BHAVYA CEMENTS LIMITED
TANGEDA VILLAGE, DACHEPALLY MANDAL, GUNTUR DISTRICT, ANDHRA PRADESH

1. FORM –I
2. EC Letter
3. Minute of Meeting (8.01.2015).
4. Letter Received from MOEF&CC, dated.11.09.2015
5. Pre-feasibility Report.

Project No. 1114-21-03/R
September 2015

Submitted by:
Bhavya Cements Ltd.,
IInd Bhavyas Spoorthi Bhavan,
Plot No. A1, Film Nagar, Jubilee Hills,
Hyderabad – 500 003.
Phone: 040-23558384
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Studies and Documentation By
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Aditya Enclave, Ameerpet,
Hyderabad-500 038.
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Submitted to
MINISTRY OF ENVIRONMENT AND FORESTS, GOVERNMENT OF INDIA
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD, ALIGANJ, NEW DELHI

BHAVYA CEMENTS LIMITED
TANGEDA VILLAGE, DACHEPALLY MANDAL, GUNTUR DISTRICT, ANDHRA PRADESH

FORM –I

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APPENDIX I
(See paragraph – 6)
FORM 1

I). Basic Information

<table>
<tr><th>S.No</th><th>Item</th><th></th><th>Details</th></tr>
<tr><td>1.</td><td>Name of the Project</td><td>:</td><td>M/s. Bhavya Cements Ltd,</td></tr>
<tr><td>2.</td><td>S.No. of the Schedule</td><td>:</td><td>3(b) “A” Cement plants and 1 (d) "B" Captive Power Plant</td></tr>
<tr><td>3.</td><td>Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled.</td><td>:</td><td>Production Capacity
<table>
<tr><th></th><th>Phase I (Existing)</th><th>Phase II (EC Revalidation)</th><th>Total (TPD)</th></tr>
<tr><td>Clinker</td><td>3000</td><td>5500</td><td>8500</td></tr>
<tr><td>Cement</td><td>4200</td><td>7700</td><td>11900</td></tr>
<tr><td>Captive Power</td><td>-</td><td>15 MW</td><td>15 MW</td></tr>
</table>
The present proposal is for Revalidation of our existing Environmental Clearance.
F. No. J-11011/1186/2007-IA II (I) dated 22.09.2008.

There is no change in product profile and capacity.</td></tr>
<tr><td>4.</td><td>New/Expansion/Modernization</td><td>:</td><td>Revalidation of EC</td></tr>
<tr><td>5.</td><td>Existing Capacity/Area etc.</td><td>:</td><td>Existing Cement Manufacturing Capacity: 1.4 MMTPA and EC revalidation to complete the phase II cement manufacturing capacity of 2.6 MMTA and 15 MW captive power plants.</td></tr>
<tr><td>6.</td><td>Category of Project i.e 'A' or 'B'</td><td>:</td><td>Category ‘A’</td></tr>
<tr><td>7.</td><td>Does it attract the general condition? If yes, please specify</td><td>:</td><td>No</td></tr>
<tr><td>8.</td><td>Does it attract the Specific condition? If yes, please specify.</td><td>:</td><td>No</td></tr>
<tr><td>9.</td><td colspan="3">Location</td></tr>
<tr><td></td><td>Plot/Survey/Khasra No.</td><td>:</td><td>Survey Nos. are enclosed</td></tr>
<tr><td></td><td>Village</td><td>:</td><td>Tangeda</td></tr>
<tr><td></td><td>Tehsil</td><td>:</td><td>Dachepally</td></tr>
<tr><td></td><td>District</td><td>:</td><td>Guntur</td></tr>
<tr><td></td><td>State</td><td>:</td><td>Andhra Pradesh</td></tr>
<tr><td>10.</td><td>Nearest railway station/airport along with distance in kms.</td><td>:</td><td>**Railway Station :** Nadikudi -13 km-Southwest direction,
Airport: Gannavaram Air Port –105 km–Southeast direction.</td></tr>
<tr><td>11.</td><td>Nearest Town, City, District Headquarters along with distance in kms.</td><td>:</td><td>**Nearest City :** Piduguralla– 18 km – Southeast direction
District Head Quarters : Guntur – 75 km – Southeast Direction</td></tr>
</table>

S.No	Item		Details
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal address with telephone nos. to be given)		M/s Bhavya Cements Ltd, Tangeda Village, Dachepally Mandal, Guntur district - 522414 Andhra Pradesh Ph : +91-08649-273900 Fax : +91-8649-273819
13.	Name of the Applicant	:	Bhavya Cements Ltd
14.	Registered Address	:	M/s Bhavya Cements Ltd, Tangeda Village, Dachepally Mandal, Guntur district - 522414 Andhra Pradesh Ph : +91-08649-273900 Fax : +91-8649-273819
15.	Address for Correspondence:		
	Name	:	**V. Ananda Prasad**
	Designation	:	Managing Director
	Address	:	Bhavya Cements Ltd., Plot No. A1, IInd Floor, Bhavyas Spoorthi Bhavan, Film Nagar, Jubilee Hills, Hyderabad
	Pin Code	:	500 096
	E-mail	:	bhavyacements@yahoo.co.in
	Telephone Number	:	040-23558384
	Fax No.	:	040-23558393
16.	Details of alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	:	Not Applicable, as the present proposal is for revalidation of our existing EC
17.	Interlinked Projects	:	Yes, Captive Limestone Mine, Environmental Clearance obtained on F. No. J-11011/1186/2007-IA II (I) dated 22.09.2008, (EC Enclosed in Annexure)
18.	Whether separate application of interlinked project has been submitted?	:	Not applicable
19.	If yes, date of submission	:	Not applicable
20.	If no, reason	:	Not applicable
21.	Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980?	:	Not Applicable

S.No	Item		Details
	(b) The Wildlife (Protection) Act, 1972? (c) The C.R.Z Notification, 1991?		
22.	Whether there is any Government Order/Policy relevant/relating to the site?	:	Not Applicable
23.	Forest land involved (hectares)	:	Not Applicable
24.	Whether there is any location pending against the project and /or land in which the project is propose to be set up? (a) Name of the Court (b) Case No (c) Orders/directions of the Court, if any and its relevance with the proposed project.	:	Not Applicable

II). Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S.No	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	Existing Industrial land is using for Construction of Phase II.
1.2	Clearance of existing land, vegetation and buildings?	No	NA.
1.3	Creation of new land uses?	No	Existing – industrial
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Soil test done
1.5	Construction works?	Yes	Permanent structures are proposed, it will be constructed only after obtaining necessary approvals from the competent authority.
1.6	Demolition works?	No	No buildings are there at the proposed site; hence there will not be any demolition works.
1.7	Temporary sites used for construction works or housing of construction workers?	No	Local Villagers shall be employed. Temporary housing colony to be provided for construction labor.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Excavation will be carried out only for foundations purpose. All the structures will be above the ground level.
1.9	Underground works including mining or tunneling?	No	No underground works like tunneling.
1.10	Reclamation works?	No	
1.11	Dredging?	No	No dredging activities are involved in the proposed activity.
1.12	Offshore structures?	No	No offshore structures are involved in the activity.
1.13	Production and manufacturing processes?	Yes	Details are given in **Annexure I.**
1.14	Facilities for storage of	Yes	During the construction phase, the

S.No	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
	goods or materials?		required materials will be stored in the yards. While the operational phase raw material and finished products will be stored in covered sheds and silos.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	During the constructional phase, the packing materials particularly wood and paper board will be collected periodically and stored separately. As there is temporary housing proposed in the construction phase, liquid waste is sent to STP. Domestic sewage of 191 KLD will be treated in sewage treatment plant and treated water will be utilized for greenbelt development.
1.16	Facilities for long term housing of operational workers?	Yes	A full-fledged residential colony in an area of 17.4 ha consisting of 700 quarters for the employees is in the plant site.
1.17	New road, rail or sea traffic during construction or operation?	Yes	There will be marginal increase in traffic volume during the proposed plant activity due to transportation of construction materials and raw materials during operational phase. Railway siding is proposed for raw material and cement transportation. The state highway connecting Narketpally - Addanki is at a distance of 10.5 km. The connecting road requires strengthening.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	There will be minor increase in traffic volume during the plant activity due to transportation of construction materials and raw materials during operational phase. Railway siding is proposed for raw material and cement transpiration
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	No diversion or closure of existing transport route is envisaged due to proposed activity.
1.20	New or diverted transmission	No	No diversion of transmission and

S.No	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
	lines or pipelines?		pipeline is envisaged in this proposed project.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not anticipated.
1.22	Stream crossings?	No	No stream crossing involved in this proposed project.
1.23	Abstraction or transfers of water form ground or surface waters?	No	The water requirement for phase II 1805 KLD for Cement plant, Captive Power plant and mining, dust suppression, Domestic use and green belt development will be met from Ground water / mine seepage water / Krishna River. (Enclosed in Annexure III)
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	No changes in water bodies and land surface are anticipated, as the site is flat without any undulations.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Vehicles will be provided for transportation of personnel during constructional phase.
1.26	Long-term dismantling or decommissioning or restoration works?	No	No such work is involved in this proposed project.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Local villagers are given preference for employment. However skill requirement may necessitate influx of people in the area for plant.
1.29	Introduction of alien species?	No	Native species will be planted in green belt.
1.30	Loss of native species or genetic diversity?	No	Existing industrial area.
1.31	Any other actions?	No	Nil

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr. No.	Information/checklist confirmation	Yes /No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	Existing industrial area.
2.2	Water (expected source & competing users) unit: KLD	Yes	The water requirement for Phase II is 1805 KLD will be met from the Ground water / mine seepage water / Krishna River.
2.3	Minerals (MT)	Yes	During the operational phase total 4.2 MMTPA of limestone will be utilized for manufacture the cement.
2.4	Construction material–stone, aggregates, sand/soil(expected source- MT)	Yes	Stone Aggregates, Sand, Steel etc. Source : Nearby area
2.5	Forests and timber (source – MT)	No	Since it is an industrial construction no timber usage is envisaged.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	The power requirement for the production quantity is 40 MW and will be sourced by Captive Power Plant / APTRANCO.
2.7	Any other natural resources (use appropriate standard units)	No	Not applicable.

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	Spent oil and used batteries are the hazardous wastes generated. The total expected quantity of waste oil is 0.5 T/year, and used batteries of 8 nos. /year. The entire quantity of hazardous wastes will be disposed to authorized recyclers as per the Hazardous waste Management & Handling Rules, 2008.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not applicable
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	The establishment of this cement plant shall enhance employment opportunities to local people and may have positive impact on the socioeconomy of the surrounding areas.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	There are no major habitations within 0.5 km vicinity of the plant.
3.5	Any other causes	No	Not Applicable.

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	The dug soil during excavation will be used for filling of low-lying areas.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	During the construction phase the main source of solid waste generation is from the packing materials particularly wood and paper board. The anticipated quantity will be around 30-40 tons which will be collected and stored and the same will be disposed off. Domestic waste will be disposed off as per MSW guidelines.

4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	The hazardous wastes of used batteries and waste oil are disposed as per the Hazardous waste Management & Handling Rules, 2008.
4.4	Other industrial process wastes	No	Not applicable. The kiln shall be designed for co-incineration also.
4.5	Surplus product	No	Not applicable
4.6	Sewage sludge or other sludge from effluent treatment	Yes	The sludge collected from the sludge drying bed of the domestic sewage treatment plant shall be used as manure.
4.7	Construction or demolition wastes	No	Not applicable.
4.8	Redundant machinery or equipment	No	No redundant machinery will be kept in the premises.
4.9	Contaminated soils or other materials	No	Not applicable.
4.10	Agricultural wastes	No	Not applicable.
4.11	Other solid wastes	No	Not applicable

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Emissions are anticipated from Kiln, Cement mill and raw material crushers. Kiln shall utilize coal as fuel resulting in particulate matter, Sulfur dioxide and oxides of nitrogen. Enclosed in ***Annexure IV***
5.2	Emissions from production processes	Yes	For the cement manufacturing process and power plant coal is being used as a fuel.
5.3	Emissions from materials handling including storage or transport	Yes	**Raw Material Handling:** Closed conveyers, dedicated bag filters at the transfer points and adequate water spray system is proposed **Raw Material Storage:** All storage hoppers will be provided with dedicated bag filters
5.4	Emissions from construction activities including plant and equipment	Yes	Water sprinkling shall be adopted to mitigate emissions during construction, mainly from storage of materials and transport.
5.5	Dust or odours from handling of materials	No	All fugitive emissions will be controlled by providing dust suppression / dust

	including construction materials, sewage and waste		extraction system.
5.6	Emissions from incineration of waste	No	Not applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Nil
5.8	Emissions from any other sources	No	Nil

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S. No.	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Slight increase in the noise level due to the new cement plant and DG set. Suitable noise and vibration mitigation measures will be adopted. Green belt will reduce the noise propagation. Earplugs will be provided to the workers who work near the noise generating equipment.
6.2	From industrial or similar processes	Yes	Slight increase in the noise level due to the new cement plant. Suitable noise and vibration mitigation measures will be adopted. Green belt will reduce the noise propagation. Earplugs will be provided to the workers who work near the noise generating equipment.
6.3	From construction or demolition	Yes	During the constructional phase there will be slight increase in the noise level. However developed green belt will reduce the noise propagation. Earplugs will be provided to the construction workers who work near the noise generating equipment.
6.4	From blasting or piling	No	Such operations are not involved in the proposed project.
6.5	From construction or operational traffic	Yes	During the constructional phase and operational phase there will be slight increase in the noise level. However developed green belt will reduce the noise propagation.
6.6	From lighting or cooling systems	No	Not applicable
6.7	From any other sources	yes	Compressors and blowers will be provided with Enclosures.

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	All raw materials and hazardous wastes are stored in closed sheds
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Not applicable.
7.3	By deposition of pollutants emitted to air into the land or into water	No	All emissions are controlled by installing adequate air pollution control facilities. (enclosed in Annexure II)
7.4	From any other sources	No	Not Applicable
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not Applicable

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	Nil	During the construction phase no hazardous substances will be handled. Hence there will not be any spillage, During operational phase, Handling, Storage and Disposal of hazardous waste will be done as per HWM Rules 2008.
8.2	From any other causes	No	Not Applicable
8.3	Could the project be affected by natural disasters causing Environmental damage (e.g. floods, earthquakes, landslides, Cloudburst etc)?	No	

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: •Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) •Housing development •Extractive industries • Supply industries • Other	Yes	The project may enhance the local economy by providing indirect employment opportunities by way of transportation, supporting industries and other facilities.
9.2	Lead to after-use of the site, which could have an impact on the environment	Yes	Not applicable.
9.3	Set a precedent for later developments	Yes	With the improvement in the socio-economic status of the people in the area later developments are expected.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	The baseline data of the surrounding areas is within the prescribed limits as observed from the secondary data.

III). Environmental Sensitivity

S.No	Areas	Name/ Identity	Aerial distance (within 15 km.) / Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil	Not applicable.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes; Krishna River	Krishna River – 3.7 km - North direction, There are nine reserve forests within 10 km radius of the site. Tangeda RF – 1.5 km in North direction, Madenapadu RF – 3.6 km in west direction, Sulthanpur RF – 4.0 km in North direction, Ravipahad RF – 8.0 km in Northwest direction, Gurrambodu RF – 4.9 km in North direction, Vemavaram RF – 3.2 km in southeast direction, Kamepalle RF – 7.8 km in east direction, Pittakarikota RF – 6.5 km in Northeast direction and Chintalapalem RF – 6.5 km in Northeast direction
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Nil	Not applicable
4	Inland, coastal, marine or underground waters	No	River flows in the north from west to east at a distance of 9.0 km from the plant.
5	State, National boundaries	Nil	Not applicable
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	Not applicable
7	Defence installations	Nil	Not applicable

8	Densely populated or built-up area	Yes - Tangeda	Tangeda is at a distance of 1.2 km in with population of 1800
9	Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*	Yes - Tangeda	Tangeda is at a distance of 1.2 km in with population of 5870
10	Areas containing important, high quality or scarce resources *(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)*	Nil	Not applicable
11	Areas already subjected to pollution or environmental damage. *(those where existing legal environmental standards are exceeded)*	Nil	Not applicable
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (*earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions*)	Nil	Not applicable.

(IV). Proposed Terms of Reference for EIA studies

Scope of Work of EIA

"...The EIA shall cover the following:

Description of the proposed project:
The first task: "Description of the proposed project" forms a vital component of the Environmental Impact Assessment (EIA) as it provides the basis for evaluating the likely causes of Environmental Impacts.

Existing Environment and Baseline Conditions:
The baseline assessment will be carried out to identify potentially sensitive and critical areas that may be affected by the project in an area of 10 km surrounding the project location. The critical and sensitive targets shall be plotted on land use map of project impact area.
The existing environment and baseline conditions should be established from:
-Analysis of existing information published and secondary data.
-Consultation with relevant statutory authorities, and
Field visits for supplementation of missing gaps.

The key subject areas which the EIA shall address include Ecology and Nature conservation, Air quality, surface and water quality in project impact area, soil quality, cultural heritage, landscape, land use, noise quality, etc. Natural habitats like national parks, wildlife reserves, sanctuaries, sacred grove, protected areas, forests, wetlands, major rivers and waterways if any, shall also be identified and marked.

Assessment of Environmental Impacts:
Based upon the results from the review of existing information, field visits, site data collection and consultation, for each component of environment (physical, biological and socio economic) the positive, negative, direct and indirect, temporary and permanent impacts will be evaluated along with an indication of the degree of impact, i.e., whether the impact is significant, moderate, minor or negligible. The degree of impact shall also be quantified by using state of the art air quality impact prediction models based on ISCST3 algorithms.

Environment Management Plan and Mitigation Plan:
For each significant negative impact identified, specialist shall work closely with the engineering team/technical consultants to suggest practicable measures to avoid or mitigate the impact. The mitigation of environmental impacts will be by three mechanisms.
=>Introduction of mitigation features through the engineering practices.
=>Implementation of environmental controls during construction and operation.
=>Legislative control involving compliance with Indian environmental laws.
The Environmental management plan shall include an estimate of capital and recurring costs of mitigation measures and will identify the institutional framework for implementation.

Monitoring Plan:
Having identified the significant environmental impacts that are likely to arise as a result of the project, the project team shall specify what monitoring is required during the various phases of the project cycle.
The monitoring plan will identify parameters and frequency of monitoring and responsible organization.

"I hereby given undertaking that the date and information given in the application and enclosure are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

Date: 12.12.2014

Place: Hyderabad

BHAVYA CEMENTS LIMITED HYD

V. Ananda Prasad
Managing Director
Bhavya Cements Ltd.,
Plot No. A1, II[nd] Floor,
Bhavyas Spoorthi Bhavan,
Film Nagar, Jubilee Hills,
Hyderabad – 500 096.
Phone: 040-23558384
Fax: 040-23558393
Email: - bhavyacements@yahoo.co.in

Signature of the Applicant
With Name and Full Address
(Project Proponent / Authorized Signatory)

ANNEXURES

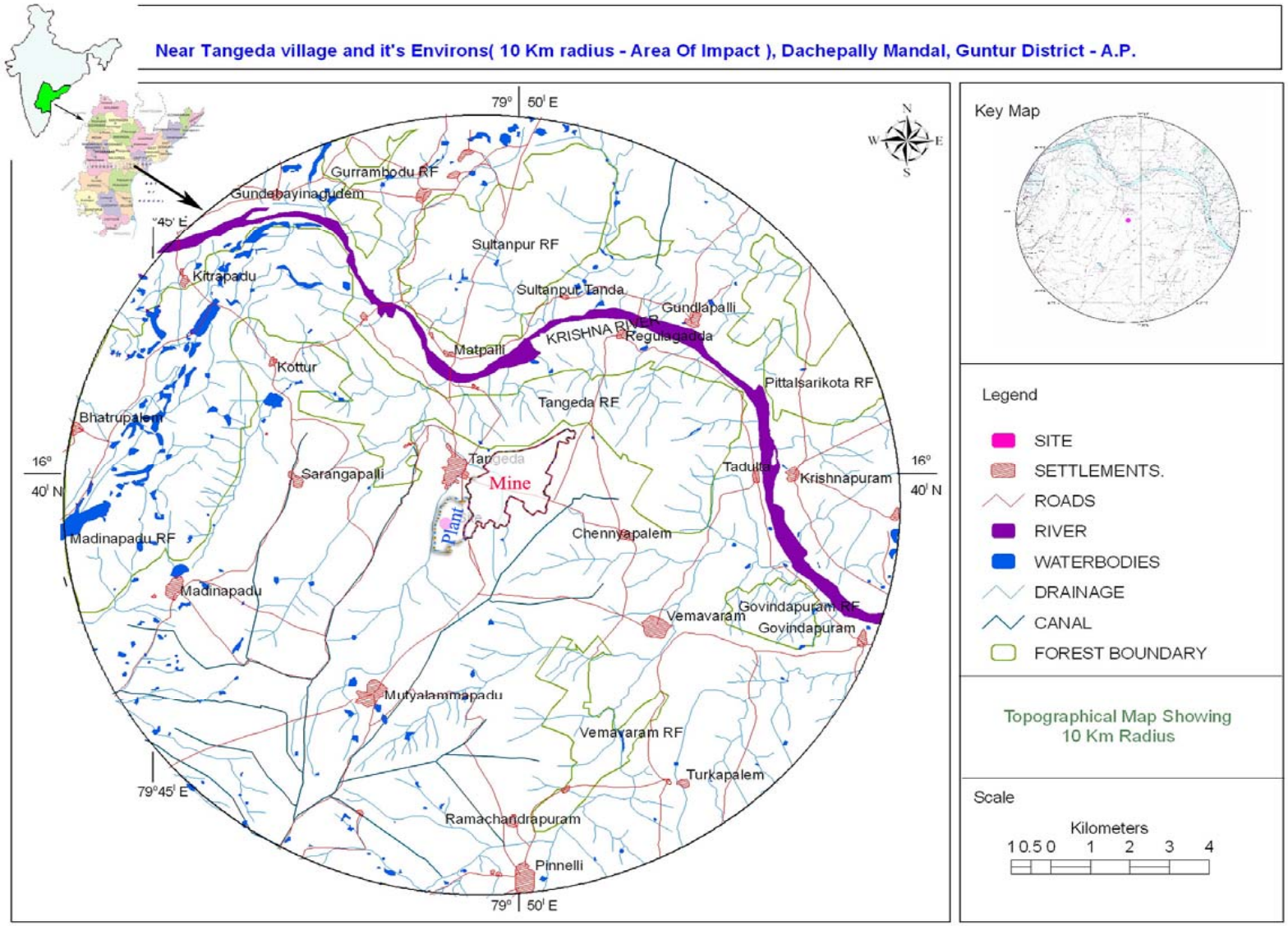


Figure A.1 Site Location of Bhavya Cements Ltd.,

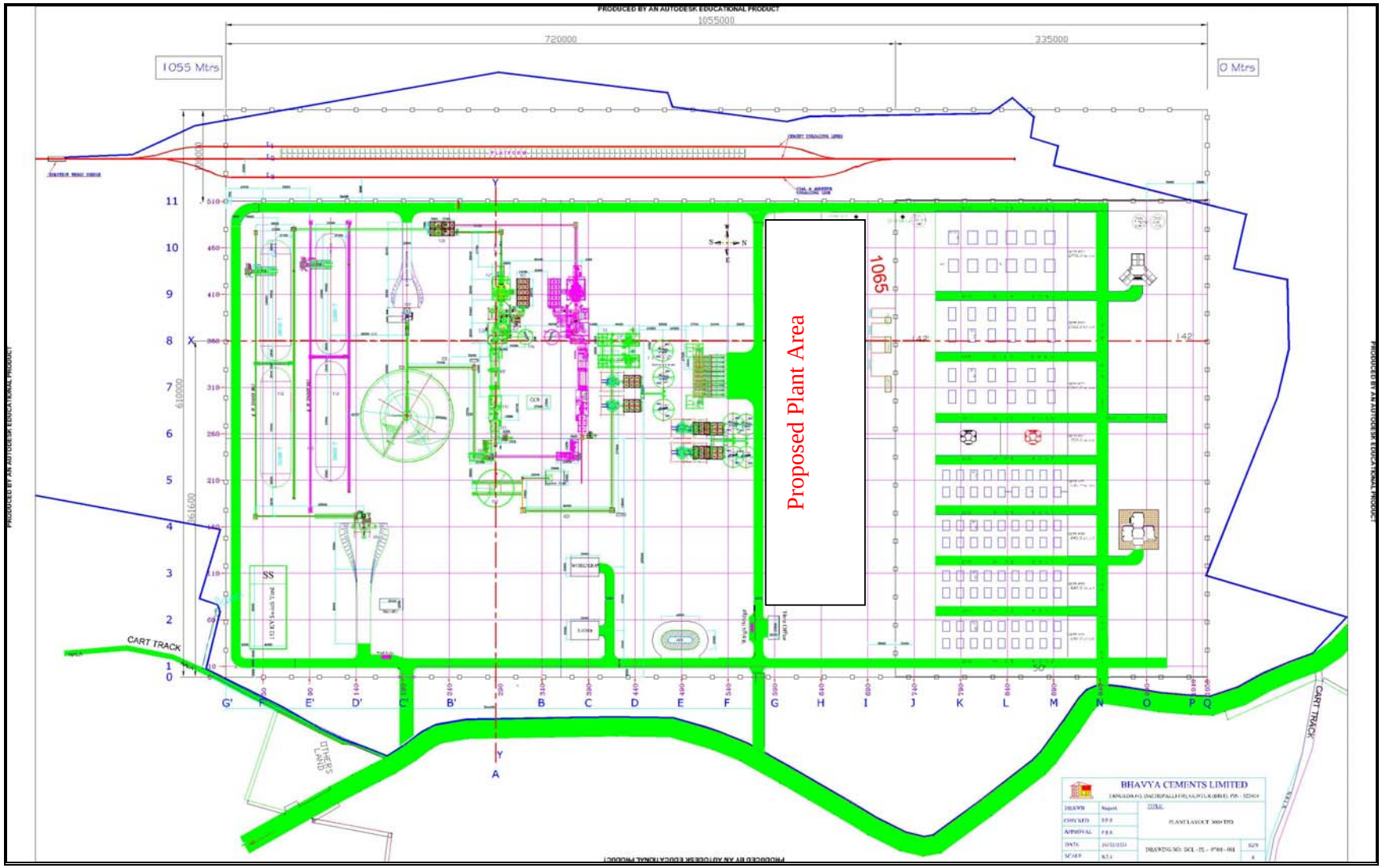


Figure A.2 Site Layout for Bhavya Cements Ltd.,

ANNEXURE I

M/s Bhavya Cements Ltd obtained Environmental Clearance for integrated Cement Plant of 4.0 Million TPA (8500 TPD) Capacity, 15 MW captive power plant and Captive mining from Ministry of Environment and Forests (MoEF) vide letter no. F. No. J-11011/1186/2007-IA II (I) dated 22.09.2008 at Thangeda Village, Dachepally Mandal, Guntur Dist, Andhra Pradesh. The Phase I project for 1 Million TPA (3000 TPD) production is in operation, while the phase II construction is in progress. It is now proposed to obtain a revalidation for the EC as the construction is in progress even after 5 years. The company has already acquired 65.00 ha of land. Total project cost of the project is Rs. 415 Crores (Phase I) and Rs. 630 Crores (Phase II) & Rs. 10 Crores (Phase I) and Rs. 30 Crores (Phase II) have been earmarked towards the capital cost for environmental protection. The manufacturing capacity is presented in **Table A-1.**

Table A. 1 Manufacturing Capacity

	Phase I (Existing)	**Phase II (EC Revalidation)**	**Total (TPD)**
Clinker	3000	5500	8500
Cement	4200	7700	11900
Captive Power	-	15 MW	15 MW

Brief description of the process is illustrated as follows:

The required limestone for the plant is drawn from captive mines located adjacent to the site spread over an area of 424 ha. The limestone is transferred to the plant by a conveyor.

The manufacture of Clinker involves mixing limestone with Laterite, Iron Ore and coal in suitable proportions and feeding in kiln through a 6 stage preheater (phase I single string and phase II double string) with pre calciner. The required limestone is drawn from the captive mines of the project.

Crushing

Crushing of limestone to obtain the required size is performed by the Impact crusher of capacity 600 TPH (Phase I) and 800 TPH (Pahse II). The crusher is attached to a bag dust collector to avoid the fugitive dust generated during crushing operation. All crushing and transfer points are equipped with water sprinkling system to suppress the dust at the point of generation. The crushed limestone is stocked in two linear stockpiles of capacity 20000 MT (Phase I) and 40000 MT (Phase II) each by means of stacker. The stacked limestone is reclaimed by means of reclaimer of capacity 300 TPH (Phase I) and 600 TPH (Phase II). Reclaimed limestone is fed to the raw grinding mill hoppers by means of belt conveyors. The transfer points of each and every belt conveyors are equipped with dust collectors to suppress the dust that is generated during transportation of the material.

Raw Material Grinding

The next unit operation that is taking place in the manufacturing of cement clinker is the raw material grinding. For this purpose one Vertical Roller Mill (VRM) capacity of 410 TPH (Phase II) In this stage the required quantity of additives such as Aluminous laterite, and iron ore are added to the limestone and ground to the required fineness. The product of raw grinding mills is called Raw meal and is transported to the continuous blending silos by means of air slides and bucket elevators. All the transfer points are equipped with de-dusting bag filters. The exhaust dust laden gases from the raw grinding mills are vented through the kiln

and raw mill bag house to recover the dust associated with the gas. Only clear gas is vented through the chimney.

Clinkerisation

The raw meal from the continuous blending silo is extracted by means of air slides and is fed to the pre heater by means of elevator where it is preheated to the required temperature, calcined up to 92-94% in calciner and is fed to the rotary kiln (Phase II: 4.6m dia and 69.0m long). In rotary kiln the fed material undergoes various chemical reactions and a product called clinker is formed.

The exhaust gases generated in the process of Clinkerisation are passed partly through the raw grinding section to meet the hot air requirement for drying the raw material and balance quantity to Bag House, to recover dust associated with the gases. The formed clinker is cooled in a cooler and is transported to the clinker storage hall.

The hot clinker is cooled in cooler by supplying cooling air through cooling air fans. Part of cooling air is utilized for the combustion process for drying coal and the excess air is vented through ESP attached to the cooler.

The heat required for the Clinkerisation process is supplemented with pulverized coal from the other end of the rotary kiln. Raw coal is ground in ball mill of capacities 45 TPH VRM (Phase II) to the desired fineness and is stored in fine coal bin. The exhaust gases from the coal mills are vented through the bag filters where the coal dust is recovered and clean gases are vented out.

Cement Grinding & Packing

The final operation in the manufacturing of cement is the grinding of clinker along with required quantities of gypsum and fly ash in ball mills. To produce cement BCL shall use Ball mill of capacity of 185 TPH and 150 TPH VRM's with high efficiency classifier. The Ball mill/VRM is equipped with Bag Filter for de-dusting of dust laden gases.

The output from cement mill is transported to storage silos by means of bucket elevators and air slides. Cement is bagged by means of 3 no's of electronic packers

of capacity 160 TPH each (Phase II). All the packers and transfer points are equipped with Bag Filters for de-dusting.

Environmental Protection

All required Pollution control equipments like Bag Houses, Bag filters and ESPs with latest control system is planned to be installed to protect the Environment

Plant Automation

The total plant operation will be done through computer based PLC / DCS system to have micro level monitoring and controls.

Production details

S.no	Component	Proportion, % by weight	
		OPC	PPC
1	Clinker	95	60
2	Gypsum	5	5
3	Fly Ash	-	35

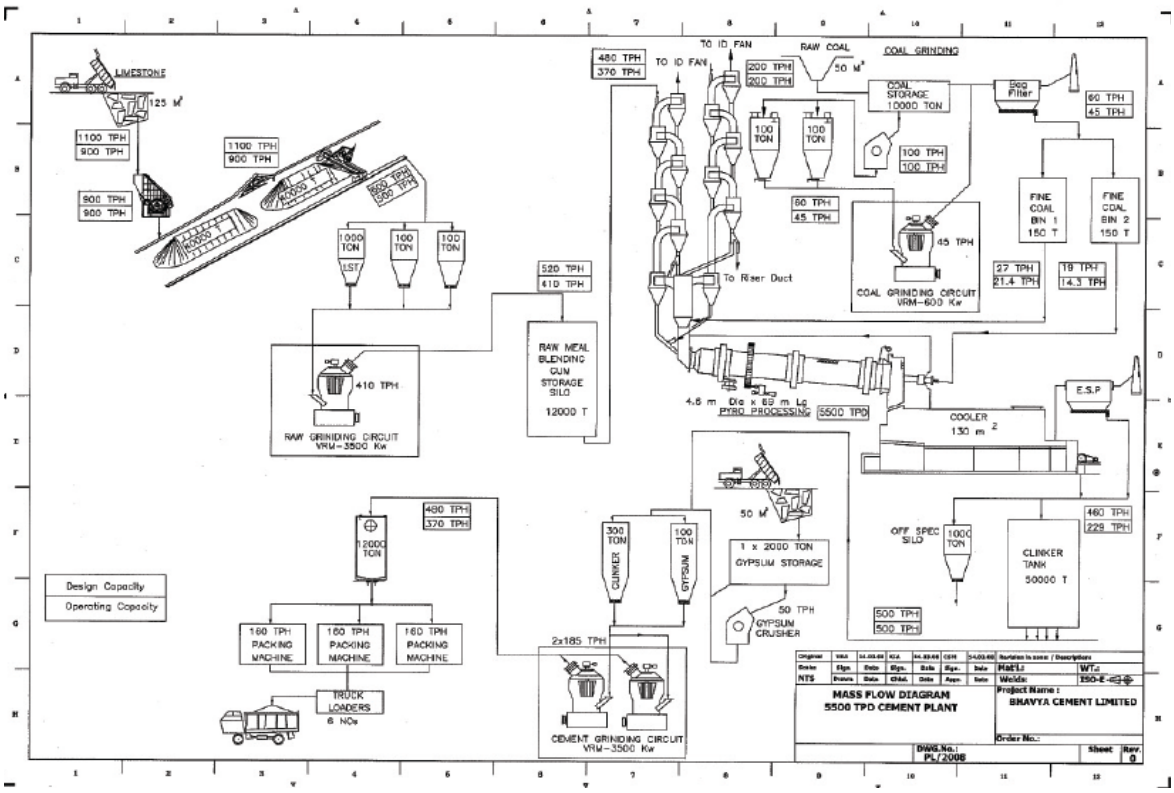


Figure A.3 Manufacturing Processing

Raw Material

The source of raw material and mode of transport is presented in the following table;

Table A. 2 Raw Material Requirement

S.no	Material	Source Category	Source Locality	Distance from plant (km)	Quantity (TPD)	Remarks
					Phase-II	
1	Limestone	Captive Concession	Own Mines	1	8250	Adjacent to the plant
2	Aluminum Laterite	Purchased	Rajahmandry/Warangal	100/250	250	Aluminum Laterite is available in various localities of west godavari district
3	Iron ore	Purchased	Bellary/ Kurnool	450/250	165	private laterite mines are operating in Bellary / Kurnool district
4	Gypsum	Purchased	Vizag/ Chennai	550	305	Gypsum is Available in Vizag/Channi.
5	Fuel (coal)	Purchased	SCCL, Kothagudem	350	1000	Transportation by sea/ road.
6	Flyash	Purchased	Vijayawada/Kothagudem	120	1800	Fly ash is available at NTPC/KTPC Power Plants.

*** All the trucks are covered by Tarpaulin and all the Conveyors are in enclosed System.**

Brief Description of Captive Power Plant

Unit Sizing and Configuration of Proposed Captive Power Plant:-

- **Power Cycle Configuration**

In the conventional steam system operating on Rankine cycle, the main equipment is the steam generator, steam turbine and the condenser with their auxiliaries. The utility system includes fuel handling, plant water, firewater, compressed air systems etc. The following factors have influenced the selection of major equipment's:

- The efficiency of steam power cycle improves with the increase in the inlet steam temperature and pressure, as has been established by thermodynamics.
- The commercially available power turbo-set units up to 15 MW size are with maximum steam parameters as 84 kg pressure and 515 °C temp.
- The basic power cycle configuration chosen for the 15 MW would be with pressure of 84 kg and temperature of 510 °C at turbine inlet and following tap off for regeneration:

•One high pressure;

• One low pressure; and

• One de-aeration.

The power plant configuration would consist of one boiler with a maximum continuous rating of 1x65 TPH connected to a single turbo-generator of 15 MW nominal capacity and wide value open condition of 6 percent. The type of turbine & boiler are discussed below: -

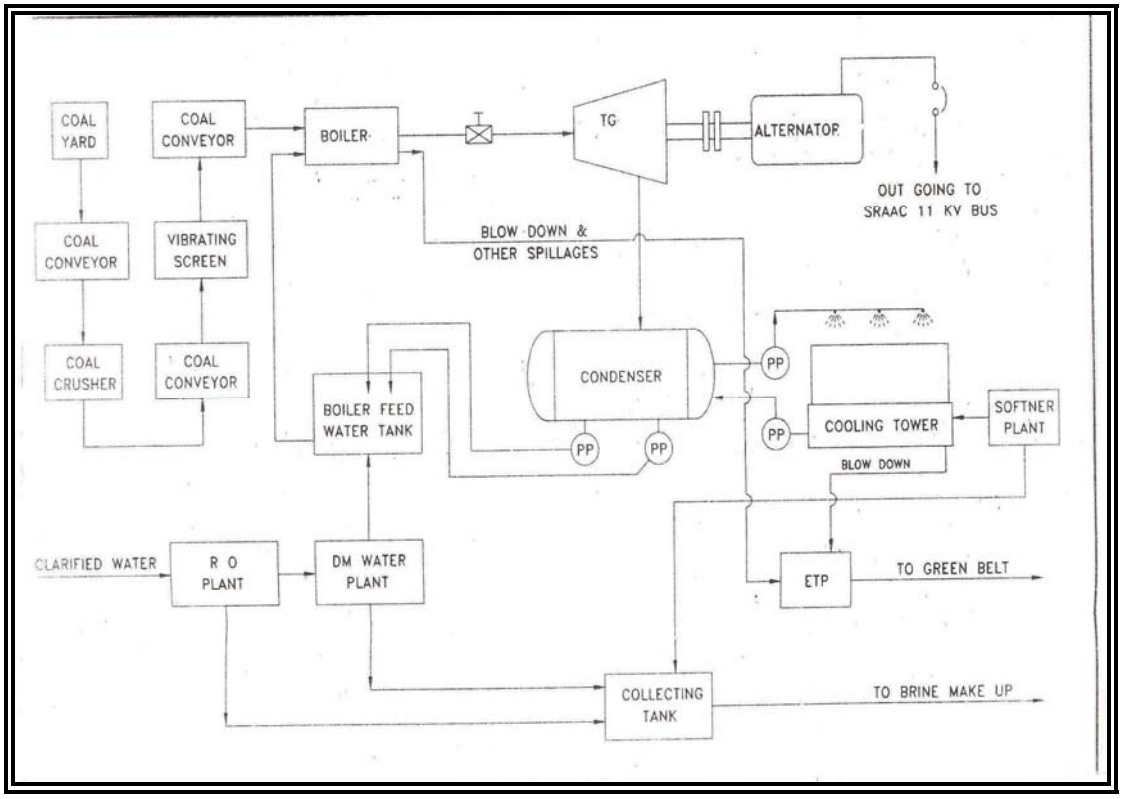
- **Turbine**

In order to optimize the cycle efficiency, the concept of regenerative feed heating is adopted. The 15 MW size turbines are having an axial length of approx. 4 meters. Hence it will be possible to provide 3 nos. of steam tap off nozzles in the turbine for feed heating making the turbine a triple extraction cum condensing type. With this configuration the power cycle efficiency can be improved.

- **Boilers**

Since low grade coal in any mix is proposed to be used as fuel, hence FBC boiler option is considered for the proposed Captive Thermal Power Plant. The following configurations will be adopted for the CPP:-

Steam Generator	a.	No. and ratings	1 no. each of Maximum Continuous rating 65 tph & 515°C
	b.	Type of Boiler	AFBC
	c.	No. of boiler fans	100% duty for ID and FD and 2 x100% for PA operations
	d.	Type of Atmospheric pollution control system	Electrostatic precipitators with outlet dust concentration less than 50 mg / Nm_3.
Steam Turbine Generator	a.	No. and ratings of turbine	1 no. of inlet parameters, 84 kg & 510°C.
	b.	Capacity	15 MW Maximum Continuous rating.
	c.	No. of controlled extractions	3nos. 1 HP, 1 MP and 1 LP.
	d	Type of exhaust steam cooling	Through soft water circulation with Air cooled condenser



MW Captive Power Plat flow Diagram

- Steam Generator

The steam generator will consist of one Atmospheric Fluidized Bed Combustion (AFBC) type coal fired boiler with all auxiliaries. The boiler will have natural circulation, balanced draft and membrane wall radiant furnace design with two stage super- heaters and inter-stage de-super heater. The design parameters of proposed steam generator will be as follows:

The steam generating system for the power plant will consist of one no. coal fired boiler of 65 TPH capacity with all the auxiliaries.

The boilers will be of atmospheric fluidised bed type, natural circulation, balanced draft, and membrane wall radiant furnace design with two (2) stage super-heaters and inter-stage desuperheater.

The steam generator design parameters will be as follows:

Maximum continuous rating (MCR) (T/hr)	65
Peak capacity of the boiler as a percentage of MCR capacity %	120
Super-heater outlet pressure (kg/cm^2 (g))	86
Super-heater outlet temperature (°C)	515+/-5
Feed water inlet temperature (°C)	200
Excess air (%)	Not more than 25
Boiler outlet flue gas temperature (°C)	150 (max.)
Dust concentration at chimney (mg/Nm^3)	50 (max.)

ANNEXURE II

Air Emissions

The sources of air pollution from the proposed plant are emissions from process, Kiln, Boiler and Transportation. The major pollutants generated from the fuel combustion are SO_2, NOx and Particulate Matter (PM). Based on fuel analysis and combustion details the emission rates of above pollutants are calculated. Air emissions from the boilers are passed through ESP before letting out into atmosphere, while emissions from DG sets are let out into atmosphere through stacks with a height, based on the effective stack height calculation of CPCB.

The critical areas of emission in the cement plant shall be provided with Electro Static Precipitators, Bag Filters to control emissions effectively. In addition to the above major pollution control equipment small sized bag filters have been installed for de-dusting at transfer points and other fugitive dust emission areas. Detailed emissions are shown in **Table A.3.**

Table A.3 Details of Air Emissions

S.No	Description	Height from Ground Level m	Diameter m	Temp Deg.^{0}C	Velocity m/sec	SPM g/sec
Phase-II						
1	Kiln & Raw Mill Stack	140	6.2	240	10	0.07
2	Cooler Stack	50	5	300	10	0.08
3	Coal mill Stack	55	2.5	75	10	0.02
4	Cement mill Stack	55	4.2	100	10	0.03
5	Coal Bin	28	0.13	80	10	<0.23
6	Dump Hopper	8	0.42	60	I 3	<0.23
7	Fly ash Silo top	15	0.42	60	12	<0.23
8	Fly ash Silo bottom	15	0.42	60	12	<0.23
9	Cement VRM Auxiliaries	20	0.42	60	12	<0.23
10	Cooler discharge end	15	0.42	80	12	<0.23
11	Clinker Silo top	4.5	0.42	80	12	<0.23
12	Clinker Silo bottom	8	0.42	80	12	<0.23
13	Clinker Silo - Transfer Tower – 1	8	0.42	60	12	<0.23
14	Clinker Silo - Transfer	10	0.42	60	12	<0.23

	Tower - 2					
15	Cement Vertical Roller Mill Hopper	4.0	0.65	60	10	<0.23
16	Transfer Tower - Additives (Stacker Feed)	8	0.42	60	12	<0.23
17	Transfer Tower -1 (Stacker Extraction)	8	0.42	60	12	<0.23
18	Transfer Tower - 2(Stacker Extraction)	10	0.42	60	12	<0.23
19	Cement Silo top (6 Nos.)	60	0.42	80	12	<0.23
20	Cement Silo bottom (2Nos.)	15	0.42	80	12	<0.23
21	Raw meal Silo Top	8.0	0.42	80	12	<0.23
22	Raw meal Silo Bottom	15	0.42	80	12	<0.23
23	Pre Heater Auxiliaries	5.0	0.42	80	12	<0.23
24	1000 KVA D.G Set	7	0.4	183	24.22	0.022

Annexure – III

Water requirement for phases II is 1805 KLD which is met through Ground water / mine seepage water / Krishna River. The water required mainly for Equipment Cooling, Process cooling & domestic usage. The water balance and the total fresh water requirement of proposed project are presented below.

Table A.4 Water balance – Phase II.

S.No	Input	KLD	Out Put	KLD
1	Process(VRM Spray+ RM Gear Box+ Instrument Cooling)	292	Process	282
			DM Regeneration	10
2	Dome water (Plant + Canteen) +Washing +Misc)	40	Domestic Effluent	30
			Loss	10
3	Dust Suppression + Coal Handling + HVAC	15	Loss	15
5	Boiler Water Make Up	25	Boiler Blow Down	2.5
			Loss	22.5
6	Cooling Tower Make Up	1310	Cooling Tower Blow Down	129
			Loss	1181
7	Domestic Use (For Town Ship)	94	Domestic Effluent	76
			Loss	18
8	Mine (Dust Suppression)	29	Domestic Effluent	2.5
			Loss	26.5
	Total	**1805**	**Total**	**1805**

Annexure – IV

Solid waste

No solid waste will be generated from the manufacturing process except the damaged cement bags and general scrap. Quantity of waste bag will be around 120 MT/Year and General scrap will be around 100 MT/year. The same will be collected and taken back by the buyers for reuse purpose.

Table A.5 Solid waste generation

S. No	Description	Phase II	Disposal
1.	Ash - TPD	112	Used in Cement Manufacturing
2.	Waste Oil - KL/year	125	Used in Secondary fuel in the Kiln
3.	Used lead acid batteries - Numbers/year	2	Sent to authorized recyclers
4.	Waste bags, damaged bags - TPA	60	Sold to authorized buyers.
5.	General Scrap (Rubber, Metal & Electrical) TPA	50	Sold to recyclers

By speed post

भारत सरकार
पर्यावरण एवं वन मंत्रालय
Government of India
Ministry of Environment & Forests
(IA Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
E-mail: hsmalviya@gmail.com
Telephone: 011: 2436 7076

F. No. J-11011/1186/2007-IA-II(I) Dated : September 22, 2008

To

M/S Bhavya Cement Limited
Village Tangeda, Taluk Gurjala,
Dachepally Mandal,
Guntur District, Andhra Pradesh
bhavyacements@yahoo.co.in

Sub: **Cement Plant (4 MTPA), Captive power Plant (15 MW) and Lime Stone Mine (421.89 ha) at Village Tangeda, Taluk Gurjala, Dachepally Mandal, Guntur District, Andhra Pradesh by M/S Bhavya Cement Limited – Environmental Clearance reg.**

Sir,

Kindly refer your letter no. nil dated 12th May 2008 alongwith EIA/EMP report for seeking environmental clearance under the EIA Notification, 2006 and subsequent communication vide your letter dated July 28, 2008.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that the proposal is for environment clearance for setting up of Cement Plant (4 MTPA), Captive power Plant (15 MW) and Lime Stone Mine (421.89 ha) at Village Tangeda, Taluk Gurjala, Dachepally Mandal, Guntur District, Andhra Pradesh by M/S Bhavya Cement Limited. The company has already acquired 487.04 ha of land for the proposed plant, out of which 84 Ha of the area will be earmarked for the green belt. Total cost of the project will be Rs. 415 Crores (Phase I) and Rs. 630 Crores (Phase II) & Rs. 10 Crores (Phase I) and Rs. 30 Crores (Phase II) have been earmarked towards the capital cost for environmental protection. Village Tangeda is located 1.2 km (NE) from the plant. No eco-sensitive areas are located within 15 km periphery of the plant. The product and production capacity of the plant are given below:

S.No	Name of Product	Proposed Capacity (TPD)
Phase I		
1	Clinker Production	3000
2	Cement (OPC/PPC)	4200
Phase II		
1	Clinker Production	5500
2	Cement (OPC/PPC)	7700
Power Plant		
1.	Captive Power Plant	15 MW
Limestone Mining		
1	Lease Area	421.89 ha

3.0 The mining will be done with 9 m bench height, drill holes of 9.9 m depth, spacing of drills 6 m and power factor of 7.5 tonnes/kg. Bag house, ESP, bag filters followed by suitable high stacks will be installed at various sections for emissions control within 50 mg/Nm^3. For fugitive dust control water spraying on the roads will be done within the premises. The total water requirement from Krishana river will be 2500 KLD. The wastewater from utilities (75 KLD) and domestic effluent (15 KLD) will be generation from the unit. The unit proposes to install an effluent treatment plant with a capacity of 75 KLD. The unit operations are Equalization/neutralization tank, clarifier, collection tank and sludge drying beds. The treated water will be used for on land irrigation. Domestic effluents will be sent to septic tank followed by soak pit.

4.0 Public hearing meeting was held on 30th April 2008.

5.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to strict compliance to the following specific and general conditions:

A. Specific Conditions:

(I) The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Andhra Pradesh Pollution Control Board. At no time, particulate emissions from the cement plant including kiln, coal mill, cement mill, cooler and captive power plant (CPP) shall not exceed 50 mg/Nm^3. Continuous on-line monitors for particulate emissions shall be installed. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.

(II) Secondary fugitive emissions shall be controlled within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at material transfer points. Atomized water spray system with reclaimer shall be installed in silo used for the storage of ash. Storage of other raw materials shall be in closed roof sheds. Covered conveyer belts shall be used to reduce fugitive emissions. Concreting of all the roads, water sprinkling system at limestone and coal handling area shall be ensured to reduce fugitive emissions.

(III) Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with APPCB and data for air emissions shall be submitted to the CPCB and APPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.

(IV) Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.

(V) Fly ash shall be utilized as per the provisions of Fly Ash Notification, 1999, subsequently amended in 2003. Fly ash shall be stored in ash silo and 100% used in the cement manufacturing.

(VI) The company shall make the efforts to utilise the high calorific hazardous waste in the cement kiln and necessary provisions shall be made accordingly. The company shall keep the record of the waste utilized and shall submit the details to ministry's Regional Office at Bangalore, CPCB and SPCB.

(VII) Total water requirement shall not exceed 2,500 m^3/day from river Krishna and prior permission from the concerned State Authority shall be obtained. A copy of permission letter shall be submitted to Ministry's Regional Office at Bangalore. The treated wastewater from STP and utilities shall be reutilized for green belt development and other plant related activities i.e. cooling and dust suppression in raw material handling area etc. after necessary treatment. 'Zero' discharge shall be strictly adopted and no effluent from the process shall be discharged outside the premises.

(VIII) Rainwater harvesting measures shall be adopted for the augmentation of ground water at cement plant, colony and mine site. Besides, company must also harvest the rainwater from the rooftops and storm water drains to recharge the ground water. The company must also collect rain water in the mined out pits of captive lime stone mine and use the same water for the various activities of the project to conserve fresh water and reduce the water requirement pressure from the river. The Company shall construct the rain water harvesting and groundwater recharge structures outside the plant premises also in consultation with local Gram Panchayat and Village Heads to augment the ground water level. An action plan shall be submitted to Ministry's Regional Office at Bangalore within 3 months from date of issue of this letter

(IX) The project proponent shall modify the mine plan of the project at the time of seeking approval for the next mining scheme from the Indian Bureau of Mines so as to reduce the area for external over burden dump by suitably increasing the height of the dumps with proper terracing. It shall be ensured that the overall slope of the dump does not exceed 28^0.

(X) Topsoil, if any, shall be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.

(XI) The project proponent shall ensure that no natural water course shall be obstructed due to any mining and plant operations. The company shall make the plan for protection of the natural water course passing through the plant and mine area premises and submit to the ministry's Regional Office at Bangalore.

(XII) The inter burden and other waste generated shall be stacked at earmarked dump site(s) only and should not be kept active for long period. The total height of the dumps shall not exceed 30 m in three terraces of 10 m each and the over all slope of the dump shall be maintained to 28^0. The inter burden dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Bangalore on six monthly bases.

(XIII) The void left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation to be done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.

(XIV) Catch drains and siltation ponds of appropriate size should be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly.

(XV) Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and inter burden dumps and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.

(XVI) Dimension of the retaining wall at the toe of inter burden dumps and inter burden benches within the mine to check run-off and siltation should be based on the rain fall data.

(XVII) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board. The frequency of monitoring should be four times a year- pre-monsoon (April / May), monsoon (August), post-monsoon (November), and winter (January). Data thus collected shall be sent at regular intervals to

Ministry of Environment and Forests and its Regional Office at Bangalore, Central Ground Water Authority and Central Ground Water Board.

(XVIII) Blasting operation should be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders shall be implemented.

(XIX) The project proponent shall adopt wet drilling.

(XX) As proposed, green belt should be developed in 33 % in and around the plant as per the CPCB guidelines.

(XXI) The company shall take care of water supply of the village Tangeda and sbmit an action plan in this respect to the Ministry and its Regional Office at Bangalore.

(XXII) All the recommendations of the Corporate Responsibility or Environmental Protection (CREP) shall be strictly followed.

(XXIII) Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.

(XXIV) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bangalore.

(XXV) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure, for approval.

(XXVI) The company shall comply with all the commiments made during public on 30th April 2008.

B. General conditions:

i. The project authority shall adhere to the stipulations made by State Pollution Control Board (SPCB) and State Government.

ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.

iii. At least four ambient air quality monitoring stations shall be established in the down wind direction as well as where maximum ground level concentration of SPM, SO_2 and NO_X are anticipated in consultation with the SPCB. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office and SPCB / CPCB once in six months.

iv. Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.

v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

vi. Proper housekeeping and adequate occupational health programmes shall be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained properly for at least 30-40 years. The programme shall include lung function and sputum analysis tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.

vii. The company shall undertake eco-development measures including community welfare measures in the project area.

viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP.

ix. A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.

x. Adequate fund shall be allocated to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Time bound implementation schedule for implementing all the conditions stipulated herein shall be submitted. The funds so provided shall not be diverted for any other purpose.

xi. The Regional Office of this Ministry / CPCB / SPCB shall monitor the stipulated conditions. The project authorities shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.

xii. The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

xiii. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests. No change in the calendar plan including excavation, quantum of limestone and waste shall be made.

xiv. Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. should be provided with ear pluggs/ muffs.

xv. Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

xvi. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

xvii. The project authorities shall inform to the Regional Office located regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

xviii. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation, if any, was received while processing the proposal.

xix. State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.

xx. The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at "http://envfor.nic.in" and a copy of the same shall be forwarded to the Regional Office of this Ministry.

6.0 The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry.

7.0 The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.

8.0 Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.

9.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

10.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Enclosed: As above

(H.S.Malviya)
Joint Director

Copy to :-

1. The Secretary, Department of Environment and Forests, Govt. of A.P., Secretariat Hyderabad, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110032
3. The Chairman, Andra Pradesh Pollution Control Board, Paryavaran Bhavan, A-3 Industrial Estate, Sanathnagar, Hyderabad- 500018, A.P.
4. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F wings 17th Main Road,Koramangala II Block, Bangalore-560034, Karnataka.
5. Adviser IA-II, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
7. Guard File.
8. Monitoring File.
9. Record File.

(H.S.Malviya)
Joint Director

Details of the Agricultural land purchase and it be converted into non agriculture land in favour of Bhavya Cements Ltd -Hyd.At Tangeda Village of Dachepalli Mandal,Guntur District

Sy No	Extent	Total Extent	Doc No	Date
838/32	2.40		4740	16.10.07
838/33		1.54	4964	24.10.07
838/34		1.82	4122	17.09.07
838/35	1.22		5188	07.11.07
	1.22	2.44	4153	18.11.07
838/36	1.90		4958	24.10.07
	1.90	3.80	5382	22.11.07
838/38-2B	2.00		5205	08.11.07
	0.50	2.50	5204	08.11.07
838/39-2A		0.48	4707	15.10.07
838/40-2		2.75	4603	04.10.07
838/41-2A				
838/42	0.88			
	0.88			
	1.78	2.54	4045	10.09.07
838/43A	1.48		4957	24.10.07
	1.48	2.96	4961	24.10.07
838/43-B	0.75	0.75	5366	22.11.07
838/43AC1	1.03	1.03	5387	22.11.07
838/43AC2	1.09	1.09	5545	29.11.07
838/43AD	2.56	2.56	4948	24.10.07
838/43AE	0.40		5550	06.12.07
	1.27	1.67	5609	11.12.07
838/43-F	3.36	3.36	5178	07.110.07
838/43-E	0.40	0.40	5440	28.11.07
838/82-1	1.57		5444	28.11.07
	1.57	3.14	5444	28.11.07
838/82-2	0.19		5444	28.11.07
	0.19	0.38	5444	28.11.07
838/82-3	0.73		5209	08.11.07
	0.73	1.46	5210	08.11.07
838/82-4	0.11		5444	28.11.07
	0.12	0.23	5444	28.11.07

Details of the Agricultural land purchase and it be converted into non agriculture land in favour of Bhavya Cements Ltd -Hyd.At Tangeda Village of Dachepalli Mandal,Guntur District

Sy No	Extent	Total Extent	Doc No	Date
838/83-5	0.11	0.11	5210	08.11.07
838/82-6	0.93		5209	08.11.07
	0.93	1.86	5210	08.11.07
838/82-8		3.08	4970	07.11.07
838/82-7		1.99	5457	28.11.07
838/82-9		2.04	4757	16.10.07
838/82-10		3.56	4940	24.10.07
838/82-11		1.81	5208	28.11.07
838/82-12		2.24	5385	20.11.07
838/82-13-2		3.62	5172	07.11.07
838/82A13-3		2.83	4747	16.10.07
838/82A13-4		2.09	4954	16.10.07
838/82A13-5	1.10		5689	19.12.07
	1.50	2.60	5689	19.12.07
838/82-15	0.90		5689	19.12.07
	0.90		5689	19.12.07
	1.10	2.90	5689	19.12.07
838/83	0.92		4633	05.10.07
	0.92	1.84	4633	05.10.07
838/84	4.21	4.21	3987	03.09.07
838/85-1		1.02	182	17.01.08
838/85-2		0.32	182	17.01.08
838/86		1.06	538	17.01.08
838/87		1.49	538	17.01.08
838/90-1		1.25	4049	10.09.08
838/91		4.28	4052	10.09.07
842		1.82	538	17.01.08
1019-2		2.02	4957	24.10.07
			4946	24.10.07
			5746	27.12.07
1025		1.33	5388	22.11.07
1039/1		2.18	5550	06.12.07
1039/3		0.28	5550	06.12.07
			5550	06.12.07
1048/3		1.68	5176	07.11.07
1048/4		2.10	5207	08.11.07
1048/5		1.61	5689	19.12.07
1048/6		1.84	5448	28.11.07
1050/1		4.23	4966	25.10.07
1050/2	0.06		5530	05.12.07

Details of the Agricultural land purchase and it be converted into non agriculture land in favour of Bhavya Cements Ltd -Hyd.At Tangeda Village of Dachepalli Mandal,Guntur District

Sy No	Extent	Total Extent	Doc No	Date
	1.38		5530	05.12.07
	0.62	2.06	5530	05.12.07
1052/1		0.44	5550	06.12.07
1052/2		0.11	5366	22.11.07
1052/3		0.33	5366	22.11.07
1052/4		0.52	5366	22.11.07
1052/6		1.38	5366	22.11.07
1053/1		5.88	5543	05.12.07
1053/2		5.36	5543	05.12.07
1053/3		0.17	5550	06.12.07
1053/4		0.40	5550	16.12.07
1053/5		1.36	5623	12.12.07
1053/6		1.76	5623	12.12.07
1059		3.72	4943	24.10.07
1064/1		1.26	4955	24.10.07
1064/2		1.36	4955	24.10.07
1065		1.24	5361	22.11.07
1172/1B	0.22		5550	06.12.07
	0.22	0.44	5550	06.12.07
1172/2B		4.94	5550	06.12.07
1055		6.12	192	20.01.08

TOTAL (147.08) Ac 146.77 cts

సమర్పితం దాచేపల్లి మండలం తంగెడ గ్రామము లోని M/s భవ్య సిమెంట్స్ లిమిటెడ్ హైదరాబాదు వారు (147.08) ఎకరాల వ్యవసాయ భూములను సిమెంటు ఫ్యాక్టరీ నిర్మాణం కొరకు కొనుగోలు చేసి యున్నారు. సదరు భూములు రైతుల వారి పట్టా భూములు అయి యున్నవి. సిమెంటు కంపెనీ వారు సదరు భూములను కొనుగోలు చేసి రిజిస్టర్డు డాక్యుమెంట్ల ద్వారా రైతుల నుండి రిజిస్టరు పొంది యున్నారు.

సదరు భూములు వ్యవసాయక భూములనుండి వ్యవసాయేతర భూములుగా మార్పు చేయుటకు తగిన మార్కెటు విలువను నాలా చార్జీల క్రింద ప్రభుత్వము వారికి జమ చేసి యున్నారు కావున సదరు భూములను వ్యవసాయేతర భూములుగా మార్పు చేయుటకు అభ్యంతరము లేదని తెలియజేయడమైనది.

TC.
VRO
Tangeda.

TAHSILDAR
DACHEPALLI MANDAL
GUNTUR DISTRICT
14.03.08

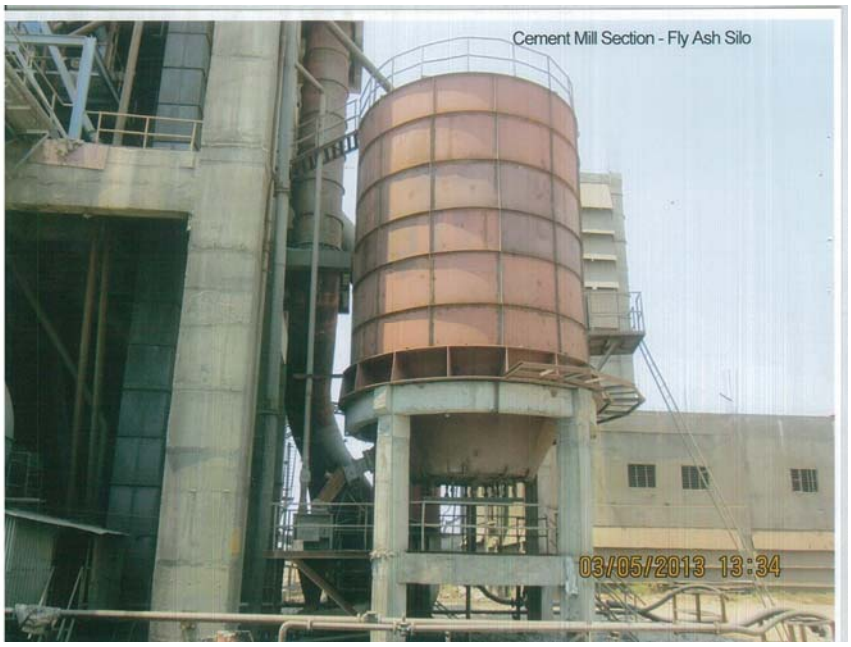
14/3/08
14/3/08
19/3/08

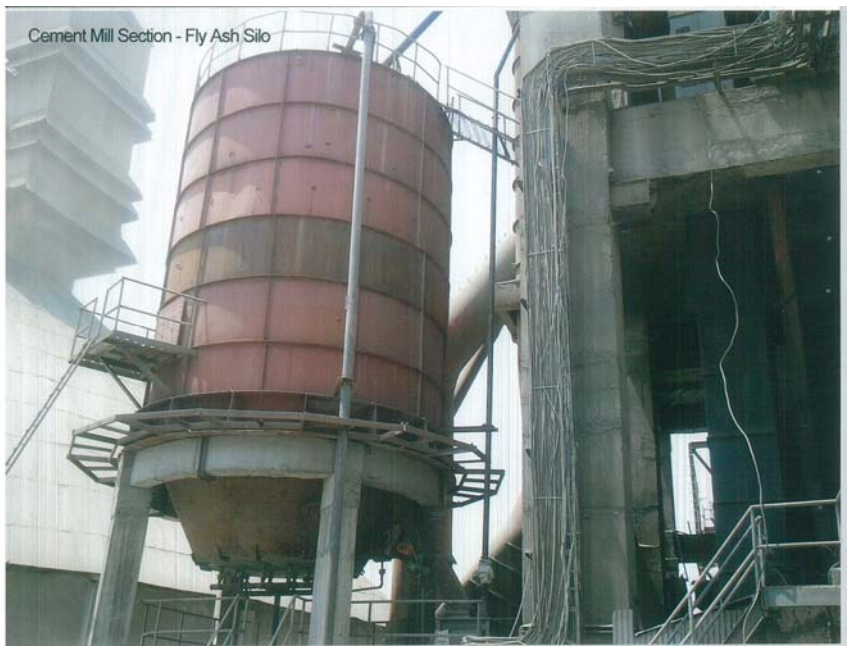
REVENUE DIVISIONAL OFFICER
NARASARAOPET.
19/3/08

19/3/08

Above contents are verified and found correct.
MRI-II
Dachepalli

Work Progress





INDIA POST
Ministry of Communication & Information Technology

Track Result for : RN160718091IN

Booked at	Booked on	Delivered at	Delivered on	Details
FILM NAGAR	11/05/2013	KORAMANGALA	14/05/2013	Details

Detailed Track Events for : RN160718091IN

Date	Time	Status at	Status
11/05/2013	11:09:05	FILM NAGAR	Article Booked
12/05/2013	05:44:15	CRC HYDERABAD SORTING	Article Bagged to CRC HYDERABAD SORTING
12/05/2013	09:04:28	CRC HYDERABAD SORTING	Bag is Received
12/05/2013	09:06:54	CRC HYDERABAD SORTING	Bag is Opened
12/05/2013	13:08:57	CRC HYDERABAD SORTING	Article Bagged to BANGALORE CITY RMS
12/05/2013	15:39:12	CRC HYDERABAD SORTING	Bag Despatched to BANGALORE CITY RMS
13/05/2013	17:59:49	BANGALORE CITY RMS	Bag is Received
13/05/2013	18:30:40	BANGALORE CITY RMS	Bag is Opened
14/05/2013	04:13:37	BANGALORE CITY RMS	Article Bagged to KORAMANGALA
14/05/2013	08:56:25	KORAMANGALA	Bag is Received
14/05/2013	08:59:05	KORAMANGALA	Bag is Opened
14/05/2013	17:23:28	KORAMANGALA	Article Delivered

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Click here and enter details to get contact information

Not satisifed ? Click here to register complaint

BHAVYA CEMENTS LIMITED

(An ISO 9001 : 2008 Certified Company)

Corporate Office : Plot No. A-1, IInd Floor, Bhavya's Spoorthi Bhavan,
Film Nagar, Jubilee Hills, Hyderabad - 500 033
Phone : 040-23553864/65, Fax : 040-23553793
E-mail : info@bhavyacements.com

Ref: BCL/APPCB/2013-14/348

Date: 10th May, 2013

To
The Director,
Ministry of Environment and Forests
Regional Office (SZ),
Kendriya Sadan, 4th Floor, E & F Wings,
17th Main Road, Koramangala II Block,
Bangalore-560 034.

Dear Sir,

Sub: Phase II project implementation - Reg.
Ref: 1. EC Order No.265/PCB/CFE/RO-GNT/HO/2008 Dated 26.06.2008
2. CFE Order F.No.J-11011/1186/2007-IA-II(I) Dated 22.09.2008
3. CFO Phase I Consent Order No: PPCB/VIA/GTR/205/HO/CFO/2011, Dated: 15-10-2011.

With reference to the above mentioned project, we wish to inform you that the implementation of Phase I has been successfully completed and we are regularly submitting all the statutory reports to R.O, APPCB and MOEF Bangalore.

The Phase II project implementation was initiated. The progress of the project is as follows.

1. Cement Mill Section - Packing Plant
2. Coal Mill Section - Raw coal stock pile
3. Raw Mill, Pre-heater and Kiln Section Civil drawings under preparation and the works will be commenced at the earliest.

Photographic Evidence of the work completed is enclosed for your information

Thanking you,
Yours sincerely,
For Bhavya Cements Limited

V. Ananda Prasad
Managing Director

Copy to: R.O, APPCB, Guntur.

Office of the Environmental Engineer A.P. Pollution Control Board, Guntur
Inw. No: 23/5/13

Regd. Office & Works : Tangeda (Village), Dachepally (Mandal), Guntur (Dist) - 522 414.
Phone : 08649-273900, Fax : 08649-273938
E-mail : hrworks@bhavyacements.in

ANDHRA PRADESH POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN, A-3, INDUSTRIAL ESTATE,
SANATHNAGAR, HYDERABAD - 500 018.

Phone: 040-23887500
Fax: 040- 23815631
Grams : Kalusya Nivarana
Website : appcb.ap.nic.in

CONSENT & AUTHORISATION ORDER
BY REGD. POST WITH ACKN. DUE

Consent Order No : APPCB/VJA/GTR/205/HO/CFO/2014- 914 **Date : 29.12.2014**

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation / Renewal of Authorisation under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules 2008 & Amendments thereof.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21 of Air (Prevention & Control of Pollution) Act 1981 and Authorisation under the provisions of HW (MH & TM) Rules (hereinafter referred to as 'the Acts', 'the Rules') and the rules and orders made thereunder to

M/s. Bhavya Cements Limited,
Sy.No.1172, 838-82, Tangeda (V),
Dachepalli (M),
Guntur District – 522 414
E-Mail: bhavyacements@yahoo.co.in

(hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of Emissions per hour from the chimneys as detailed below.

I. Outlets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1.	Domestic Effluents after treatment in STP	64	Shall be used for on land for gardening within the premises.

II. Emissions from chimneys:

Chimney No.	Description of Chimney
1.	Attached to Raw Mill and Kiln
2.	Attached to Coal Mill
3.	Attached to Cooler
4.	Attached to Cement Mill -I
5.	Attached to Cement Mill -II
6.	Attached to Limestone crusher / Pulverizer
7.	Attached to transfer points at Limestone conveyors
8.	Attached to 500 KVA DG set

iii) HAZARDOUS WASTE AUTHORISATION (FORM – II) [See Rule 5 (4)]

M/s. Bhavya Cements Limited, Sy. No. 1172, 838-82, Tangeda (V), Dachepalli (M), Guntur District., is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

- **HAZARDOUS WASTES WITH RECYCLING OPTION:**

S. No.	Name of the Hazardous Waste	Stream	Quantity of Hazardous waste	Disposal Option
1.	Used oil / Waste lubricating oil	5.1 of Schedule – I	500 LPA	Authorized Reprocessors / Recyclers.
2.	Grease for lubrication	5.2 of Schedule – I	200 Kg/annum	

This consent order is valid for manufacture the following products along with quantities only.

S.No.	Product	Quantity
1.	Cement	1.4 Million TPA
2.	Lime Stone Mining	14,85,000 TPA

This order is subject to the provisions of the Acts and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This consent should be valid for a period ending with the **31st day of August, 2018.**

Sd/-
MEMBER SECRETARY

To
M/s. Bhavya Cements Limited
Sy.No.1172, 838-82, Tangeda (V),
Dachepalli (M),
Guntur District – 522 414

Copy to the JCEE, Zonal Office, Vijayawada for information and necessary action.
Copy to the Environmental Engineer, Regional Office, Guntur for information and necessary action.
Copy to JCEE (Cess), APPCB, Hyderabad for information.

//T.C.F.B.O//

31/12/14.

JOINT CHIEF ENVIRONMENTAL ENGINEER
(Unit-IV)

SCHEDULE – A

All the conditions stipulated in the Schedule – A of the earlier combined CFO & HWA order No APPCB/VJA/GTR/205/HO/CFO/2010-2102, dated 16.11.2010 remains same. The industry should ensure consistent compliance of each conditions of Schedule-A".

SCHEDULE - B

1. The effluent discharged should not contain constituents in excess of the tolerance limits mentioned below.

Outlet No.	Parameter	Limiting Standards
1.	P^H	6.5 – 8.5
	Suspended Solids	200.0 mg/l
	Oil and Grease	10.0 mg/l
	Biochemical Oxygen Demand ($BOD_{3\ days}$ at 27^0C)	100.0 mg/l

2. The industry should file the Water Cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry should remit water cess as per the assessment orders as and when issued by Board.

3. The industry should take steps to reduce water consumption to the extent possible and consumption should NOT exceed the quantities mentioned below:

S.No	Purpose	Quantity
1.	Process	140.0 KLD
2.	Washings	
3.	Boiler Feed	
4.	Industrial Cooling (make up)	
5	Domestic including Plant & Township	80.0 KLD
	Total	**220.0 KLD**

4. The emissions should not contain constituents in excess of the prescribed limits mentioned below.

Chimney No.	Parameter	Emission Standards
1 to 7	Particulate Matter	50 mg/Nm^3

5. The industry should comply with ambient air quality standards of PM_{10} (Particulate Matter size less than 10μm) - 100 μg/ m^3; $PM_{2.5}$ (Particulate Matter size less than 2.5 μm) - 60 μg/ m^3; SO_2 - 80 μg/ m^3; NO_x - 80 μg/m^3, outside the factory premises at the periphery of the industry.

   Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009

   Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)
   Night time (10 PM to 6 AM) - 70 dB (A).

6. The industry should not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
7. The industry should made permanent arrangements for utilization of treated domestic water for plantation purpose within the premises, no treated effluents should join into the vaagu.
8. The industry should not discharge waste water to outside the premises.
9. The industry should develop and maintain greenbelt including Cement Plant & Township and mine lease area. Green belt develop should develop in and the outside periphery of the industry.
10. The industry should provide permanent system to transport the domestic effluents from storage tank to treatment facility.
11. The industry should take all measures to control the fugitive emissions during transportation of lime stone from lime stone crusher (which is located at other side of the road) to the plant.
12. The industry should not construct anything adjacent to the vagu other than compound wall and should leave sufficient place so that the encroachment of vagu should not take place.
13. The industry should maintain continues online SPM monitor intact with recording facility for continuous monitoring of kiln stack gases and should regularly under take calibration of the same. The details of the calibration schedule and consolidated online monitoring data should be submitted to R.O., Guntur for every three months.
14. The industry should submit details of Kiln ESP tripping's to the Regional Office of the Board for every three months.
15. The industry should submit monthly consolidated report of daily operating hours of kiln, ESP and reasons for ESP tripping to the RO, Guntur and Board office.
16. The industry should install & maintain interlocking facility between APC equipment and raw material feeding system to regulate the feeding of raw material into the Kiln, so that feeding of raw materials would stop automatically in case the air pollution control equipment fails. The industry should regularly calibrate the performance of interlocking system & furnish repot to the Board.
17. The industry should furnish details of fly ash brought from the nearby Coal based Thermal Plants and quantity of fly ash consumed per each ton of product, inventory of fly ash at on-site along with details of measures implemented to mitigate fugitive emissions at various transfers to R.O., Guntur for every three months.
18. The industry should provide adequate dust collection and extraction system to control fugitive emissions at various transfer points & the dust collected from pollution control equipments should be recycled back into the process. The compliance status should be reported to RO – Guntur within a month.
19. Bio Indicator Plants should be planted and maintained along the boundary of the industry & should furnish compliance status regularly to the Board.
20. The industry should provide the water sprinkling upto crusher hopper located in the plant from main gate.
21. The industry shall ensure regular maintenance and operation of the on-line stack monitoring systems and CAAQM stations with tamper proof mechanism having facilities for online calibration.
22. The industry vide letter dt. 19.12.2014 submitted purchase order for two AAQM stations. The industry shall install the two AAQM stations in addition to the existing one AAQM station, within a month and submit monthly reports. One ambient air quality monitoring station should be set up in the down wind direction in consultation with RO, APPCB, Guntur.
23. The industry should store raw materials in a closed roof sheds / silos.

24. The industry should maintain the records on utilized for cement production and stocks maintained at on-site and should submit consolidated reports to the Regional Office of the Board once in six months.
25. The industry should ensure consistent compliance of Environmental Clearance obtained from MoEF, GoI on 22.09.2008.
26. The industry should maintain the compliance of conditions stipulated in CFE order No.265/PCB/CFE/RO-GNT/HO/2008, dt. 26.06.2008 issued by the Board.
27. The applicant should submit Environment statement in Form V before 30th September of every year as per Rule No.14 of E(P) Rules, 1986 & amendments.

SCHEDULE - C

[see rule and 5(4)]

[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES]

1. The industry should give top priority for waste minimization and cleaner production practices.
2. The industry should not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management. Handling and Transboundary Movement) Rules, 2008 and amendments thereof.
3. The industry should store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal.
4. The industry should not dispose Waste oils to the traders and the same should be disposed to the authorized Reprocessors/ Recyclers.
5. The industry should dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis.
6. The industry should take necessary practical steps for prevention of oil spillages and carry over of oil from the premises.
7. The industry should maintain 6 copy manifest system for transportation of waste generated and a copy should be submitted to Board Office and concerned Regional Office.
8. The industry should maintain good house keeping & maintain proper records for Hazardous Wastes stated in Authorisation.
9. The industry should maintain proper records for Hazardous Wastes stated in Authorisation in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and amendments thereof.
10. The industry should submit the condition wise compliance report of the conditions stipulated in Schedule B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office.
11. The industry should dispose of e-waste to the authorized recyclers only.

Sd/-
MEMBER SECRETARY

To
M/s. Bhavya Cements Limited,
Sy.No.1172, 838-82, Tangeda (V),
Dachepalli (M),
Guntur District – 522 414.

//T.C.F.B.O//

31/12/14

JOINT CHIEF ENVIRONMENTAL ENGINEER
(Unit-IV)

MINUTES OF 31st MEETING OF THE RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY) HELD ON 8th-9th JANUARY 2015

31.1 Opening Remarks of the Chairman

31.2 Confirmation of the Minutes of the 29th Reconstituted Expert Appraisal Committee (Industry) held during **11th -12th December 2014.**

The minutes of the 29th EAC(I) meeting on Industry-1 projects were confirmed subject to the following corrections:

Agenda No. 29.6.2: Subject title: the word "Uttarakhand" is replaced by "Uttar Pradesh". In Para 8, 2nd last line: Excess treated water of 225KLD shall be disposed off in the drain after meeting prescribed standards and not sent to CETP for further treatment as stated in the minutes. The unit is not located in an industrial area and there is no CETP. The project comes in the purview of RO, Lucknow and not RO, Chandigarh and this is replaced in all such reference.

Agenda Item No. 29.3.1 Correction as given in agenda Item No.31.9.3

Agenda Item No. 29.5.4 F.No. J-11011/158/2008-IA.II(I) is replaced by F.No. J-11011/467/2010-IA.II(I)

Agenda Item No. 29.5.5 F.No. J-11011/467/2010-IA.II(I) is replaced by F.No. J-11011/158/2008-IA.II(I)

THURSDAY, 8th JANUARY 2015

31.3 Environmental Clearance

31.3.1 Proposed Mill Expansion Plan to Increase Paper production from 135000TPA to 210000TPA and Increase in Captive Cogeneration Plant from 45.9MW to 90.9MW of **M/s Trident Ltd.** at village Dhoula, Tehsil & Dist. Barnala, Punjab (EC) (J-11011/1/2013-IA.II(I) TOR dated 25.04.2013)

M/s Trident Ltd (***herein after Project Proponent –PP***) and their EIA-EMP consultant M/s Chola MS Risk Services Limited - Chennai gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 6th meeting of the Expert Appraisal Committee (Industry) held on 5th – 7th March 2013 for preparation of EIA-EMP report. The TOR was awarded by MoEF&CC vide F.No. J-11011/1/2013-IA.II(I) dated 25th April, 2013 for preparation of EIA-EMP report. PP submitted the final EIA-EMP report vide letter dated 4th April, 2014 after conducting Public Hearing for grant of Environmental Clearance.

The proposal was exempted from Public hearing based on the Notification dated 3.3.2011 published in the Punjab Government Gazette on 22.03.2011 declaring 644 acres in village Dhaula, Fatehgarh Channa and Handiya of District Barnala, Punjab as an industrial area. The Ministry had vide letter dated 3rd June, 2014 informed PP to submit the EC obtained for the industrial area to the Ministry for further processing of the proposal. The matter was further examined in accordance with the OM dated 10th December, 2014 wherein Ministry has clarified that the exemption from Public Consultation, as provided for under

The Committee also agreed for the use of baseline data and other data (sodar and hydrogeology) collected during the summer season (March-May 2014) for the proposed project of M/s Tata Metalliks Ltd, whose boundary is adjoining the another expansion project of M/s Tata Metaliks for which a TOR No. J-11011/377/2013-IA.II(I) was granted by MOEF&CC on 19th May 2014 for "Proposed Capacity expansion from 3, 45,000 TPA Pig Iron Production to 5,00,000 TPA hot metal production and 10 MW waste heat recovery power plant at Gokulpur village, PO Samraipur, Tehsil Kharagpur, District Pashchim Medinipur, West Bengal".

31.5.4 Integrated Cement Manufacturing Unit of **M/s Bhavya Cements Ltd.**, at Vill. Tangeda, Mandal Dachepally, Dist. Guntur, A.P. (Letter dated 12.12.2014 seeking extn. of validity of EC No.J-11011/1186/2007-IA.II(I) dated 22.09.2008

M/s Bhavya Cements Ltd obtained Environmental Clearance for integrated Cement Plant of 4 Million TPA (8500 TPD) Capacity, 15 MW captive power plant and Captive mining from Ministry of Environment and Forests (MoEF) vide letter no. F. No. J-11011/1186/2007-IA II (I) dated 22.09.2008 at Thangeda Village, Dachepally Mandal, Guntur Dist, Andhra Pradesh.

The Phase I project for 1 Million TPA (3000 TPD) production is in operation, while the phase II construction is in progress and is expected to be completed in 14 months. The company has already acquired 65.00 ha of land. Total project cost of the project is Rs. 630 crores (Phase II) and Rs. 30 crores (Phase II) is earmarked towards the capital cost for environmental protection. As there has been a delay in financial closure, PP has requested for extension of validity of EC for further period of 5 years. PP mentioned that orders are placed for equipment and civil works are in progress.

The Committee noted that the EC has expired on 21.09.2013, and PP applied on 12.12.2014, i.e. after the expiry of EC. The Committee after deliberations decided that the matter may be referred to the Ministry for a decision.

31.5.5 Letter dated 05.12.2014 of **M/s Xindia Steels Ltd.** regarding EC for their Stand-Alone Pellet Plant at Villages Kunikere-Hirebagnal, Taluk & Dist. Koppal, Karnatka.

PP did not attend the meeting. The Member-Secretary informed that an application for TOR is for regularisation of their existing Stand-Alone Pellet Plant. However, the PP has already incorporated the unit in the proposal of an ISP, which was considered for EC in the EAC(I) meeting held in the EAC(I) meeting held on 28th-29th August 2014 and recommended for EC. In view of this, the Committee decided that the application for the regularisation of the existing Pellet Plant need not be considered again for EC.

31.5.6 Installation of Reheating Furnace for the steel processing unit of **M/s Prime Gold- SAIL JVC Limited** located at Billowa, Dabra, district Gwalior, Madhya Pradesh- Letter dated 01.07.2014 of M/s Prime Gold-SAIL JVC Ltd for establishing a Re-Heating Furnace for Steel processing Unit at Gawalior, M.P. **(Applicability of EIA Notification)** (Considered in July 2014 meeting)

PP did not attend the meeting. The Committee decided that the proposal will be considered as and when requested by the PP.

F.No. J-11011/1186/2007-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Ali Ganj,
New Delhi – 110003
E-mail: ashish.gurbuti@nic.in
Tel: 011-24695816

Dated: 11th September, 2015

To,

M/s Bhavya Cement Limited
Village Tangeda, Taluk Gurjala
Dachepally mandal
Guntur District, Andhra Pradesh

Email: bhavyacements@yahoo.co.in

Subject: Integrated Cement Manufacturing Unit of M/s Bhavya Cements Ltd., at Vill, Tangeda, Mandal Dachepally, Dist. Guntur, A.P. – Extension of validity of EC regarding

Sir,

This has reference to your letter No. BCL/EC/C/1 dated 12.12.2014 regarding the above mentioned subject.

2.0 M/s Bhavya Cements Ltd obtained Environmental Clearance for integrated Cement Plant of 4 Million TPA (8500 TPD) Capacity, 15 MW captive power plant and Captive mining from Ministry of Environment and Forests (MoEF) vide letter no. F. No. J-11011/1186/2007-IA II (I) dated 22.09.2008 at Thangeda Village, Dachepally Mandal, Guntur Dist, Andhra Pradesh.

3.0 Vide letter dated 12.12.2014 a request has been made for extension of validity of EC for further period of 5 years from 22.09.2013 up to 21.09.2018. It was also informed that orders are placed for equipment and civil works are in progress.

4.0 The matter was considered in the 31st EAC meeting held on 8th – 9th January, 2015. The Committee noted that the EC has expired on 21.09.2013, and PP applied on 12.12.2014, i.e. after the expiry of EC. The Committee after deliberations decided that the matter may be referred to the Ministry for a decision.

5.0 The matter was examined in the Ministry. Meanwhile vide amendment Notification dated 29th April, 2015, the Ministry has extended the period of validity of Environmental Clearance from 5 years to 7 years.

Contd..

6.0 In view of the above, since the EC was accorded vide letter dated 22.09.2008, it is valid upto 21.09.2015.

7.0 It is requested to apply afresh for further extension of EC validity for 3 years, if required, before 21.09.2015 by an online application to further consider the matter.

Yours Faithfully,

(Amarendra Raju)
Scientist 'D'

BHAVYA CEMENTS LIMITED
TANGEDA VILLAGE, DACHEPALLY MANDAL, GUNTUR DISTRICT, ANDHRA PRADESH

Pre - Feasibility Report

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Submitted to
MINISTRY OF ENVIRONMENT AND FORESTS,
GOVERNMENT OF INDIA
INDIRA PARYAVARAN BHAWAN,
JOR BAGH ROAD, ALIGANJ, NEW DELHI

Pre – Feasibility Report

Bhavya Cements Limited,
Tangeda Village, Dachepalli Mandal,
Guntur District, Andhra Pradesh.

1 Executive Summary

M/s. **Bhavya Cements Limited,**proposes to estbalish integrated cement plant with a of capacity of 2.85 MmTPA clinker and 4.0 MMTPA (Phae I 1.0 + Phase II 3.0 MmTPA) of Ordinary Portland Cement (OPC), Portland Pozzalona Cement (PPC) at Thangeda Village, Dachepally Mandal, Guntur Dist, Andhra Pradesh.

2 Introduction of the Project / Background Information

2.1 Identification of Project and Project Proponent:

The objective of this pre-feasibility study is to provide information for existing and proposed capacity 2.85 MMTPA clinker and 4.0 MMTPA of Ordinary Portland cement (OPC), Portland Pozzalona Cement (PPC) in exist plant land at Thangeda Village, Dachepally Mandal, Guntur Dist, Andhra Pradesh.

(i) The core promoters of BCL are Mr. V. Ananda Prasad & Mr. P.Siva Kumar. Brief profiles of the promoters are given below:

Mr. V. Ananda Prasad

He a mechanical engineer with 25 years of experience in Cement and construction industry. He is Promoter and Managing Director of Bhavya Cements Limited and also Bhavya constructions. Bhavya constructions has executed more than 50 projects of around 2.02 million square feet and implementing is implementing projects of about 4.0 million square feet.

Mr P.Siva Kumar

Sri P Siva Kumar, aged 39 years, is a graduate in civil engineering from OsmaniaUniversity. He is a promoter and Director of Bhavya Cements Limited. He promoted a partnership firm Sri Mahavishnu Constructions which has planned, designed and executed two residential/commercial construction projects

aggregating to about 1.00 lakh square feet. Since 1999 he has been a business associate in Bhavya Constructions on a project to project basis.

(ii) Need for the project

The cement industry in India has been on a robust growth trajectory for more than a decade, led by buoyancy in sectors like real estate and construction. It is modern and deploys latest technology, which is among the best in the world. Additionally, the industry has great potential for development as limestone of excellent quality is found in this area.

India is the second largest producer of cement on the globe after China.

Indian Cement Industry - Capacity and Production

Type of Units	Capacity as on 31.03.2011	Cement Production 2010-11
Large Plants	234.30	168.29
Mini & White Cement Plants	11.10	6.00
Total	**245.40**	**174.29**

The cement industry in India has received a great impetus from a number of infrastructure projects taken up by the Government of India like road networks and housing facilities. While the Indian cement industry enjoys a phenomenal phase of growth, experts reveal that it is poised towards a highly prosperous future over the very recent years. Estimates state that the production in the sector will touch 263 MT in 2011-12. The cement industry in the subcontinent is dominated by around 20 companies.

Government Initiatives

With an objective of accelerating and sustaining growth in the cement industry the government has taken various steps in the Union budget 2011-12. The infrastructure sector has received an impetus in the form of improved funds and tax related incentives offered to attract investors for tapping the infrastructure opportunities around the country. Introduction of tax free bonds, formation of infrastructure debt funds and formulating a comprehensive policy for developing public private

partnership projects (PPPs) are some of the steps that will provide required stimulus for growth of cement industry in India.

Steps taken in the Union Budget 2011-12 include:

- Allocation of Rs 2, 14,000 crores (US$ 46.5 billion) for infrastructure in 2011-12. This is an increase of 23.3 per cent over 2010-11.
- Government to come up with a policy for developing PPP projects.
- IIFCL to achieve cumulative disbursement target of Rs 20,000 crores by March 31, 2011 and Rs 25,000 crores by March 31, 2012.
- Under take out financing scheme, seven projects sanctioned with debt of Rs 1,500 crores. Another Rs 5,000 crores will be sanctioned during 2011-12.
- To boost infrastructure development, tax free bonds of Rs 30,000 crore proposed to be issued by Government undertakings during 2011-12.

Growth in domestic cement demand is likely to remain strong, given the revival in the housing markets, constant government spending on the rural sector, and due to rise in the number of infrastructure projects being implemented by the private sector. Furthermore, it is expected that the industry players will continue to increase their annual cement output in coming years and India's cement production will grow at a compound annual growth rate (CAGR) of around 12 per cent during 2011-12 - 2013-14 to reach 303 Million Metric Tons, according to Indian Cement Industry Forecast to 2012.

(iii) Demand Supply Gap

National future supply capability is estimated after making following adjustments: A retirement factor of 1.00 MTPA is assumed towards closure of capacity of old plants. Plants are estimated to work at average capacity utilization 90%. This is based on the past performance of plants.

In the year of commissioning, capacity from a new plant is reckoned at 50%.

Estimated future supply capability / effective capacities are given in the table below

Estimated future Effective Capacity at National Level

Year	Effective Capacity In mio tpa
2008 – 09	199.1
2009 – 10	236.2
2010 – 11	263.6
2011 – 12	281.3
2012 – 13	287.5

Future Demand Supply Gap

Year Item	2010–11	2011–12	2012–13
Total Effective Capacity	263.6	281.3	287.5
Less Estimated Exports	6.0	6.0	6.0
Domestic Supply	257.6	275.3	281.5
Domestic Demand	216.3	234.9	255.4
Surplus (Deficit)	**41.3**	**40.3**	**26.1**

Import Vs Indigenous Production

Foreign Trade Policy (FTP) for 2004-09 was notified on 31.8.2004 and made effective from 1.9.2004. The amended Export and Import Policy incorporated in the FTP and effective from 1.4.2008, freely allows the import of cement clinkers, ordinary portland cement, portland pozzolana cement, portland slag cement, white and coloured cement, aluminous cement, etc. The past cement imports data shows that a meager quantity of cement has been imported from the neighbor countries around 1.0 million tons. The main suppliers are Pakistan, Bangladesh, Indonesia, China and Japan. When the volume of import is compared with the demand is negligible. Since cement is a voluminous product, substitution by imports having lot of implications. In addition to this, our cement manufacturing capacity at the end of March 2011 is 245.4 million tons. The addition in the said period is 11.70 million tons and the likely capacity addition for the year 2011-2012 will be 28.60 million tons. This shows that our domestic need can be well managed with our indigenous production.

(iv) Employment Generation

For the project activity direct employment for about 150 persons and indirect employment for about 200 persons is expected. This is only a projected demand subject to change; however, definitely there will be a sizeable anticipated employment opportunity.

3. Project Description

(i) Type of Project

The proposed project is falls in the A category of 3 (b) in the Schedule of EIA Notification, 2006.

(ii) Location

The cement plant is located 79^{o} 48′ 59.89″longitude and 16^{o} 39′ 19.56″ latitude.

The following environmental considerations within 15 kms from the existing premises are accounted:

- ✓ No areas are protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value
- ✓ No areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests
- ✓ No areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration
- ✓ Inland, coastal, marine or underground waters – River Krishna is flowing at a distance of 3.7 km from the plant location.
- ✓ Telangana State boundary is at a distance of 3.9 km in north direction, no National boundaries
- ✓ No routes or facilities used by the public for access to recreation or other tourist, pilgrim areas
- ✓ No defense installations
- ✓ No areas are containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)

- ✓ No areas are already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)
- ✓ No areas susceptible to natural hazard which could cause the project to present environmental problems (Earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)

(iii) Project Description

A brief description of the process is illustrated as follows:

Limestone Crusher, Stacker and Re-claimer

The required limestone for the proposed activity will be taken from captive mines. Limestone will be transported from quarry by means of a closed conveyor and will be fed into suitable crusher and the crushed Limestone will be conveyed through a closed belt conveyor to the stockpile consisting of a boom stacker and re-claimer arrangement. Two piles can be formed, while one will be stacked, the other will be reclaimed out.

Raw material grinding, Blending, Storage and Kiln feed

Limestone, Iron ore, Bauxite, High-grade limestone will be proportioned before feeding to the air swept vertical roller mill. In this mill, the raw materials will be ground to fine powder with rollers pressing on the rotating table with high hydraulic pressure.

Hot kiln gas will be used for drying and conveying the product to the high efficiency Bag House (including some recycled kiln dust) and dust will be collected and subsequently conveyed to the blending and storage silo by transport systems. Raw mill exhaust gas, which will be vented out to atmosphere through Bag House.

In order to maintain consistent feed chemistry to kiln a blending and storage silo will be installed to absorb variations produced by the raw mill due to variations in the raw material chemistry. The blended raw meal will be automatically extracted from the silo and transferred to the kiln feed hopper by the conveying system. The kiln feed rate is controlled accurately by a control system.

Pyro-processing (Clinkerisation)

Modern thermally efficient, low power dry process plant consists of a five stage, single string suspension pre-heater cyclones with pre-calciner, rotary kiln and reciprocating grate clinker cooler.

The kiln feed will be preheated to a temperature of around 850 ^{0}C as it passes down the pre-heater by the stream of hot kiln gas, which passes upwards. The preheated meal passes into the pre-calciner where the fuel mix is burnt and the raw meal will be calcined to produce a highly reactive mix. The hot calcined meal then passes through Kiln. The heat supplied by burning pulverized coal in kiln is heating the hot meal up to a temperature of 1400 ^{0}C to form cementations clinker.

The hot clinker leaves the kiln and will be cooled by means of air passing through a bed of clinker on the cooler grate. The cooler vent dust will be collected in ESP. The air after cooling the clinker becomes hot and will be used as secondary and tertiary air for the combustion in the kiln and pre-calcinator respectively and also to assist in drying the raw materials in raw mill and coal/lignite mix in coal mill exhausted to atmosphere through a high efficiency Bag House. The kiln exhaust gases will be used for drying coal/lignite mix in the coal mill. Part of the kiln exhaust gases will be used for drying raw materials in the raw mill.

Clinker storage

Clinker will be cooled to about 70 ^{o}C falls from the cooler grate into deep bucket conveyor via a crusher where over size lumps are broken to small size. The DBC conveys the clinker into a storage concrete silo. The clinker will be then extracted under the silo and taken to cement mill section through belt conveyors.

Coal handling and Grinding

Raw Coal generally containing low ash content received by road will be discharged by tippers/manually before being conveyed to a covered circular blending stockpile. Depending on the fuel mix used and its average moisture content, the fuel will be dried and ground in the vertical roller milling system. Sophisticated process control and monitoring equipment ensure safe and reliable coal mill operation at all times.

The coal mill final product (Pulverized coal) will be collected in a steel silo. The coal mill exhaust gases will be vented through high efficiency Bag House. The pulverized coal will be pumped to pre-calciner and kiln burning section through special transport equipment in closed system.

Cement grinding

Clinker will be then extracted from clinker silo and conveyed to the clinker hopper. The clinker, gypsum, Slag and Flyash will be extracted from the hoppers at desired proportions and will be fed to the Cement Mill and will be ground as. The mill ventilation dust will be collected in a High Efficiency Bag House. The finished Cement product from the Mill will be conveyed and stored in storage silos.

Cement storage and Packing

Electronic Packers will be used for packing the cement into 50 kg bags. The packed cement will be sent to various destinations by road/rail.

Encon Measures

It is proposed to incorporate installation of state of art technology equipments with various Electrical / Thermal Encon measures to produce the Cement at the lowest energy consumption level which in turn protect the Environment.

Environmental Protection

All required Pollution control equipments like Bag Houses, Bag filters and ESPs with latest control system is planned to be installed to protect the Environment

Plant Automation

The total plant operation will be done through computer based PLC / DCS system to have micro level monitoring and controls.

Proposed, section wise pollution control equipments:

S.NO	AREA	APC Equipments**
1	Limestone crusher Building.	Bag Filter
2	Limestone conveying	Bag Filter
3	Raw mill/Kiln	Bag house
4	Blending silo	Bag filter
5	Kiln feeding system	Bag filter
6	Cooler	ESP
7	Clinker silo	Bag filter
8	Clinker Pre-grinding	Bag filter
9	Cement Mill	Bag house
10	Cement Silo	Bag filter
11	Raw Coal crusher	Bag filter
12	Top of Raw coal hopper	Bag filter
13	Coal mill	Bag house
14	coal silo	Bag filter
15	Packing Plant	Bag filter
16	Cooler DBC	Bag filter
17	Fly Ash silo	Bag filter

**Subject to change while final engineering.

Raw Material

The source of raw material and mode of transport is presented in the following table;

Raw Material Requirement

S.no	Material	Source Category	Source Locality	Distance from plant (km)	Quantity (TPD)	Remarks
					Phase-II	
1	Limestone	Captive Concession	Own Mines	1	8250	Adjacent to the plant
2	Aluminum Laterite	Purchased	Rajahmandry/Waranga l	100/250	250	Aluminum Laterite is available in various localities of west godavari district
3	Iron ore	Purchased	Bellary/ Kurnool	450/250	165	private laterite mines are operating in Bellary / Kurnool district
4	Gypsum	Purchased	Vizag/ Chennai	550	305	Gypsum is Available in Vizag/Channi.
5	Fuel (coal)	Purchased	SCCL, Kothagudem	350	1000	Transportation by sea/ road.
6	Flyash	Purchased	Vijayawada/Kothagudem	120	1800	Fly ash is available at NTPC/KTPC Power Plants.

*** All the trucks are covered by Tarpaulin and all the Conveyors are in enclosed System.**

(iv) Resource Optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined

Dust collected from the pollution control equipment like Bag House / ESP/ bagfilter will be recycled in the process itself. Heat from the hot air coming out of the kiln and hot clinker will be used to dry the process material in Rawmill and coalmill. Production of Portland pozzolona cement will be maximum encouraged by using the Flyash so that the limestone consumption will be reduced. Limestone resource,

also, will be conserved by utilizing the lowgrade limestone by mixing with high grade limestone.

(v) Availability of water its source, Energy/Power requirement and source

Water – Water requirement for the Phase II is 1805 KLD which is met through Ground water / mine seepage water / Krishna River.

Energy – For the Project, we will use Coal predominantly either domestic or imported sources.

Power – The maximum electrical power demand for the Plant is 40 MW.

(vi) Quantity of waste generated

Liquid waste – Since the proposed manufacturing process is a dry process, no liquid waste will be generated.

Solid waste- No solid waste will be generated from the manufacturing process except the burst cements bags and general scraps and fly ash from boilers.

Solid waste generation

No solid waste will be generated from the manufacturing process except the damaged cement bags and general scrap. Quantity of waste bag will be around 120 MT/Year and General scrap will be around 100 MT/year. The same will be collected and taken back by the buyers for reuse purpose.

Solid waste generation

Description	Phase II	Disposal
Ash	112 T/Day	Used in Cement Manufacturing
Waste Oil	125 KL /Year	Used in Secondary fuel in the Kiln
Used lead acid batteries batteries	2 No's/year	Sent to authorized recyclers
Waste bags, damaged bags	60 MT /year	Sold to authorized buyers.
General Scrap (Rubber, Metal & Electrical)	50 MT/ Year	Sold to recyclers

4. SITE ANALYSIS

4.1 Connectivity

The site is connected by Tangeda – Dachepalli road connecting to Narketpally - Addanki state highway at a distance of 13 km in southwest direction. The nearest railway station is Nadikudi at a distance of 12.0 km in southwest direction. The nearest port is Krishnapatnam at a distance of 310 km. The nearest air port is Gannavaram air port –105 km–southeast direction.

4.2 . Land Form, Land use and Land ownership

Present Land use of the area is industrial. The same will be used for the industrial purpose.

4.3 Topography

The project area represents a part of rain fed agricultural land. Except for minor undulations in the centre, the major part of the area is plain with gentle Eastering slope.

4.4 Meteorological data

Climate

This area is situated in the warm climatic belt with moderate humidity. The coldest month in this region is December; lowest mean temperature is being 14 ^{0}C. It is very warm during the month of May and June with a mean maximum of 45 ^{0}C and it even touches +40 ^{0}C also. The major portion of rainfall is well distributed between July and December with an Annual average precipitation of 850 mm.

Rainfall

From the IMD data it is concluded that augest is the month of heaviest rainfall while January to April are of low rainfall. It varies from the lower value of 16 mm & maximum of 200 mm.

Wind speed

From the IMD data it is concluded that the wind speed is very high during the month of July to September, representing onset of SW monsoon and NE monsoon respectively, while the wind speed are low in the month of March–April. Heavy rainfall and stormy weather with strong winds are associated with the depression developed in the Bay of Bengal and hence the climatic conditions are found to be asymmetrical.

Wind rose

From the IMD data it is concluded that NNE and SSW are two predominant wind directions. This region gets more westerly wind during SW monsoon and North Easterly during NE monsoon..

5. Planning Brief

With the available land it is quite possible to install cement manufacturing facility. Increase in floating population will be around 300 nos. and fixed population will be 200 nos. due to the project.

6. Proposed Infrastructure

6.1 Industrial Area

Required building, road, conveyor etc. will be developed due to the project.

6.2 Residential Area

A residential colony for 700 quarters will be provided catering to both mine and plant employees. A land area of 7.4 ha is allocated for the same.

6.3 Social Infrastructure

Dachepalle is the nearest town which has both educational and health facilities. Guntur town, the district head quarters is located at a distance of 100 km from the site. The surrounding villages have primary and high schools, however the health facilities are observed to be inadequate. Drinking water source is mainly ground water in the surrounding villages, and ground water potential is observed to be good.

6.4 . Connectivity

The site is connected by Tengeda – Dachepalli road connecting to Narketpally - Addanki state highway at a distance of 13 km in southwest direction. The nearest railway station is Nedikudi at a distance of 12.0 km in southwest direction. The nearest port is Krishnapatnam at a distance of 310 km. The nearest air port is Gannavaram air port –105 km–southeast direction.

6.5 Sewage Treatment Plant (STP)

Sewage treatment plant of capacity 230 KLD is for the plant and residential colony. The sludge generated from the STP will be used as manure in our own greenbelt area.

6.6 Industrial Waste Management

No trade effluent or solid waste will be generated from the manufacturing process. However, only waste bag and general scraps will be generated and the same will be sold out to outsiders, for recycling as in practice. It is also proposed to provide co-incineration facility in the kiln to avail industrial hazardous wastes with high calorific value.

7. Rehabilitation and Resettlement (R&R) Plan

Not Applicable. There is no habitation within the proposed site area.

8. Project Schedule & Cost Estimate

8.1 Time Schedule

The commissioning of plant is in progress and is expected to be operational by June 2016.

Project Cost

The total project cost for the proposed plant and captive power plant will be Rs.630 crore.

Capital cost of the project

Description	Cost in Rs. Crores
Total Equipment cost	508.5
Pollution control Measures	80.0
Buildings and erection	30.0
Recurring Cost for EMP per Annum	6.5
CSR Budget Per Annum	5.0
Total	**630.0**

BHAVYA CEMENTS LIMITED
TANGEDA VILLAGE, DACHEPALLY MANDAL, GUNTUR DISTRICT, ANDHRA PRADESH

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