



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Vice President
SAGAR CEMENT (R) LTD
Plot No. 111, Road No. 10, Jubilee Hills,
Hyderabad,,Hyderabad,Telangana-500033

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/AP/MIN/267825/2020 dated 04 May 2022. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC22A001AP140737 |
| 2. File No. | J-11015/231/2012.IA-II (M) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Expansion of Gudipadu Limestone Mine of Sagar Cements (R) Limited. (Mine Lease area-454.59 Ha) for increase of Limestone production from 1.00 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Lime) |
| 7. Name of Company/Organization | SAGAR CEMENT (R) LTD |
| 8. Location of Project | Andhra Pradesh |
| 9. TOR Date | 12 Jun 2020 |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 17/08/2022

(e-signed)
Pankaj Verma
Scientist E
IA - (Non-Coal Mining sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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No. J-11015/231/2012.IA-II(M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

2nd Floor, Prithvi Wing,
Indira Paryavaran Bhavan,
Jor Bagh Road, Aliganj,
New Delhi-110 003

Dated: 16TH August, 2022

To,

M/s Sagar Cements (R) Limited,
Plot No. 111, Road No. 10,
Jubilee Hills, Hyderabad – 500 033.
Andhra Pradesh

Subject:- Proposal for Expansion in Environmental Clearance of Gudipadu Limestone mine of M/s Sagar Cements (R) Limited in the mine lease area of 454.59 ha for increase in Production Capacity of Limestone from 1.0 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh - Environmental Clearance-reg.

Sir,

This has reference to the online proposal no. IA/AP/MIN/267825/2020 of M/s Sagar Cements (R) Limited for mining of Limestone in Gudipadu Limestone mine for increase in Production Capacity of Limestone from 1.0 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh. The mine lease area is located between Latitude 15°04'51.55"N to 15°07'28.07"N and Longitude 77°57'55.91"E to 78°00'16.56"E. The mine lease area falls under the Survey of India Toposheet No: 57 E/16 & 57 I/4 and falls in Seismic Zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. The Project Proponent has made an online application vide proposal no: IA/AP/MIN/267825/2020 dated 04.05.2022 and submitted Form 2 and EIA report under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no.



1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.

3. The details of the project as ascertained from the document submitted by the Project Proponent are mentioned below:

(i) Details of previous Environmental Clearance (EC) are furnished as below:

Date of application	File No/ Proposal No	Consid eration	Details	Date of accord
22.06.2012	F. No: J-11015/ 231/2012.IA.II(M) IA/AP/MIN/ 8005/2012	28 th – 30 th May, 2014	Environmental Clearance for production of 1.0 MTPA (ROM) of Limestone over mining lease area of 454.59 ha in favour of M/s BMM Cements Limited	12.12.2014
19.05.2021	F.No: J-11015/ 231/2012.IA.II(M) IA/AP/MIN/ 210828/2021	-	Transfer of Environmental Clearance from M/s BMM Cements Limited to M/s Sagar Cements (R) Limited for production of 1.0 MTPA (ROM) of Limestone over mining lease area of 454.59 ha	02.07.2021

(ii) The details of the Terms of References (TOR) are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
04.04.2020	F.No: J-11015/ 231/2012.IA.II(M) IA/AP/MIN/ 150902/2020	28-29, May and 1 st June, 2020	Terms of Reference for increase in limestone production from 1.0 to 4.7 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.7MTPA + Top Soil: 0.15MTPA) from Gudipadu Limestone Mine (ML area 454.59 ha) in favour of M/s BMM Cements Limited	12.06.2020
06.07.2021	F.No: J-11015/ 231/2012.IA.II(M) IA/AP/MIN/ 218271/2021	-	Transfer of Terms of Reference from M/s BMM Cements Limited to M/s Sagar Cements (R) Limited for Gudipadu Limestone mine in the mine lease area of 454.59	06.09.2021

			ha for increase in limestone production from 1.0 to 4.7 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.7MTPA + Top Soil: 0.15MTPA)	
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(iii) Details of Mine lease

S. no	Grant of Mine lease/ Proceedings	Date of the grant	Mine lease area (Ha)	Name of the Mineral	Period of Grant	Granted by
1	Grant of mining lease vide Lr. Memo. No. 338/ M.III(I)/2010-6 in favour of M/s BMM Cements Limited for their "captive purpose" and subject to submission of Approved Mining Plan, Consent for Establishment from APPCB, Prior EC from Gol under S.O. 1533, dated 14.09.2006.	26.05.2012	454.590	Limestone	20 years	Government of Andhra Pradesh
2	Grant of mining lease vide G.O.Ms.No.119 Industries & Commerce (M.III) Department	04.02.2015	454.590	Limestone	20 years	-do-
3	Proceedings of the Asst. Director of Mines and Geology, Tadipatri vide Ltr. No. 3615/M1/ 2007	15.12.2015	454.590	Limestone	15.12.2015 to 14.12.2035	-do-
4	Order for Change of name from M/s BMM Cements Limited to M/s Sagar Cements (R) Limited vide G.O.Ms.No.23 Industries and Commerce (Mines.III) Department w.e.f, the date of communication received i.e. on 08.04.2017	09.04.2021	454.590	Limestone	-	-do-

(iv) Land Use/Land Cover of the Mine lease area:

Private land	401.63 Ha
Government land	52.96 Ha

Total Mining lease area (MLA)	454.59 Ha.
Private land for crusher, workshop & other infrastructure outside the MLA	Nil

(v) Mining plan details:

Modified Mining Plan (including Progressive Mine Closure Plan) approved by Indian Bureau of Mines in favour of M/s BMM Cements Ltd (Changed as M/s Sagar Cements (R) Ltd)	Letter No.	AP/ANP/MP/Lst-58/Hyd
	Date	13.10.2020
	Mine lease area	454.59 ha
	Mineral	Limestone
	Validity	01.09.2020-2021 to 2024-25
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized mining with deep hole drilling and blasting.	
Geological Reserves	162.642 Million Tonnes	
Mineable Reserves	128.557 Million Tonnes	
Life of mine	34 years @ 4.70 MTPA (Mining Lease period – 20 Years up to 14.12.2035)	
Bench Height and Width	9m respectively	
Individual bench slope	60°	
Overall pit slope	45°	
Drilling/Blasting	Drilling will be carried by Down the hole DTH (115 mm) diameter holes, conventional blasting	
RoM output size	-50 mm	
Transportation details	The limestone from the mine is transported from the working face to the crusher by a road length of 1.6 km by 25 tonner tippers. Crushed limestone will be transported to cement plant by conveyor belt over 2.2 km distance.	
Dumpers capacity	25 Tonnes	
Crusher	PP submitted that at present 350 TPH crusher is in operation. A new crusher of 1200 TPH will be installed at pit head for crushing the limestone along with a new parallel conveyor for the expansion phase.	
OB/Waste	PP reported that there is no waste generation from the mine. Top Soil of about 3.23 million cu.m will be generated and the same will be used for afforestation purpose in barrier zones of 7.5 m width boundary and seasonal stream. Subgrade which is part of limestone production will be temporarily stored at crusher and consumed by blending.	

Ultimate Depth of Mining	37m bgl
Water table	40m bgl
Groundwater intersection	No Groundwater intersection

(vi) Water requirement:

Total water requirement	100m ³ /day	Fresh water	100m ³ /day
		Treated water	-
Source	Mine pit (water collected through rainwater harvesting)		
Permission	NA		

(vii) Nearest village / town/ highway/railway station / water bodies:

Particulars	Particular's Name	Distance & Direction
Nearest village	Gudipadu Village	0.45 km, West
Nearest Town	Tadipatri	18.73 km, South
Nearest Highway	National Highway (NH-67) Guntakal - Proddatur	7.15 km, South
Nearest Railway station	Juturu	15.95 km, South West
Nearest Water body	Pedda Vanka	0.45 km, East

(viii) Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/ letter/ Remarks
Forest Land	No	PP submitted the letter from the Office of the District Forest Officer, Ananthapuramu vide Rc.No.2511/2020/TO dated 20.01.2021 stating that 1) There is no forest area inside the mining area. The distance from the mining area to the nearest RF i.e., Yadiki RF is 8.10 kms 2) There is no existence of any National Parks, Wildlife Sanctuaries and Sensitive areas within 10kms of the leased area.
National Park	No	
Wildlife Sanctuary	No	
Sensitive Areas	No	
Schedule-I species	No	PP submitted the letter from the Office of the District Forest Officer, Ananthapuramu vide Rc.No.2511/ 2020/TO dated 20.01.2021 wherein the details of fauna within 10 kms of the lease area are mentioned. As per the DFO letter dated 20.01.2021 there is no Schedule-I species reported in the 10km radius of the

	study area.
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(ix) Green belt/plantation details:

Proposed area for green belt/plantation	28.41 Ha (Out of this, 14.52 Ha already developed with planting of 25,777 no. of saplings)
Budget for green plant & plantation till the end of life of mine.	Capital Cost: Rs.152.28 Lakhs Recurring Cost: Rs. 140.62 Lakhs
Budget for nursery	Nil
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	7.28 ha
50 m safety zone of nallah, roads, electric lines	Safe Zone of Road - 4.33 ha Safe Zone of Nala - 16.80 ha
500 m safety zones of nearest habitation villages	-

(x) Baseline detail:

The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Winter Season i.e., December, 2019 to February, 2020. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Period	December, 2019 to February, 2020				
AAQ parameters at 9 locations	Pollutant	Min, $\mu\text{g}/\text{m}^3$	Max, $\mu\text{g}/\text{m}^3$	98 %ile, $\mu\text{g}/\text{m}^3$	Standard, $\mu\text{g}/\text{m}^3$
	PM2.5	18.7	30.4	29.5	60
	PM10	44.8	60.7	60.3	100
	SO2	8.2	14.6	14.2	80
	NOx	9.0	15.8	15.3	80
AAQ modelling (Incremental GLC) – EPA approved AERMOD model version 10.2.0	Pollutant	Baseline Concentration, $\mu\text{g}/\text{m}^3$	Incremental Concentration, $\mu\text{g}/\text{m}^3$	Total GLC, $\mu\text{g}/\text{m}^3$	Standard
	PM10	60.3	20.3	80.6	100
	PM2.5	29.5	6.7	36.2	60
	SO2	14.2	3.1	17.3	80
	NOx	15.3	17.4	32.7	80
Noise level at 9 locations	Day Time: 41.8 to 62.5 Leq dB (A) Night Time: 50.6 to 70.8 Leq dB (A)				
Ground water quality at 8	PP reported that pH of collected water samples varied from 6.62 – 7.79 which is alkaline in nature. Total hardness as CaCO_3 was found				



locations	to be in the range 83 - 584 mg/l. Total Dissolved Solids in the water samples ranged from 126-1120 mg/l. Chloride ranged between 6-178 mg/l. PP also reported that all parameters of ground water samples are well within the acceptable limits of IS 10500-2012 except for Total Dissolved Solids, Total Hardness, Calcium and Total Alkalinity. These parameters though above acceptable limits, they are well within the permissible limits.
Surface water quality at 1 location	PP reported that the pH of 7.68 is slightly alkaline in nature, DO is found to be 6.2 mg/l and BOD is less than 2 mg/l. This water falls under the category E which can be used for the irrigation purpose in the nearby agriculture fields.
Soil quality at 9 locations	PP reported that pH (7.74-8.25) of all samples indicated slightly alkaline in nature. Most of the soil samples are sandy loam. The Nutrient Nitrogen (28-394 kg/ha) is more than sufficient, Potassium (24-324 kg/ha) and Phosphorous (4-62 kg/ha) are moderate and the soils show good fertility range based on NPK values. Organic carbon is less at few places and requires addition of manure. SAR value also indicates that the sodicity is not there in the soils and the transfer of water from irrigating water to soil is normal. All Micro nutrients like Zinc, Copper and Manganese, when extracted were found to be sufficient. It is found that the soils are with good fertility and with minimum application of fertilizers and manure, the agricultural operations are normal and better yielding.

(xi) Public Hearing (PH) Details:

Advertisement for PH with date	"The Hans India" (English News Paper) and "Eenadu" (Telugu News Paper) on 07.12.2021
Date of PH	07.01.2022
Venue	Near the main gate of the Cement plant of M/s Sagar Cements (R) Limited, Gudipadu Village, Yadiki Mandal, Anantapur District, Andhra Pradesh
Chaired by	Smt. B Gayatri Devi., District Revenue Officer & Addl. District Magistrate, Ananthapuramu District, Andhra Pradesh
Main issues raised during PH	Employment for local people, to implement latest technology in controlling of noise & ambient air quality for the proposed expansion project, Welfare activities, to implement the developmental activities, to provide Sewing Centre, to provide water line along with tap connection facility to Kundanakota village, to extend help in providing cell tower to facilitate the students to attend the online

	classes without any interruption.
Budget proposed for addressing issues raised during PH	PP has allocated Rs. 72.22 Lakhs under mines + Rs 268.0 Lakhs under Cement Plant towards the public hearing demands and need based activities.

(xii) Details of CTE/CTO, Previous EC Compliance, Past Production details:

Consent for Establishment	PP submitted the Consent for Establishment obtained from Andhra Pradesh Pollution Control Board vide Order No. 145/PCB/CFE/RO-KNL /HO/2014, dated 13.02.2015 for mining of Limestone of 1.0 MTPA
Consent for Operation	PP submitted the Renewal of Consent order issued by the Andhra Pradesh Pollution Control Board vide Order No. APPCB/KNL/ATP/17731/HO/CFO/2021, dated 16.07.2021 for mining of Limestone of 1.0 MTPA and is valid up to 31 st January 2026
Certified EC Compliance report	PP submitted the EC compliance report certified by MoEF&CC, Regional Office (SEZ), Chennai vide Lr No: E.P/12.1/2014-15/17/AP/678 dated 26.08.2020 for the earlier EC dated 12.12.2014. Site visit was conducted by Regional Office on 22.08.2020.
Past Production details	PP submitted the past production details certified by Dept of Mines and Geology vide Lr. No. 3615/M1/2007 dated 27.07.2021 for the period 2015-16 to 2020-21. PP also submitted that mining operations were commenced in the ML area on 23.12.2015 after obtaining necessary permissions.

(xiii) Rehabilitation & Resettlement (R&R):

R & R details	No R &R is involved in the project area.
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(xiv) Court case details:

Court Case	PP submitted that there is no any Court Cases pending against the project and/or land in which the project is proposed to be set up
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(xv) Affidavit/Undertaking details:

Affidavit in a Non-Judicial stamp paper of Rs 100 bearing AF 054335 dated 04.08.2021 as per Ministry's OM dated 30.05.2018	M/s Sagar Cements (R) Limited shall comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
Project Proponent submitted an	PP submitted an undertaking to the effect that the conditions

Undertaking dated 21.04.2022	laid down in Terms of Reference (TOR) issued by Ministry vide letters dated 12.06.2020 & 06.09.2021 have been addressed in the subject final EIA Report. The information and data submitted is factually correct and Sagar Cements (R) Limited owns the contents of the report.
Consultant submitted an Undertaking dated 18.04.2022	The Consultant submitted an undertaking that 'M/s B.S. Envi-Tech Pvt. Ltd has complied with all the prescribed Terms of Reference (TOR) issued by Ministry of Environment, Forests & Climate Change (MoEF&CC) in preparation of Final EIA Report'. The Head of the Accredited Consultant Organization also confirm that I shall be fully accountable for any misleading information mentioned in this statement.
Plagiarism Certificate certified on 18.04.2022	The Head of the Accredited Consultant Organization/ Authorized person certified that FEIA Report has been evaluated using online/inhouse software viz., Plagiarism Checker X - Report (Purchased). The report produced has been analyzed by the system and based on it, I certify that the EIA report produced in accordance with good scientific practice.

(xvi) Details of the EMP:

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Dust Suppression Measures	30.00	30.0
Environmental Monitoring	50.00	75.0
Greenbelt development	152.28	140.62
Occupational Health Check up	0.00	174
Rainwater Harvesting Structures & Garland Drain	25	15
Total (Lakhs)	257.28	434.62

(xvii) Details of project cost and employment:

Particulars	(Rs. In Crore)
Capital Cost for Environment Protection	2.5728
Budget for addressing the Public Hearing issues	Rs. 0.7222 Crores under mines + Rs. 2.68 Crores under Cement Plant
Total Cost for EMP	2.5728
Recurring Cost for EMP	4.3462
Project Cost	10.0
Employment	56 Persons

4. The EAC after detailed deliberations made by the Project Proponent and the Consultant, the EAC noted that the instant proposal is for expansion of limestone production from 1.0 MTPA to 4.70 MTPA with existing crusher capacity of 350 TPH. The EAC also noted that the PP has transferred the lease, EC and TOR from M/s BMM Cements Limited to M/s Sagar Cements (R) Limited.

The EAC on viewing the KML noted that the seasonal nala is passing through the mine lease area from NW corner to the SW side of the mine lease area. The Project Proponent has informed the EAC that the safety distance of 50m has been left on the either side of the nala.

The EAC noted that the patches of agriculture land are visible in the mine lease area. The Project Proponent has informed that the total mine lease area is 454.59 ha, out of which 401.63 ha is agriculture land and also PP committed that they will allow the farmers to continue the farming. The EAC also asked the Project Proponent to permit the access for unleased area.

The EAC also observed that the Project Proponent has informed that the crusher of 350 TPH capacity will be dismantled in the year 2024-25 after the commissioning of new crusher of 1200 TPH capacity along with the conveyor and the EAC was of the view that the unless the new crusher and conveyor is in place, the Project Proponent shall not increase the production capacity from the existing EC capacity of 1.0 MTPA.

The EAC asked the PP about the development of greenbelt in the past 5 years. PP has replied that the saplings of 6ft height have been planted and particularly during the monsoon in the last year about 30,000 no. of saplings have been planted with the survival rate of 80-90%. The EAC was of the view that the actual counting was not done by the PP/Consultant and opined that the PP shall ensure that the 95% survival rate for the proposal of new and gap plantation and the report in this regard shall be submitted to the Ministry.

The EAC observed that production is within the limits of EC capacity of 1.0 MTPA based on past production details certified by Dept of Mines and Geology vide letter dated 27.07.2021 for the period 2015-16 to 2020-21. However, PP has not submitted the past production details for the year 2021-22.

The EAC observed that the PP has submitted the EC compliance report certified by the Regional Office vide letter dated 26.08.2020 for the earlier EC dated 12.12.2014. No non-compliances were detected by Regional Office during the site visit on 22.08.2020. Further again Integrated Regional Office has recently made the site visit in the month of April, 2022. The Project Proponent submitted the Certified Compliance Report and examination of the action taken report issued by the Integrated Regional Office, Vijayawada vide letter dated 01.07.2022 and 26.07.2022 respectively.

Based on the above discussions held, the EAC **recommended** the proposal for grant of Environmental Clearance for M/s Sagar Cements (R) Limited for mining of Limestone in Gudipadu Limestone mine for expansion of production capacity of Limestone from 1.0 MTPA to

4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity in the mine lease area of 454.59 ha, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh, under the provisions of EIA Notifications, 2006 and its amendments therein, subject to the specific conditions in addition to the standard EC conditions applicable for non-coal mining projects.

5. The matter was examined in the Ministry in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and the undersigned is directed to say that the Ministry of Environment Forest & Climate Change after accepting the recommendation of EAC during its 51st EAC (Non-Coal Mining) meeting held during 30th May, 2022 hereby accords Environmental Clearance for M/s Sagar Cements (R) Limited for mining of Limestone in Gudipadu Limestone mine for expansion of production capacity of Limestone from 1.0 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity in the mine lease area of 454.59 ha, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh, under the provisions of EIA Notification, 2006 and its amendments therein, subject to compliance of the terms & conditions and the environmental safeguards mentioned below:-

A. SPECIFIC CONDITIONS

- i. The Environmental Clearance will be functional only after the execution of lease deed in the name of M/s Sagar Cements (R) Ltd.
- ii. The Environmental Clearance will be valid till 14.12.2035.
- iii. The expansion of Limestone production from 1.0 MTPA to 4.70 MTPA will be operational only after the commissioning of new crusher of 1200 TPH along with the Over Land Belt Conveyor (OLBC). Till then the capacity of the mine will remain up to 1.0 MTPA. New crusher and conveyor will be tested for 1.0 MTPA first and then the mine shall commission for 4.70 MTPA. The commission of new crusher of 1200 TPH capacity along with the conveyor shall be intimated to the Ministry's Integrated Regional Office. Accordingly, SPCB shall not grant Consent to Operate (CTO) for the expansion capacity of 4.70 MTPA production.
- iv. The Project Proponent should install the one continuous ambient air quality monitoring stations (CAAQMS) as per the scientific study and in consultation with CPCB/SPCB. The real time data so generated should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.
- v. NoC from the Central Ground Water Authority (CGWA)/ Concerned Local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent

to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- vi. The Project Proponent shall continue to monitor the water quality of stream/nallah with specific reference to Langelier Saturation Index to assess the impact of calcium carbonate on water quality.
- vii. PP shall undertake dense tree plantation of native fruit bearing species all along the safety zone (already left of 50 mts) on either side of nallah within three years and certify this with DFO.
- viii. The Project Proponent shall monitor the noise level and ground vibration by installing adequate no. of monitoring station during drilling and blasting at the edge of the mine, near the nallah/stream, near the village, near the agriculture field, crusher and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Integrated Regional Office.
- ix. The Project Proponent needs to install the permanent water sprinklers along the haul road of length 1.6km. Further, 5 nos. of fog canon/mist sprayer of atleast 40 mtrs throw shall be installed at various location in the mine area.
- x. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
- xi. The Project Proponent needs to review any damage of the cotton crops due to mining and crushing operations and accordingly the Project Proponent needs to undertake necessary steps to any damage.
- xii. The Project Proponent shall ensure the survival rate of 95% for planting the gap plantation and new plantation. The Project Proponent shall make the actual count on the saplings planted and its survival rate and incase of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Integrated Regional Office. PP shall undertake the progressive bench plantation up to HFL for eco restoration of water bodies.
- xiii. The budget of Rs. 72.22 Lakhs to address the concerns raised by the public including in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes.

- xiv. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 2.57 Cr by PP. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- xv. The Project Proponent shall take adequate measures for protection of unleased area and shall permit access to farmers to continue their regular activity.
- xvi. The Project Proponent shall strictly follow the mitigation measures provided in MoEF&CC Office Memorandum No. Z-11013/57/2014-IA.II(M), dated 29th October, 2014.
- xvii. The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly.
- xviii. The Project Proponent needs to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets.
- xix. The Project Proponent needs to provide the RO plant for the purpose of drinking for the people coming under the zone of influence of this mining activity.
- xx. The Project Proponent shall provide the Sewing Centre at village Kundanakota for the benefit of the local people.
- xxi. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- xxii. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.

B. STANDARD CONDITIONS

I. Statutory compliance

- 1) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

- 2) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 3) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- 4) The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 5) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 6) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 7) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 8) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- 9) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/II, dated 18.11.2009 covering the aspects of transportation



and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

10) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

11) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

12) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

13) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

14) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

15) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

16) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

17) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

18) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

19) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

20) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety

and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

21) The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

22) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

VI. Land reclamation

23) The Overburden (O.B.), waste and topsoil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.

24) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

25) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

26) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

VII. Transportation

27) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].

28) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VIII. Green Belt

29) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be



governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

30) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

31) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

IX. Public hearing and human health issues

32) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

X. Corporate Environment Responsibility (CER)

33) The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

XI. Miscellaneous

34) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.



35) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

36) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

37) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.

38) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.

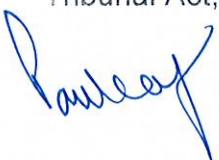
39) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

40) The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

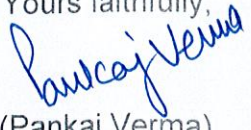
41) Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

6. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.

7. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

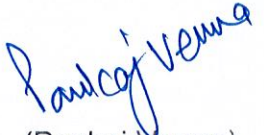


8. This issues with the approval of Competent Authority.

Yours faithfully,

(Pankaj Verma)
Scientist 'E'

Copy to:

- i. **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- ii. **The Secretary**, Department of Environment, Government of Andhra Pradesh, 4th Block, 1st Floor, Room No:268, Andhra Pradesh Secretariat Office, Velagapudi.
- iii. **The Secretary**, Department of Forests, Government of Andhra Pradesh, Aranya Bhavan, K.M. Munshi Road, Nagarampalem, Guntur-522004, Andhra Pradesh.
- iv. **The Secretary**, Department of Mines and Geology, Government of Andhra Pradesh, Sri Anjaneya Towers, D.No. 7-104, B-Block, 5th & 6th Floors, Vijayawada, Ibrahimpatnam, Andhra Pradesh 521456.
- v. **The Secretary**, Department of Industries and Commerce (M-III), Government of Andhra Pradesh, Commissionerate of Industries, First Floor, Government Regional Printing Press Buildings, Mutyalampadu, Vijayawada-520011.
- vi. **The Regional Officer**, Integrated Regional Office (IRO), Vijayawada, Ministry of Environment, Forest and Climate Change, Green House Complex, Gopalreddy road, Vijayawada-520010, Andhra Pradesh.
- vii. **The Member Secretary**, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- viii. **The Member Secretary**, Andhra Pradesh State Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada – 520 010.
- ix. **The Member Secretary**, Central Ground Water Authority, A 2, W-3 Curzon Road Barracks, K.G Marg, New Delhi-110011.
- x. **The Chief Wildlife Warden**, Govt. of Andhra Pradesh, Aranya Bhawan, K.M. Munshi Road, Nagarampalem, Guntur-522004, Andhra Pradesh.
- xi. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
- xii. **The District Collector**, Ananthapuramu District, Government of Andhra Pradesh.
- xiii. Guard File.
- xiv. **PARIVESH Portal.**


(Pankaj Verma)
Scientist 'E'