appendix 6 and will add separate work sheet in ER sheet. Request you please refer revised MR version 2 & Revised ER sheet. 6. PP has to revised ER sheet and address the trip and distance. Please refer revised ER sheet				
2nd Assessment by Audit Team	Status	Closed	Date	29-Jan-2024
1. a) Column "AC" showing quantity of rubbles has been removed. b) Number of blocks are link with cubic meter please refer revised ER Sheet. c) Sales invoice has been submitted. d) PP has revised the ER sheet with Map & Online source Travel Distance. Also shared a transport bilty for truck capacity reference and No. of trips. Hence, accepted. #Closed. 2.Assessment team confirms PP has submitted the record and revised MR and ER sheet as per requirement. Hence, accepted. #Closed. 6. PP has Revised the ER sheet w.r.t. trips and distance. Hence, accepted. #Closed. **CAR#02 Closed**				

Type	Date	24-July-2023
CAR 03	Reference	Section 4
Description of the Non-Conformance		
Sub-Section 4.1 1. In the revised MR, PP has changed the Emission Factor value of Light vehicles and Heavy vehicles in comparison to the ex-ante values fixed in registered joint PD&MR. Please clarify and give a source reference for these values. 2. PP has to tabulate the quantity of raw material for each year respectively and link all values in ER- "Purchase book record"		

1st Response from PP			Date	06-Sept.-2023
1. Correction has been Done. 2. PP has linked the value of purchase book record.				
1st Assessment by Audit Team	Status	Closed	Date	10-Jan-2024
1. PP has revised the Emission factors Emission Factor value of Light vehicles and Heavy vehicles in comparison to the ex-ante values fixed in registered joint PD&MR. Hence, accepted. #Closed. 2. In ER Sheet, PP has linked all values for the Purchase Book Record sheet. Hence, accepted. #Closed. **CAR#03 Closed**				

Type	Date	25-January-2024
CAR #04	Reference	Section A
Description of the Non-Conformance		
Section 1.1 1. PP has not provided the present production process? Whether AAC blocks or some other product? **Section 2.2** 2. PP has not provided specific information regarding location of "Grievance Register" within the plant and under whose custody? **Section 4.3** 3. PP has mentioned that "There is no sampling method approached used on the project site during the monitoring period". The given statement is not inline with the registered Monitoring Plan. **Section 5.1** 4. It is found that baseline emission value in table for period 01/06/2021 to 30/06/2021 and for 01/09/2021 to 30/09/2021 are not correct and not consistent with the ER sheet. **ER Sheet** 5. a. In sheet of Assumption (Column H), PD has not provided the correct dimension of a block. b. In Sale Record Sheet, 10" cum and 5" cum is shown twice. c. In Test Record sheet, PP has not mentioned the unit of values.		
1st Response from PP	Date	29-January-2024

Section 1.1

1. PP has provided present production process of AAC Block Request you please refer Revised MR.

Section 2.2

1. The Grievance Register is placed at the Security Gate under the custody of the head of security.

Section 4.3

2. PP has mansion correct sampling plan and in line with the registered Monitoring Plan. Correction has been done request you please refer revised MR.

Section 5.1

4. Correction has been done please refer revised MR.

ER Sheet

5.a. It is typo error correction has been done request you please refer revised ER Sheet.

b. It is typo error correction has been done request you please refer revised ER Sheet.

c. The given values are in Kg/Cm^2. The same has been updated in the revised ER sheet.

1st Assessment by Audit Team	Status	Closed	Date	29-January-2024

Section 1.1

1. It is confirmed that PP has provided the details of present production process of AAC blocks in revised MR and it found to be correct. Hence, finding is closed.

Section 2.2

2. As per onsite inspection it is confirmed that Grievance Register is placed at the Security Gate under the custody of the head of security and the same has been updated in revised MR. Hence finding is closed.

Section 4.3

3. It is found that there is typo error which has been updated in the revised MR. It is confirmed, PP has provided the details of sampling plan in given section 4.3 and it's correct and also in compliance with the registered joint PD & MR.

Section 5.1

4. It is confirmed that now values for given period has been corrected by PP in revised MR and updated values are consistent with ER and found correct. Hence finding is closed.

ER Sheet

5. For both point a and b, there was typo errors which has been corrected in revised MR. Hence finding is closed. c. PP has provided the units of values in Test Record sheet which is kg/cm^2 in revised ER sheet and it is correct. Hence, finding is closed. **CAR#04 Closed**

Type	**Date**	24-May-2024
CAR#05	**Reference**	PRR Sheet/AT
Description of the Non-Conformance		
1 **In Section 2.1 of MR:** i) PP has not demonstrated adequately, the potential socioeconomic and environmental risks associated with project activity. ii) PP has not Discussed about the usage of raw materials some of which are obtained through mining. 2 **In Section 2.2 of MR:** PP has not elaborated the grievance redress procedure. 3 **In Section 4.3 of MR:** PP has not provided information on any sampling activities carried out during this monitoring period.		
1st Response from PP	**Date**	27-May-2024
1 **In Section 2.1 of MR:** i) The potential socioeconomic and environmental risks associated with project activity is incorporated in section. ii) The project is not obtaining any raw materials from direct from mining; hence, it is not in the scope of PP and the same is incorporated in section. 2 **In Section 2.2 of MR:** A grievance redress procedure is incorporated in section. 3 **In Section 4.3 of MR:** The project activity has in house testing facility and during the current monitoring period more than 7,588 samples are used for testing to check performance requirements and specifications of AAC blocks and all the samples found good. The same is incorporated in section and the supporting documents for testing is also provided with the responses.		

1st Assessment by Audit Team	**Status**	Closed	**Date**	30-May-2024
1 **For Section 2.1 of MR:** i) PP has demonstrated adequately, the potential socioeconomic and environmental risks associated with project activity, as verified by the AT Team. ii) PP has not Discussed about the usage of raw materials some of which are obtained through mining. 2 **For Section 2.2 of MR:** PP has elaborated the grievance redress procedure, as verified by the assessment team. 3 **For Section 4.3 of MR:** PP has provided information on sampling activities carried out during this monitoring period. more than 7,588 samples are used for testing to check performance requirements and specifications of AAC blocks and all the samples found good, AT has verified the same and found correct.				

CAR#05 Closed

Type		Date	24-May-2024
CAR#06		Reference	PRR Sheet/AT
Description of the Non-Conformance			
1 **In Section 5.1 of MR:** The value of baseline emission factor in Section 5.1 of the monitoring report has been inconsistently stated compared to the value reported in Section 4.1 and applied in the GHG ERR spreadsheet. 2 **In Section 5.2 of MR:** Quantity of coal fired in the boiler ($FC_{i,j,y}$)- PP has considered a value of 151 tonnes of coal that was burnt in the boiler during the current monitoring period, however, no information has been included on how this parameter was monitored. 3 **In Section 5.4 of MR** The actual achieved emission reduction is approximately 22% higher than the ex-ante estimated value in year 2023. However, the PP has not provided sufficient justification for the same.			
1st Response from PP		**Date**	27-May-2024
1 **In Section 5.1 of MR:** The value of baseline emission factor is updated now it is consistent with all the sections of monitoring report and ERR spreadsheet. 2 **In Section 5.2 of MR:** Quantity of coal fired in the boiler ($FC_{i,j,y}$) is 151 tonnes and this is a monitored parameter hence, the information of the same is added in section 4.2 Data and Parameters Monitored. 3 **In Section 5.4 of MR:** There was an error in calculation (In Leakage emission) and after the correction in calculation the percentage difference 0.30 % which is tolerable difference.			
1st Assessment by Audit Team	**Status**	Closed	**Date**	30-May-2024
1 **For Section 5.1 of MR:** The value of baseline emission factor in Section 5.1 of the monitoring report has been revised and now consistent with the value reported in Section 4.1 and applied in the GHG ERR spreadsheet. 2 **For Section 5.2 of MR:** Quantity of coal fired in the boiler ($FC_{i,j,y}$)- is a measured parameter for accounting the project emissions. PP has included a parameter for the same in section 4.2 through a deviation requested in section 3.2.2 of MR. 3 **For Section 5.4 of MR** The Validation and Verification Body (VVB) has verified that an error in the conversion of CO2 emissions from grams per ton-kilometer to kilograms per ton-kilometer has been rectified. This correction resulted in an adjustment to the actual achieved emission reduction, which is now approximately 0.30%. **CAR#06 Closed**			

Type		Date	24-May-2024
CAR#07		Reference	PRR Sheet/AT

Description of the Non-Conformance
1. **In ER Sheet (Assumption):** Specific GHG emission in gypsum production- a value of 0.01 t CO2/ton gypsum has been considered in the 'ER_sheet', however, this parameter is not included in the data/parameters monitored under section 4.2 of MR. 2. **In ER Sheet (Leakage Emissions):** Average roundtrip distance for transportation of – a. Gypsum-1268 km/trip b. Coal-312 km/trip c. Biomass briquettes- 566 km/trip All 3 parameters related to transportation have also not been included in Section 4.2 of MR. 3. **In ER Sheet (Project Emissions):** Quantity of coal fired in the boiler ($FC_{i,j,y}$)- PP has considered a value of 151 tonnes of coal that was burnt in the boiler during the current monitoring period, however, no information has been included on how this parameter was monitored. 4. **In ER Sheet (Assumptions):** Specific GHG emission from biofuel-a value of 0.04923 t CO2e has been used, however it is not clear what this emission factor relates to. Moreover, as per registered PD, the raw material for briquettes is claimed to be agricultural residues, however, in the ER sheet, PP mentions the briquettes as bio-coal briquettes.

1st Response from PP	Date	27-May-2024
1 **In ER Sheet (Assumption):** The parameter Specific GHG emission in gypsum production is a monitored parameter hence incorporated in section 4.2. 2 All the mentioned parameters are monitored parameter hence incorporated in section 4.2. 3 Quantity of coal fired in the boiler ($FC_{i,j,y}$) is 151 tonnes and this is a monitored parameter hence, the information of the same is added in section 4.2. 4 A value of 0.04923 tCO2e/t biomass briquettes is related to Specific GHG emission from biomass briquettes production means hence the information is updated in MR and ERR sheet. Biomass briquettes are a biofuel substitute made of biodegradable green waste, like agricultural residues, with lower emissions of greenhouse gases and carbon dioxide than traditional fuel sources. The biomass briquettes and bio-coal briquettes are the same, so the coal briquettes word is removed to avoid confusion.				

1st Assessment by Audit Team	Status	Closed	Date	30-May-2024
1. **For ER Sheet (Assumption):** A value of 0.01 t CO2/ton gypsum has been considered in the 'ER_sheet'. This parameter is now included in the data/parameters monitored under Section 4.1 of the Monitoring Report (MR) through a deviation requested by the Project Participant (PP) under Section 3.2.2 of the revised MR Version 06, as verified by the AT Team. 2. **For ER Sheet (Leakage Emissions):** Average roundtrip distance for transportation of – a. Gypsum-1268 km/trip b. Coal-312 km/trip c. Biomass briquettes- 566 km/trip These three parameters related to transportation have been included in Section 4.2 of the MR through a deviation requested by PP under Section 3.2.2 of the revised MR Version 06,				

as verified by the AT Team.

3. **For ER Sheet (Project Emissions):** During the current monitoring period, 151 tonnes of coal were used in the boiler for steam generation in emergency cases due to the non-availability of biomass briquettes. Consequently, PP has included a parameter (Qcoal) to measure the quantity of coal used in the current monitoring period in Section 4.2 of the MR Version 06. This inclusion was made through a deviation requested by PP under Section 3.2.2 of the revised MR Version 06, as verified by the AT Team.
4. **For ER Sheet (Assumptions):** A value of 0.04923 t CO2e has been used as the specific GHG emission from production of biomass briquettes. This parameter is used to calculate emission from briquettes production and has been included in Section 4.1 of the MR through a deviation requested by PP under Section 3.2.2 of the revised MR Version 06, as verified by the AT team.

CAR#07 Closed

Type		**Date**	03-June-2024
CAR#08		**Reference**	PRR Sheet/TR
Description of the Non-Conformance			
1 **In section 2.1 of MR**: Under health and safety in section 2.1 of the MR, PPE is not mentioned which is mandated by Health Measures and Safety Provisions in Factories Act, 1948. 2 **In section 2.2 of MR**: In the MR, it states that the organisation acknowledges the receipt of the complaint. However, the authorised person or designated person within the organisation is not mentioned who handles grievance and resolves it. The institutional framework for the same is not elaborated. 3 **In section 4.1 of MR**: the source from where the values are taken is not of Indian origin			
1st Response from PP		**Date**	03-June-2024
1 **In section 2.1 of MR**: The information of PPE kit distribution and its frequency is incorporated in the section. 2 **In section 2.2 of MR**: In the information of authorised person who is responsible for grievance is incorporated in the section. 3 **In section 4.1 of MR**: The Indian source is not available for the value hence it is not referred. Whenever local source is not available IPPC data is used as a source but whenever IPPC data is also not available DEFRA is used as a source hence DEFRA data is used.			
1st Assessment by Audit Team	**Status**	Closed	**Date**	04-June-2024
1 **In section 2.1 of MR**: Under health and safety in section 2.1 of the MR, PPE has mentioned about the safety equipment's provided by PP to workers & employees and they are align with the factories act 1948.				

2 **In section 2.2 of MR**: MR has been revied by PP, the authorised person or designated person within the organisation is now mentioned who handles grievance and resolves it. 3 **In section 4.1 of MR**: PP has provided sufficient justification for choice of data and it was acceptable. CAR#08 Closed.

Type	**Date**	03-July-2024
CAR#09	**Reference**	PRR Sheet
Description of the Non-Conformance		
In section 4.1 of MR: 1 The source document for parameter **$EF_{Biomass\ briquettes}$** used as reference for establishing default emission factor for biomass briquettes production is not for plants operating in India. 2 The source document for parameter **EF_{gypsum}** used as reference for establishing default emission factor for gypsum production is for plants operating in EU. Moreover, the document mentions that "these values are based on the values of best performing plants in the UK in the middle of the decade."		
1st Response from PP	**Date**	11-July-2024
In section 4.1 of MR: 1. Host country, India, has no standards for such emission factors, and so PP has checked the value for international sources like IPCC, but international sources have no value for the carbon emission factor of biomass briquette production; hence, the DEFRA value has been used for calculation, which is an authentication source. 2. Host country, India, has no standards for such emission factors, and so PP has checked with other Indian sources but got some study which has the value 0.0037. As a conservation approach, a 0.01 value is used. Also, PP has checked international sources like IPCC, but international sources have no value for the carbon emission factor of gypsum production; hence, the Sector report for the gypsum industry has been used, which is an authentication source.		

1st Assessment by Audit Team	**Status**	Closed	**Date**	15-July-2024
1. In the absence of India specific standard values or calculations available for the Specific emission factor of gypsum, PP has used the value 0.01 tCO2e/Tonne. PP has further provided a database "India Construction Materials Database of Embodied Energy and Global Warming Potential" which states value of 0.0037 tCO2e/Tonne, this data base is prepared for International Finance Corporation (IFC) in partnership with the European Union. According to the methodology, when local or national data is unavailable, IPCC values should be used. However, the IPCC does not provide any specific values for the emission factor of gypsum. VVB confirm that the usage of 0.01 tCO2e/Tonne is the most conservative approach for calculation of leakage emissions in comparison to 0.0037 tCO2e/Tonne.				

2. As the host country for the project activity is India, there are no specific standard values or calculations for the emission factor of biomass briquettes. According to the methodology, when local or national data is unavailable, IPCC values should be used. PP has checked the IPCC records and was unable to find any specific values for the emission factor of biomass briquettes. Therefore, a value of 0.04923 tCO2e/Tonne from the Department for Environment, Food and Rural Affairs (DEFRA) has been considered for this parameter due to the lack of reliable national and international data. VVB has further cross-checked above value with a study "Greenhouse gas emissions from Agriculture Food Production to supply Indian Diets: Implications for Climate change Mitigation" Table 1 and could confirm that above value is most conservative for calculation of leakage emissions. Table 1 of the report indicates GHG emission factors for major crops in India viz wheat 0.34KgCO2e/Kg, Pulses 0.75 KgCO2e/Kg, Rice 5.65 kgCO2/Kg, Oil seeds 0.54 KgCO2e/Kg. Hence the value used by PP is higher than the Indian specific values for most of the crops hence a conservative approach has been followed. by PP. The measuring source for Qcoal and Qgypsum is the weighbridge. Quantities are recorded daily in plant records and aggregated on a monthly basis. The quantity of material consumed is cross-checked with purchase bills and production data. This information reflects the ground scenario of the project activity and is reported in the revised Monitoring Report (MR).
CAR#09 Closed.

~~Type~~			~~Date~~	
~~FAR~~			~~Reference~~	
~~Description of the Non-Conformance~~				
~~1st Response from PP~~			~~Date~~	
~~1st Assessment by Audit Team~~	~~Status~~	~~Open/Closed~~	~~Date~~	

APPENDIX C: COMPETENCE STATEMENTS

Assessment Team-

Team Leader and Technical Expert T.A.4.1

Certification Pvt. Ltd. VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Sunil Kathuria
Nationality	Indian
Countries of Experience	Malaysia, Uganda, Kenya, South Africa, Nigeria Bangladesh, China, Vietnam, Thailand, Philippines, United Kingdom, Germany, USA
Education Qualification	B.E. (Electrical Power)
Year of Experience	40 Years
Area of Expertise	Climate Change & Environment Energy Generation / Distribution GHG Footprints Manufacturing Sector
Eligible Sectoral Scope	TA 1.1 - Thermal energy generation TA 1.2 - Renewables TA 2.1 - Energy distribution TA 3.1 - Energy Demand (General & Cook Stove) TA 4.1 - Cement and lime production (Manufacturing Industries)

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (1.1, 1.2, 2.1, 3.1, 4.1)	YES
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	13/05/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	13/05/2023

Validator/Verifier:

Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Deepali Sharma
Nationality	Indian
Countries of Experience	India, Zimbabwe, Madagascar, Mozambique
Education Qualification	M.Sc in Environmental Sciences
Year of Experience	03 Years +
Area of Expertise	Climate Change &Environment / Industry
Eligible Sectoral Scope	TA 1.2 - Energy generation from renewable energy sources TA 3.1. Energy demand (General)

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	NO
Local Expert (Country Wise)	YES
TA Expert (1.2 & 3.1)	YES
Financial Expert	NO

Reviewed by	Apoorva Gupta (Quality Manager)	Date	19/10/2023
Approved by	Barun Kumar (Technical Manager)	Date	19/10/2023

Validator/Verifier-Trainee:

Certification Pvt. Ltd. VKU.F.50W. Competence Statement

COMPETENCE STATEMENT

Name	Aastha Verma
Nationality	Indian
Countries of Experience	India
Education Qualification	B.Sc. (Zoology Hons.) M.Sc. (Environmental Science)
Year of Experience	1 year
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	NA

Roles

Project Trainee	NO
Validator/Verifier Trainee	YES
Validator	NO
Verifier	NO
Team Leader	NO
Technical Reviewer	NO
Local Expert (Country Wise)	NO
TA Expert (X.X)	NO
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	19/05/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	19/05/2023

Project Trainee:

Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Anil Dhankar
Nationality	Indian
Countries of Experience	India
Education Qualification	B.Sc. (BCZ) M.Sc. (Environmental Science)
Year of Experience	NA, Fresher
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	NA

Roles

Project Trainee	YES
Validator/Verifier Trainee	NO
Validator	NO
Verifier	NO
Team Leader	NO
Technical Reviewer	NO
Local Expert (Country Wise)	NO
TA Expert (X.X)	NO
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	06/12/2022
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	06/12/2022

Technical Reviewer's Team –

Technical Reviewer:

Certification Pvt. Ltd. VKU.F.50W. Competence Statement

COMPETENCE STATEMENT

Name	Sanjay Kumar K
Nationality	Indian
Countries of Experience	India
Education Qualification	B.E. (Civil Engineering) M. Tech (Environmental Engineering)
Year of Experience	20 Years +
Area of Expertise	Climate Change & Environment Sustainable Development GHG Footprints
Eligible Sectoral Scope	TA 1.2 - Renewables TA 3.1 - Energy Demand TA 6.1 - Construction

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (1.2, 3.1, 6.1)	YES
Financial Expert	YES

Reviewed by	Vandana Gupta (Quality Manager)	Date	03.03.2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	03.03.2023

Technical Expert to the Technical Reviewer T.A.4.1:

Certification Pvt. Ltd. VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Rakesh Chouhan
Nationality	India
Countries of Experience	India
Education Qualification	M. Tech- Energy Management B. E. - Chemical Engineering
Year of Experience	17 Years
Area of Expertise	Climate Change & Environment / Industry
Eligible Sectoral Scope	1. GHG emission reductions from fuel combustion

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (1.1, 1.2, 4.1)	YES
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	25/02/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	25/02/2023