

**M/s. POLAR CEMENTS COMPANY.,
Sy No: 429, Kandipedu Village, Katpadi taluk,
Vellore District, Tamil Nadu**

**1. Form I
2. PRE-FEASIBILITY REPORT**

Submitted by:
M/s. Polar Cements Company.,
No. 1/22, Seawind Enclave,
Kandipedu Village,
(Via) SLRTC, Vellore District,
Tamilnadu - 632 106
E-mail: tgsekar@gmail.com

Studies & Documented By
M/s Team Labs and Consultants
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Submitted To
MINISTRY OF ENVIRONMENT FORESTS & CLIMATE CHANGE,
GOVERNMENT OF INDIA
INDIRA PARYAVARAN BHAWAN,
JOR BAGH ROAD, ALIGANJ, NEW DELHI

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APPENDIX I
(See paragraph - 6)
FORM 1

S.No	Item	Details
1	Name of the Project/s	M/s. Polar Cements Company
2	S.No. in the Schedule	3 b
3	Proposed capacity / area / length / tonnage to be handled / command area / lease area / number of wells to be drilled	300 TPD (Phase I: 100 TPD, Phase II: 200 TPD), Stand alone Cement Grinding unit in an area of 2.6 Acres, Capital cost: Rs. 135 Lakhs.
4	New/Expansion/Modernization	New Project
5	Existing Capacity/Area etc.	Green field project - Land area is 2.6 acres.
6	Category of Project i.e 'A' or 'B'	A (due to interstate boundary)
7	Does it attract the general condition? If yes, please specify	Yes - Andhra Pradesh - Tamil Nadu Interstate boundary - 1.2 Km - NW direction
8	Does it attract the Specific condition? If yes, please specify.	No
9	Location	
	Plot/Survey/Khasra No.	Sy No: 429
	Village	Kandipedu Village
	Tehsil	Katpadi taluk,
	District	Vellore District,
	State	Tamil Nadu
10	Nearest railway station/airport along with distance in kms.	Katpadi - 6.5 km - SW Direction
11	Nearest Town, City, District Headquarters along with distance in kms.	Nearest Town : Katpadi - 6.5 km - SW direction District Headquarters: Vellore- 9.4 Km - SW,
12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal address with telephone nos. to be given)	Kandipedu Village, Katpadi taluk, Vellore District, Tamil Nadu
13	Name of the Applicant	T. Gunasekaran - Proprietor
14	Registered Address	Polar Cements Company No. 1/22, Seawind Enclave, Kandipedu Village, (Via) SLRTC, Vellore District, Tamilnadu - 632 106.
15	Address for Correspondence:	
	Name	T. Gunasekaran
	Designation(Owner/Partner/CEO)	Proprietor
	Address	Polar Cements Company No. 1/22, Seawind Enclave, Kandipedu Village, (Via) SLRTC, Vellore District, Tamilnadu.
	Pin Code	632 106.
	E-mail	tgsekaran@gmail.com

S.No	Item	Details
	Telephone Number	0416-2274280, +91 76394 95126
	Fax No.	--
16	Details of alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	No
17	Interlinked Projects	NA
18	Whether separate application of interlinked project has been submitted?	NA
19	If yes, date of submission	--
20	If no, reason	--
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? (b) The Wildlife (Protection) Act, 1972 ? (c) The C.R.Z Notification, 1991 ?	NA
22	Whether there is any Government Order/Policy relevant/relating to the site?	NA
23	Forest land involved (hectares)	NA
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.	NA

(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)	YES	The land area is 2.60 acres. Mangao Garden will be changed to industrial land use. The land is plain and does not involve much of leveling / excavation.
1.2	Clearance of existing land, vegetation and buildings?	NO	The land area is plain and does not require any removal of vegetation or building.
1.3	Creation of new land uses?	NO	Agricultural land is converted into industrial use.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	YES	Soil test done and soil load bearing capacity established.
1.5	Construction works?	YES	Construction activity involves plant construction, erection only.
1.6	Demolition works?	NO	
1.7	Temporary sites used for construction works or housing of construction workers?	NO	The construction labor from local villages shall be employed.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	YES	Storage facilities for raw material and final products shall be constructed. No major cut and fill or excavation is anticipated.
1.9	Underground works including mining or tunneling?	NO	
1.10	Reclamation works?	NO	
1.11	Dredging?	NO	
1.12	Offshore structures?	NO	
1.13	Production and manufacturing processes?	YES	Enclosed in <i>Annexure - I</i>
1.14	Facilities for storage of goods or materials?	YES	Storage of raw materials in bins proposed.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	YES	No trade Effluents and Solid waste from process. The dust collected in the control equipment (bag filter) will be recycled. Domestic wastewater is sent to septic tank followed by soak pit.

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.16	Facilities for long term housing of operational workers?	NO	Small plant, does not require permanent housing facility for employees.
1.17	New road, rail or sea traffic during construction or operation?	YES	Construction materials shall be transported to the site and finished product shall be transported through road. The traffic density of the existing connecting road is very low.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	NO	
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	NO	
1.20	New or diverted transmission lines or pipelines?	NO	
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	NO	
1.22	Stream crossings?	NO	
1.23	Abstraction or transfers of water from ground or surface waters?	YES	The proposed plant shall use ground water during construction and the quantity required shall be 2 KLD. During operation the water shall be drawn from Bore well and the quantity shall be 5.0 KLD. Water balance is presented in Annexure III .
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	NO	
1.25	Transport of personnel or materials for construction, operation or decommissioning?	YES	The construction material shall be drawn from local sources within 10 - 15 km. There is no transport of personnel, as the construction workers shall be drawn from local villages.
1.26	Long-term dismantling or decommissioning or restoration works?	NO	

S.No.	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
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?	NO	Small plant hence migration of employees is not anticipated. Majority of workers shall belong to unskilled category.
1.29	Introduction of alien species?	NO	
1.30	Loss of native species or genetic diversity?	NO	
1.31	Any other actions?	NO	

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):

S.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)	YES	The land area is 2.60 acres. Agricultural land.
2.2	Water (expected source & competing users) unit: KLD	YES	5.0 KLD from ground water through Bore well.
2.3	Minerals (MT)	NA	
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	YES	Stone 20mm- 250 m ³ , stone 40mm- 100m ³ , and sand -100m ³ sourced locally.
2.5	Forests and timber (source – MT)	NO	
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	YES	The proposed project will require 150 H.P. power from the Sub station.
2.7	Any other natural resources (use appropriate standard units)	NO	

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	The raw materials/substances are not hazardous to human health or vegetation as per MSIHC rules. As the proposed unit is only a grinding unit and dust generated during process is collected through bag filters and recycled.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	NO	
3.3	Affect the welfare of people e.g. by changing living conditions?	YES	Shall increase the employment potential for locals and affect the living conditions for betterment.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	NO	No sensitive receptors are present in the immediate vicinity of the site. The project shall not have any significant impact on vulnerable groups of people.
3.5	Any other causes	NO	

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.	NO	
4.2	Municipal waste (domestic and or commercial wastes)	NO	Wastes from canteen, other commercial wastes like paper etc. The canteen wastes and commercial wastes shall be in the range of 3 kg/day.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	YES	Waste oil and used batteries from the standby DG set is sent to authorized recyclers.
4.4	Other industrial process wastes	YES	No solid waste is generated from the Grinding plant. The cement dust collected in the pollution control devices (Bag filter) is recycled back to the process.
4.5	Surplus product	NO	
4.6	Sewage sludge or other sludge from effluent treatment.	NO	
4.7	Construction or demolition wastes	NO	
4.8	Redundant machinery or equipment	NO	
4.9	Contaminated soils or other materials	NO	
4.10	Agricultural wastes	NO	
4.11	Other solid wastes	YES	Used Batteries and waste oil are sent to authorized recyclers.

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	Power required for the plant is met from TNEB. Stand by DG set will be used during power shutdown period and the emissions are presented in Annexure II .
5.2	Emissions from production processes	NO	Enclosed in Annexure II
5.3	Emissions from materials handling including storage or transport	NO	Fugitive emissions during transport loading, unloading and handling of raw materials. However necessary dust suppression methods are proposed to be implemented such as construction of closed sheds for storage of raw materials and water sprinkling arrangements
5.4	Emissions from construction activities including plant and equipment	YES	Dust may rise during transport of material and construction activity. The dust emissions shall be mitigated by water spraying on the roads within the premises.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	NO	
5.6	Emissions from incineration of waste	NO	
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	NO	
5.8	Emissions from any other sources	NO	

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	Noise during construction shall be due to construction equipment. The nearest residential area is Kandipedu which is at 1.4 km away from the site, hence no significant impact is anticipated.
6.2	From industrial or similar processes	No	
6.3	From construction or demolition	YES	Noise during construction shall be due to construction equipment. The nearest residential area is 1.4 km away from the site, hence no significant impact is anticipated.
6.4	From blasting or piling	NO	
6.5	From construction or operational traffic.	NO	The increased traffic shall not have any significant impact.
6.6	From lighting or cooling systems	NO	
6.7	From any other sources	NO	

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	No	
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Sewage shall be sent to septic tank followed by soak pit.
7.3	By deposition of pollutants emitted to air into the land or into water	No	
7.4	From any other sources	No	
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	

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	YES	The raw materials / substances are not hazardous to human health or vegetation as per MSIHC rules. As the proposed unit is stand alone grinding unit and dust generated during process is collected through bag filters and recycled.
8.2	From any other causes	NA	
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.: <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other 	YES	The project shall enhance the socio economic status of the area by improving the employment. There are no major support industries required for this plant.
9.2	Lead to after-use of the site, which could have an impact on the environment	NO	
9.3	Set a precedent for later developments	NO	
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	NO	The baseline environmental status 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	NO	None within 10 km aerial distance from the proposed plant site.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	YES	Ponnai River - 6.2 Km - S Direction, Kanjanur RF - 1.1 Km - NW Direction, Bommasamudram Extn RF - 1.3 Km - NW Direction, Magimandalam RF - 3.7 km - NW Direction, Panmadangi RF - 4.9 km - W Direction, Basavapalle RF - 6.9 Km - NW Direction, Chittapara RF - 7.0 Km - NW Direction, Kilminnal RF - 8.5 km - SE Direction, Velloreforthill RF - 8.7 km - S Direction, Punganur RF - 8.9 Km - SE Direction, Sennur RF - 9.2 Km - SW Direction,
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	NA	
4	Inland, coastal, marine or underground waters	NO	
5	State, National boundaries	YES	Interstate boundary of Andhra Pradesh and Tamil Nadu is at a distance of 1.2 km in NW direction from the proposed site.
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	NO	
7	Defence installations	NO	
8	Densely populated or built-up area	YES	Kandipedu is at a distance of 1.4 km with population of 2794.
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	YES	1.4 Km away from site.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture,	NO	

	<i>fisheries, tourism, minerals)</i>		
11	Areas already subjected to pollution or environmental damage. <i>(those where existing legal environmental standards are exceeded)</i>	NO	
12	Areas susceptible to natural hazard which could cause the project to present environmental problems <i>(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)</i>	NO	

(IV).Proposed Terms of Reference

Scope of Work of EIA

The model terms of conditions published by MoEF&CC in April 2015 shall be strictly followed. Additional TOR's if any shall be followed

I hereby give the undertaking that data and information given in the application and enclosures 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:

Place:



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

T. Gunasekaran,
M/s. Polar Cements Company.,
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Kandipedu Village,
(Via) SLRTC, Vellore District,
Tamilnadu - 632 106
E-mail: tgsekar@gmail.com

ANNEXURE

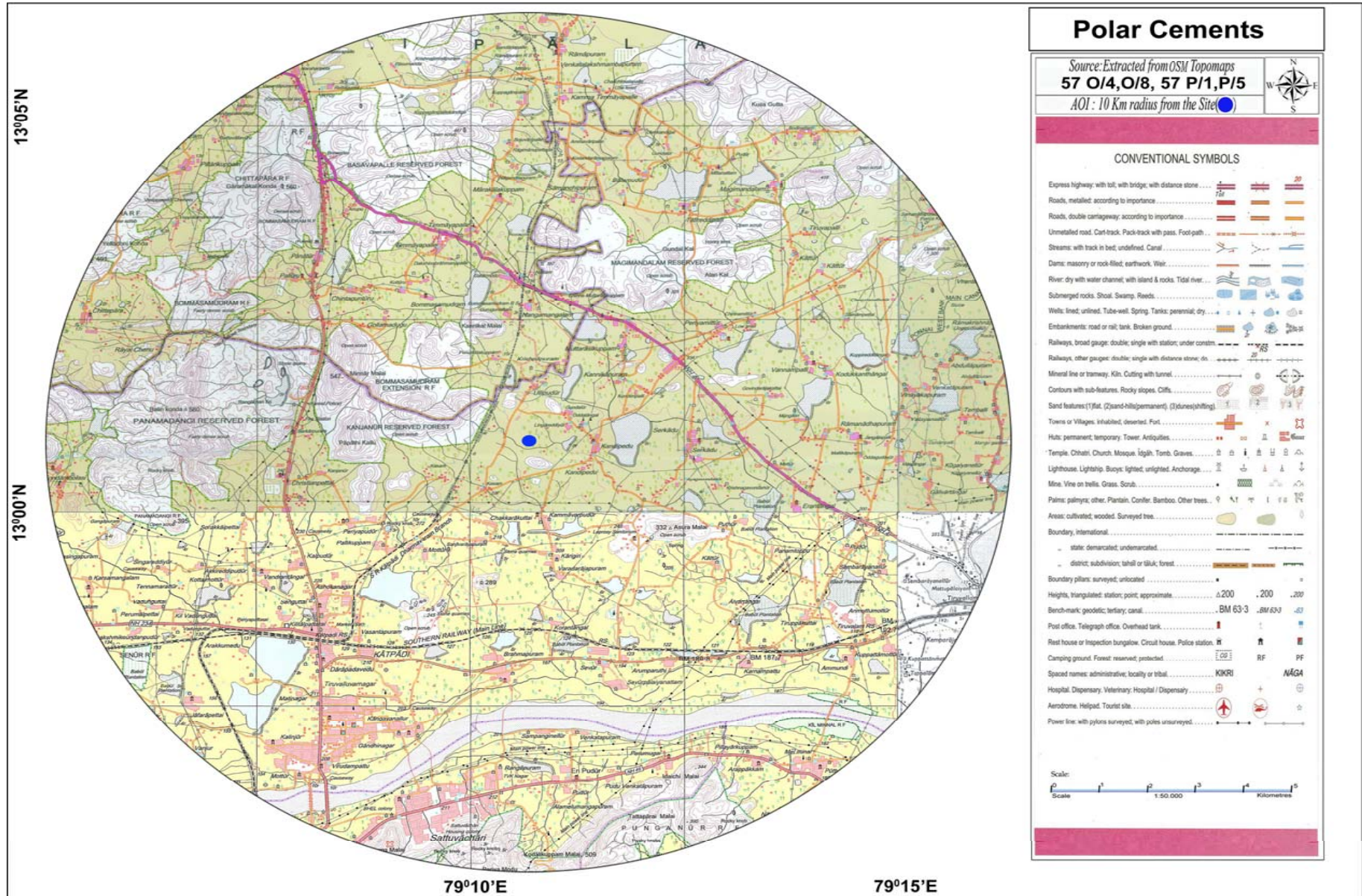


Figure A.1 Site Location for Polar Cements Company.,

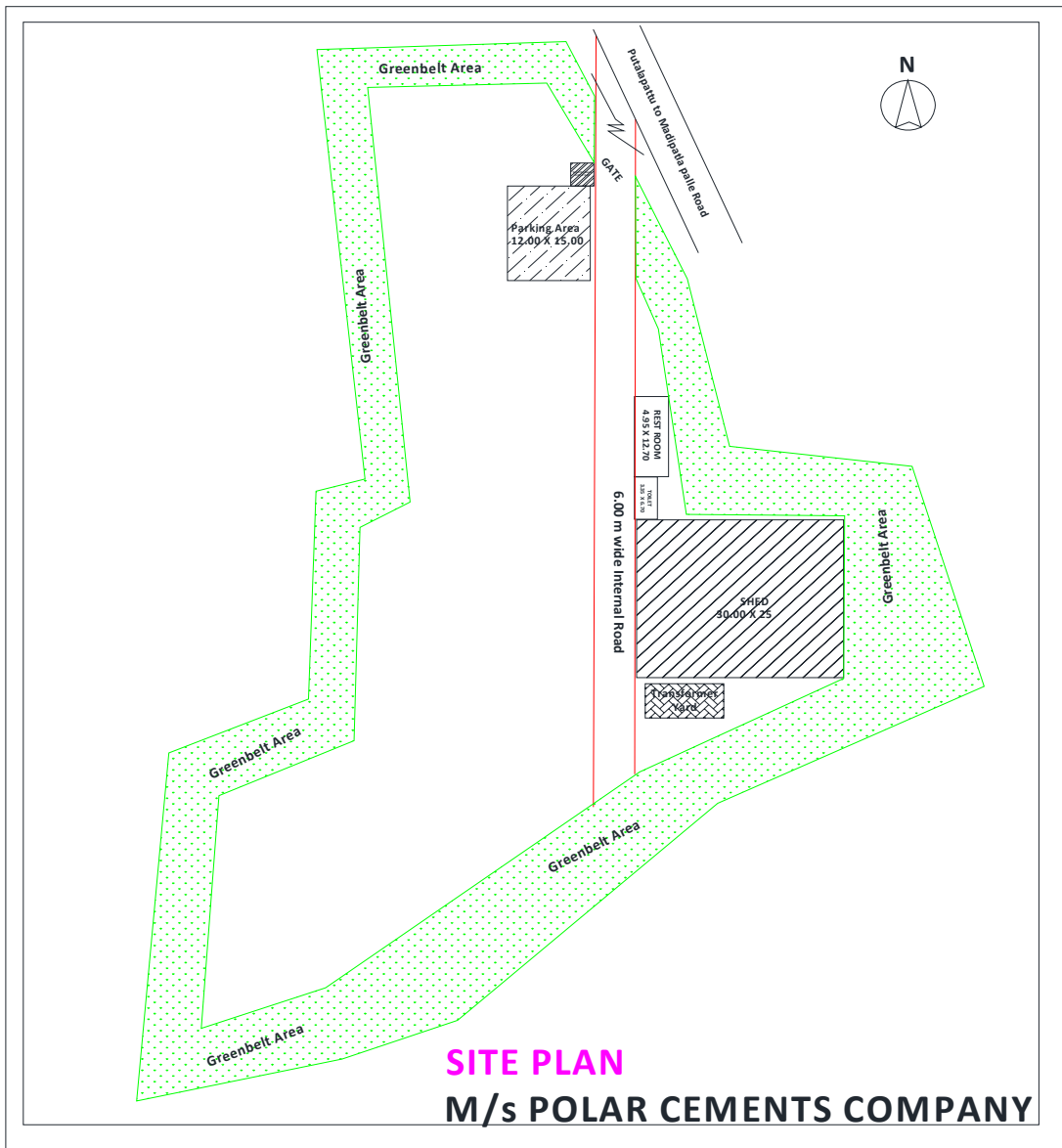


Figure A.1 Site Layout for Polar Cements Company.,

ANNEXURE I

Introduction

M/s. Polar Cements Company proposes to set up a standalone cement grinding unit of 300 TPD capacity in two Phases in Sy No: 429, Kanipedu Village, Katpadi taluk, Vellore District, Tamil Nadu in an area of 2.60 acres. 0.9 acres of land area is proposed to be developed as green belt. Total cost of the project is Rs. 135 Lakhs. The plant site is situated at the intersection of 13° 0' 51.98" (N) latitude and 79° 10' 38.98" (E) longitude. The site elevation above mean sea level (MSL) is 230 m. The site is surrounded by open land in all directions, except in the north direction, which has Kandipedu to Kasam Road. Kanipedu village is at 1.4 km in NE direction. Katpadi railway station is at a distance of 6.5 km in SW direction. Nearest town is Katpadi is at a distance of 6.5 km in SW direction. Ponnai River is at a distance of 6.2 km in SE direction. The following ten reserve forests are located within 10 km radius of the site; Kanjanur RF at a distance of 1.1 km in NW direction, Bommasamudram Extn RF at a distance of 1.3 km in NW direction, Magimandalam RF at a distance of 3.7 km in NW direction, Panmadangi RF at a distance of 4.9 km in W direction, Basavapalle RF at a distance of 6.9 km in NW direction, Chittapara RF at a distance of 7.0 km in NW direction, Kilminnal RF at a distance of 8.5 km in SE direction, Velloreforthill RF at a distance of 8.7 km in S direction, Punganur RF at a distance of 8.9 km in SE direction and Sennur RF at a distance of 9.2 km in SW direction. Andhra Pradesh - Tamil Nadu interstate boundary is at a distance of 1.2 km in NW direction. There are no National Parks, wild life Sanctuaries and critically polluted areas within 10 km radius of the site. The site is owned by the proponent and does not involve any forest land and there is no displacement of people due to the project. The grinding capacity is 300 TPD in two phases is presented in **Table A-1**. The manufacturing process is presented as follows;

Table A-1 Manufacturing Capacity

S.No	Name of Product	Manufacturing Capacity (TPD)		
		Phase I	Phase II	Total
1	Cement	100	200	300

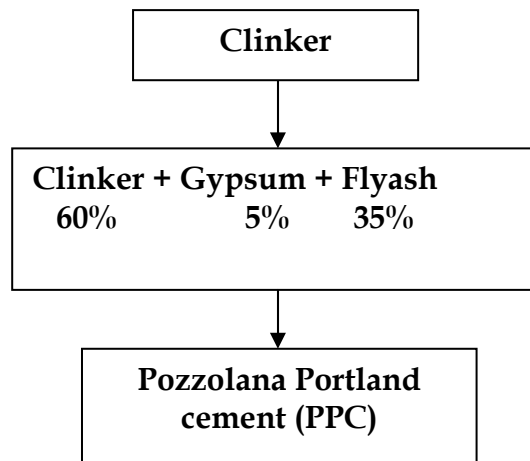
Manufacturing Process:

The raw materials are stored in silos and are transferred to ball mills using table feeders. The cement after grinding is sent to cement silo and sent to packing unit by means of a screw feeder. The packing unit will pack cement in 50 kg bags. The packing bags are handled by a belt conveyor and transported to dealers. The raw material required is shown in [Table A.1](#). The Flow diagram is shown in [Fig A.3](#)

Table A.1 Raw Material Requirement

S. No	Raw Material	Source Locality	Quantity (TPD)	Distance from plant (km)	Transportation mode
1.	Clinker	Kamalapuram	180	165	Trucks by Road
2.	Gypsum	Chennai	15	105	Trucks by Road
3.	Flyash	Chennai	105	105	Trucks by Road

Figure A.3 Schematic Diagram of Manufacturing Processing



ANNEXURE II

Emissions form Process

The proposed the cement manufacturing process gives rise to air pollution and noise pollution unless abatement measures are adopted. It is proposed to provide closed storage facility for all raw materials and the conveyor connected to the hoppers shall be covered to ensure there are less emissions. The emissions from the ball mill during transfer of cement shall be let out through a bag filter. The dust collected in the bag filter is reused in the process. Detailed emissions are shown in [Table A.2](#).

The main sources for air pollution in the cement plants are

1. Material transfer points
2. Cement Mill (Ball mill)

Table A.3 Details of Process Emissions from the Plant

Source of Process Emission	Height in m	Dia. in m	Temp. of Exhaust Gases (°C)	Velocity m/ sec	Pollutant Emission Rate (g/s)		
					SPM	SO ₂	NO _x
1 x 10 TPH Ball mill	15	0.6	50	11	0.13	-	-
1 x 20 TPH Ball mill	15	0.6	50	12	0.16	-	-
125 KVA DG Set	2.5	0.2	110	8.5	0.02	0.025	0.023

Annexure - III

The total water consumption of the project is about 5.0 KLD. The water required mainly for domestic usage, dust suppression and for Green belt development. This can be met from the ground water through bore wells. The water balance and the total fresh water requirement of proposed project are presented below. Complete water balance is summarized in [Table A.4](#).

Table A.4 Water balance for the proposed project

S. No	Input	Quantity, KLD	Out Put	Quantity, KLD
1	Dust Suppression	1.5	Loss	1.5
2	Domestic Use	1	Domestic Sewage	0.8
			Loss	0.2
3	Green belt development	2.5	Loss	2.5
	Total	5.0	Total	5.0

Annexure - IV

The main solid waste generated from the grinding unit is cement dust collected from pollution control devices. The dust collected in the air pollution control equipment in the cement plant will be recycled back to the process. Hence no solid waste that requires disposal is generated from the plant. Hazardous waste generated from the use of standby DG set is waste oil and used batteries, are sent to authorized recyclers.

Table A.5 Solid Waste Generation

S.	Description	Quantity	Remarks
1.	Dust collected in Bag filter	3 Kg/Day	Returned to process
2.	Waste Oil	10 L /Year	Sent to Authorized Recyclers
3.	Used lead acid batteries	3 No/year	Sent to Authorized recyclers