PRE-FEASIBILITY REPORT

For

INCREASE OF PRODUCTION
CLINKER: 1.0 MTPA TO 1.20 MTPA
&
CAPTIVE POWER: 15 MW TO 18 MW.

At

DECCAN CEMENT LIMITED
(UNIT – II)
Mahankaligudem Village, Nereducherla Mandal,
Nalgonda District, Telangana

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Annexure

Figure

1. Executive Summary

DECCAN CEMENT LIMITED., DCL is operating 1.5 MTPA Cement Plant (1.0 MTPA Clinker) along with 15 MW Coal based Captive power plant [UNIT –II] at Mahankaligudem Village, Neredcherla Mandal, Nalgonda District, Andhra Pradesh.

DCL proposes to increase the clinker production of the cement plant from 1.0 to 1.2 MTPA and power generation from 15 to 18 MW by upgradation and optimizing process operations

Limestone requirement of the plant is met from captive limestone mines located adjacent to the cement plant. Limestone requirement of Cement Plant Unit-II increases from 1.5 to 1.8 MTPA. This requirement is met from captive limestone mines.

No additional land is required as no additional machinery is proposed

Water requirement increases from 1900 to 2168 m^3/day which will be met from same sources i.e Krishna River

Coal requirement increases from 0.15 to 0.18 MTPA at cement plant and 360 to 432 TPD at power plant. Source of coal used in the power plant is both imported coal and indigenous coal

Ash generated from the power plant will be utilized for cement production.

No additional changes are proposed in the cement plant

The proposed expansion will be implemented at project cost of Rs 10 crores

2. INTRODUCTION

i. Identification of project and project proponent. In case of mining project, a copy of mining lease / letter of intent should be given.

Deccan Cement Limited proposes to increase the clinker production of the cement plant from 1.0 to 1.2 MTPA and power generation from 15 to 18 MW by optimizing process operations

Techno Feasibility studies of the plant carried out indicated that modernization of existing Line will result in increase of Clinker production from 1.0 to 1.20 MTPA. The estimated total cost of the project is Rs 10 crores

In the year 2007, Ministry of Environment & Forests granted Environmental Clearance for Cement Plant for Clinker production of 1.0 MTPA from this unit. Copy of MoEF Clearance is enclosed as **Annexure-1**

ii) Brief Description of Nature of The Project

DCL proposes to increase the clinker production of the cement plant from 1.0 to 1.2 MTPA and power generation from 15 to 18 MW by optimizing process operations

The salient features of the upgradation and modernization proposal are listed below:

1. The kiln to be speeded up for the target capacity and hence the girth gear, pinion and the gear box needs to be changed pertaining to kiln.
2. The existing preheater tower to be upgraded to capacity of 3500 TPD clinker production by minor changes in the first cyclone and Collection efficiency of the cyclone will be improved by modifying the immersion tube and internals in top cyclones)
3. This Modernization project is taken up to optimize the power consumption and to achieve new emission norm of 30 mg/Nm^3.

The details of the cement plant capacities after the proposed modernization is presented in **Table-1.**

TABLE-1
Capacity details after proposed Unit-II Production enhancement project

Present approved Capacity as per MoEF EC (MTPA)		**Proposed enhancement (MTPA)**		**Capacity after proposed enhancement (MTPA)**	
Clinker	Cement	Clinker	Cement	Clinker	Cement
1.00	1.50	0.20	0.00	1.20	1.50

Limestone requirement of the plant is met from captive limestone mines located adjacent to the cement plant. Limestone requirement of Cement Plant Unit-II increases from 1.5 to 1.8 MTPA. This requirement is met from captive limestone mines.

Power Plant

DCL proposes to optimize the existing boiler operation which will result in power production of 18 MW. The increase in power generation capacity will result in

- 72 TPD - additional coal requirement.
- 268 m3/day additional water requirement.
- Additional load on air pollution control equipment – Existing ESPs are sufficient.
- Stack height of 75 m of power plant is sufficient to cater the additional coal combustion

iii) Need for the project and its importance to the country and or region.

The new capital of AP coming up in the vicinity and also the infrastructural projects taken up in new states had rised for increase in the demand for cement.

With a view to capture growing opportunity demand, the management DCL wants to take up the section wise capacity balancing and optimization of Unit-II. The proposed modernization will enable the company to maximize its profitability by optimum utilization of technology, manpower, present infrastructure and capital.

Though, the demand is temporary in nature, DCL will be in a position to meet the demand, as the modernization of the unit takes a few days of working.

It would also enable the company to withstand against the considerable competitive pressure from large-scale units in the country and also to create wider brand loyalty for the product.

iv) Demand – supply Gap

In the recent budget speech the Hon'ble Finance Minister and Prime Minister have emphasized on development of Infrastructure, housing, Irrigation, etc., all over the country. Per capita consumption of cement in India is only 180 kg against the world average of about 340 kg whereas per capita consumption in China (a developing nation like India) is 1000 kg.

With highest importance being given by Central and State Governments for development of infrastructure in the Country i.e., National High-ways, State highways, Rural road net work, housing sector, construction of dams, canal net work for irrigation, development of power sector which require huge quantity of cement, demand growth in future is expected to be about 8% to 9% per annum. However, as many units approximately with a capacity of 70-80MillionMT will enter into production during next two years, there will be a mismatch between supply and demand for some period. Accordingly, the boom enjoyed by the cement industry will be over now and it may see intense competition for next 2-3 years. However, in the long run, considering expected high level growth on Indian economy, the prospects of cement industry are expected to be bright.

Now State and Central Governments are providing thrust for infrastructure development and housing to the poor people. Also Govt. is giving incentives for construction of own houses by the middle class people. Cement is one of the main commodity for construction of structures, houses and infrastructures. Thus continued growth of cement industry is expected for next few decades.

Growth of infrastructure, Irrigation and housing scenario automatically drives the increased requirement of Cement in the market.

v) Imports .Vs. Indigenous Production

Not applicable. This is production enhancement project of existing Cement Plant

vi) Export possibility

Not applicable. This is production enhancement project of existing Cement Plant to meet the domestic demand.

vii) Domestic / export markets

This is production enhancement project of existing Cement Plant to meet the domestic markets demand.

viii) Employment generation (direct and indirect) due to the project.

This is only production enhancement project, hence only indirect employment may be generated.

3. PROJECT DESCRIPTION

i. Type of project including interlinked and interdependent projects, if any

DCL proposes to enhance clinker production of Unit – II from 1.0 to 1.20 MTPA Clinker by optimization of process operations.

To meet the additional power requirement, it is proposed to upgrade the present power plant capacity from 15 to 18 MW. The present boiler of 75 TPH capacity can generate the steam requirement of 72 TPH and so is the turbine generator from 15 to 18 MW.

Limestone requirement of the plant is met from captive limestone mines located adjacent to the cement plant. Limestone requirement of Cement Plant Unit-II increases from 1.5 to 1.8 MTPA. This requirement is met from captive limestone mines.

ii. Location (map showing general location, specific location, and project boundary & project site layout) with co-ordinates.

The Unit – II cement plant of DCL is located in the northern direction of the Unit – I DCL cement plant at Mahankaligudem Village, Nereducherla Mandal, Nalgonda district of Andhra pradesh.

The plant area is a part of the Survey of India Toposheet No 56P/10 and falls between 16°40' and 16°45' North latitude and 79°40' - 79°45' East Longitude with an average altitude of 80 m above MSL. The location of Cement plant is shown in **Figure – 1**.

The limestone mines which are the captive source of the existing and proposed cement plant are adjacent to the plant site in the western and northern direction.

The plant site lies at 5.6 km SW of Wazirabad village, which is situated on the highway connecting Hyderabad – Nalgonda – Guntur via Miryalaguda town. The nearest village is Ravipahad located at a distance of 1.9 km from the plant site. Janpahad Darga, a religious place is located at a distance of 3.6 km from the plant site.

Musi River confluences River Krishna at a distance of about 4.3 km in the South –West direction. The River Krishna, a perennial river, flows

in the southern direction at about 1.8 Km from the plant area. Key map showing the vicinity of the plant site is enclosed as **Figure – 2**.

River Krishna passing across divides the study area. Part of the study area falls under Nalgonda District where plant is located and other part falls under Guntur District.

Due to availability of rich limestone deposits, major cement plants, which are located within 10 km, are given below

The following are the various cement plants located within 10 km radius

DETAIL OF CEMENT PLANTS IN STUDY AREA

Major Cement Industries	Distance (Km)	Direction w.r.t plant
Penna Cement industries Ltd	1.8	NW
India Cements Ltd	6.0	WSW
Andhra Cements Ltd	5.3	SW

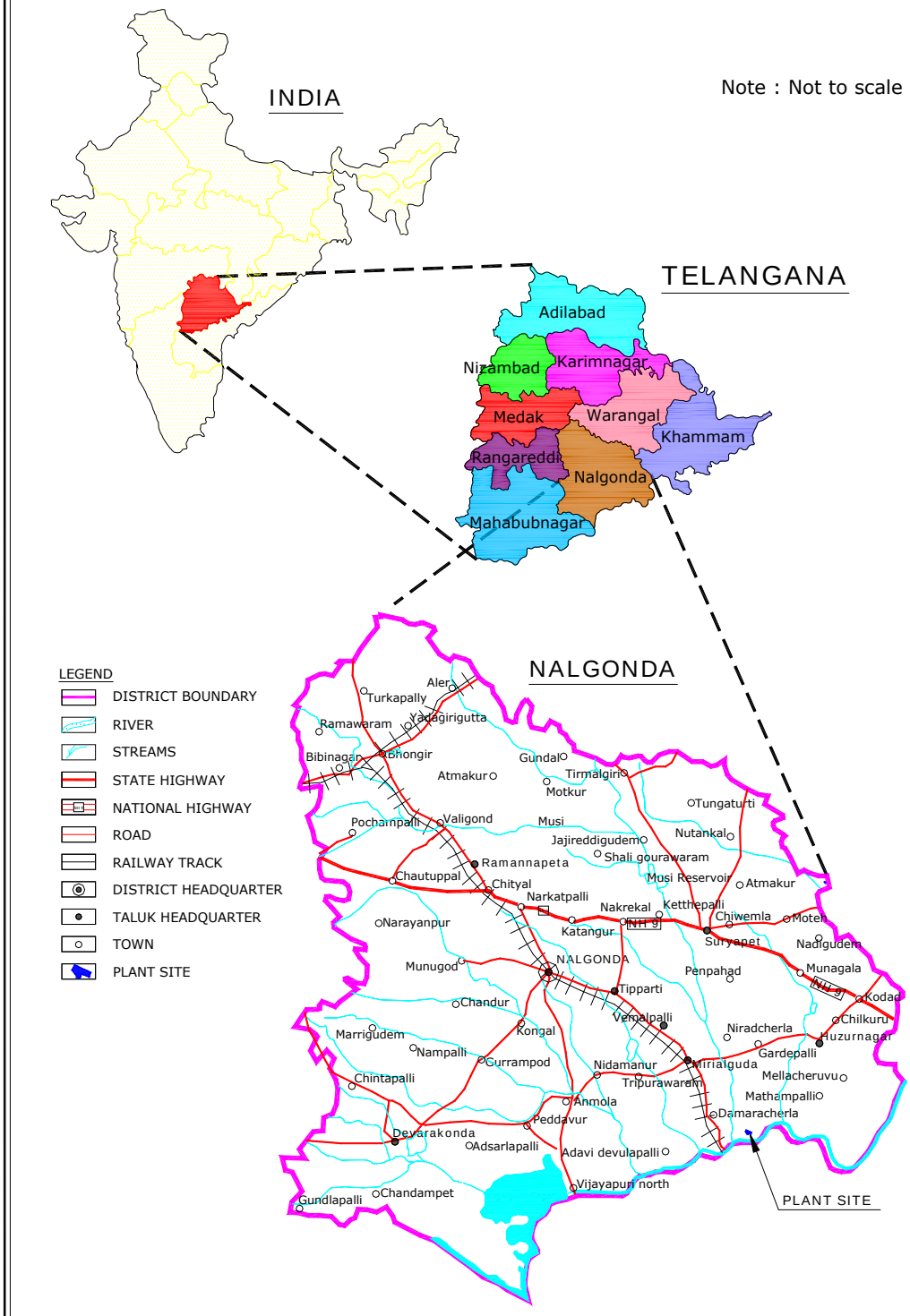
The following are the Reserve forests belonging to scrub forest category exists in the study area.

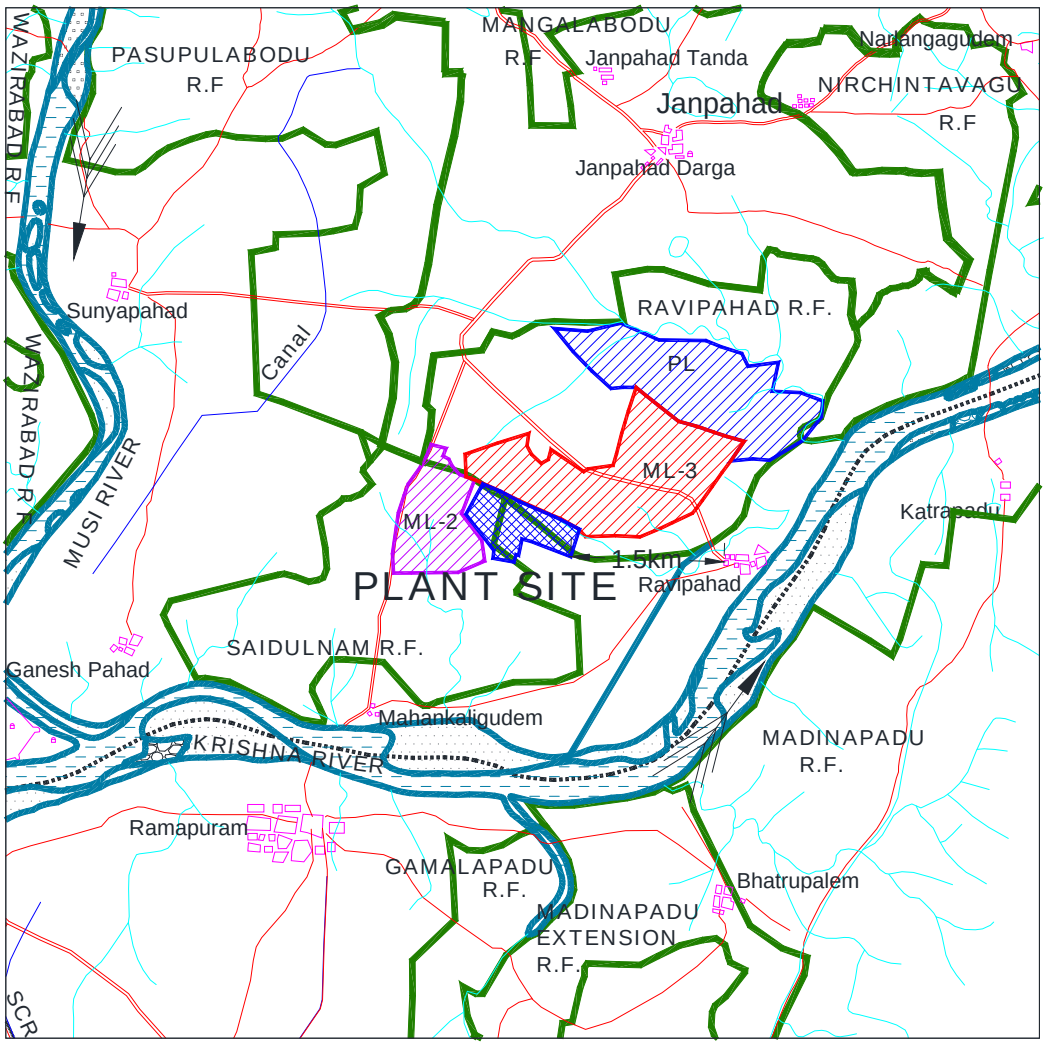
Saidulnama	Pasupulabodu
Ravipahad	Madinapadu
Gamalapadu	Wazirabad
Rajagutta	Gangadevigutta
Daida	Mangalbodu
Yellabodu	Tangedu
Gundlapahad	

The broad guage Railway line connecting Hyderabad to Guntur/Howrah and Chennai is located at a distance of about 6.4 km. Pondugula is the nearest railway station located at a distance of 6.4 km from the plant site. Salient features of the Plant site are given in **Table – 2**. **Figure – 3** shows the 10 km radial extent of the area around the plant.

FIG - 1

LOCATION MAP





LEGEND

- ROADS
- STREAMS / TANKS
- FOREST
- CANAL
- RIVER
- SETTLEMENTS
- RAILWAY LINE
- DISTRICT BOUNDARY
- DECCAN CEMENTS EXISTING MINE SITE
- DECCAN CEMENTS
- PLANT SITE

SCALE

0 1 2km

FIG - 2

CLIENT : M/s. DECCAN CEMENTS LTD.,

PROJECT : INCREASE OF CLINKER PRODUCTION FROM 1.0 MTPA to 1.20 MTPA

BHAVANIPURAM, JANPAHAD (PO), NEREDUCHERLA (M), NALGONDA (DT.), TELANGANA.

TITLE : KEY MAP

Prepared by

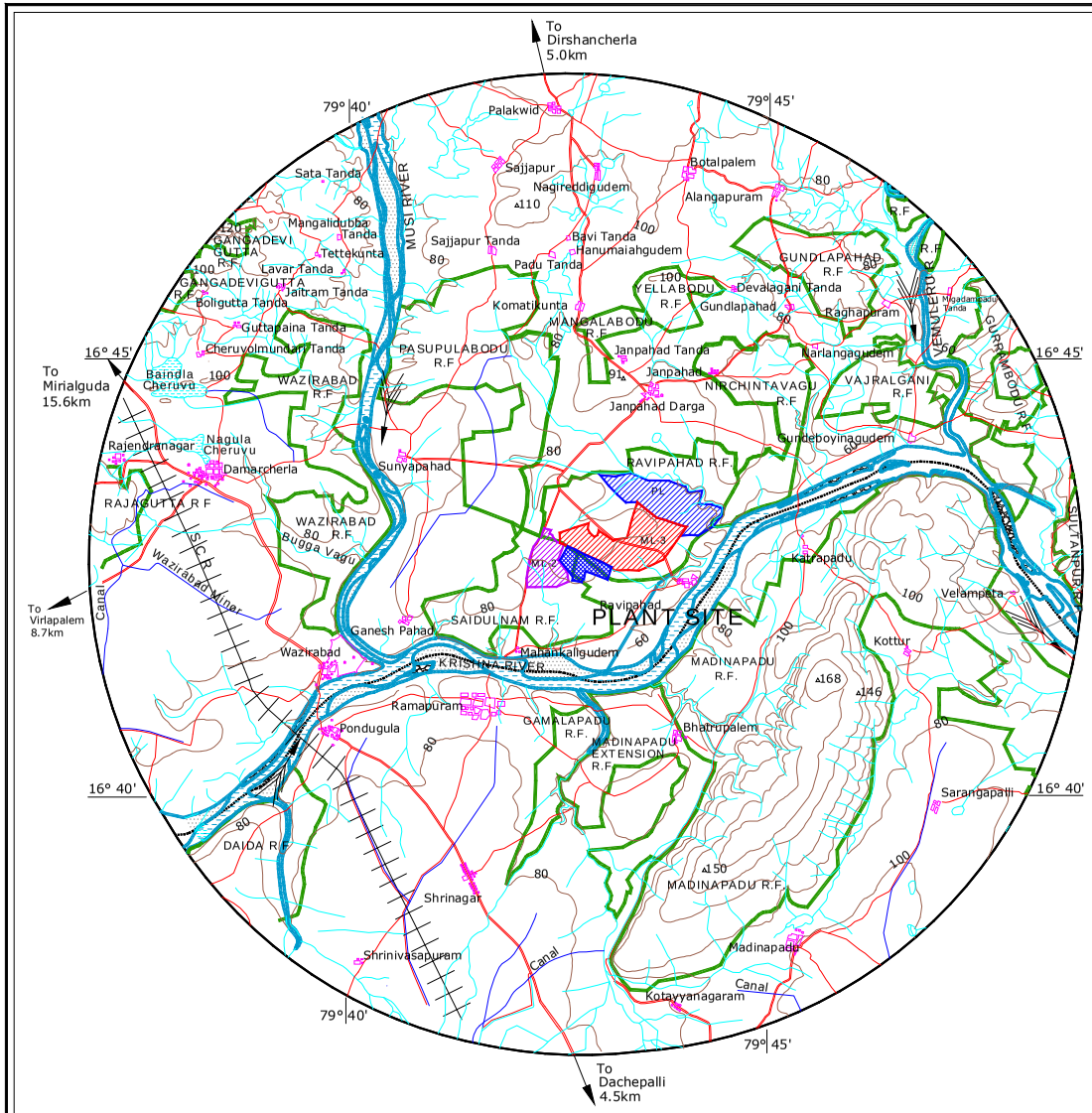
B.S.ENVI-TECH (P) LTD.,
SECUNDERABAD

TABLE – 1.1

SALIENT FEATURES OF THE PLANT SITE

Feature	**Details**
Altitude	80 m above MSL
Latitude & Longitude	A) 16°42' 32.1"'N, 79°42'40.2" E , B) 16°42' 41.1."'N, 79°43'02.1" E , C) B) 16°42' 56.9"'N, 79°42'29.4" E ,D) 16°42' 46.9"'N, 79°42'24.8" E,
Village, Tehsil, District, State	Mahankaligudem, Village, Nereducherla Mandal, Nalgonda Dist, Telangana State.
IMD Station	Kammam
Max. Temp., °C	47.2
Min. Temp., °C	9.4
Relative Humidity,%	35-83
Annual rainfall,	1031.6 mm
Topography	Plain
Soil Type	Black Cotton
Nearest Water Bodies	Musi River – 3.4 km – WNW Vemuleri River – 7.6 km - ENE Krishna River – 1.7 km – ESE Bay of Bengal Sea – 125.0 km - SE
Nearest Highway	National Highway (NH-9) Connecting Hyderabad - Vijayawada – 38.7 km NE Direction.
Railway Junction	Nadikudi – 13.2 km - S
Nearest Railway station	Vishnupuram RS – 7.0 km - W
Nearest Industries	India Cement – 6.5 km – WSW Andhra Cement – 6.8 km – S Nagarjuna Cement - 11.0km – E Sagar Cements – 16.8 KM – ENE Penna Cement – 1.1km – WNW Suvarna Cement – 23.0 km – ENE Maha Cement – 23.8 km - ENE
Nearest Village	Ravipahad – 1.5 km – E
Nearest Town	Nalgonda – 61.0 km - NW
Inter State Boundary	Telangana - Andhra Pradesh – 2.1 km - S
Nearest Air port	Hyderabad (Shamshabad) – 178.0 km - WNW
Nearest Forest	Ravipahad RF – Adjacent - N Saidulnam RF – Adjacent - W Wazirabad RF – 3.7 km – WNW Pasupulabodu RF – 1.0 km –WNW
Historical places	None within 10 km radius

*all distances mentioned in the above table are aerial distances



LEGEND

- ROADS
- STREAMS / TANKS
- FOREST
- CANAL
- CONTOURS
- RIVER
- SETTLEMENTS
- SPOT HEIGHT
- DISTRICT BOUNDARY
- DECCAN CEMENTS EXISTING MINE SITE
- DECCAN CEMENTS
- PLANT SITE

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REFER TO THIS MAP AS:- 1:50,000
SHEET 56 P / 10 FIRST EDITION

Published under the direction of
the Surveyor General of India - 1977

Index to
Survey of India Toposheets

56 P/5	56 P/9	56 P/13
56 P/6	56 P/10	56 P/14
56 P/7	56 P/11	56 P/15

SCALE

0 3 6km

FIG - 3

CLIENT: M/s. DECCAN CEMENTS LTD.,

PROJECT: INCREASE OF CLINKER PRODUCTION FROM 1.0 MTPA to 1.20 MTPA
BHAVANIPURAM, JANPAHAD (PO), NEREDUCHERLA (M), NALGONDA (DT.), TELANGANA.

TITLE: TOPOGRAPHICAL MAP SHOWING 10 km RADIUS

PREPARED BY:
B.S.ENVI-TECH (P) LTD.,
SECUNDERABAD

iii. Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

The present proposal is for enhancement of production from the existing Cement Plant Line-II of DCL located at Mahankaligudem Village, Nalgonda District of Telangana from 1.0 to 1.20 MTPA. To meet the additional power requirement, the present boiler and turbine will be upgraded to power generation of 18 MW. Hence, no alternate site considered for the project.

iv. Size or magnitude of operation

DCL Cement Plant Unit – II present capacity is 1.0 MTPA clinker production and the same will be enhanced to 1.20 MTPA

DCL is manufacturing three types of blended cement. viz., Ordinary Portland cement (OPC), Portland Pozzolana Cement (PPC) and Portland Slag Cement (PSC)

Present capacity of Thermal Power Plant is 15 MW and the same will be enhanced to 18 MW. .

v. Project description with process details (a schematic diagram/ flow chart showing the project layout, components of the project etc. Should be given)

Manufacturing Process - Cement

DCL is adopting dry process and precalciner technology for manufacturing of cement. The following steps are involved in manufacturing of cement:

- Limestone excavation and crushing
- Raw material preparation and blending operations
- Calcination in the kiln
- Clinker cooling and stocking
- Cement grinding and packing

Limestone excavated from the mines is crushed to the required size and sent to stacker reclaimer located near main plant. In order to obtain better quality of kiln feed the limestone of various grades is mixed at the reclaimer.

Limestone along with other ingredients such as Laterite and Iron Ore are mixed in suitable proportions and sent to raw mill where the raw material is ground to the required size. The powdered raw meal is stored in the raw meal silos. Plant is provided with silo with air lift /bucket elevator systems to feed the raw material to Preheater cyclones and kiln.

The kiln is a long rotating shell with insulation in which the raw material is fed from one end and coal is fired from the other end. Pulverized coal is fired with the help of specially designed burners. Coal is fired into kiln for calcination of raw meal. The hot material with a temperature of about 860-900^{o}C is allowed to flow in to the Kiln for further calcination.

During the material transfer in the hot kiln, limestone is decomposed into CaO and CO_2 and is subjected to physical and chemical changes to form clinker. The hot molten clinker is allowed to pass through a long movable grate where fresh air from the atmosphere at elevated pressures is supplied at various sections. The clinker thus cooled is transported to clinker storage.

Clinker, Gypsum, Ash/Slag are ground in Cement grinding mills to manufacture OPC/PPC/PSC cement.

Manufacturing Process – Thermal Power Plant

Power generation process is based on Rankine Steam cycle. The steam generated in the boiler when expanded through a turbine, turns the turbine shaft which is tandem coupled to an electric power generator.

vi. Raw material required along with estimated quantity, likely source, marketing area of final products, mode of transport of raw material and finished product.

The raw material required for production of clinker is Limestone, Iron Ore, Laterite and Coal. The requirement of raw material per annum on an average for the production clinker at full capacity of 1.20 MTPA is presented in **Table -3**.

Table-3
Raw Material Requirement

S.No.	Raw Material	Present 1.00 MTPA Clinker,	After Proposed expansion 1.20 MTPA Clinker
1	Limestone	1.50	1.80
2	Iron Ore	0.020	0.024
3	Laterite	0.020	0.024
4	Coal	0.15	0.18
Total Clinker Production		**1.00**	**1.20**

Coal is the raw material for Thermal Power Plant. The coal requirement per annum on an average for the production 18 MW is:

	For existing 15 MW Plant	For proposed 3 MW increase	Total 18 MW Power Generation
Coal (TPD)	**360**	**72**	**432**

For obtaining raw materials like coal, gypsum, additives and for transporting cement from the cement plant to the market, well connected roads are available. The National Highway (NH-9) connecting Vijayawada – Hyderabad, at a distance of about 38.7 km in NE Direction., and the Guntur-Hyderabad state Highway at Damaracherla at about 6 km. Blacktop double roads are available in all directions. A new Railway line laying is near completion to cater to the needs of the cement sector in the region, heavily reducing loads on the roads.

vii. Resource optimization / recycling and reuse envisaged in the project, if any, should be briefly outlined.

Cooling water circuit is close circuited, thereby ensuring no generation of wastewater;

The process, selected envisages re-cycling all the material collected in the pollution control equipment whereby ensuring no generation of solid waste.

Arrangements were made to utilize high calorific value hazardous waste (organic liquid hazardous waste) as alternative fuel in kiln

system. DCL has obtained hazardous waste authorization from TSPCB.

viii. Availability of water its source, energy / power requirement

Water

Water is not required for the cement manufacturing process. Water is required for cooling, dust suppression, sanitary facilities and gardening. The present water requirement for DCL Cement Plants complex is 1900 m^3/day. 268 m^3/ day additional water requirement for cement plant modernization and Power plant is needed, bringing the total water requirement to 2168 m^3/day. The source of water is Krishna River. DCL has obtained necessary permission for water drawl at the rate of 2273 m^3/day.

Power

The peak power consumption in the DCL Cement plant complex including mine is 24 MW. Power requirement is met from existing captive thermal power plant. Additional power requirement is met from grid.

xi. Quantity of waste to be generated (liquid and solid) and scheme for their management / disposal.

In cement plant water is used for cooling and raw material addition at various stages. This water is totally absorbed in the process or will be subjected to evaporation and hence no wastewater is released from the cement plant.

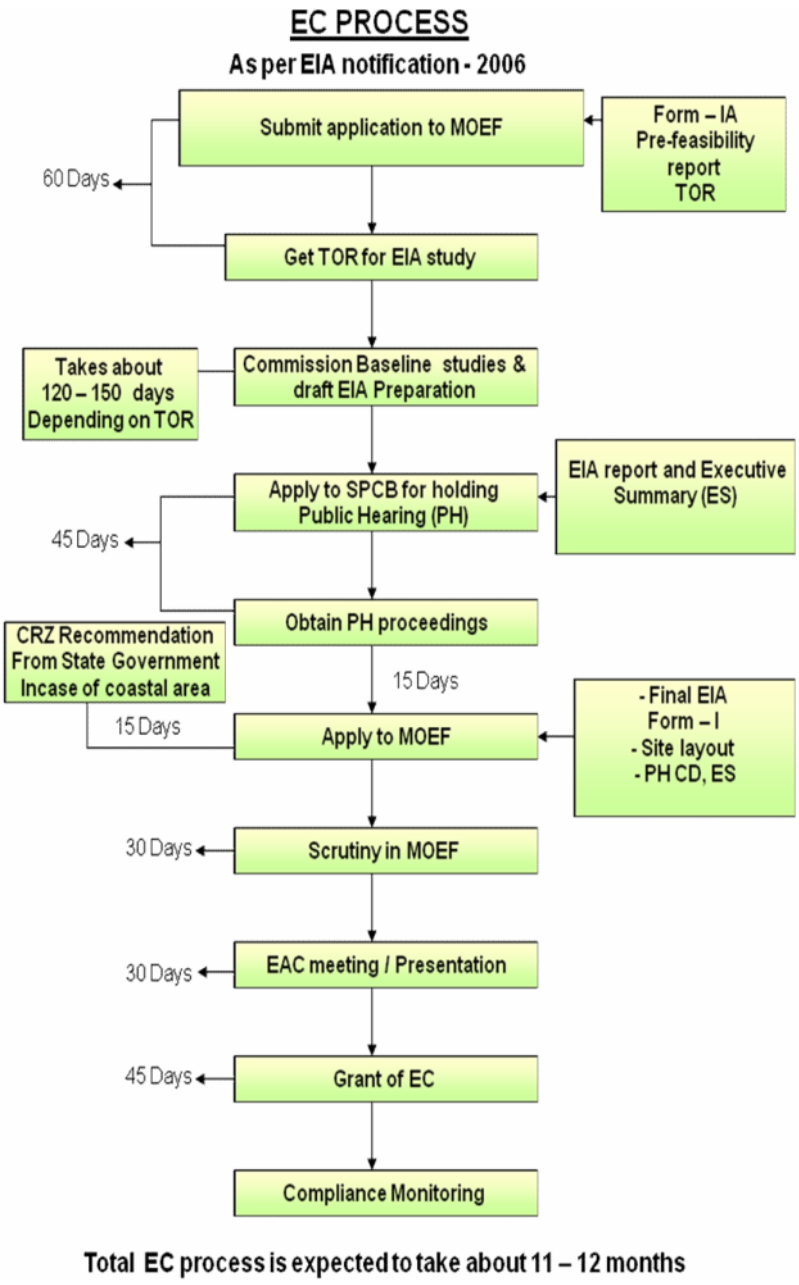
Wastewater generated is only from domestic activities at cement plant and residential colony. A full fledge sewage treatment plant (STP) is in operation designed for a maximum load of 300 m^3/day. Treated domestic wastewater is reused for greenbelt development within DCL cement plant complex.

Additional waste water generation from power plant is 3 m^3/day. This will be neutralized in the existing neutralization pit of size 4m x 3m x 2m. Neutralized wastewater is reused for greenbelt development and as process water in cement plant within DCL cement plant complex.

No solid waste is generated from the cement plant. The dust collected in the pollution control devices is being 100% recycled back to the process.

Ash generated from the power plant is used in cement manufacturing process

x. Schematic representations of the feasibility drawing which give information of EIA purpose.



4. SITE ANALYSIS

i. Connectivity

Nearest railway line connecting Miryalguda-Guntur of South Central Railway line, at a distance of 6.4 km to South West direction from the Plant site.

The nearest railway station is Janpahad at 1.5 km in WSW direction.

For transporting cement from the cement plant to the market and obtaining raw materials like coal, gypsum and other additives, well connected roads are available. The National Highway (NH-9) connecting Vijayawada – Hyderabad, at a distance of about 38.7 km in North East direction.

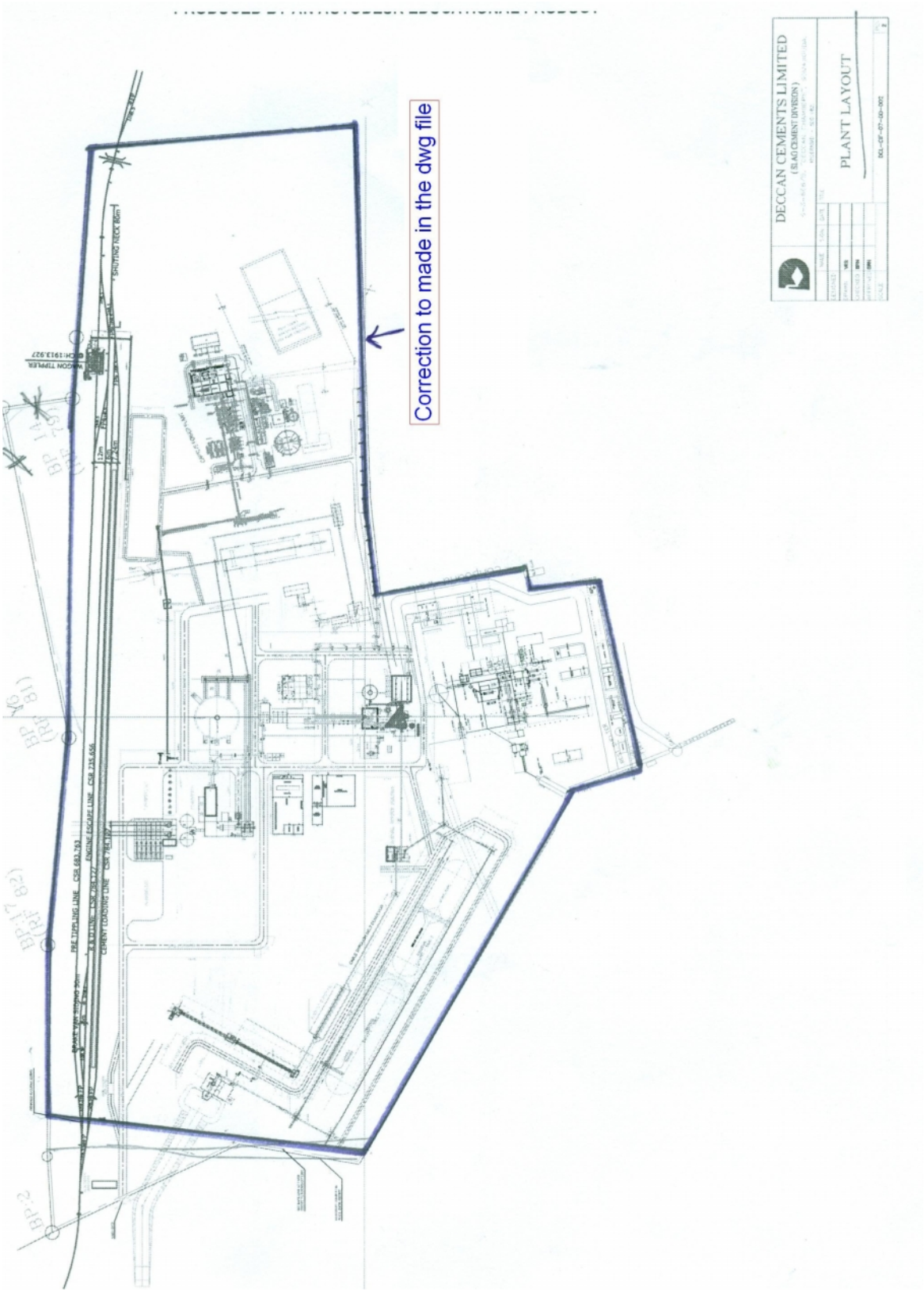
ii. Land form, land use and land ownership.

Cement plant is located in an area of 53.8ha which is totally owned by DCL. No additional land is required for this modernization as the proposed modernization is in terms of upgradation and modernization of existing process equipment of existing Line-I and optimum utilization of Line - II. Break-up of present land use of existing DCL cement plant complex is given in **Table-4** and DCL cement plant complex layout is shown in **Figure-4.** No additional land will be required for proposed modernization project.

iii. Topography (along with map)

The existing DCL Cement plant complex site is located at an elevation of 80 m above MSL. The area falls in the eastern fringe of the Deccan plateau bordering the northern portion of Eastern Ghats (South). The topography of the area is gently undulating flat area. The surrounding area is traversed by various nallahs that form a sub-dentritic and parallel drainage pattern. Most of the streams are dry during the non-monsoon period fed by the excess irrigation water from the command area of Nagarjunsagar Left Bank Canal. The Krishna river flows at 1.8 km in South East direction. The topographical map of the site is shown in **Figure-3.**

FIGURE-4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DECCAN CEMENTS LIMITED
PLANT LAYOUT

iv. Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ, in case of notified industrial area, a copy of the Gazette notification should be given.

Break-up of present land use is given in **Table-4.**

Table-4
LAND AVAILABILITY

S.NO.		**AREA (HA.)**
1	Cement Plant area and roads	12.5
2	Power plant area and roads	3.0
3	Colony	10.0
4	Parking area	2.0
5	Greenbelt	17.0
6	Proposed Railway siding	3.0
7	Space around the plant site	6.3
Total		**53.8**

- There are no national parks or wildlife sanctuary within 10 km of the subject mine area.
- No ecologically sensitive areas within 10 km of the plant area.
- There are no sensitive places of notified archaeological, historical or tourist importance within 10 km from the plant area

v. Existing Infrastructure

For transporting cement from the cement plant to the market and obtaining raw materials like coal, gypsum and other additives, well connected railway siding and road are available.

DCL has provided a full-fledged colony with necessary infrastructure.

Cement plant is having a dedicated power supply from captive power plant to meet the requirement of cement plant, colony and mines.

vi. Soil Classification

The most dominant type of soil in the area is the Black-cotton soil which is present in thickness ranging from less than a 1 m to as much as 1.5 m in the cultivated and agriculture lands. Thinner

patches of soil are present in the open scrub covered wastelands where either sheet rock or stony out crops is absent.

vii. Climate data from secondary sources

The climate of the study region is semi-arid and is characterized by general dryness except during the South West monsoon season. The area experiences extreme climate during summer and winter seasons.

As per the records of Indian Meteorological Department, minimum and maximum temperatures recorded in the region in the past 10 years were 9.4^{o}C and 47.2^{o}C respectively with an annual rainfall of 1031 mm. Mean wind speeds observed in the area range between 1-15 kmph with predominant winds from E, SE, S and SW during summer and E, SE & S in winter season. The average relative humidity was found to vary between 35 to 83%.

viii. Social infrastructure available

A well-equipped Occupational Health center is provided at colony, which has full time Occupational Health Specialist assisted, by compounders and nurses. Necessary free medicines and medical aid is available for the company employees.

A good canteen is provided for the benefit of the employees. The canteen serves tea & snacks at subsidized rates to the employees.

Adequate number of shelters with fans, drinking water etc. for taking food and rest are provided for the benefit of the employees.

Safe hygienic drinking water is provided at the mines. Drinking water facility is available near rest shelters.

A full-fledged Training hall is available in the DCL cement plant complex. The training to workmen is provided on basics as well as for refreshers.

The employees are provided with well-designed houses having electricity and water connections.

For the education facility of employee's Children School is provided at colony.

DCL has spent an amount of Rs 2.0 crores for providing various social infrastructure/measures towards Health Care, Education, Drinking Water / Sanitation / Infrastructure Religious Sports / Cultural / Social / Plantation Water Supply for Agriculture Fields and Flood Relief Activities for the past 10 years.

5. PLANNING BRIEF

i. Planning concept (type of industries, facilities, transportation etc) town and country planning / development authority classification.

This is modernization project of existing cement plant Line-II located in the present cement plant complex. No additional land or civil structures will be required for proposed modernization project.

ii. Population projection

Not much change is anticipated as it is minor development. .

iii. Land use planning (breakup along with greenbelt etc)

This is modernization project of existing cement plant UNIT-II located within the existing DCL cement plant complex. The present land use pattern of the existing DCL cement plant complex is given in **Table-4.** No additional land will be required for proposed modernization project

iv. Assessment of infrastructure demand (physical & social)

Not applicable.

No additional physical & social infrastructure is envisaged for the proposed project.

v. Amenities / Facilities

Not applicable.

Existing amenities and facilities are sufficient for proposed enhancement.

6. PROPOSED INFRASTRUCTURE

i. Industrial area (processing area)

No additional infrastructure is proposed for the proposed production enhancement. It is proposed to increase the clinker production capacity from 1.0 to 1.20 MTPA by up-gradation and modernization.

The plant is located in Industrial cluster of cement Plants. In view of the large Limestone deposits available in the area, phenomenal construction of cement plants was taken up.

ii. Residential area (non-processing area)

No additional infrastructure is proposed for production enhancement. Existing amenities and facilities are sufficient.

iii. Greenbelt

DCL has developed greenbelt in an area of 20 ha in and around the cement plant complex.

iv. Social infrastructure

This is modernization project of existing cement plant Line-II located within the existing DCL cement plant complex. Existing social infrastructure will be serving the plant operations.

v. Connectivity (traffic and transportation road/rail/metro/water ways etc.)

Nearest railway line connecting Miryalguda - Guntur of South Central Railway line, at a distance of 7 km to South West direction from the Plant site.

The nearest railway station is Janpahad at 1.5 km in WSW direction. For transporting cement from the cement plant to the market and obtaining raw materials like coal, gypsum and other additives, well connected roads are available. The National Highway (NH-9) connecting Vijayawada – Hyderabad, at a distance of about 38.7 km in North East direction.

vi. Drinking water management (source & supply of water)

The existing cement plant is having safe drinking water facility.

vii. Sewerage System

This is modernization project of existing cement plant Line-II located within the existing DCL cement plant complex. Sewerage system is existing which is connected to sewage treatment plant designed for 300 m^3/day which is sufficient.

viii. Industrial waste management

Cement Plant - This is existing cement plant. No additional industrial waste generation is envisaged from proposed modernization project in cement plant as the process is dry process.

Thermal Power Plant – Waste water generation will get increased by 4.0 m^3/day. This will be treated in existing neutralization pit of size 4m x 3m x 2m.

ix. Solid waste Management

Cement Plant - No solid waste is generated from the cement plant. The dust collected in the pollution control devices is being 100% recycled back to the process.

x. Power requirement & Supply /Source.

The peak power consumption in the DCL Cement plant complex including mine is 18 MW. This requirement is met from existing Captive Power Plant. Additional power requirement is from grid.

7. REHABILITATION AND RESETTLEMENT (R&R) PLAN

i. Policy to be adopted (central / state) in respect of the project affected persons including home oustees, land oustees and landless labourers (a brief out line to be given).

The proposal is for expansion of cement plant by up gradation and optimization of process operations. No additional land is required. Hence, no R&R is involved.

8. PROJECT SCHEDULE & COST ESTIMATES.

i. Likely date of start of construction and likely date of completion (time schedule for the project to be given).

The proposed expansion is upgradation and optimization of process of operations and is expected to be completed in a period of 3 months from the date of receipt of all the approvals from statutory authorities.

ii. Estimated project cost along with analysis in terms of economic viability of the project.

The estimated cost of the project is Rs. 10 crores.

9. ANALYSIS OF PROPOSAL (FINANCIAL RECOMMENDATIONS)

i. Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area.

The capital cost of proposed expansion is Rs. 10 crores.