

Ref: ACL/EMD/24-25/09

Date: 27.09.2024

Environmental Engineer,
(Regional Office)
Punjab Pollution Control Board,
Room no. 401 E-403 E, 406 E, IIIrd Floor,
District Administrative Complex
Bathinda.

Sub: Environmental Statement Report for the year 2023-2024

Sir,


Please find enclosed Environmental Statement Report for the year **2023-2024** along with duly filled Form V.

Hope you will find the same in order.

Thanking you.

Yours faithfully,

For Ambuja Cements Ltd.
(Unit-Bathinda)


(Sh. Amit Kumar Dixit)
(Head Environment)

✓ CC: SE office – PPCB, Bathinda

Ambuja Cements Limited
Near GNDTP Malout Road
Bathinda 151 002
Punjab, India
Ph +91 164 2273 484 Ext 6202, 6442

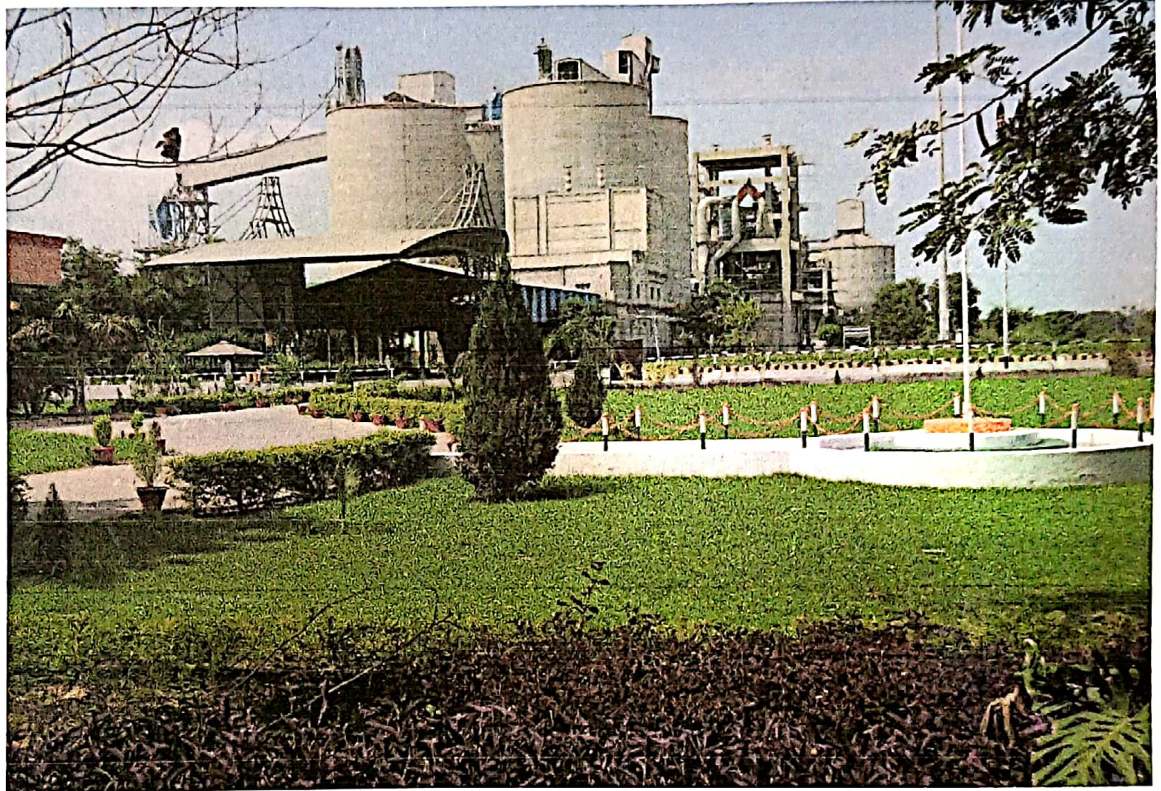
CIN: L26942GJ1981PLC004717

Registered Office:
Adani Corporate House
Shantigram, Near Valshnodevi Circle
SG Highway, Khodiyar, Ahmedabad 382 421
Gujarat, India
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Environmental Statement

(2023 - 2024)



AMBUJA CEMENTS LIMITED.
(Unit – Bathinda)
P.O. GNDTP, Malout Road, Bathinda,
Punjab– 151002

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AMBUJA CEMENT

1. INTRODUCTION

Ambuja Cements Ltd, a leading cement company, started operations in 1986. In this period of 35 years, it has set new benchmarks in every aspect of cement business from cement quality, environment and health & safety to power consumption.

"Ambuja Cement" commissioned its modern cement plant (Grinding Unit) at Bathinda, Punjab in the year 2001 with production capacity of 0.91 million tonnes per annum.

Keeping in view our philosophy of '**sustainable development**', we from the outset, are utilizing fly ash in our Bathinda Unit, which is a waste material of thermal power plants and a major air pollutant and a challenge to the environment and health of the population.

In our drive to give world-class products to public, every bag of **Ambuja Cement** is made with the utmost care and commitment. Stringent tests are conducted at every stage of the manufacturing process from the choice of the raw material to the finished product so that the customers get the best quality product with consistency and reliability. Ambuja Cement is ideal for the hot and humid weather conditions so typical of our country. Our product is certified to ISI Standards with IS:269-1989(33 grade), IS: 8112-1989 (43 grade), IS: 12269-87 (53 grade) for OPC and IS: 1489 (part 1) – 91 for PPC.

Punjab Pollution Control Board has granted us the Consent to Operate under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and Authorization for collection, storage and disposal of hazardous waste under Hazardous Waste (Management & Handling) Rules. **All consents has been renewed and are valid upto March 2024.**

Ambuja Cements Limited is committed to better environment, health & safety. To control air pollution we have installed the best available and modern Bag Filters. Particulate matter collected through Bag Filters is automatically recycled to the process. Regular monitoring of Stack Emission and Ambient Air Quality is being done to know the status of environmental pollution. Emission from Bag Filters is maintained at the level of 30mg/NM³. **CPCB/USEPA recommended high quality PTFE bags are used to keep the emission levels well below the prescribed limit of 30mg/NM³.** We have a fully equipped laboratory for in-house testing and analysis of Air samples (Ambient & Stack), water quality of Sewage Treatment Plant. For online monitoring of ambient air, company has installed a **Continuous Ambient Air Quality Monitoring Station (CAAQMS)** in Jan 2012. We also have installed **Continuous Emission monitoring system (CEMS) in our main process stacks and submitting real-time online data to CPCB/PPCB regularly.** To further minimize the environmental impacts, Raw material & goods are also transported through railway siding, existing within plant premises.

Water is a precious natural resource. For water conservation & water pollution abatement, we have installed one Sewage Water Reclamation Plant. Sewage generated from residential colony is properly treated and the treated water is used in horticulture. Biological sludge generated from

AMBUJA CEMENT

Sewage Water Reclamation Plant is dried and then used as manure by our Horticulture department for plantation.

In lieu of our philosophy of sustainable development, fly ash, a serious pollutant and waste of thermal power plants is being utilized by our unit as a raw material for cement manufacturing process. On one hand, we are reusing waste material and hence, conserving natural resources like limestone and coal, on other hand helping to solve the problem associated with disposal of fly ash. The utilization of fly ash of thermal power plants helps to reduce air pollution and also to lessen the requirement of land for the disposal of fly ash.

Ambuja Cements Limited, Bathinda is certified for Quality Management System (ISO 9001:2015), Environment Management System (ISO 14001:2015), Occupational Health and Safety Management System (ISO 45001: 2018) & Energy Management System (ISO 50001) by DNV (Det Norske Veritas).

We proudly say that we are committed to Better Quality, Environment and Health & Safety and will continue to follow this commitment.

On 12th July 2014, Shri Parkash Singh Badal, Chief Minister, Punjab
Awarded Partner Excellence Award to Ambuja Cement, Bathinda



Energise Involve Enable



On January 26, 2014, Deputy Chief Minister of Punjab, Shri Sukhveer Singh Badal Awarded Ambuja Cement Foundation for remarkable social & environmental welfare work in Bathinda



Energise Involve Enable

2. OBJECTIVE

Cement sector is considered to be a vital sector for the national economy. But it's also true that the cement industry is one of the major air polluting industries as identified under the 29 categories of heavily polluting industries requiring clearance from Central Government as per the notification of May, 1994. The notification of March 13, 1992 of the Ministry of Environment and Forests, Govt. of India, states that any industry requiring consent under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 or Air (Prevention and Control of Pollution) Act, 1981 or both or under Hazardous waste (Management and Handling) Rules, 1989 shall submit an "Environmental Statement Report" for the financial year ending 31st March in the specified Form "V" to the concerned State Pollution Control Board on or before the 30th September every year.

The objective & benefits of this report are:

- To evaluate the performance of process and pollution control systems;
- To identify the areas where further attention is required for better environmental management;
- To identify the areas of waste minimization and abatement measures thereof;
- To create Environmental Awareness;
- To explore the maximum possibility of recycling and recovery;
- To have a sound data base on environment;

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- To help in developing culture for self environmental assessment;
- To comply with laws and regulations, company's policy and various applicable standards;

3. SOURCES OF POLLUTION

The dust is generated from various unit operations in cement grinding unit at several locations e.g.

- Clinker Storage and transportation
 - Fly ash storage and transportation.
 - Gypsum unloading and transportation.
 - Conveying of raw materials.
 - Cement Grinding.
 - Cement Storage.
 - Packing of Cement.

4. ENVIRONMENT PERFORMANCE ANALYSIS

Stacks attached to various APCE's are monitored regularly by iso-kinetic sampling and Ambient Air Quality Monitoring is also being carried out at different monitoring locations on regular basis. The results of Stack emission and Ambient Air Quality obtained by in-house monitoring are submitted on monthly basis to Regional office, Punjab Pollution Control Board (PPCB), Bathinda and Head Office, PPCB, Patiala. All the emissions are well below the prescribed limit.

Environmental Performance Data for Stack emission, Ambient Air Quality and Sewage Water Reclamation Plant is shown in Tables 1, 2, & 3 respectively.

5. PLANTATION

At Ambuja Cement, plantation is an integral part of our activities for environmental protection. This helps us in providing an additional aesthetic look in and around our works including our residential areas. We have started plantation in various sectors since the inception of the project.

6. ENVIRONMENT MANAGEMENT SYSTEM

Bathinda Unit of Ambuja Cement Ltd. has been certified by DNV (*Det Norske Veritas*) Limited, with the latest version of Management System Certifications (**Quality Management System, Environment Management System, Energy Management System and Occupational Health & Safety Management Systems**) for the implementation of all these systems in its plant operation activity after the illustration of company's commitment for continual improvement and compliance to all the Legal and other requirements of the systems.

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APPLICATION FOR SUBMITTING ENVIRONMENTAL STATEMENT

[FORM-V]

(See Rule 14)

[PART-A]

Environmental Statement / Audit report for the financial year ending the 31st March 2024.

i) Name and address of the owner/occupier the industry, operation or process

**Ambuja Cements Ltd, of
Near G.N.D.T.P.,
Malout Road, Bathinda
(Punjab).**

ii) Date of the last environmental audit report Submitted.

14th September 2023

[PART-B]

Water and Raw Material Consumption

1). Water consumption m³/d (Total water in wmr)

Process	N.A
Cooling	5.80M ³ /Day
Domestic	187.8M ³ /Day (including township)

Name of products	Water consumption per unit of products	
	during the previous financial year	during the current financial year
Cement	106lt/ton	91lt/ton

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2). Raw Material Consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of output (per ton)	
		During the previous financial year(2022-23)	During the current financial year (2023-24)
Clinker	Cement	0.574	0.574
Gypsum		0.084	0.083
Fly ash		0.341	0.342

[PART-C]

Pollution Generated

(Parameters as specified in the consent issued)

Pollutants	Quantity of Pollution generated	Percentage of variation from prescribed standards with reasons
a. Water	Not applicable	No effluent is being generated from plant as cement manufacturing process is Dry Process
Sewage Treatment plant is running in good condition and the treated water is being utilized in horticulture activities.		

Sewage Water Quality Analysis Report (April 2023 to March 2024)

(Yearly Average Values)

Parameters	Results	
	Inlet	Outlet
pH	8.4	7.4
TSS	284	52
COD	310	59
BOD	140	24

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b. Air

Stack Emission Monitoring Values (April 2023 to March 2024)

(Yearly Average Values)

Name of Stack	Particulate Matter (mg/NM ³)
Cement Mill Stack	20.2
Cement Mill O-Sepa Stack	18.9
Cement Mill Hopper Stack	19.7
Clinker Tippler Stack	17.5
Packing Plant - I Stack	16.5
Packing Plant - II Stack	15.9

[PART-D]

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Wastes

Hazardous Wastes	Total Quantity (Liters)	
	During the current Financial year (2022-23)	During the current Financial year (2023-24)
a. From Process	Waste Oil 1470 Ltrs. Waste Grease 1140 Kgs.	Waste Oil 840 Ltrs. Waste Grease 1710 Kgs.
*b. From Pollution Control Facility	Not Applicable	Not Applicable

[PART - E]

Solid Wastes

There is no **solid waste generation** from process or activity; however, particulate matter collected through APCE is automatically recycled in the process.

	TOTAL QUANTITY	
	During previous financial year	During current financial year
a. From Process	No Solid Waste generation from process.	
b. From Pollution control facility	No solid waste is generated from the pollution control facilities except emissions which are well	

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	within the stipulated standard prescribed by Punjab Pollution Control Board. However the Particulate matter collected through Pollution Control facilities and recycled back in the process is as under:	
	Particulate Matter collected through Pollution Control Facilities and recycled in the process	
c. Quantity Re-cycled or re-utilized in Process	100% of the solid waste collected in air pollution control equipment is automatically recycled to the process.	

[PART-F]

Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Used Oil (liquid) and Grease (Semi liquid) generated from Plant Machinery is stored in a separate designated hazardous waste storage area in sealed containers. This Oil & Grease is sold to PPCB Authorized parties. During the current financial year, total 1470 Ltrs Used oil and 1140 KG Used Grease of Hazardous waste was generated and disposed to authorized recycler. **Authorization is valid till 2026.**

[PART-G]

Impact of pollution control measures on conservation of natural resources and consequently on the cost of production.

Sewage Water Treatment Plant has been installed and all treated water is used for horticulture purpose. Also treated water of STP being started using in cooling purposes. Sludge generated from STP is being used as compost after proper drying in sludge drying beds.

We have made a big pond for rain water collection to increase water level in area. ***We also have constructed 30 KFP structures (a technology patented by Govt. of India) with a total recharge potential of 71000m³ per annum.*** We are using water sprinkling system for watering the lawns in plant and colony areas. We have also introduced the concept of Drip Irrigation System in colony area to conserve this precious resource for future.

Dust collected through pollution control equipment is automatically recycled to the process. This prevents environmental pollution as well as is benefit to the production.

Dust generation is reduced to the minimum due to cleanliness, proper house keeping, better pollution control and down time reduction of the plant.

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Installed VVVF drives at various locations to reduce power consumption which is a direct benefit in cost of production as well as to Environment Protection. As a results, **we have emerged as most energy efficient unit in Ambuja.**

To conserve ground water drip irrigation and direct seeded rice facility provided to nearby farmers

[PART-H]

Additional investment proposal for environmental protection including abatement of pollution.

Budget of Rs. 53 Lacs(Fifty three lacs only) has been spent towardsmisc environmental expenses for the financial year 2023-24.

[PART-I]

Any other particulars in respect of environmental protection and abatement of pollution.

1) Energy Conservation and Global Warming reduction

All the necessary and appropriate measures for energy conservation have been taken. The energy consumption per Ton of cement production at our unit was31.2units/Ton.

2) Water Pollution Control

Water is the most precious resource and its conservation and prevention of pollution is necessary for the existence of life on earth. All possible measures have been taken to prevent water pollution from our activities. We have installed a sewage treatment plant to treat sewage generated from our plant and colony and are reusing 100 % of water treated from SWRP for Greenery Development.

3) Air Pollution Control

Budget of Rs. 10Lacs (TenLacs only) has been utilized for expenses on installation of high efficiency PTFE bags/APCE and recommended cages to bring down Stack emission under 30 mg/Nm³. Online data from Stacks and AAQMS has already been connected with CPCB/SPCB server.

- All material transfer points are equipped with bagfilters to control air pollution at source.
- The vehicle operators have been asked to restrict the speed limit up to 20 Km per hour.
- Water is being sprayed on the roads inside plant as and when required.
- All roads are converted to concrete / paved roads.
- Cleaning of concreted / paved roads with mobile road sweeper.

AMBUJA CEMENT

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[PART-H]

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AMBUJA CEMENT

- Every possible measure is taken to cover maximum plant area under greenery development. Big lawns are made and maintained to protect soil erosion and prevent fugitive dust generation

4) Waste Management and its Reduction

We are using fly ash for Cement manufacturing by virtue of which we are saving natural resources like coal, limestone and other minerals used for making clinker as well as reducing problem of air pollution from fly ash storage/dumping. We are also saving clinker by using fly ash, which helps in reduction of CO₂ emission and ultimate help to reduce global warming problem.

5) Plantation

Plantation is an integral part of our activities. Appropriate afforestation programmes are implemented for plant and township area, which provide aesthetic look and freshen the air. Around 1000 plants of local varieties (Neem, Amaltas, Bottle brush, Kinno etc) have been planted during 2022-23.

Plantation plays an important role in environment protection and abatement of pollution in several ways. Trees are the biggest sink for the Carbon Dioxide and thus help in reduction of Global warming by absorbing Carbon Dioxide from atmosphere. Plants prevent soil erosion, reduce air pollution and act as barriers for the noise pollution.

6) Environmental Monitoring

Monitoring and measurement plays an important role in protection and abatement of pollution. Environmental parameters related to Stack Emission, Ambient Air Quality and Sewage Water are monitored regularly and submitted to Punjab Pollution Control Board (PPCB) on monthly basis.

7) House Keeping

Housekeeping in & around the plant is being given top priority. In order to maintain clean & healthy working environment, we have a mobile road sweeping machines. The areas, left out of the reach of this machine, are cleaned using Manual Sweeping machine to make the plant totally dust free.

8. Community Development

Educated more than 52 thousand farmers on the in-situ treatment of straw through 'Happy Seeders' in 310 villages

Develop linkages with Co operative society and KVK

Awareness cum sensitization program with youth about a bad impact of drugs and motivate them to involve in sports activity.

Organized awareness program on NCD in community

FLOW SHEET FOR SEWAGE TREATMENT PLANT

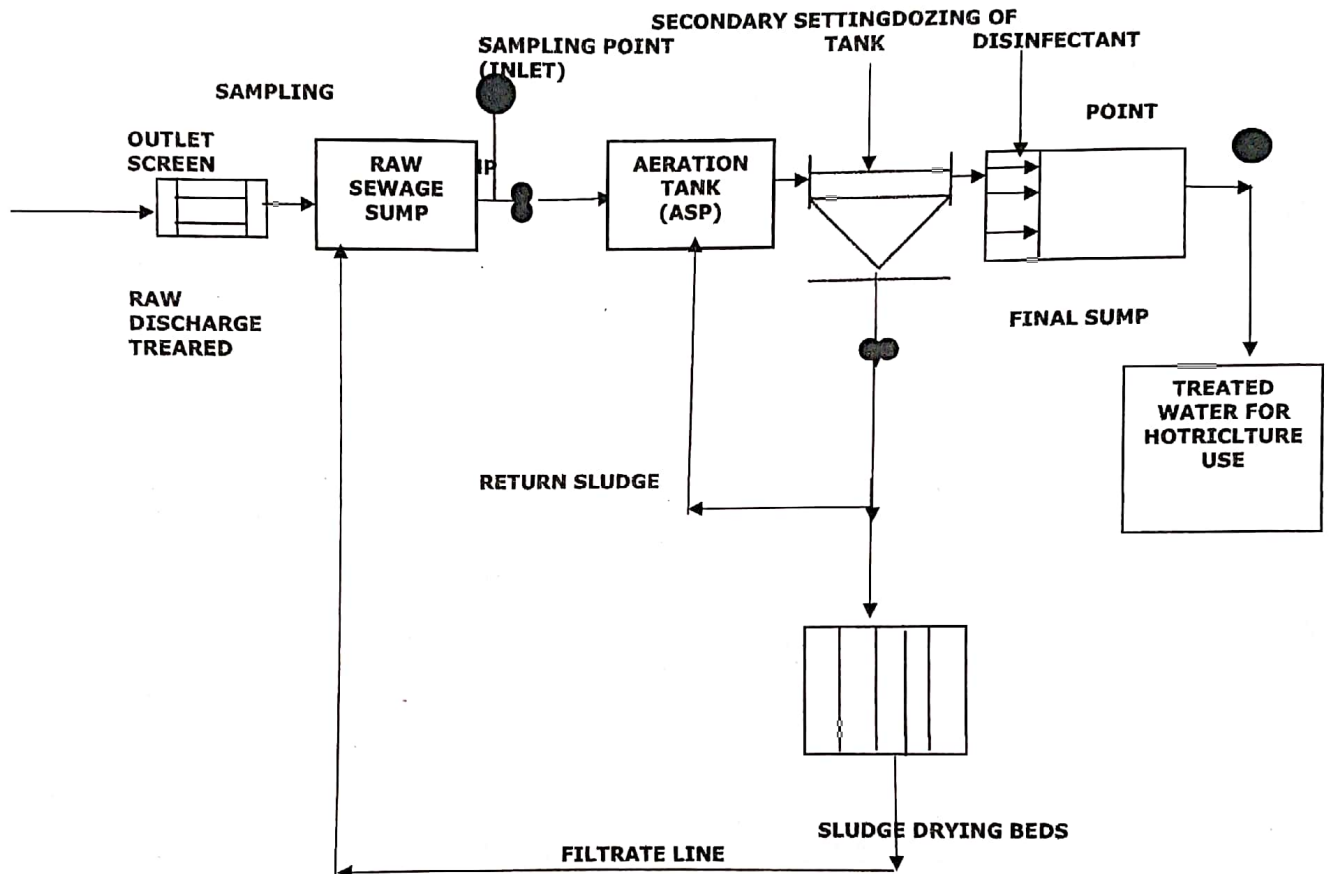
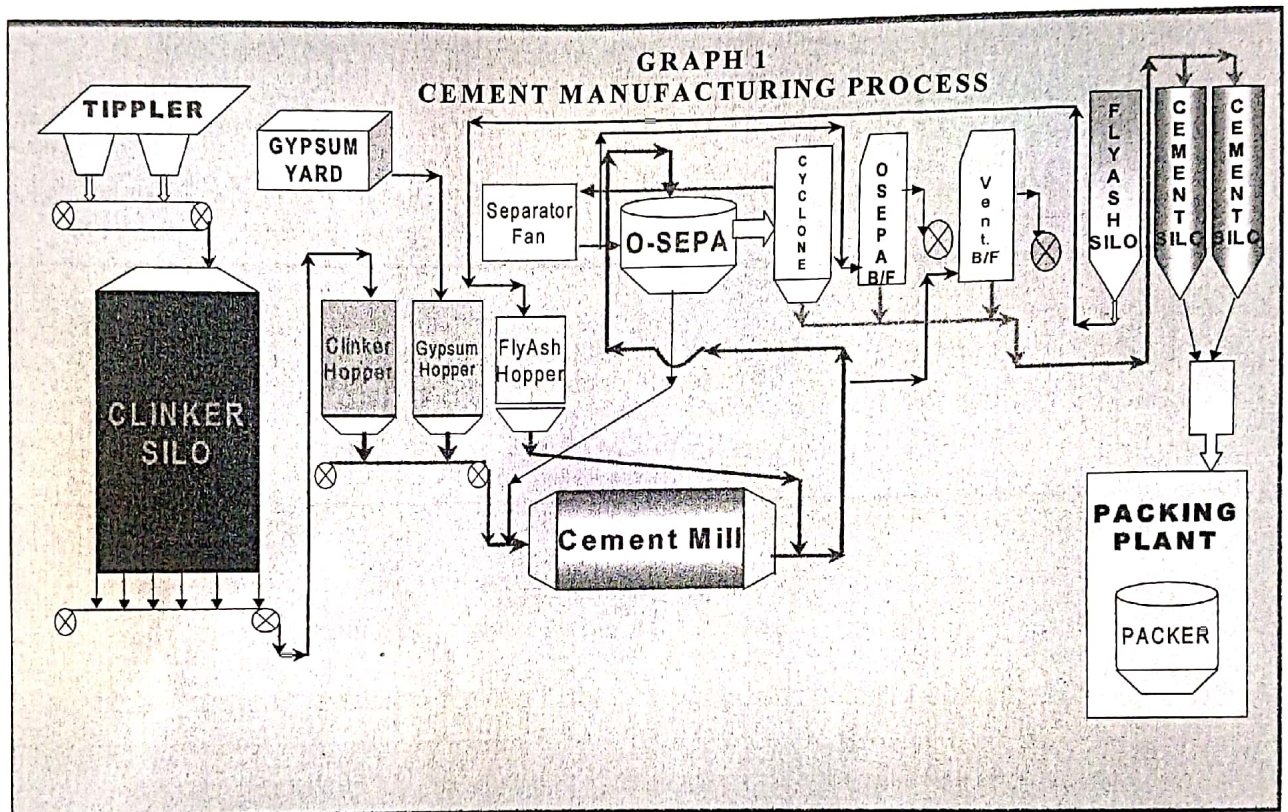


FIGURE 2

CEMENT MANUFACTURING PROCESS



IMPORTANT WORK INSTRUCTIONS

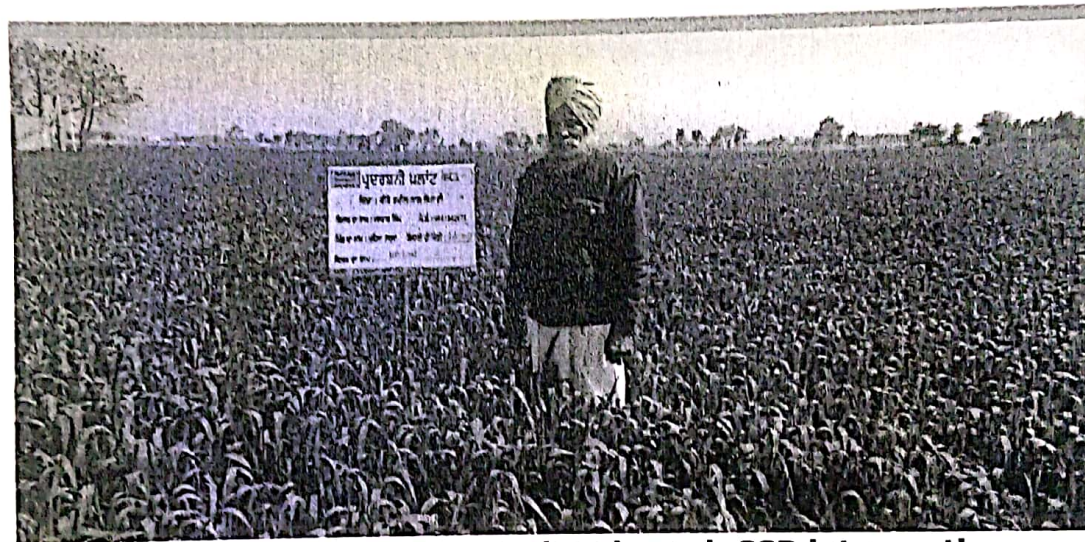
Responsibility: HOD (Personnel)

Instructions:

**TO PROVIDE CLEAN ENVIRONMENT TO OUR WORKERS AND
THEIR FAMILY IS OUR OBJECTIVE:**

1. Whole premises to be kept clean & free from effluvia arising from any drain, privy or other nuisance.
2. Disposal of all waste water to sewerage.
3. Disposal of wastes so as to render them innocuous (causing no harm).
4. Proper cleaning of the urinals and latrines.
5. Use of spittoons to keep the premises clean and hygienic.

Thanks..



Demonstration of Crop rotation through CSR intervention.

