

Annexure – B to the Directors' Report

Annual Report on CSR Activities

1. A brief outline of the Company's CSR Policy

The Company has framed the Corporate Social Responsibility (CSR) policy in compliance with the provisions of the Companies Act, 2013. The CSR policy enumerating the CSR Activities / projects / programmes undertaken / to be undertaken by the Company is in accordance with the Schedule VII of the Companies Act, 2013.

Policy of the Company: The CSR Policy is posted the Company's website at <https://www.sanghicement.com/wp-content/uploads/Corporate-Social-Responsibility-Policy.pdf>

2. Composition of CSR Committee

Sr. No	Sr. Name of Director	Designation/Nature of Directorship of CSR committee Number of meetings	Number of meetings of CSR committee held during the tenure	Number of CSR Committee meetings attended during the year
1	Mr. Ravi Kapoor	Chairman, Independent Director	2	2
2	Mr. Sudhir Nanavati	Member, Independent Director	2	1
3	Ms. Shruti Shah	Member, Independent Director	2	2
4	Mr. Ajay Kapur	Member, Non-Executive Non-Independent Director	2	2

3. Web-link where Composition of CSR committee, CSR Policy and CSR projects approved by the board are disclosed on the website of the Company.

<https://www.sanghicement.com/wp-content/uploads/Corporate-Social-Responsibility-Policy.pdf>

4. Details of the executive summary alongwith web-link(s) of Impact assessment of CSR projects carried out in pursuance of sub-rule (3) of rule 8 of the Companies (Corporate Social responsibility Policy) Rules, 2014, if applicable.

Not applicable

5. 1. (a) Average net profit of the Company as per Section 135 (5)

(₹ in crore)

Particulars
(239.18)

(b) Two percent of average net profit of the Company as per Section 135(5)

(₹ in crore)

Particulars
NIL

(c) Surplus arising out of the CSR projects or programmes or activities of the previous financial years.

Nil

(d) Amount required to be set off for the financial year, if any.

Nil

(e) Total CSR obligation for the financial year (5b+5c-5d).

Nil

6. (a) Amount spent on CSR Projects (both Ongoing Project and other than Ongoing Project): Nil

(b) Amount spent in Administrative Overheads : Nil

(c) Amount spent on Impact Assessment, if applicable : N.A.

(d) Total amount spent for the Financial Year [(a)+(b)+(c)]: Nil

(e) CSR amount spent or unspent for the Financial Year:

Total Amount Spent for the Financial Year (₹ in crore)	Amount Unspent (₹ in crore)				
	Total Amount transferred to Unspent CSR Account as per Section 135(6)		Amount transferred to any fund specified under Schedule VII as per second proviso to Section 135(5)		
	Amount	Date of transfer	Name of the Fund	Amount Transfer	Date
N.A.					

(f) Excess amount for set off, if any

Sr. No. Particular	Amount (in ₹ in crore)
1. Two percent of average net profit of the Company as per Section 135(5)	Nil
2. Total amount spent for the Financial Year	-
3. Excess amount spent for the financial year [(2)-(1)]	-
4. Surplus arising out of the CSR projects or programmes or activities of the previous financial years, if any	-
5. Amount available for set off in succeeding financial years [(3)-(4)]	-

7. Details of Unspent CSR amount for the preceding three financial years:

Sr. No.	Preceding Financial Year(s)	Amount transferred to Unspent CSR Account under sub-section (6) of Section 135	Balance Amount in Unspent CSR Account under sub-section (6) of Section 135	Amount spent in the Financial Year (in ₹)	Amount transferred to a fund as specified under Schedule VII as per second proviso to sub-section (5) of Section 135, if any	Amount remaining to be spent in succeeding financial year (in ₹)	Deficiency, if any	1	2	3	4	5	6	7	8
								Amount (in ₹)	Date of transfer						
1.	FY 2023-24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.							
2.	FY 2022-23	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.							
3.	FY 2021-22	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.							
	Total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.							

8. Whether any capital assets have been created or acquired through Corporate Social Responsibility amount spent in the Financial Year:

No

If yes, enter the number of Capital assets created/acquired

Not Applicable

Furnish the details relating to such asset(s) so created or acquired through Corporate Social Responsibility amount spent in the Financial Year:

Sr. No.	Short particulars of the property or asset(s) [including complete address and location of the property]	Pincode of the property or asset(s)	Date of creation	Amount of CSR amount spent	Details of entity/ Authority/ beneficiary of the registered owner		
					(1)	(2)	(3)
					CSR Registration Number, if applicable	Name	Registered address
					Not Applicable		

9. Specify the reason(s), if the Company has failed to spend two per cent of the average net profit as per Section 135(5).

Not Applicable

For and on behalf of Board of Directors

Place: Ahmedabad
Date: April 28, 2025

Ravi Kapoor
Chairman – CSR Committee
(DIN: 00003847)

Ajay Kapur
Chairman
(DIN: 03096416)

Annexure – C to the Directors' Report

Form No. MR-3

SECRETARIAL AUDIT REPORT

FOR THE FINANCIAL YEAR ENDED ON MARCH 31, 2025

[Pursuant to section 204(1) of the Companies Act, 2013 and Rule 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To,
The Members,
SANGHI INDUSTRIES LIMITED
CIN: L18209GJ1985PLC157787
Adani Corporate House, Shantigram,
Near Vaishnodevi Circle, S.G. Highway,
Khodiyar, Daskroi, Ahmedabad - 382421,
Gujarat, India.

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **SANGHI INDUSTRIES LIMITED** (hereinafter called the Company). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives whether electronically or otherwise during the conduct of secretarial audit; we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on March 31, 2025 generally complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company for the financial year ended on March 31, 2025 and made available to us, according to the provisions of:

- i. The Companies Act, 2013 (the Act) and the Rules made there under;
- ii. The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the Rules made there under;
- iii. The Depositories Act, 1996 and the Regulations and Bye-laws framed there under;

- iv. Foreign Exchange Management Act, 1999 and the Rules and Regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings- Not applicable to the extent of Overseas Direct Investment and External Commercial Borrowings as there were no reportable events during the financial year under review;
- v. The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):
 - (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
 - (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
 - (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018- Not applicable during the year under review;
 - (d) The Securities and Exchange Board of India (Share Based Employee Benefits and Sweat Equity) Regulations, 2021- Not applicable during the year under review;
 - (e) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act, 2013 and dealing with client;
 - (f) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2021- Not applicable during the year under review;
 - (g) The Securities and Exchange Board of India (Buy Back of Securities) Regulations, 2018 - Not applicable during the year under review;
 - (h) The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015;

- (i) The Securities and Exchange Board of India (Issue and Listing of Non-Convertible Securities) Regulations, 2021 - As there is no fresh issue of any Listed Non-Convertible security during the year, the said provisions are not applicable in the reporting year.

We have also examined compliance with the applicable Standards/Clauses/Regulations of the following:

- i. Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI) and made effective from time to time.
- ii. The Uniform Listing Agreement entered into by the Company with National Stock Exchange of India Limited (NSE) and BSE Limited (BSE).

During the Audit period under review, the Company has generally complied with provisions of the applicable Act, Rules, Regulations, Guidelines, Standards etc. as mentioned above.

Having regard to the Compliance system prevailing in the Company and on examination of Compliance Certificate(s) issued by Whole time Director & CEO/ respective functional heads and taken on record by the Board of Directors at their meeting(s), we are of the opinion that the Company has adequate systems and processes commensurate with its size and operations, to monitor and ensure compliance with following laws specifically applicable to the Company being engaged in the Cement Industry:

1. The Atomic Energy Act, 1962 read with Atomic Energy (Radiation Protection) Rules, 2004;
2. Indian Boiler Act, 1923 read with Gujarat Boiler Rules, 1966;
3. The Petroleum Act, 1934;
4. Mines Act, 1952;
5. The Mines and Mineral (Development and Regulations) Amendment Act, 2015;
6. Mineral Conservation and Development (Amendment) Rules, 2016;
7. Explosive Rules, 2008;
8. Ammonium Nitrate Rules, 2012;
9. Mineral (Auction) Rules, 2015;
10. The Minerals (Evidence of Mineral Contents) Rules, 2015;

- 11. Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008;
- 12. Bio-Medical Waste (Manufacturing and Handling) Rules, 2008.

We further report that:

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors and Independent Directors including Woman Independent Director. There were no changes in the composition of the Board.

Adequate notice is given to all Directors to schedule the Board Meetings and Committee Meetings, agenda and detailed notes on agenda were sent at least seven days in advance. Further, Independent Director(s) were present at Board Meetings which were called at a shorter notice to transact business which were considered urgent by the management in compliance of Section 173(3) of the Act. A system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

Decisions at the meetings of Board of Directors and Committees of the Company were carried unanimously. We were informed that there were no dissenting views of the members on any of the matters during the year that were required to be captured and recorded as part of the minutes.

We further report that:

The compliance by the Company of the applicable financial laws like Direct and Indirect Tax laws, has not been reviewed in this Audit since the same have been subject to the review by the Statutory Auditors and other designated professionals.

We further report that:

During the Audit period under review:

- 1) The Company has received approval from shareholders by way of passing required resolutions through postal ballot on June 2, 2024 for:
 - a. Sub-division of Preference shares of face value of ₹ 100/- each into face value of ₹ 10/- each and increase in the Authorized Share Capital and alteration of the Capital Clause of Memorandum of Association of the Company. Consequently, the authorized share capital has been changed to ₹ 2550,00,00,000/- (Rupees Two Thousand

Five Hundred Fifty Crores Only) divided into 35,00,00,000 (Thirty-Five Crores) equity shares of ₹ 10/- (Rupees Ten Only) each and 220,00,00,000 (Two Hundred and Twenty Crores) Preference Shares of ₹ 10/- (Rupees Ten Only) each.

- b. Raising of funds by issue of up to 220,00,00,000 Non-Convertible Cumulative Redeemable Preference Shares of ₹ 10/- each on Private Placement basis to Ambuja Cements Limited, Holding Company.
- 2) In compliance with the requirement of Rule 19(2)(b) and 19(A) of Securities Contracts (Regulation) Rules, 1957 and Regulation 38 of SEBI (Listing Obligations and Disclosures Requirements) Regulations, 2015 read with Section VI-A of the SEBI Circular No. SEBI/HO/CFD/PoD2/CIR/P/ 2023/120 dated July 11, 2023 ("Master Circular") the Company was required to comply with the provisions of Minimum Public Shareholding (MPS) within period of 12 months from 7th February 2024.

In order to achieve the MPS, Ambuja Cements Limited and Mr. Ravi Sanghi ("Sellers" / "Promoters") have sold 60,92,000 Equity Shares and 30,00,000 Equity Shares, respectively, aggregating to 90,92,000 Equity Shares (representing 3.52% of the total issued and paid-up Equity Share capital of the Company) through offer for sale through stock exchange mechanism in the month of June, 2024.

Accordingly, the shareholding of the Promoters and Promoter Group entities in the Company has reduced from 78.52% to 75.00% of the issued and paid-up Equity Share capital of the Company.

- 3) Pursuant to the approval granted by the Shareholders through Postal Ballot on June 2, 2024, the Finance Committee of the Board of Directors of the Company had made total allotment of 220,00,00,000 – 8% Non-Convertible Cumulative Redeemable Preference Shares of ₹ 10/- each aggregating to ₹ 2200 Crore in five tranches.
- 4) Pursuant to the approval granted by the Shareholders through Postal Ballot on October 25, 2024, S R B C & Co. LLP, Chartered Accountants were appointed as Statutory Auditors of the Company to fill casual vacancy caused due to

resignation of the existing Statutory Auditors S K Mehta & Co., Chartered Accountants.

- 5) The Board of Directors of the Company at its meeting held on December 17, 2024, has approved the Scheme of Arrangement between Sanghi Industries Limited ("Transferor Company") and Ambuja Cements Limited ("Transferee Company") and their respective shareholders (herein after referred to as "Scheme") pursuant to Sections 230 to 232 and other applicable provisions of the Companies Act, 2013 ("Act"). The Scheme, inter alia, provides for the amalgamation of the Transferor Company with the Transferee Company with appointed date as 01-04-2024.
- 6) The members of the Company at the Extra Ordinary General Meeting held on April 1, 2023 had approved alteration of clause II of Memorandum of Association of the Company (MOA) so as to shift the Registered Office (RO) from the State of Telangana to the State of Gujarat subject to the regulatory approvals. The Company has received the approval from Regional Director (SER), Hyderabad vide Order dated December 13, 2024, received on December 18, 2024, approved the alteration of Clause II of MOA from the State of Telangana to the State of Gujarat. The Registrar of Companies, Gujarat has issued Certificate of Registration of Regional Director order for Change of State under Section 13 (5) of the Companies Act, 2013 on January 10, 2025.

For Parikh Dave & Associates

Company Secretaries

Umesh G. Parikh

Practicing Company Secretary

Partner

ICSI Unique Code No.: P2006GJ009900

Peer review Certificate No.: 6576/2025

Place: Ahmedabad

FCS NO. 4152 C.P. NO. 2413

Date: April 28, 2025

UDIN: F004152G000213999

Notes:

1. This report is to be read with our letter of even date which is annexed as **Annexure – A** and forms an integral part of this report.

Annexure - A

To,

The Members,

SANGHI INDUSTRIES LIMITED

CIN: L18209GJ1985PLC157787

Adani Corporate House, Shantigram,
Near Vaishnodevi Circle, S.G. Highway,
Khodiyar, Daskroi, Ahmedabad - 382421,
Gujarat, India.

Our report of even date is to be read along with this letter.

1. Maintenance of secretarial records is the responsibility of the management of the company. Our responsibility is to express an opinion on these secretarial records based on our audit.
2. We have followed the audit practices and process as were appropriate to obtain responsible assurance about the correctness of the contents of Secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the process and practices followed by us provide a reasonable basis for our opinion.
3. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the company.
4. Wherever required, we have obtained the management representation about the compliance of laws, rules and regulations and happening of events etc.
5. The Compliance of the provision of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to verification of procedure on test basis.
6. The Secretarial Audit Report is neither an assurance as to the future viability of the company nor the efficacy or effectiveness with which the management has conducted the affairs of the company.

For Parikh Dave & Associates
Company Secretaries

Umesh G. Parikh
Practicing Company Secretary
Partner
ICSI Unique Code No.: P2006GJ009900
Peer review Certificate No.: 6576/2025
FCS NO. 4152 C.P. NO. 2413
UDIN: F004152G000213999

Place: Ahmedabad
Date: April 28, 2025

Annexure – D to the Directors' Report

Information pursuant to Section 197 of the Companies Act, 2013 read with Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014

i) The ratio of the remuneration of each Director to the median remuneration of the employees of the Company for the FY 2024-25 and the percentage increase in remuneration of each Director, Chief Financial Officer, Chief Executive Officer, Company Secretary in the FY 2024-25:

Name of Directors/KMP	Ratio of remuneration to median remuneration of employees	% increase in remuneration in the financial year
Executive Directors:		
Mr. Sukuru Ramarao*	N.A.	N.A.
Non-Executive Directors:		
Mr. Ajay Kapur*	N.A.	N.A.
Mr. Vinod Bahety*	N.A.	N.A.
Independent Directors:		
Mr. Sudhir Nanavati**	0.98	N.A.
Ms. Shruti Shah**	1.58	N.A.
Mr. Ravi Kapoor**	1.51	N.A.
Key Managerial Personnel:		
Mr. Sukuru Ramarao, CEO*	N.A.	N.A.
Mr. Sanjay Kumar Khajanchi, CFO*	N.A.	N.A.
Mr. Anil Agrawal, CS**	3.31	N.A.

* After the acquisition of the Company by Ambuja Cements Limited in December 2023 and change in management, the Executive Director & CEO i.e. Mr. Sukuru Ramarao, Non Executive Directors, Mr. Ajay Kapur, Mr. Vinod Bahety and Mr. Sanjay Kumar Khajanchi, CFO are not drawing any remuneration from the Company. They are getting their remuneration within Adani portfolio of companies.

** Due to change in management from December 2023, the remuneration paid to Independent Directors and Company Secretary are not comparable and percentage increase in remuneration is therefore not provided.

ii) The percentage increase in the median remuneration of employees in the financial year:

Nil

After the acquisition of the Company by Ambuja Cements Limited, in December 2023, due to Ongoing Talent Development Initiative within Adani portfolio of companies, many of the employees are internally transferred within the group during the year and therefore the remuneration paid to employees are not comparable with the previous year.

iii) The number of permanent employees on the rolls of Company as on March 31, 2025:

256 employees

iv) Average percentile increase already made in the salaries of employees other than the managerial personnel in the last financial year and its comparison with the percentile increase in the managerial remuneration and justification thereof and point out if there are any exceptional circumstances for increase in the managerial remuneration:

- Average increase in remuneration of employees excluding KMPs: Nil
- Average increase in remuneration of KMPs: Nil

Please refer the notes mentioned in point (i) and (ii) above.

v) Key parameters for any variable component of remuneration received by the Directors:

- Executive Directors: Nomination and Remuneration Committee determines the variable compensation (annual based) on their individual and organisation performance.
- Non-Executive Directors – Not applicable.

vi) Affirmation that the remuneration is as per the Remuneration Policy of the Company:

The Company affirms remuneration is as per the Remuneration Policy of the Company.

For and on behalf of the Board of Directors

Ajay Kapur

Chairman

DIN: 03096416

Place: Ahmedabad

Date: April 28, 2025

Annexure – E to the Directors' Report

Conservation of Energy, Technology Absorption and Foreign Exchange Earnings and Outgo

Information as required under Section 134(3)(m) of the Companies Act, 2013 read with rule 8(3) of the Companies (Accounts) Rules, 2014 are set out as under:

(a) Conservation of Energy

CU - Clinker unit, CU-1 - Clinker unit-1, CU-2 - Clinker unit-2, GU - Grinding unit, TPP - Thermal Power Plant

(i) The steps taken or impact on conservation of energy:

- **All Locations:** Process optimisation in Clinker and Cement plant as far as concern to quality & energy.
- **All Locations:** Optimisation of compressors by arresting air leakages & loading & unloading pressures.
- **All Locations:** Optimisation of Bag filters by adjusting the inlet damper without affecting the operation & dust emission.
- **All Locations:** Bag house bags replacement and reconditioning of ESPs for reducing pressure drop and energy saving.
- **All Locations:** Optimisation of Bag filters purging air by installation of DP transmitter
- **All Locations:** Minimise the false air across Preheaters, Raw mill & Coal mills in Clinker unit.
- **All Locations:** Installation of LED lights in place of conventional lights in different locations in plant.
- **All Locations:** Installation of LED lights in place of conventional lights in plant, colonies, street lights etc.
- **All Locations:** To avoid the idle running of transport equipment of additive, Limestone & coal circuits.
- **CU-1** Coal mill-2 feed chute modification done to reduce reject, increase TPH & save power.
- **CU-1** Raw Coal Feeder replaced by modified rotary air lock to increase coal mill efficiency & reduce power
- **CU-1** Installation of rotary air lock at raw mill cyclone discharge to restrict false air and save power
- **CU-2** Raw Mill Bag house running in DP mode to reduced air consumption & filter bag life enhanced.
- **CU-2** Raw Mill Bag house installation of modified purging pipes and nozzles
- **CU-2** Preheater down comer duct 5 no's expansion joint changed to reduce specific heat and power.
- **CU-2** New refractory installed with increased thickness (refractory thickness increased from 220 mm to 250 mm) which reduce shell radiation and improve heat losses.
- **CU-2** Additive weigh feeder hopper discharge chute modified which minimised jamming problem and improved material flow-ability.
- **CU-2** Both 4th stage cyclone new dip-tube installed which reduces return dust loss and reduces Specific heat.
- **CU-2** Alkali Bag house running in DP mode to reduce air consumption and improve filter bag life.

- **CU-2** Coal mill Dam-ring height increased by 20 mm which reduced mill vibration.
- **CU-2** Coal mill auto start and auto stop logic created to avoid idle running which reduces specific power consumption.
- **CU-2** Coal feeding system auto stop logic with minimum current to avoid idle running.
- **CU-2** SS liner installed in additive chutes which reduced jamming frequency.
- **CU-2** SS liner installed in Raw Mill Inlet chute which reduced jamming frequency and increased availability of Mill.
- **CU-2** Alkali dust handling Dumper Carrier body modified to reduce dust emission
- **CU-2** CLT extraction auto logic created for sequential gate opening to avoid heaping inside silo and reduces quality variation.
- **CU-2** CLT circuit, belt conveyor replaced with diverting gate to improve operational efficiency.
- **CU-2** Raw Mill section all 06 rollers sealing arrangement modified to reduce false air ingress.
- **CU-2** Raw Mill circuit, 332 BC-3 belt skirt extended near chute area to reduce dust emission.
- **CU-2** RMH circuit, 121 BC-5 belt discharge chute angle changed to reduce frequent chute jamming tendency.
- **CU-2** RMH circuit, 232 BC-3 belt discharge chute angle changed to reduce frequent chute jamming tendency.
- **CU-2** Two additional air blaster installed in ABC inlet to reduce snowman formation tendency.
- **CU-2** Cooler hydraulic room exhaust fan installed to reduce room temperature and ambient air recirculation.
- **CU-2** Liquid AFR system additional 2 firing point installed at calciner to improve firing efficiency.
- **CU-2** Alkali bag house circuit, DCS logic interlock provided to stop the rotary air lock when the load of corresponding chain conveyor increases. This avoid material spillage and overload tripping of circuit and save energy.
- **CU-2** Cooler ESP circuit, DCS logic interlock provided to stop the rotary air lock when the load of corresponding chain conveyor increases. This avoid material spillage and overload tripping of circuit.
- **CU-2** Kiln outlet Tip-casting refractory application modified to enhance refractory life.
- **CU-1** Up-gradation of Cooler ESP to maintain dust emission norms.
- **CU-1** Up-gradation of Bag house to maintain dust emission norms.
- **CU-2** Modification in the purging system of Raw Mill Line 2 bag house to enhance the collection efficiency.
- **CU-2** Installation of metallic expansion joint in preheater down comer duct to reduce in false air ingress and reduction in power consumption of fan.
- **CU-2** CLT area 2 nos. 37 KW Bag filter fans were running continuously after stopping of DPC. Optimisation done in the same circuit.
- **TPP-1** APH tubes cleaning & replacement done to avoid false air in the circuit.
- **TPP-1** ESP area heavy leakages arrested to avoid false air in the circuit & reduce load of ID fan.
- **TPP-1** ESP retrofitting to be improve the dust collection.
- **TPP-1** condenser cleaning to improve the condenser efficiency.

(a) Conservation of Energy

- **TPP-1** Cooling tower retrofitting to improve the cooling performance and increasing the turbine efficiency.
- **TPP-1** coalfeeder replacement to avoid the breakdown and improve the availability.
- **TPP-2** APH tube replacement for improving the boiler efficiency (2 to 3%).
- **TPP-2** Flue gas duct bellows replacement to reducing air ingress. Improve the boiler efficiency and reduce the auxiliary power consumption.
- **TPP-2** coal feeder replacement to avoid the breakdown and improve the availability.
- **GU** Packing plant under rated motors power connection changed from delta to star to save power.
- **GU** Minimise idle running of the equipment and there by conserving the energy in cement manufacturing process.
- **GU** Clinker factor reduction increased usage of fly-ash in manufacturing of PPC.
- **QC** Increased use of Dry Fly Ash in PPC to reduce Clinker factor.
- **QC** Increased production of PPC and Blended Cement to reduce CO₂ emission.
- **CU-II** Conda nozzle purging system replaced with IFJN type purging system at Raw mill baghouse.
- **CU-II** Conda nozzle purging systems replaced with IFJN at Coal Mill baghouse.
- **Mines** OLBC belt replacement & making operational on feed from all 03 nos. samsun feeder at a time
- **CU-II** Limestone reclaimer -II harrow drive arrangement modified in to VFD driven arrangement.
- **CU-I** Preheater 3,4,5th cyclone diptube replacement to reduce sp. heat consumption.
- **CU-II** Clinker cooler all grate plates replacement & major repairing work.

(ii) The Steps taken by the Company for utilising alternate source of energy:

- Obtained regular permission for co processing of different types of hazardous & non-hazardous waste in fifth three categories under Hazardous & Other Waste (Management & Trans-boundary Movement) Rules.

(iii) The capital investment on energy conservation equipments:

Nil

(b) Technology Absorption

(i) The efforts made towards technology absorption:

- The MIS Cell & Energy Steering Committee is working on energy accounting and conservation programme by handling issues associated with it.
- The Company strives to implement latest technologies for energy efficiency, alternative resources & minimise adverse impact on environment.
- The regular energy audit is carried out by the third party to identify the area for improvement.
- Participation in National / International seminar.

(ii) The benefits derived like product improvement, cost reduction, product development or import substitution

Product improvement, cost reduction, product development & import substitution.

(iii) In case of imported technology (imported during the last three years reckoned from the beginning of the financial year):	State of the art technology
a) The details of technology imported;	N.A.
b) The year of import;	N.A.
c) Whether the technology been fully absorbed;	N.A.
d) If not fully absorbed, areas where absorption has not taken place, and the reasons thereof;	N.A.
(c) Research and Development	
(i) Specific areas in which R&D carried out by the Company	<ul style="list-style-type: none"> ■ Safety enhancement ■ Improvement in existing production process ■ Energy conservation. ■ Pollution Control ■ Alternative Fuel and Raw Material ■ Water conservation ■ Improvement in slump retention of OPC ■ Use of TPP fly ash & bed ash in raw mix. ■ Alternative of Laterite.
(ii) Benefits derived as result of the above R&D	<ul style="list-style-type: none"> ■ All Locations Reduction in specific water consumption. ■ QC Slump retention improved ■ QC Proper Disposal of waste and conservation of Natural resources ■ CU Clinker quality improvement by raw mix optimisation. ■ CU Reduction in specific clay consumption. ■ CU Improvement in clinker factor by adding high ash coal. ■ CU Development of rain water harvesting reservoir. ■ Mines Installation of Lighting Transformers (Power supply midpoint zero 110-0-110) in lighting system to enhance the electrical safety. ■ CU-2 Raw mill Feeding Belt 332BC2 & BC3 Permanent Magnet Fixed to reduced frequently operation of Diverter and reduced mill stoppages. ■ CU-2 Earthing provided at all Flange of coal conveying lines to Prevent short circuit and fire in Coal mill area. ■ GU Enhance fly ash addition in PPC. ■ GU Conversion of weigh feeder DC motors to AC motors to ease maintenance & avoid breakdown. ■ TPP-1 Replacement of sonic soot blowers with steam soot blowers to reduce APH chocking. ■ TPP-1 Remnant life assessment of L1 boiler. Testing of all pressure parts of boiler for healthy and safe operation.

(c) Research and Development**(iii) Future Plan of Action**

- **All Locations** – 220 KV Overhead line renovation jobs to avoid Blackout.
- **All Locations** – Relay coordination of CU, GU & TPP to avoid blackout.
- **Mines** overhead line to replace with overhead cable to avoid unwanted stoppage in monsoon.
- **Mines** Installation of high mast towers 08 nos. in Mines pit to improve the illumination.
- **CU-1** Up gradation of main PLC with advance version to avoid unwanted stoppages.
- **CU-1** Replacement of Pond Ash by using waste material of Iron Industries i.e. iron sludge & iron oxide in Raw Mix.
- **CU-1** Replacement of DC motor to AC motor at raw mill hopper.
- **CU-1** Reduction in transmission line losses by replacement of old phase conductor.
- **CU-1** Process fans SPRS to replace with MV drive to increase the power saving.
- **CU-1** Replacement of high efficiency fans in place of conventional fans for plant process fans.
- **CU-1** Conventional motors to be replaced with high efficiency motors.
- **CU-1** Pre-heater across false air to be reduced by 10%.
- **CU-1** Raw mill & Coal mill across false air to be reduced by 15%.
- **CU-2** Upgradation of cooling system in drive room to avoid unwanted stoppages.
- **CU-2** Upgradation of plant Analyser for better analysis of gases.
- **CU-2** Upgradation of cooling system in drive room to avoid unwanted stoppages.
- **CU-2** Modification of trenches cable trays in Bag house & Preheater areas to avoid unwanted stoppages.
- **CU-2** Preheater 4th stages seameted type dip-tube replacement to reduce Sp. Heat consumption.
- **CU-2** Kiln inlet sector plate replacement work to reduce spillage of material at kiln inlet.
- **CU-2** Linking Clinker loading terminal (CLT) weighment with SAP through RFID.
- **GU** Reduction in clinker factor in PPC by 1%.
- **GU** Up-gradation of clinker feeding circuit.
- **GU** Separation of fine clinker before feeding to HRP to improve the reliability.
- **GU** Installation of VFD in Compressor to save power.
- **GU** Removal of 02 Belt conveyors by chute to improve reliability.
- **TPP** – 01 Cooling tower structure replacement with FRP to improve the cooling efficiency and reduce the power consumption.
- **TPP** – 01 HP Heater 1 Internal tube repair work to improve turbine efficiency and reduce the Plant heat rate.
- **TPP** – 01 ESP collecting and emitting electrodes. Roof plate, both side plates, inlet, outlet ducts and hoppers replacement to meet GPCB emission norms as well as reduced the ID fan load.
- **TPP** – 01 Boiler furnace PA air nozzle cap repair work to reduce PA flow and improve fluidisation as well as better control the O2 level and improve the boiler efficiency.

(c) Research and Development

- **TPP** – 01 Bed ash conveying pipe and bend with cast basalt repair work to avoid the dust emission.
- **TPP** – 01 ACW pipe line replacement work to increase the ACW pump discharge pressure and increase the cooling efficiency.
- **TPP** – 01 Provision of purging air line from PA discharge after APH for Boiler all Coal feeder RAV to Reduce the compressed air and power consumption.
- **TPP** – 01 Woodward Upgradation Job to better control of operation parameters and increase the performance.
- **TPP** – 02 Boiler ID fan common suction duct bellow replacement to avoid the air ingress.
- **TPP** – Upgradation of Woodward sensitivity system for both TPP to avoid black- out.
- **TPP** – Upgradation of DCS system to avoid unwanted stoppages.
- **QC** CBA (Cross belt analyser) in LS belt conveyor to minimise the Lime stone quality deviation.
- **QC** Plan to procure new XRF for betterment of quality of clinker.
- **QC** Moisture analyser to be procured to enhance the precision of moisture calculation.
- **QC** Plan to procure new auto sampler for Kiln-2 to get the representative sample of clinker.

(iv) Expenditure on R&D

₹ 20.42 lakhs

Foreign Exchange Earnings & Outgo:

During the year under review, Foreign Exchange Earnings was NIL and Outgo was ₹ 16.01 crore.