

**BEFORE THE NATIONAL GREEN TRIBUNAL, WESTERN ZONE**

**BENCH, AT PUNE**

**APPEAL NO. 161OF 2024**

**IN THE MATTER OF:**

MAKWANA NARANBHAI RAMBHAI& ORS. ...APPELLANTS

VERSUS

UNION OF INDIA & ORS

...RESPONDENTS

**AFFIDAVIT FOR ADDITIONAL DOCUMENTS**

**PAPER BOOK**

*(FOR INDEX PLEASE SEE INSIDE)*

*Abhimanue Shrestha*

**ABHIMANUE SHRESTHA**

ADVOCATE FOR THE APPELLANTS

43, OLD LAWYERS CHAMBER,

SUPREME COURT OF INDIA,

NEW DELHI, PIN 110001

E-MAIL: [Shrestha.abhimanue@gmail.com](mailto:Shrestha.abhimanue@gmail.com)

Mob: +91-9873657493

*Date: 13.11.2024*

**INDEX**

<b>S.NO.</b>	<b>PARTICULARS</b>	<b>PAGE NO.</b>
1.	AFFIDAVIT FOR ADDITIONAL DOCUMENT	1
2.	<b><u>ANNEXURE A- 1</u></b> Office Memorandum dated 24.12.2010 for Consideration of Integrated and Inter-linked Projects Procedure for grant of Environment Clearance	2-3
3.	<b><u>ANNEXURE A- 2</u></b> Office Memorandum dated 07.10.2014 for Status of Land Acquisition w.r.t. project site while considering the case for Environment Clearance under EIA Notification, 2006	4-5
4.	<b><u>ANNEXURE A-3</u></b> A Table showing the Pending Application of Industrial Purpose in Collector's Office, Bhavnagar, Gujarat.	6-10
5.	<b><u>ANNEXURE A-4</u></b> The Expert Committee Report 03.02.2011 prepared by Prof. C. K Varshney on visit to the Cement Plant site of M/s Nirma Ltd. Bhavnagar, Gujarat. (C.K Varshney Report).	11-21
6.	<b><u>ANNEXURE A-5</u></b> The Report of "Expert Body" Committee constituted by MoEF pursuant to the Hon'ble Supreme Court Judgement/order dated 18.03.2011 in Civil Appeal No 14698 of 2010 headed by C. R BABU, (C.R. Babu Report).	22-42
7.	<b><u>ANNEXURE A-6</u></b> Terms of Reference (ToR) dated 03.01.2017 for Vangar-Madhiya Limestone Mining of M/s Nirma Ltd. located at Bhavnagar, Gujarat (612.1336 ha; 1.6 MTPA ROM).	43-48
8.	<b><u>ANNEXURE A-7</u></b> The Order dated 08.01.2017 being Order No. MCR-10200-1945-CHH, issued by the Industries and Mines Department, Gujarat for granting Mining Lease for Limestone and Marl Minerals to M/s Nirma Ltd for the period of 50 years for Vangar-Madhiya Project.	49-51

9.	<b><u>ANNEXURE A-8</u></b> Draft of Environmental Impact Assessment and Environmental Management Plan for Vangar& Madhiya Limestone Mine Project (Extent 612.1336 ha; 1.6 MTPA ROM), Bhavnagar, Gujarat was placed on 16.03.2020 by Nirma Ltd	52
10.	<b><u>ANNEXURE A-10.</u></b> Environment Impact Assessment (EIA) for Vangar and Madhiya Project of M/s. Nirma Ltd. was granted on 16.09.2021	53-99
11.	<b><u>ANNEXURE A -11</u></b> Application dated 16.11.2022 was moved by Nirma Lt. Bhavnagar, Gujarat before MoEFCC for Terms of Reference (ToR) of Vangar and Madhiya Limestone Mine (612.1336 ha; 1.6 MTPA ROM).	100-101
13.	<b><u>ANNEXURE A-12</u></b> Extension of the Validity of Terms of Reference (ToR) was sought on 16.11.2022 by M/s. Nirma Ltd. for Vangar & Madhiya Limestone Mining Project, Bhavnagar, Gujarat, was granted on 23.12.2022.(Four years of extension were granted).	102-115
14.	<b><u>ANNEXURE A-13.</u></b> Publication by Gujarat Pollution Control Board regarding Public hearing of Vangar& Madhiya Limestone Project of M/s Nirma Project on the The Indian Express, Gujarat Pub. dated 26.03.2023 at page no. 3 of the said News Paper.	116
15.	<b><u>ANNEXURE A-14</u></b> The Gujarat Pollution Control Board by Notification No. GPCB/PH/2023-24/BHV-42 dated 19.05.2023 submitted the CD and VCD of the Public hearing Proceedings to MoEFCC.	117-190
16.	<b><u>ANNEXURE A-15</u></b> Final Environmental Impact Assessment and Environmental Management Plan for Vangar&Madhiya Limestone Mine, Bhavnagar, Gujarat was placed on August, 2023 by Nirma Ltd.	191-244
17.	<b><u>ANNEXURE A-16</u></b> Minutes of AGENDA for 21 <sup>st</sup> EAC meeting of the Expert Appraisal Committee (Non-Coal Mining Sector), scheduled to be held during 18-20 October, 2023 (18.10.2023 to 20.10.2023) through Video Conferencing, Report published on 27.10.2023.	245-253

18.	<b><u>ANNEXURE A-17</u></b> Minutes of AGENDA for 25 <sup>th</sup> EAC meeting of the Expert Appraisal Committee (Non-Coal Mining Sector), scheduled to be held during 9 <sup>th</sup> -10 <sup>th</sup> January,2024 (09.01.2024 to 10.01.2024) through Video Conferencing, Report published on 15.01.2024.	253-364
19.	<b><u>ANNEXURE A-18</u></b> Minutes of AGENDA for 28 <sup>th</sup> EAC meeting of the Expert Appraisal Committee (Non-Coal Mining Sector), scheduled to be held during 14 <sup>th</sup> - 15 <sup>th</sup> March, 2024 (14.03.2024 to 15.03.2024) through Video Conferencing, Report published on 22.03.2024.	265-288
20.	<b><u>ANNEXURE A-19</u></b> Minutes of AGENDA for 30 <sup>th</sup> EAC meeting of the Expert Appraisal Committee (Non-Coal Mining Sector), scheduled to be held during 12 <sup>th</sup> -14 <sup>th</sup> June, 2024 (12.06.2024 to 14.06.2024) through Video Conferencing, Report published on 26.06.2024.	289-307
21.	<b><u>ANNEXURE A-20</u></b> Minutes of AGENDA for 32 <sup>nd</sup> EAC meeting of the Expert Appraisal Committee (Non-Coal Mining Sector), scheduled to be held during 12 <sup>th</sup> -13 <sup>th</sup> August, 2024 (12.08.2024 to 13.08.2024) through Video Conferencing, Report published on 02.09.2024.	308-335
22.	<b><u>ANNEXURE A-21</u></b> Summary Record of Minutes of 32 <sup>nd</sup> EAC meeting of the Expert Appraisal Committee (Non-Coal Mining Sector), scheduled to be held during 12 <sup>th</sup> -13 <sup>th</sup> August, 2024 (12.08.2024 to 13.08.2024) through Video Conferencing, Report published on 18.09.2024.	336-352
23.	<b><u>ANNEXURE A-22</u></b> Letter dated 17.09.2024 by which the Environment clearance was made available to the Gram Panchayat	353

BEFORE THE NATIONAL GREEN TRIBUNAL, WESTERN ZONE BENCH, AT PUNE

APPEAL NO. 161 OF 2024

IN THE MATTER OF:

MAKWANA NARANBHAI RAMBHAI & ORS. ....APPELLANTS

VERSUS

UNION OF INDIA & ORS .....RESPONDENTS

AFFIDAVIT

I, Makwana Naranbhai Rambhai Age 62, Male Residing At. 161 Plot Vistar, Village Vangar Taluka Mahuva, District Bhavnagar Gujarat - 364290, state on solemn affirmation as under:-

- 1. That being one of the Appellants in the aforesaid Appeal, I am well conversant with the facts and record of the case and therefore I am competent to swear this affidavit.
2. That the documents in support of the aforesaid appeal is being filed with the present affidavit. The same are true and correct copies of their originals and are necessary and relevant for the adjudication of the aforesaid appeal.
3. That I have been read over and made to understand the contents of the present affidavit and I have signed it having understood the same.

Handwritten signature and stamp: IDENTIFIED BY ME ADVOCATE

Fingerprint and stamp: L.H.T.M OF N.R. MAKWANA DEPONENT

VERIFICATION

I, the abovenamed deponent do hereby verify and declare that the contents of paras No.1 to 3 of my above affidavit are true to my knowledge. No part of it is false and nothing material has been concealed therefrom.

Verified at \_\_\_\_\_ on this \_\_\_\_\_ day of Nov., 2024.

SERIAL NO. 707 of 2024 Solemnly Affirmed Before Me By Naranbhai R. Makwana Who is Identified by shri C.S. Anand Advocate To Whom I personally Know K. B. HADIYA (advocate) Notary Public Bhavnagar District VADLI, TA. MAHUVA



Fingerprint and stamp: L.H.T.M OF N.R. MAKWANA DEPONENT

Handwritten initials: P.T.O

No. J-11013/41/2006-IA.II(I)  
**Government of India**  
**Ministry of Environment & Forests**

ANNEXURE A-1

Paryavaran Bhavan,  
C.G.O. Complex, Lodi Road,  
New Delhi-110003.  
Telefax: 24362434

Dated the 24<sup>th</sup> December, 2010

**OFFICE MEMORANDUM**

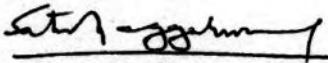
**Sub: Consideration of Integrated and Inter-linked projects –  
Procedure Regarding.**

The matter relating to the procedure for consideration of integrated and inter related projects for grant of environmental clearance under the provisions of EIA Notification, 2006 has been receiving attention of this Ministry for quite some time. After a detailed deliberations in the Ministry. It has been decided that the following procedure shall be adopted henceforth for consideration of such projects.

- (i) Integrated and inter-linked projects having multi sectoral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining TORs from each of the respective sectoral Expert Appraisal Committees (EACs). For the purpose, the project proponent shall submit applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated / interlinked projects as also for the particular component, sector specific) in the prescribed format (Form-1) and the pre-feasibility report.
- (ii) The respective sectoral Expert Appraisal Committees will consider the project with specific emphasis on their respective sectors and prescribe the TORs which will not be limited to the sector but would also encompass the entire project as a whole.
- (iii) The proponent shall prepare a common EIA report covering all the sectors comprehensively and hold public hearing based on the EIA report so prepared, for each component as per provision of EIA Notification, 2006.
- (iv) After the EIA report has been prepared and public hearing has been held, the proposals for environmental clearance in respect of all the sectoral components of the project shall be submitted simultaneously.
- (v) The respective EACs will consider the sector specific proposals based on the common EIA report and will make their recommendations relating to that particular component. However, in doing so, the overall impact of the project as a whole will also be considered.

- (vi) After the proposals relating to the various components have been considered by the respective EACs and their recommendations made, these proposals will be processed on individual files for obtaining simultaneous approval of the Competent Authority.

This issues with the approval of the Competent Authority.



(Dr. S.K. Aggarwal)

Director

To

1. All the Officers of IA Division
2. Chairpersons / Member Secretaries of all the SEIAAs/SEACs
3. Member Secretaries of all SPCBs / UTPCCs

**Copy to:-**

1. PS to MEF
2. PPS to Secretary (E&F)
3. PPS to AS(JMM)
4. Advisor (NB)
5. Website, MoEF
6. Guard File

*Minister*  
*Shri*

**//TRUE COPY//**

**F.No. 22-76/2014-IA-III**  
 Government of India  
 Ministry of Environment, Forests and Climate Change  
 Impact Assessment Division

**ANNEXURE A-2**

.....  
 Indra Paryavaran Bhawan,  
 Jor Bagh Raod, Aliganj  
 New Delhi-110 003

Dated the 7<sup>th</sup> October, 2014

**OFFICE MEMORANDUM**

**Subject: Status of land acquisition w.r.t. project site while considering the case for environment clearance under EIA Notification, 2006-regarding**

It has been brought to the notice of this Ministry that in the absence of any guidelines, different EACs/SEACs adopt different criteria about the extent to which the land w.r.t. the project site should be acquired before the consideration of the case for environment clearance (EC). Some of the Ministries in the Government of India and some industrial associations have represented that full acquisition of land for the project site should not be insisted upon before consideration of the case for EC and instead initiation of land acquisition process should be sufficient for the consideration of such cases. The argument being that land acquisition process can go on in parallel and that consideration of EC need not await full land acquisition.

2. The matter has been examined in the Ministry. The EC granted for a project or activity under the EIA Notification, 2006, as amended, is site specific. While full acquisition of land may not be a pre-requisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal. It has been accordingly decided that the following documents relating to acquisition of land w.r.t. the project site may be considered as adequate by EACs/SEACs at the time of appraisal of the case for EC:

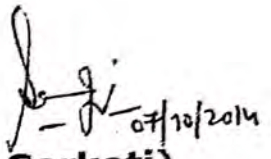
- (i) In case the land w.r.t. the project site is proposed to be acquired through Government intervention, a copy of preliminary notification issued by the concerned State Government regarding acquisition of land as per the provisions of Land Acquisition, Rehabilitation and Resettlement, Act, 2013.

*[Signature]*  
 2/-

(ii) In case the land is being acquired through private negotiations with the land owners, credible document showing the intent of the land owners to sell the land for the proposed project.

3. It may, however, be noted that the EC granted for a project on the basis of aforesaid documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project and mentioned in the EC.

4. This issues with the approval of the competent authority.

  
(Dr. Satish C. Garkoti)  
Scientist 'F'

**Copy to:**

1. All the officers of IA Division
2. Chairperson/ Member Secretaries of all the SEIAAs/SEACs
3. Chairman of all the Expert Appraisal Committees
4. Chairman, CPCB
5. Chairpersons/ Member Secretaries of all SPCBs/ UTPCCs

**Copy for information:**

1. PS to MOS (Independent Charge)
2. PPS to Secretary (EF&CC)
3. PPS to AS (SS)
4. PS to JS (AT)
5. Website, MoEF&CC
6. Guard File

*Minister*  
*Shri*  
**//TRUE COPY//**

**ANNEXURE A-3****Pending application of industrial purpose in Collector office, Bhavnagar**

Se. No.	Applicant detail	Village name	Tahesil name	Details of demandig land and purpose
1	Keparo energy (india), Ltd., Hedarabadp	Dungarpur	Mahuva	Gaucher sarve No.68 Paiki 5, Land He.12-00-00 Sqm., Wind farm power project.
2	Keparo energy (india), Ltd., Hedarabadp	Khari	Mahuva	Government west sarve No.343 Paiki 1, Land He.6-00-00 Sqm. and Gaucher sarve No.343 Paiki 2, Land He.1-00-00 Sqm., Wind farm power project, Wind farm power project.
3	Keparo energy (india), Ltd., Hedarabadp	Jambuda	Mahuva	Government west sarve No:134 Paiki 2, Land He.4-00-00 Sqm. and Gaucher sarve No.134/1A/2 Paiki 3, Land He.5-00-00 Sqm., Wind farm power project, Wind farm power project.
4	Keparo energy (india), Ltd., Hedarabadp	Nana Khuntvada	Mahuva	Government west sarve No.145, Land He.17-00-00 Sqm. and Gaucher sarve No.227/1 Paiki 1, Land He.4-00-00 Sqm., Wind farm power project, Wind farm power project.
5	Keparo energy (india), Ltd., Hedarabadp	Mota Khuntvada	Mahuva	Gaucher sarve No.37, Land He.4-00-00 Sqm. and sarve No.69, Land He.6-00-00 Sqm., sarve no.323/1 Paiki 1, Land He.44-00-00 Sqm., Wind farm power project, Wind farm power project.
6	Keparo energy (india), Ltd., Hedarabadp	Beda	Mahuva	Government west sarve No.231/a, Land He.11-00-00 Sqm. and Gaucher sarve No.231/Ab/1, Land He.41-00-00 Sqm., Wind farm power project, Wind farm power project.

Se.N o.	Applicant detail	Village name	Tahesil name	Details of demandig land and purpose
7	Keparo energy (india), Ltd., Hedarabadp	Bhanvadiya	Mahuva	Government west sarve No.56/1A Paiki, Land He.7-00-00 Sqm., Wind farm power projest, Wind farm power, projest.
8	Keparo energy (india), Ltd., Hedarabadp	Sendarda	Mahuva	Government west sarve No.620/A Paiki 1 Paiki 1, Land He.15-00-00 Sqm., Wind farm power projest, Wind farm power projest.
9	Keparo energy (india), Ltd., Hedarabadp	Chapari	Mahuva	Gauchar sarve No.109/B, Land He.10-00- 00 Sqm., Wind farm power projest, Wind farm power projest.
10	Keparo energy (india), Ltd., Hedarabadp	Rajavadar	Mahuva	Government west sarve No.21 Paiki 1, Land He.5-00-00 Sqm. and Gaucher sarve No.96/1 Paiki 1, Land He.7-00-00 Sqm., Wind farm power projest, Wind farm power projest.
11	Keparo energy (india), Ltd., Hedarabadp	Valavav	Mahuva	Government west sarve No.14, 18 and 62 Paiki 1, Land He.4-00-00 Sqm., Wind farm power projest, Wind farm power projest.
12	Mr.Vipulkumar Ghelabhai Dhapa, at- Jesar, Ta-Mahuva .	Rajavadar	Mahuva	Government west sarve No.21/1, Land He.0-80-94 Sqm., Ston crusher indstry.

Resident additional collector  
Bhavnagar

Statement showing the Details of existing Mining Lease / Quarry lease in the villages coming under the catchment of salinity scheme of three + 1 bandhara (bund) in Mahuva Taluka Dist-Bhavnagar

Sr. No.	M.L. Appl. No.	Name of Lessee	Date of grant	District	Taluka	Village	Name of bandhara (Bund)	Survey No	Area in Hect	Minerals
1	2	3	4	5	6	7	8	9		
1	ML	Sandip cement	13/03/1982	Bhavnagar	Mahuva	Kalsar	Kalsar Bandhara	360/1	20.00.00	lime stone
2	QL	Vipulkumar ghelabhai dhapa	22/12/2008	Bhavnagar	Mahuva	Rajavadar	Samathiyala Bandhara	21-1	1.00.00	Black trap
3	QL	Alpeshkumar ghelabhai dhapa	22/12/2008	Bhavnagar	Mahuva	Rajavadar	Samathiyala Bandhara	21/1	1.00.00	Black trap
4	QL	Super fine crusher	25/08/2009	Bhavnagar	Mahuva	Tataniya	Malan Bandhara	195 paiki	00.83.20	Black trap
5	QL	Amar stone crusher	30/06/2010	Bhavnagar	Mahuva	Bhadra	Malan Bandhara	17/2	00.80.94	Black trap
6	QL	Jaybhavani m. b.s. m.l.	21/01/2011	Bhavnagar	Mahuva	Rajavadar	Samathiyala Bandhara	21/1	1.00.00	Black trap
7	QL	Shree kishor project pvt. ltd	30/08/2010	Bhavnagar	Mahuva	Rajavadar	Samathiyala Bandhara	21/1	3.51.20	Black trap
8	QL	Jadavbhai karshanbhai baraiya	30/08/2010	Bhavnagar	Mahuva	Rajavadar	Samathiyala Bandhara	21 paiki	1.00.00	Black trap
9	QL	Dhirubhai lalajibhai velari	24/10/2008	Bhavnagar	Mahuva	Nana jadra	Malan Bandhara	malan rever	0.89.60	Ordinary sand
10	QL	Krushna supplier	30/08/2010	Bhavnagar	Mahuva	Billa	Malan Bandhara	malan rever	1.00.00	Ordinary sand

10  
Collector  
Bhavnagar District  
Bhavnagar

Statemet showing the Details of pending Mining Lease Application in the villages coming under the catchment of salinity scheme of three bandhara (bund) in Mahuva Taluka Dist-Bhavnagar


Sr.	Name of Lessee	Date of Appl.	District	Taluka	Village	Name of bandhara (Bund)	Survey No	Area in Hect	Minerals
1	2	3	4	5	6	7	8	9	
1	Ranchhod Kikabhai Ruparel	18/11/1991	Bhavnagar	Mahuva	Padhiyarka	Samadhiyala Bandhara	80	97.77.27	Lime stone
2	Grasim Industries Ltd.	06/03/1993	Bhavnagar	Mahuva	Kalsar Kotada Dayal	Kalsar Bandhara	Various	670.48.26	Lime stone
3	Nirma Ltd.	21/12/1994	Bhavnagar	Mahuva	Kalsar Naip	Kalsar Bandhara	Various	120.00.00	Lime stone
4	Gujarat Power Corporation Ltd.	15/11/1996	Bhavnagar	Mahuva	Kalsar Naip	Kalsar Bandhara	Various	642.00.00	Lime stone
5	Mistry Cements	14/08/1997	Bhavnagar	Mahuva	Gujarda	Samadhiyala Bandhara	Various	75.32.66	Lime stone
6	Sharda Steel Corporation	06/03/1998	Bhavnagar	Mahuva	Nikol	Nikol Bandhara	93	114.83.02	Lime stone
7	Sharda Steel Corporation	21/11/1998	Bhavnagar	Mahuva	Ranparda	Nikol Bandhara	Various	54.00.00	Lime stone
8	Nirma Ltd.	21/01/2004	Bhavnagar	Mahuva	Vangar Madhia	Samadhiyala Bandhara	Various	1225.85.53	Lime stone
9	Nirma Ltd.	21/01/2004	Bhavnagar	Mahuva	Gujarda Dudhala Dugheri	Samadhiyala Bandhara	Various	1497.47.01	Lime stone
10	Nirma Ltd.	21/01/2004	Bhavnagar	Mahuva	Padhiyarka Dofia	Samadhiyala Bandhara	Various	616.72.54	Lime stone
11	Nirma Ltd.	06/05/2004	Bhavnagar	Mahuva	Kalsar Naip	Kalsar Bandhara	Various	1400.62.40	Lime stone
12	Anjali Enterprise	31/05/2004	Bhavnagar	Mahuva	Otha	Nikol Bandhara	Various	254.00.00	Iron Ore Red Oxide
13	Nirma Ltd.	21/08/2004	Bhavnagar	Mahuva	Otha	Nikol Bandhara	Various	487.82.59	Lateritic Clay
14	Emami Cement Ltd.	13/05/2008	Bhavnagar	Mahuva	Kalsar Naip	Kalsar Bandhara Nikol Bandhara	Various	1047.00.00	Lime stone
15	Gurukripa Mines & Minerals	28/07/2008	Bhavnagar	Mahuva	Naip, Kalsar	Kalsar Bandhara Nikol Bandhara	Various	28.07.08	Lime stone
16	M/s. v.v. minerals	30/05/2012	Bhavnagar	mahuva talaja bhavnagar	Doliya Naip, kuda Kotada Rajpara Janjmer etc	Samadhiyala Bandhara	Various	2000.00.00	Garnet rutile etc

*[Signature]*  
Collector



Bhavnagar District  
Bhavnagar

Statement showing the Details of pending P. L. Application in the villages coming under the catchment of salinity scheme of three bandhara (bund) in Mahuva Taluka Dist-Bhavnagar

Sr.	Name of Lessee	Date of Applicant	District	Taluka	Village	Name of bandhara (Bund)	Survey No	Area in Hect	Minerals
2	3	4	5	6	7	8	9	10	
1	Ashavin j.thanki	08/02/1991	Bhavnagar	Mahuva	Talgajarada	Malan Bandhara	601	94.33.28	Bouxite
2	Grasim Industries Ltd.	06/03/1993	Bhavnagar	Mahuva	Kalsar Kotada Dayal	Kalsar Bandhara	Various	988.04.71	Limestone
3	Asiyan paits india ltd.	17/09/1993	Bhavnagar	Mahuva	Kalsar, naip	Malan Bandhara Kalsar Bandhara	Various	18.20.00	Limestone
4	Somani cement co.ltd.	30/06/1994	Bhavnagar	Mahuva	Khared	Malan Bandhara	Various	190.73.00	Limestone
5	Somani cement co.ltd.	30/06/1994	Bhavnagar	Mahuva	Dudheli.Padhiyarka Doliya	Samathiyala Bandhara	Various	680.00.00	Limestone
6	Suraynagari cement ltd.	26/12/1994	Bhavnagar	Mahuva	Kalasar ,Naip.	Malan Bandhara Kalsar Bandhara	Various	950.00.00	Limestone
7	Mistry Cements	26/11/1995	Bhavnagar	Mahuva	Gujarda	Samathiyala Bandhara	Various	75.32.66	Limestone
8	Mistry Cements	24/01/1996	Bhavnagar	Mahuva	Nicha kotda	Nikol Bandhara	392/1	114.96.00	Limestone
9	Annji enterprise	31/05/2004	Bhavnagar	Mahuva	Otha	Nikol Bandhara	Various	254.00.00	Iron & red oxide
10	Nirma Ltd.	21/06/2004	Bhavnagar	Mahuva	Dudheli.Padhiyarka Doliya Gujarada	Samathiyala Bandhara	Various	3436.35.14	Limestone
11	Ashapura Minechem	10/03/2006	Bhavnagar	Mahuva	Ratol	Nikol Bandhara	217/1	15.00.00	White clay chaina clay
12	Ashapura Minechem	10/03/2006	Bhavnagar	Mahuva	Visavadar	Malan Bandhara	31	15.00.00	White clay chaina clay
13	Grasim Industries Ltd.	30/10/2007	Bhavnagar	Mahuva	Talgajarada	Nikol Bandhara	Various	127.63.00	Bouxite

  
Collector  
Bhavnagar District  
Bhavnagar

TRUE COPY

   
1.1.

Report of the Expert Committee on visit to Cement Plant site of M/s Nirma Ltd., near Village Padhiarka, Taluka Mahuva, District Bhavnagar, Gujarat from 3<sup>rd</sup> to 5<sup>th</sup> February 2011

M/s Nirma limited was granted Environmental Clearance (EC) by Ministry of Environment and Forests (MoEF) on 11.12.2008 for a Cement Plant (1.9 MTPA; 1.50 MTPA Clinker) and Captive Power Plant (50 MW), Coke Oven Plant (1.5 LTPA) near Village Padhiark, Taluka Mahuva, District Bhavnagar, Gujarat by M/s Nirma Limited with stipulation of conditions.

Subsequent to the issuance of EC to the Nirma plant, the local people & NGOs raised certain concerns regarding its adverse impact on water body created subsequent to the construction of Bandhara in the year 2000. The EC was challenged in the Hon'ble High Court of Gujarat. Subsequently, special leave petition has been filed in the Hon'ble Supreme Court of India by Shree Mahua Bhandara Khetewadi Priyavaran Bachav Samittee. In this connection MoEF appointed an Expert Committee vide Office Memorandum No. L-11011/7/2008-IA-II (I) dated 21<sup>st</sup> January, 2011 (Annexure-1) to undertake field visit to project site of M/s Nirma Ltd. from 3<sup>rd</sup> - 5<sup>th</sup> Feb, 2011 with the following terms of reference.

- (i) Inspect the plant site to oversee the Implementation of the project by M/s Nirma Limited with reference to the Environmental Impact Assessment (EIA) report/ Environmental Management Plan (EMP) report, based on which environmental clearance was accorded to the project.
- (ii) Verify the ground situation in the vicinity of the plant site as also and the factors which may cause impact on the water body in light of the concerns expressed by the local people in the complaints received regarding the project.
- (iii) Cover any other point which is relevant regarding the environment issues pertaining to the project.

The Committee at the very outset would like to make the following observations to clarify the definition and identifying features of wetlands so that there is no confusion between designating an area as wetland or wasteland.

સરકારી સમીક્ષક

Wetlands are complex and highly fragile ecosystems forming an integrated part of water cycle. The local communities greatly benefit from their products and services. Unfortunately, wetlands have been widely regarded as wastelands and they have been drained, destroyed and reclaimed. The International Ramsar Convention, 1971 to which the Govt. of India is a signatory, calls for the protection and conservation of all types of wetlands. The official Ramsar definition of wetland recognized globally and adopted by the Govt. of India is given as under:

**"Wetlands are area of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including areas of marine water, the depth of which at low tide does not exceed six metres" – Ramsar**

The 268 ha of land allotted to M/s Nirma Ltd., has been shown in the Govt. Revenue records as a waste land and the same has been reported in the EIA report by M/s Nirma Ltd. However, it may be observed that our revenue records are very old which needs to be revised, otherwise every wetland will be lost in the name of wasteland. Since wetlands are essential for charging of aquifers and storing water, it is high time for Govt. to initiate change in the revenue records on the basis of ground reality to save these wetlands from ruthless exploitation. This should be a continuous exercise as lots of changes occur in land use pattern from time to time due to urbanization/developmental/anthropogenic pressures. Although the artificially created Samadhiyala Bhandhara may not appear in the list of nationally important wetland identified by MoEF, but it is critically important to the local economy as it is serving as a dependable source for irrigation.

#### **Background of the project:**

The MoEF has issued Environmental Clearance (EC) to M/s Nirma Ltd., for Cement Plant (1.9 MTPA; 1.50 MTPA Clinker) and Captive Power Plant (50 MW), Coke Oven Plant (1.5 LTPA) near Village Padihiark, Taluka Mahuva, District Bhavnagar, Gujarat on 11<sup>th</sup> December, 2008 after following the due process of evaluation and scrutinizing the information provided by the proponent in the EIA report which also includes public hearing proceedings assuming that the information provided by the proponent is reliable and dependable. However, certain anomalies were observed by the Committee during the field visit and from the submissions made by M/s Nirma Ltd. to the Committee on 5th February 2011 at Bhavnagar. The Committee has discussed these issues in the text of the report given below.

**Methodology adopted by the Committee:**

- a. A briefing of the Expert committee was held on 2.2.2011, prior to the field visit, at Paryavan Bhawan, MoEF, New Delhi. Dr. Nalini Bhatt, Adviser and Dr. P.L. Ahujarai, Director of MoEF appraised the committee regarding the Cement project of M/s Nirma Ltd (1.9 MTPA; 1.50 MTPA Clinker) and Captive Power Plant (50 MW), Coke Oven Plant (1.5 LTPA). The committee was informed about the opposition to this project by the local farmers and related developments leading to the constitution of present Expert Committee by MoEF.
- b. The committee examined the Application Form I and EIA report submitted by M/s Nirma to MoEF for seeking environmental clearance and the EC letter dated 11.12.2008 stipulating specific conditions of clearance, reports of the Shelat Committee and WAPCOS and as well as other related documents and photographs.
- c. The Committee went through the Shelat Committee & WAPCOS reports, judgements of Hon'ble Gujarat High Court and SLP (Civil) nos. 14698, 15016, 32414 and 32615 of 2010 filed with Hon'ble Supreme court and other related press articles.
- d. The committee left for Bhavnagar for site visit on 3<sup>rd</sup> Feb and returned to Delhi on 6<sup>th</sup> February.
- e. During site visit, the Committee interacted with project authorities, State Government officials, two major groups of local farmers expressing opposite views about Nirma project, and some individuals as listed in Annexure --2
- f. After the site visit on 5<sup>th</sup> February, the Committee had a meeting with the officials of state Salinity Ingress Department and senior officials of M/s Nirma Ltd. at Bhavnagar.
- g. The Committee had gone through the presentation submitted by M/s Nirma Ltd. and the representations received from different stake holders and others during the site visit.
- h. The Committee met on 9.2.2011 and 10.2.2011 at MoEF to discuss the findings and finalize the report.

**Site description:**

The project site and the surrounding area is low lying coastal zone hinterland with low elevation and gradual slope towards the South-East into the Gulf of Khambat. The highest part of elevation is around 6 Mt MSL at the project site and Samdhiyala Bandhara has been constructed with the height of 2.5 M. The average yearly rainfall in the area is about 640 mm.

The Samadhiyala Bandhara was constructed to check the salinity ingress in the year 2000 by Salinity Ingress Prevention Circle (SIPC), Rajkot, Govt. of Gujarat. This has resulted in the creation of a large water body as a result of which the salinity of the area has been reduced and recharging of ground water has improved. M/s Nirma Ltd., was allotted 268 ha of land out of which about 100 ha was under submergence. As per the direction of Govt. of Gujarat and Hon'ble Gujarat High Court, M/s Nirma has surrendered 54 ha and 46 ha respectively totaling to 100 ha, which is not a part of the submerged area allotted to them. During the field visit, the Committee was informed by M/s Nirma Ltd. that out of the 100 ha, surrendered by the company, 30.66 ha. is out of so called temporary submergence area as identified by Salinity Dept., which remains unconfirmed.

M/s Nirma Ltd., informed the Committee that a school located in their premises will be shifted to a new site and the company will construct suitable, possibly a better, facility for the school at their cost. A village crematorium is also located in their property area; the company representative informed that this area will be relinquished by the Company for the use of villagers.

#### Observations of the Committee

##### Samadhiyala Bandhara

An artificially created Bandhara in the year 2000, possesses all the characteristic features of wetland ecosystem (fresh water body) supporting rich aquatic vegetation composed of different types of aquatic plant species, aquatic birds, fish and amphibians.

Fertile agricultural fields, standing crop of cotton, wheat, sugarcane and other vegetables were growing in different fields in the area. In places, farmers were preparing their fields and carrying out different agricultural operations. In some places, long hose pipelines were present in agricultural fields for lifting water from the Bandhara for irrigation.

Cattle rearing is practiced by majority of village households; cattle appeared very healthy and well fed. Cows, buffaloes and many sheep herds were seen grazing in the area.

Another small Bandhara, located in the extreme north-west direction from project site exists and a small portion was broken at one end, which appeared to be an act of vandalism.

**Inside the Nirma Project Site:**

Permanent plant boundary has been built in part of the area and rest of the area was partly fenced. Civil construction: works of kiln foundation, clinker tunnel was under progress; pre-heater building completed up to approx. 42.54 m level; out of three, one clinker tunnel completed; coal mill footing and wall completed up to 3.70 m leveled from FFL; excavation work for cement silo and cement mill was under progress; construction of water tank, offices, temporary shed for storage of material, DG site building and sub-station for power distribution system completed on the dry land of site.

A kachha road has been constructed by the project authorities, inside the project site formed by earth filling up to approx. 1 to 1.5 m. The western side of the road was abating bandhara wetland having approx. one meter of standing water. The eastern side of the road was low-lying area supporting rich herbaceous and shrubby vegetation. A number of wetland bird species were seen perching in the area. One could easily visualize that the eastern side of the road in the absence of the temporary access road, would have been submerged under water up to considerable distance in the project area.

A temporary Project Site Office has been constructed and along the road leading to the site office (branching off from the main access road) a large number of tree saplings have been planted along this 1 km road forming green belt on either side of the road.

JBC earth moving machines were seen operating in the area at some places in the Project area to carry out earth filling in the submergence area. In addition, mounds of earth were lying waiting to be spread and leveled. Trucks loaded with steel and building materials, Material storage yard and a thatched teashop frequented by JBC operators, laborers and truck drivers were observed.

A building of functional Government primary school (catering to approx. 300 students) present within the project area in the south-eastern end of the project site. Also a cremation ground used as common facility by the villagers and an overhead water tank for villagers were present.

A portion of public road approx. 4 km falling in the project area connecting Padhiarka and Dodiya villages. Out of this 4 km road, approx. 1.5 to 2 km of road is passing through the project area allotted to M/s Nirma Ltd. Remaining 2 km of road is passing through 54 ha of land surrendered by the company.

- (i) Inspect the plant site to oversee the implementation of the project by M/s Nirma Limited with reference to the Environmental Impact Assessment (EIA) report/ Environmental

Management Plan (EMP) report, based on which environmental clearance was accorded to the project.

**Compliance of EC conditions by M/s Nirma Ltd.**

The EC given to M/s Nirma Ltd., has stipulated 18 Specific and 14 General Conditions. At present, the activities at project site of M/s Nirma Ltd., are mostly related to site development, plant boundary construction and also some civil construction. At this stage, implementation of most of the EC conditions by M/s Nirma Ltd., is not possible to verify except for 4 of the specific and 1 of the general conditions. Assessment of the implementation of these conditions is given as under:-

**Specific Conditions:**

Ambient air quality including ambient noise levels shall be monitored at different locations including fence of the sanctuary and must not exceed the standards stipulated under EPA or by the state authorities. Monitoring of ambient air quality, fugitive and stack monitoring shall be carried out regularly in consultation with GPCB and reports submitted to the Ministry's Regional Office at Bhopal, GPCB and CPCB regularly.

M/s Nirma Ltd., showed their willingness but no site for monitoring stations has been earmarked.

CRZ clearance for laying the pipeline in coastal area under the CRZ Notification shall be obtained from the concerned department/authority.

CRZ clearance for intake and discharge of seawater is not obtained as on date.

An impact assessment study shall be carried out for the disposal of treated effluent into the seawater and all the recommendations shall be implemented.

No report was made available

The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The Housing may be in the form of temporary structures to be removed after the completion of the project.

The Committee did not see construction except only some temporary make shift shelters for workers.

### General Conditions

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

The school and cremation ground were not shown by M/s Nirma Ltd. in the EIA report although a brief reference appears in the public hearing proceedings. Overhead water tank in the project area was built subsequent to taking possession of land by M/s Nirma Ltd., which is currently being used by the villagers. On enquiry, the Committee was informed during plant site visit that M/s Nirma are going to skirt out the area having cremation ground and water tank and give it away for the public use. However, they did not mention anything about the dimensions of the area to be given out. Existing Govt. middle school has 8 pakka rooms having an enrolment of about 300 students is also located in the land allotted to M/s Nirma Ltd. The Committee was told that M/s Nirma Ltd., is going to provide a new and a better school building as a replacement of the existing school which will be finally removed. It is not clear whether the due permission to dismantle the school and its relocation elsewhere has been obtained from the concerned authorities and a formal reference has been made to MoEF.

The company has offered voluntarily to deepen at two different places a total area of 62 ha out of 75 ha outside their project area inside the Bandhara wetland as depicted on page 57 of detailed report submitted to the Committee during field visit and it appears that this has not been referred to MoEF.

### Public concerns:

The Committee met the MLA of Talaja, Sarpanchs and a large no of people from ten villages who were expressing support to the Nirma project. The Committee also received written submissions in Gujarati from Smt. Bhavanaben R. Makwana, MLA, Talaja and Sarpanchs from villages of Padhiarka, Madhia, Doliya, Dudhala, Samadhiala, Guzarada, Jodiya and Katpor, Amrutvell and Kankol, etc. and the main points of their submission and discussion are as under:

- (i) All the above mentioned villages welcome this cement plant and have no objection to its coming up in this area since it will bring in prosperity.
- (ii) The cement plant will bring in large scale of employment, medical and educational facilities and agricultural improvement etc. to all the villages in the vicinity of the plant site and therefore this plant should come at this place
- (iii) State Govt. has followed the due procedure of public consultation before the EC was issued and has given the place as per rules.
- (iv) The people including MLA Mahuva are opposing the Nirma project misleading the public and is creating an atmosphere of fear among the villagers.
- (v) Neither any farmer's land nor any individual's land is allotted to the project as it is a Govt. wasteland.

A large number of villagers from the surrounding areas met the Committee at Khasra 66 village Padhiarka and expressed their opposition to the Nirma Cement Plant. The concerns of these villagers were voiced by Dr. Kanubhai Kalsaria, MLA. He spoke about the broader issues of development of the area including Bandhara and Mining, repeatedly. He also expressed concerns about the primary school, crematorium and a section of road, connecting Padhiarka and Doliya villages, within the 168 ha of M/s Nirma Limited. He informed that villagers have strong apprehension regarding non availability of water in the Bandhara due to the blockades of natural drainage channels passing through the project site. Other important points raised by him are at Annexure - 3.

- (ii) Verify the ground situation in the vicinity of the plant site as also and the factors which may cause impact on the water body in light of the concerns expressed by the local people in the complaints received regarding the project.

#### Impact on water

##### Construction Phase:

The project site is in the low lying area and the proponent has proposed to raise the plinth by 6 m MSL by bringing earth from outside, to the tune of 2 Lac m<sup>3</sup> as informed by the proponent. The coastal area is generally sandy, handling of loose soil will increase particulate pollution and during the rain the loose soil and surface run off will create gullies and carry loose sediment to the water body, increasing turbidity and silt.

Three canals which M/s Nirma have been shown as additional water storage system which it is

#### Operational Phase:

The industry would generate air pollutants (gaseous, particulate matter and fine dust) from various processes and material handling which ultimately deposit on the catchment area and will be partly brought to the water body through the run off-water and is not likely to make any serious impact on the water quality for irrigation.

#### Impact on Air:

Concerning the impact on air, the Nirma project - 1.9 MTPA cement plant, 50 MW CPP and 1.5 Lac tonne of Coke oven plant if installed with the best air pollution control equipment as agreed by M/s Nirma Ltd., are maintained at their highest efficiency, conforming to the permissible emission limits of 50 mg/Nm<sup>3</sup>, will cumulatively emit around 250 to 300 tonnes of dust from stacks per year. In case, limestone mining is to be carried out by the company in the neighboring areas, as indicated in the EIA report, the level of air pollution will increase manifold and the intensity of the impact of air pollution on crops will vary depending on the distances from mining. The proponent has not provided any details of the mining, as they have intended to have a captive limestone mine for this plant, the Committee is constrained to analyze and assess the combined pollution impact. The resultant pollution load of coal will depend on the source of coal, the details of which have not been indicated in the EIA report.

(iii) Cover any other point which is relevant regarding the environment issues pertaining to the project.

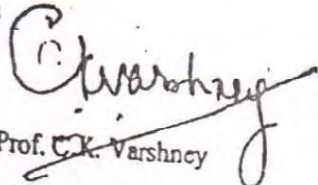
1. All issues raised in public hearing are not addressed by the company.
2. during construction, proper accommodation not being provide to the workers.
3. land being reclaimed within the water body by filling with earth dug out from somewhere else.
4. EIA/EMP report of mines not prepared / clearance not obtained. This is essential condition and usually a prerequisite for obtaining consent to build/operate the plant. This needs to be ascertained.
5. The area seems to be unsuitable for a heavy industry /large mining activity owing to the fact that large number of villagers may have to be shifted/rehabilitated. A medium sized industry based on agriculture products can be a better proposal for this area.

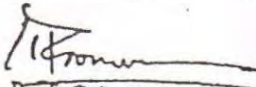
**Remarks:**

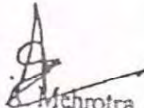
1. It can be appreciated that the above issues related to the project of M/s Nirma Ltd., elaborated above are largely on account of unfortunate oversight in the preparation of EIA/EMP report which could have been easily avoided by greater vigilance and detailed ground studies in preparing EIA reports.
2. Taking lessons from this assessment by the Committee, clearly brings out that developmental projects submitted to MOEF for EC if located in ecologically sensitive areas such as forests, coastal areas, wetlands etc., a critical scrutiny of the project site is essential by site visit by experts selected by MoEF. Committee is of the opinion that selected experts should verify field facts before granting of EC.
3. It may not be out of place to mention here that recently introduced scheme of EIA consultants accreditation is likely to improve the quality of future EIA Reports.

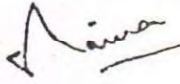
**Annexures:**

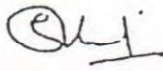
1. MoEF Office Memorandum No. L-11011/7/2008-IA-II (I) dated 21<sup>st</sup> January, 2011
2. List of Participants
3. Issues raised by Dr Kanubhai V Kalasariya, MLA vide letter dated 4.2.2011 against M/s Nirma Ltd. and the observations of the Committee
4. Reports/Documents Consulted
5. Acknowledgements

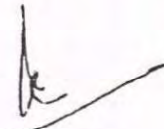
  
Prof. C.K. Varshney  
(Chairman, Committee)


  
Prof. G.S. Roonwal  
(Member)

  
Dr. Mehrotra  
(Member Secretary)

  
Shiban Raina  
(Member)

  
Dr. S. Kaul  
(Member)

  
J.K. Vyas  
(Member)

  
Dr. R.C. Trivedi  
(Member)

9 February, 2011

*Munawir Shrestha*  
**//TRUE COPY//**

5

**ANNEXURE A-5**

Report of the 'Expert Body' constituted by the Ministry of Environment & Forests, Government of India in pursuant to the Hon'ble Supreme Court Order dated 18.03.2011 in the matter relating to Petitions for Special Leave to Appeal (Civil) No.(s) 14698/2010 (from the judgment and Order dated 26.04.2010 in SCA No. 3477/2009 of the High Court of Gujarat at Ahmedabad) Khimjibhai Lakhabhai Baraiya vs Union of India and with S.L.P. (C) No. (s) 15016, 32414 and 32615 of 2010 relating to the location of Cement Plant (1.9 MTPA; 1.50 MTPA Clinker), Captive Power Plant (50 MW) and Coke Oven Plant (1.5 LTPA) at Village Padhiyarka, Taluka Mahuva, District Bhavnagar, Gujarat by M/s Nirma Limited

2013/12/10/5/5

## Contents

	<i>Page</i>
Background	1
Responses to Specific Issues identified by the Hon'ble Supreme Court	
(a) Whether the lands in question were wetlands / water bodies?	7
(b) Whether the project could come up on such wetlands / water bodies and if so, what would be its impact on environment? Would it lead to environmental degradation?	12
(c) If at all the project could come up, what steps the user agency should take in the interest of environment protection?	16
(d) The precise current status of the project may also be indicated by the Expert body	16
Conclusions and Recommendation	17
Acknowledgements	18
Annexures	1-8
Figures	1-25

Report of the 'Expert Body' constituted by the Ministry of Environment & Forests, Government of India in pursuant to the Hon'ble Supreme Court Order dated 18.03.2011 in the matter relating to Petitions for Special Leave to Appeal (Civil) No.(s) 14698/2010 (from the judgment and Order dated 26.04.2010 in SCA No. 3477/2009 of the High Court of Gujarat at Ahmedabad) Khimjibhai Lakhabbhai Baraiya vs Union of India and with S.L.P. (C) No. (s) 15016, 32414 and 32615 of 2010 relating to the location of Cement Plant (1.9 MTPA; 1.50 MTPA Clinker), Captive Power Plant (50 MW) and Coke Oven Plant (1.5 LTPA) at Village Padhiyarka, Taluka Mahuva, District Bhavnagar, Gujarat by M/s Nirma Limited

#### Background

M/s Nirma Ltd. (project proponent) applied for Terms of Reference (TOR) on 5<sup>th</sup> September 2007 to set up a Cement Plant (1.5 MTPA; 150 MTPA Clinker), Captive Power Plant (50 MW) and Coke Oven Plant (1.5 LTPA) on 268 ha of Government wasteland at Padhiyarka village in Mahuva taluka of Bhavnagar District, Gujarat. The project proponent prepared a detailed rapid Environmental Impact Assessment (EIA) and Environmental Management (EM) plan and submitted to MoEF in July 2008 for Environmental Clearance (EC). The Environmental Appraisal Committee (EAC) – Industries recommended the project for granting EC, after examining the relevant documents including Application in Form 1, Prefeasibility Report, draft Terms of Reference and EIA/EMP, and after presentation and discussion of the proposal in EAC and subsequent clarifications furnished to EAC. Based on the recommendation of EAC, MoEF granted Environmental Clearance (EC) on 11<sup>th</sup> December 2008 with certain specific conditions. In both Form 1 and EIA, the project proponent described the status of land at the site as Government wasteland.

Much before 2008, the local communities were resistant to the allotment of 268 ha of land to Nirma by the Government out of 400 ha of land transferred by the Government to its Salinity Department for the construction of Samadhiala (also written as

'Samadhiyala') Bandhara (often written as Bandharo) in Shen Shuri (often written as Samsaniyo river and locally known as Han Hori) river/stream catchment, the Bandhara being at 2.5 km away from Nirma site. The Bandhara is check dam constructed to prevent salinity ingress during high tide into low lying areas that receive freshwater from the catchments of rivers/streams originating from micro watershed and to store fresh water for the use of local farmers. The resistance of local communities to the Cement Plant of Nirma was because of the reduction of storage capacity of the water body that would follow due to the allotment of submergible land to the Cement Factory complex. The State Government asked the Salinity Division to examine the issue. The Salinity Division, while admitting reduction in the storage capacity of Bandhara, suggested remedial measures to meet the short fall of storage of water due to allotment of submergible land to Nirma's Plant. In March 2009, the local communities formed the Bandhara Khetwadi Paryavaran Bachav Samiti and filed a PIL (SCA 3477/2009) at Hon'ble High Court of Gujarat. In 29 April 2009, the Government constituted the Shelat Committee under the Chairmanship of Shri S.K. Shelat, the then Adviser to the Chief Minister of Gujarat to resolve the issue of location of Nirma's Plant in the submergible area of Bandhara.

The Committee recorded in its Report that 100 ha of land allotted to Nirma was in the submergence area of the Bandhara and rest was the catchment, and suggested three options to the Government: (i) allow the plant to set up on the 268 ha, (ii) surrender 54 ha close to the dam (suggested by Nirma) and (iii) to cancel submergible 100 ha of the land allotted to Nirma. The Government adopted option (ii) and issued Order dated 8.12.2009 asking the company to surrender 54 ha of land and deepen 40 ha out of 54 ha at its own cost and further deepen 62 ha out of 75 ha of adjacent Government land.

The local communities were not satisfied with the action taken by the Government of Gujarat and filed a PIL (Special Civil Application No. 3477 of 2009 in matter Shree Mahuva Bandhara Khetwadi Paryavaran Bachav Samiti (Petitioners) vs Union of India & 5 [Respondent(s)] in the Gujarat High Court, and the Hon'ble Court ordered on 24/04/2010 that an additional 46 ha of land should be surrendered and deepen as per the

suggestion of Government, besides deepening of 54 ha and 75 ha as directed by the Government and also made other stipulations. Not satisfied with judgment, the Petitioners filed Misc.Civil Application No. 1473 of 2010 in Special Civil Application No. 3477 of 2009 at the Division Bench of Hon'ble High Court of Gujarat and the Court dismissed the petition on 27.09.2010. The MoEF also filed an affidavit in the High Court of Gujarat. Not satisfied with the judgments of Hon'ble High Court of Gujarat, the local communities filed before Hon'ble Supreme Court of India a petition for Special Leave to Appeal (Civil) No. (s) 14698/ 2010 (from the judgment and order dated 26.04.2010 in SCA No. 3477/2009 of the High Court of Gujarat at Ahmedabad) in matter of Khimjibhai Lakhabhai Baraiya (Petitioners) vs Union of India & ORS (Respondents) with SLP (C) No. (s) 15016, 32414 and 32615 of 2010.

The Hon'ble Supreme Court entertained SLPs Nos 14698 and 15016 of 2010 against the judgment of Hon'ble High Court of Gujarat and issued Notice to the MoEF to file an affidavit indicating whether the water body would get polluted/affected as and when the proposed Cement Plant becomes operational.

The MoEF filed two affidavits – one affidavit before the Hon'ble High Court of Gujarat in CA No. 1473 of 2010 in SCA No. 3477 of 2009 through Director of Regional Office, MoEF, Bhopal on 01.09.2010 and the other before Hon'ble Supreme Court in the matter mentioned above on January 2011. Both the affidavits conclude that the Cement Plant may not pollute the water body if stipulations specified in EC are implemented.

In January 2011, the MoEF appointed an Expert Committee consisting of 7 members with Professor C.K. Varshney as its Chairman (Varshney Committee) to: (i) inspect the plant site to oversee the implementation of the project by Nirma, (ii) verify the ground situation in the vicinity of plant site and the factors which may cause impact on the water body and (iii) cover any other point related to the environmental issues of the project. The Committee visited the site and held discussions with stakeholders and submitted its report to MoEF. The Report clearly states that "Samadhiala Bandhara possess all the characteristic features of wetland ecosystem (fresh water body) supporting rich aquatic

vegetation composed of different types of aquatic plant species, aquatic birds, fish and amphibians", besides other points relevant to the terms and conditions put forth to the Committee.

EAC (Industries) considered Varshney Committee Report in its meeting held on 23<sup>rd</sup> February 2011 and invited Nirma also for the meeting and to present its case in entirety. The EAC concluded that there could be alternative sites enough in the vicinity that breed no contention. Based on the recommendation of EAC (Industries), the MoEF issued a Show Cause Notice to Nirma under Section 5 of Environment Protection Act, 1986 for permanent suspension of work and revocation of the EC granted to the Cement Plant, Captive Power Plant and Coke Oven Plant on 11<sup>th</sup> March 2011.

The Hon'ble Supreme Court of India, in its order dated 18/03/2011, while dealing with the Petition (s) for SLA (Civil) No (s). 14698/2010 (from the judgment and order dated 26/04/2010 in SCA No. 3477/2009 of the High Court of Ahmedabad) in the matter of Khimjibhai Lakhabhai Baraiya versus Union of India and others and alongwith SLPs No. (s) 15016/2010, 32414/2010 and 32615/2010, directed the Ministry of Environment and Forests to call for the report of an Expert Body consisting of five independent reputed scientists who will visit the site and answer the following four issues (Annexure I):

- a) Whether the lands in question were wetlands/water bodies;
- b) Whether the project could come up on such wetlands/water bodies and if so, what would be its impact on environment? Would it lead to environmental degradation?
- c) If at all the project could come up, what steps the user agency should take in the interest of environment protection; and
- d) The precise current status of the project may also be indicated by the Expert body; and also give hearing to the Respondents No. 4 - user agency (Nirma) as well as to the objectors and submit its report within six weeks.

Pursuant to the Supreme Court order dated 18/03/2011 relating to above mentioned matter, the MoEF constituted the following panel of experts of Expert Body (Annexure 2):

**Chairman**

Professor C R Babu

Professor Emeritus

Former Pro-Vice Chancellor, University of Delhi

Ex-Chairman of Indian Subcontinent Plant Specialist Group of  
Species Survival Commission of IUCN

Centre for Environmental Management of Degraded Ecosystems (CEMDE)

School of Environmental Studies, Delhi-110007

**Members**

Dr. Asad R Rahmani

Director, Bombay Natural History Society  
Mumbai

Dr. Parikshit Gautam

Director, Freshwater & Wetlands, WWF-India  
Delhi

Dr. Ligia Noronha

Director, Resources, Regulation and Global Security  
The Energy and Resources Institute (TERI)  
New Delhi

Professor Brij Gopal

Coordinator, Centre for Inland Waters in South Asia

Vice President, National Institute of Ecology

Chief Editor, International Journal of Ecology & Environmental Sciences

Executive Vice President, International Society for Limnology

Member, Board of Directors, International Society of River Science

Ex-Professor, School of Environmental Sciences, JNU

New Delhi

Dr. E J James

Director, Water Institute, Karunya University, Coimbatore  
and Former Executive Director,  
Centre for Water Resources Development and Management  
Calicut

Secretary

Dr. P B Rastogi

Director, Ministry of Environment & Forests (MoEF)

Subsequently, the MoEF also included Shri Paritosh Tyagi (Former Chairman, CPCB, Delhi) as member of the Expert Body (Annexure 3).

The Expert Body visited the site of Nirma Cement Plant and interacted with the Nirma officials and consultants, objectors as well as different local groups on 18<sup>th</sup> April 2011 and also interacted with the State Government officials on 19<sup>th</sup> April 2011 at Ahmedabad (Annexure 4). During the site visit, the experts surveyed the entire water body/wetland (Bandhara) and also the site where the work on Nirma's Cement Plant was initiated (Figure 1). The members also met more than 1000 objectors at the site and heard their viewpoints (Figures 2 & 3). At the site the Expert Body interacted with the Nirma officials (Figure 4) and heard the presentation made by the consultants and also examined the toposheets, contour maps and satellite imageries. The Expert Body visited Malan Bandhara a huge water body which will be connected to Samadhiala Bandhara by Government of Gujarat (Figure 5). The Experts also met the representatives of two groups at Mahuva on the evening of 18<sup>th</sup> April 2011 - one group argued in favor of the project at the site as it provides employment to local youths (Figure 6) and the other group argued against the project as it leads to environmental degradation and scarcity of water during dry months and loss of livelihood of farmers due to proposed mining activities (Figure 7).

Based upon the intensive survey of the water body/wetland, the inspection of the site where Nirma Cement plant is coming up, and after analysis of the documents submitted and presentations made by different stakeholders, and after hearing the clarifications given by State Government officials, the observations of the Expert Body on the four issues raised in the Supreme Court Order are presented in the Report. The report also contains conclusions and recommendation based upon the observations presented in the report.

## Responses to Specific Issues identified by the Hon'ble Supreme Court

### a. Whether the lands in question were wetlands / water bodies?

Yes. Most of the land allotted to M/s Nirma Ltd. for the Cement plant, Coke oven plant and the Captive power plant, delimited by 3.82 m contour line above MSL (mean sea level), lies within the wetland/water body created in the year 2000 by the construction of Samadhiala Bandhara as a Salinity Ingress Control structure (Figure 8).

#### *Explanation:*

Water body is a generic phrase to include any depression on land - natural or man-made - that holds water for some time, irrespective of its size (area or depth) or shape. The boundaries of the water body are determined by the water level at FRL (full reservoir level) in case of man-made water bodies such as tanks and reservoirs where FRL is designed at the time of creation OR at the HFL (highest flood level). The HFL is usually demarcated at the highest water level reached once in 100 or 50 years.

Wetland is another generic term which covers a very wide range of aquatic habitats - from water saturated and waterlogged marshy lands to deep water bodies (lakes and reservoirs) as well as flowing waters such as creeks, streams, springs and rivers. This broadly all-inclusive term has been adopted by the International Convention on Wetlands, popularly known as Ramsar Convention which defines them as:

*"Wetlands are area of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including areas of marine water, the depth of which at low tide does not exceed six metres"*

The term has been adopted internationally and the Government of India has accepted it by joining the Convention as a Contracting Party since 1982.<sup>1</sup>

Another widely accepted definition of wetlands, by Cowardin et al (1979)<sup>2</sup> considers three main features of wetlands: hydrophytes, hydric soils and shallow flooding at some time of the year.

Hydrophytes are plants which require waterlogging or submergence for their growth and reproduction. Hydrology i.e., the water regimes (in terms of water depth, duration, frequency, amplitude and timing of flooding of the substratum) primarily determines the kind of vegetation, other fauna and the ecosystem processes. Soils which develop specifically under waterlogging/water saturated conditions are called hydric soils. Though the total biodiversity of any wetland is usually very high, in vast majority of wetlands globally, only a couple of species - sometimes only one plant species dominates the vegetation almost completely.

#### *The Present Case:*

In 2000, the Salinity Control Department of Gujarat, constructed a 200 m long concrete bund across the Motapat creek (Figures 9 & 10), which had a free communication with the sea (Gulf of Khambhat), near village Samadhiala (Mahuva taluka) in order to prevent salinity intrusion in to the upstream reaches of the creek (Figures 10 & 11). This formed part of the State's SIPP (Salinity Intrusion Prevention Programme). The bund had an

<sup>1</sup> According to the MOEF, wetlands are:  
"an area or of marsh, fen, peatland or water; natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed six meters and includes all inland waters such as lakes, reservoir, tanks, backwaters, lagoon, creeks, estuaries and man-made wetland and zone of direct influence on wetlands that is to say the drainage area or catchment region of the wetlands

<sup>2</sup> "Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the three attributes: (i) at least periodically, the land supports predominantly hydrophytes; (ii) the substrate is predominantly hydric soil; and (iii) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year." (Cowardin et al. 1979, US Fish & Wildlife Service, Washington, DC.)

elevation of 3.82 m above MSL and its foundation was laid a couple of meters below the MSL. Consequently, the freshwater runoff from the river Shen Shuri river/stream (locally known as Han Hori) and its catchment area created a freshwater reservoir which has a total water storage capacity of 62.3 mcf (million cubic feet) and a total water spread area of 244 ha at 3.82 m contour level (Figure 25). Thus, the Samadhiala bandhara lies in the lower part of the drainage basin of the River Shen Shuri (locally known as Han Hori) (Figure 9-11).

We wish to add that depending upon the annual variation in the rainfall in this semi-arid coastal region, the entire 244 ha may or may not get filled with water. In exceptional years, the water body may even exceed the area and overflow through the bund into the sea.

Besides controlling the salinity intrusion, this reservoir was foreseen by the Water Resources Department to benefit the farmers by lift irrigation (Figure 20) of 300 ha of cultivable lands in villages Samadhiala, Patwa and Doliya.

According to the figures on record, at least 100 ha of the water body/wetland on the upstream side lie within the 268 ha land originally allotted to Nirma Ltd. Like much of the remaining wetland/water body, this 100 ha area had been subjected to submergence for a few months after the monsoon rains. Apart from this 100 ha, several hectares of the remaining 168 ha are also low-lying and retain water for a few months after the rainy season (Figure 12 & 13).

All members of the Expert Body walked through the entire 2.5 km length of the Samadhiala Bandhara wetland/water body, passing through the entire width between the water channel and the dry higher margins, from the Bund over the Motpak Creek to the project site of Nirma Ltd. The entire area is dominated by at least four species of sedges such as *Scirpus* sp. and *Cyperus* sp. (Figure 14) and only a couple of patches were found in flowering. Another typical wetland plant, *Typha angustata*, is present in abundance (Figure 15) nearer the water margins - apparently where water stays longer during the

year. Among other truly aquatic and wetland plants which occurred in abundance in the water and on moist soils in the area were: *Marsilea*, *Paspalum*, *Potamogeton pectinatus*, *Zannichellia*, *Najas*, *Ceratophyllum*, *Vallisneria* (Figure 16), *Eclipta* and *Alternanthera*. *Salsola*, *Suaeda* were two common species of saline moist habitats.

During our visit, we noted a couple of thousands of water birds belonging to about 25 species in the area, including globally threatened species such as Lesser Flamingo, Eurasian Spoonbill, Painted Stork, Black-necked Stork, Black-headed Ibis, Black-tailed Godwit, Pelicans and Blackbellied Terns (Figure 17 & 18). A list of the water birds of the area, including winter migrants, is annexed (Annexure 5).

At several places in the shallow water bodies still holding water in between the drier parts, there were frogs in very large numbers. Among other fauna, we noticed a few molluscs.

As far as soils are considered, they invariably bore the signature of flooding in the area. In general, the upper 30-50 cm layer was clayey with significantly large amounts of organic matter, and in dried up patches, deep cracks had developed that occur only after flooded clayey soils dry up (Figure 19).

Based on the above noted facts, the area could be categorised both as a water body and a typical wetland, and we conclude that the area allotted to Nirma Ltd. at or below 3.82 m contour line above MSL is an integral part of the 244 ha Samadhiala wetland. The remaining area allotted to Nirma Ltd. constitutes the adjacent catchment of this wetland. The catchment in fact exceeds far beyond and drains through the project area. The catchment exerts therefore a major influence on its hydrology, water quality, flora and fauna.

We may add that until the year 2000, the area had been a tide-influenced saline/brackish coastal marsh (wetland) whose salinity regime had been altered by the construction of the Bandhara.

The Water Resources Department of the Govt. of Gujarat has a well defined scheme of connecting the four Bandharas - Malan, Samadhiala, Nikol and Kalsar through spreading channels. The Government had sanctioned a budget for constructing 'spreading channels' from Malan Bandhara to Samadhiala Bandhara but somehow the works could not be taken up.

This wetland has several important functions/ecosystem services. Besides (1) preventing salinity intrusion and (2) facilitating irrigation (Figure 20), the wetland has helped (3) ground water recharge thereby raising the groundwater table (as reported by the State Agriculture Department of Gujarat), (4) supported a rich biodiversity, (5) provided valuable grazing grounds (Figure 21) and (6) supported livelihood. The Govt. of Gujarat has admitted during our discussions that the Samadhiala Bandhara as well as other bandharas are a CPR (common property resource). The Govt. has no objection to the farmers using water from the Bandhara for irrigation. (Figure 20).

b. Whether the project could come up on such wetlands / water bodies and if so, what would be its impact on environment? Would it lead to environmental degradation?

No. No project, whether industrial or otherwise, should be allowed within a wetland/ water body.

*Explanation:*

According to the National Water Policy 2002, drinking and irrigation are accorded the first and second priority in the allocation of water resources. The bandhara is a major source of water for both drinking (groundwater) and irrigation in the surrounding villages.

Any anthropogenic activity that potentially alters the hydrological regime or obstructs water flow into the wetland/water body or affects the water quality should not be allowed within an area of influence close to the wetland/water body.

A project located within the water body/wetland is bound to directly impact on it and degrade it through obstruction of water flow, natural hydrological regimes, topography, disturbance to the flora and fauna, some level of erosion, and different forms of pollutants (if any). There should be an adequate buffer strip between the boundary of the wetland/water body and the project site so as to prevent obstruction of natural flows and direct impacts on the wetland.

Further, this wetland supports fairly rich and important biodiversity and livelihood of local communities. Therefore, it is not desirable to have a cement plant in this wetland as well as in its immediate vicinity.

*Impacts in the Present Case:*

Earth excavated from the surrounding lands (purportedly for creating canals/channels/deep water storage area) is being used to raise the level of the project site to 6.3 m above MSL - i.e. about 2.5 m above the contour level of the wetland boundary. Even if the project does not directly discharge any solid or liquid waste directly into the Bandhara, it is beyond imagination that there will be nothing flowing down from the elevated project land that will be surrounded by the wetland and the canals draining into it.

The raising of land under the possession of the plant by filling it up with soil from nearby areas may cause flooding in the upstream reaches, and cause erosion carrying sediments downstream into the bandhara with the runoff.

A very significant problem so far overlooked is that about 125 ha of land (marked A1, A2 and A3 (Figure 22) proposed to be deepened outside the 268 ha area of land originally allotted to Nirma Ltd. Out of this an estimated 70-75 ha of the land lies within the 3.82 m contour line above MSL level of the original Bandhara. We are surprised that in order to compensate the loss of water from the 100 ha of wetlands possessed by Nirma Ltd, another 70-75 ha of the adjacent area in the wetland is also being destroyed.

The project and its associated activity of deepening a total of 192 ha area - both below and above the 3.82 m contour level, besides the creation of wide deep canals on three sides of the project site, obviously to raise the ground level for the Project (Figure 23), will drastically alter the shape, size, depth and hydrology of the original wetland. The dredged out areas to increase the water storage capacity will neither be a substitute nor a compensation for the lost wetland. It is significant to highlight that the proposed deepening of the wetland area will in all likelihood cause salinity ingress because of the proximity to the sea level. The project will therefore negate the very objective of the salinity control in the area.

The impacts of the project and the environmental degradation caused by it will extend to the agricultural productivity in different ways - through availability and quality of water and likely air pollution (howsoever small). The Mahuva area is known for its onion production (6% of the country's total) and groundnuts, among other crops. The area is stated a double-crop area.

It was argued on behalf of the Nirma Ltd. that dredging and canals will create extra water storage capacity for the benefit of the people. It is not explained how under the present rainfall and evapotranspiration conditions an extra 62 mcft water will runoff from the same catchment. However, if this happens, the possibility of the Project using at least some of the freshwater stored in the Bandhara around its site - either directly or through groundwater abstraction - cannot be ruled out.

The project site will invariably contribute to erosion and transport of silt to the Bandhara as well as transport of some liquid wastes through the drains. This is likely to affect the water storage capacity, water quality and alter the vegetation structure and the habitat of other fauna. If zero discharge and total utilization of solid wastes by the plant are not achieved, it will lead to the degradation of the existing wetland and affect its functions.

Coal-based thermal power plants and coke-oven plants are heavy polluting industries and fugitive emissions from these units as well as from the Cement unit will have adverse impacts on the aquatic life and water quality in the Bhandara. Coke oven plant can be highly polluting for air due to release of volatile gases from coal. Scrubbing of emissions and use of excess water for quenching can produce effluent containing phenol and cyanides besides several other potentially toxic compounds which if discharged may result in fish kills and damage to other biota.

We have serious concerns also about the use of seawater for the power plant. It is not clear where it will be disposed off. If it escapes into the canals, the Bandhara will be salinised negating all the purposes and efforts of the State Government to improve agriculture in the area.

Similarly, the plans for the disposal and treatment of sewage, irrespective of the amount, are not provided. The Project plans an expansion into future. The impacts of such an expansion on the limited land without access to more land, water, minerals, etc. cannot be assessed now.

We learned from the Govt. of Gujarat that in-principle approval has been given for 3468 ha of land lying immediately adjacent to the project site (except for a small patch) for mining activity (Figure 24). Nirma Ltd. had asked for more than 4000 ha of land and may need more for expansion of the project. The mining of limestone in the lands approved in principle by the Gujarat Government (if allowed after proper EIA clearance) can be a disaster for the Samadhiala Bandhara as the lands lie in the catchment of the reservoir. Mining can affect the water flow into the reservoir and thereby reduce water

availability. It is feared that there will be extensive salinity ingress in the mined pits and the pumping saline water from mine pits to extract mineral create havoc on the fresh water of Samadhiala. The impacts of mining on the adjacent lands on the Samadhiala wetland have to be taken into account before considering the project at all.

We examined the views and arguments placed before us by Nirma Ltd. and their consultants. We do not agree with their views. Our response to their presentations are given in the Annexure 6.

c. If at all the project could come up, what steps the user agency should take in the interest of environment protection?

Based on the arguments presented above in response to questions 1 and 2, in our view, the project cannot and should not come up in the present area.

At this stage, it is also important to highlight that the Samadhiala Bandhara wetland/water body is a CPR (common property resource) as admitted by the Govt. of Gujarat during our discussions. The Hon'ble Supreme Court in its recent Judgement on 28 January 2011, in Civil Appeal no. 1132/2011 @SLPC no. 3109/2011 (Jagpal Singh & ors vs State of Punjab & Ors), has held that the village commons cannot be allowed to be encroached upon or allotted for any profit making activity, and also directed all State Governments to prepare schemes for eviction of illegal occupants from all common lands for the common use of the villagers.

d. The precise current status of the project may also be indicated by the Expert Body.

Civil works and procurement of equipment and machinery were in progress before cessation of works on 12.03.2011. Site visit supported by photographs show the progress made on construction of civil works and lists have been provided by the Company for equipment already delivered and those ready for dispatch besides financial summary,

construction status and status of other infrastructure established at the site (Figure 19 & Annexures 7 & 8).

It can be seen that work has proceeded on the Cement Mill (kiln blending silo-reheater tower, raw mill, coal mill, raw material hopper cooler house, workshop and a few other structures such as office, canteen and boundary wall). On the basis of Purchase Orders and Work Orders and taxes, etc. it is claimed that Rs. 493.00 Crores have been committed on the Cement Project, the estimated cost of which was Rs. 995.00 Crores (i.e. 49%). The valuation of the work completed will be quite different from the value of purchase and work orders. The unused material supplied at site and equipment delivered can be shifted and used. It will be a very detailed exercise to assess the loss represented by the value of works that have to be abandoned and the expense that cannot be recovered which will, apparently, be a much smaller amount than Rs. 493.00 Crores. As a very rough guess, we consider that such amount may not exceed Rs. 100.00 Crores.

#### Conclusions and Recommendation:

Based on the observations made on the topography and ecology of the area in and around the site of Nirma Cement Plant Complex, discussions held with all stakeholders including project proponents (Respondent No. 4), petitioners and local communities and analyses of the observations presented in the Report, the committee concludes the following:

1. Location of Nirma Cement Plant (1.91 MTPA), Captive coal based Power Plant (50 MW) and Coke Oven Plant (1.5 LTPA) on 268 ha of land allotted to M/s Nirma Ltd. by the Govt. of Gujarat at Padhiaraka Village, Mahuva Taluka, Bhavanagar District is a part of Samadhiala Bandhara water body and its periphery in the catchment. This is a coastal saline natural ecosystem converted into fresh water ecosystem (considered as local Common Property Resource) by the construction of a Bandhara to: (i) prevent salinity ingress to the surrounding fertile crop fields; (ii) store water used for irrigation during dry period; and (iii) recharge ground water.

2. The location of heavy polluting units-coal based thermal power plant and coke oven plant together with the cement plant would generate particulate matter/fugitive emissions and effluents that will lead to reduction in crop yields due to interference in photosynthesis and transpiration and will also bring changes in the ecology of water body. The accidental release of effluents may contribute to the degradation of environment and fish kills in the water body and damages to other aquatic flora and fauna. Further, the location of the industrial complex would adversely impact the ecosystem services. The lime stone mining in 3460 ha, the bulk of which is crop area, will lead to the creation of over burden dumps (OBDs) and deep voids (pits) which may result in the reduction in catchment area and possible salinity ingress and make the entire area, which is agriculturally important, particularly for onion production (Mahuva alone constitute 6 % of country's production) environmentally and ecologically degraded.

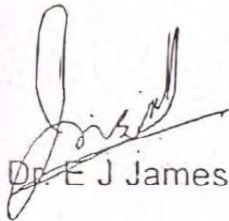
3. It may also be noted that Mahuva taluka also harbours Asiatic Lions and four of them are spotted in and around Bandhara water body (based on Gujarat Forest Department Census, 2010). In fact, there is a Reserve forest within 10 km radius of the site. Two critically endangered vulture species (White-backed Vulture and Longbilled Vulture) and many other globally threatened bird species are seen around the Bandhara.

#### Recommendation:

In the light of above, the committee unanimously recommends that the site of the cement plant industrial complex of Nirma be relocated elsewhere outside Samadhiala Bandhara – a Common Property Resource (CPR) – and its periphery.

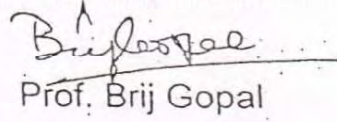
#### Acknowledgements:

The Expert Body acknowledges logistics provided by the State Government of Gujarat, particularly Gujarat State Pollution Control Board.



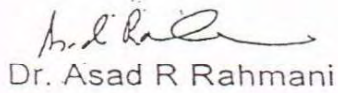
Dr. E J James

(Member)



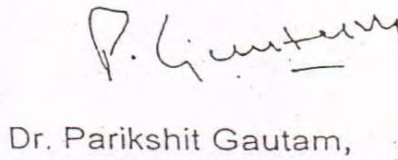
Prof. Brij Gopal

(Member)



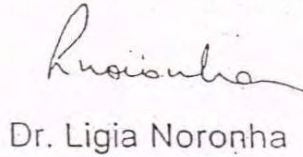
Dr. Asad R Rahmani

(Member)



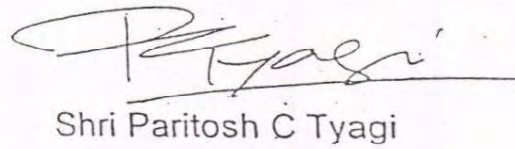
Dr. Parikshit Gautam,

(Member)



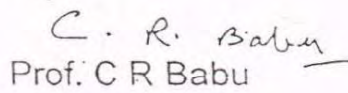
Dr. Ligia Noronha

(Member)



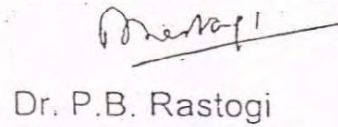
Shri Paritosh C Tyagi

(Member)



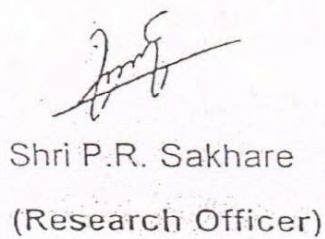
Prof. C R Babu

(Chairman)



Dr. P.B. Rastogi

(Secretary)



Shri P.R. Sakhare  
(Research Officer)

*Ministry of Health*  
**//TRUE COPY//**

**No. J-11015/152/2016-IA II (M)**  
**Government of India**  
**Ministry of Environment, Forest & Climate Change**  
**Impact Assessment Division**

3<sup>rd</sup> Floor, Vayu Wing,  
 Indira Paryavaran Bhawan,  
 Jorbagh Road, Aliganj,  
 New Delhi-110 003

E-Mail: s.kumar1958@gov.in  
 Tele: 011-24695304

**Dated: 3<sup>rd</sup> January, 2017**

To  
 M/s Nirma Limited,  
 Nirma House,  
 Ashram Road, Ahmedab.  
 Gujarat -380009

Email: ashishdesai@nirma.co.in  
 environment\_ho@nirma.co.in

**Subject: Vangar-Madhiya Limestone Mining of M/s Nirma Ltd located at Villages Vangar & Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat. (612.1336 ha.; 1.6 MTPA (ROM))-regarding ToR.**

The Proposal reference No. IA/GJ/MIN/53409/2016 was received in the Ministry. The Proposal is to determine the Terms of Reference for which the proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility report.

2. The project proponent has submitted request for Vangar and Madhiya Limestone Mining Lease Area at villages Vangar & Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat of M/s Nirma Ltd. along with Form-I and Pre-Feasibility Report. The applied area falls within the Survey of India Toposheet No. 41 O/12(restricted). The applied area is bounded by Latitudes 21° 02' 2.35" & 21°03' 40.13" N and Longitudes 71° 39' 18.3" & 71° 41' 05" E.

3. **The total ML area proposed was 1225.8553 ha. However, finally, the proposal has been considered for ML area of 612.1336 ha only.** Proposed production from the mine shall be 1.6 MTPA (ROM). Limestone produced from this captive mine shall be used for manufacturing of Cement and Clinker of the company. No forest land is involved. No national park/ sanctuary is located within 15 Km. No

ToR for Mining Project of M/s Nirma Ltd

Page 1 of 12

displacement is involved. Water bodies present in the study area are Malan River (8.4 km, E), Mota Jadra Garvho Nadi (2.6 km, E), Malan Bandhara reservoir (5.5 km, ESE) and Arabian Sea Coast (3.8 km to the HTL). Nearest city is Mahuva at a distance of 7.8 km by road. The site falls in Seismic zone-III.

4. State Govt. has issued Letter of Intent for grant of mining lease of Limestone vide letter no. MCR-102004-1827-CHH dated 15.02.2008. Opencast Mechanized mining method (conventional and non-conventional) by bench formation of 6.0 m height with deep hole drilling blasting, hydraulic excavator - dumper in combination as well as deploying surface miner shall be adopted. Life of mine shall be 22 years. The limestone will be crushed in a crusher in adjoining the lease area (Padhiarka). Limestone will be transported by internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease.

5. The proposed project will generate direct employment for 56 people. Total estimated water requirement for the proposed units will be 42 cum/day. The water will be sourced from Narmada water pipeline for which tapping will be taken for the Company's cement plant and rainwater collected in mine pit. The power demand for the proposed mine will be about 100 KW which shall be sourced from State Electricity Board/ Captive Power Plant at Village Padhiarka, Taluka Mahuva, District Bhavnagar. Total cost of the proposed project will be Rs. 24 Crores.

6. The Committee was of the view that it is a large area under consideration effecting huge number of villagers therefore the area shall be reduced. To this effect PP submitted an undertaking that mining operations will not be carried out in 196 ha and only 1029.8553 ha of the area will be used for mining operations. The PP also submitted that there interlinked cement plant received environmental clearance on vide letter no. J-11011/992/ 2007- IA II (I) dated 11 Dec 2008 which was revoked by MOEF vide their order dated 1st December 2011. The revoked order was challenged in NGT, who vide their order dated 14th January 2015 in the appeal no. 04 of 2012 has set aside the MOEF's revocation order dated 01.12.2011, which restores the EC granted by MoEF vide letter dated 11.12.2008. In the meantime, the environmental clearance process of the three captive limestone mines was also stalled. Now that the cement plant project and its EC has been revived consequent to the order of the NGT, PP has re-initiated the process of environmental clearance for the three mines.

7. The proposal was considered in the EAC meeting held during May 23-24, 2016 based on the information furnished by the Project Proponent and discussions held,

ToR for Mining Project of M/s Nirma Ltd

Page 2 of 12

the Committee was of the view that there was severe mismatch between limestone requirement of the proposed cement plant, extent of area needed for mining and total area proposed to be acquired. This mismatch is critical considering that most of the area proposed for acquisition is private agricultural land. The case was, therefore, deferred and PP is to submit a revised plan reducing the area to be acquired to minimum possible commensurate with the limestone production required for the proposed cement plant.

8. The PP submitted the revised plan reducing the area, the proposal was considered in the EAC meeting held during August 22-23, 2016. The PP submitted that no rejects will be generated in this limestone deposit. The soil cover will be removed before winning the limestone. The soil is non-toxic in nature. The chances of the water quality getting affected due to mining activity are very remote, as no chemical having toxic element will be used in carrying out mining activity. The working pits or the ones not being mined during a particular period will be storing the rain water for use in mines. Also, neither soil nor Limestone contains toxic elements, which can affect the quality of the water. During the course of mining the Mine sump water and Reject water of RO /DM plant (from proposed at Cement plant) will be used in dust suppression, plantation, dumpers/ trucks washing etc. Sewage sludge will be used as manure after composting. Oil and grease will get generated in the workshop located in the cement plant where effluent will be skimmed and separated by oil water skimmer and will be sold to recycling vendors authorized by CPCB. The top soil shall be used simultaneously for the plantation over backfill areas, in green belt, avenues, colonies and other areas. Some soil or meagre overburden would be backfilled into mined out areas.

9. Based on the information furnished by the Project Proponent and discussions held, the Committee was of the view that there was still a severe mismatch between limestone requirement of the proposed cement plant, extent of area needed for mining and total area proposed to be acquired. Committee was of the view that the project is part of three contiguous projects (Agenda item numbers 2.17, 2.18 & 2.19) and taken together these extend approximately over 3300 ha, out of which approximately over 2500 ha are private agriculture lands involving about 7 villages & approximately more than 2500 households. The revised plan doesn't reduce the area to be acquired and only demarcates the areas which are near roads, habitations etc on which mining would not be undertaken. These three projects together would divert large private agricultural land, affect large number of families and would, therefore, have large socio-economic impact by affecting agriculture & allied

activities. The mining over this area would also alter the water & moisture regime of the area and would have serious environmental impact affecting even the agriculture and allied activities in nearby area as well. The committee was of the view that ToR could not be granted to the present proposal. The PP was advised to look for alternative site or reduce the project area substantially.

10. The project proponent submitted a letter that the total area for mining is **reduced to 612.1336 ha**. The project proposal was once again considered during the EAC meeting held during **15-16 December 2016**. Based on the information furnished and discussion held, **the committee recommended the proposal for granting ToR for 612.1336 ha**.

11. The matter was examined in the Ministry and the undersigned is directed to say that the Ministry of Environment, Forest and Climate Change after accepting the recommendation of the EAC, hereby decided to accord Terms of Reference for the above mentioned project. Accordingly, the Project Proponent is requested to prepare and submit the final EIA/EMP report based on the TOR prescribed which are as under:-

1. Shallow pits up to depth of 4 mts will be refilled and reclaimed and given back to the farmers as agriculture land.
2. Return all the proposed non-mining area to farmers/owners of the land.
3. The mining plan, *inter-alia*, includes the above mentioned details (1 & 2) with regard to pits and reclamation.
4. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
5. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
6. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
7. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed

area should clearly show the land use and other ecological features of the study area (core and buffer zone).

8. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
9. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
10. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
11. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
12. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
13. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
14. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
15. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the

project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

16. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
17. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
18. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
19. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
20. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
21. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

22. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
23. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
24. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
25. One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
26. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided.

The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

27. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
28. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
29. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
30. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
31. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
32. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
33. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
34. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and

- should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
35. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
  36. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
  37. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
  38. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
  39. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
  40. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
  41. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
  42. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
  43. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
  44. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
  45. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
  46. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
  47. The KML file for the revised reduced area to be submitted to the Ministry within 7 days of issue of this letter.
  48. Besides the above, the below mentioned general points are also to be followed:-
    - a) All documents to be properly referenced with index and continuous page numbering.
    - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
    - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
    - d) Where the documents provided are in a language other than English, an English translation should be provided.
    - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
    - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
    - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

- h) As per the circular no. J-11011/618/2010-IA.II(1) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

13. The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

14. The prescribed TORs would be valid for a period of three years i.e. up to **02.01.2020** for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II (I) dated 07.11.2014.

15. After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

  
(Surendra Kumar)  
Director (S)

**Copy to:**

- i. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
- ii. The Secretary, Department of Mines & Geology, Government of Gujarat, Secretariat, Gandhinagar.
- iii. The Secretary, Department of Environment, Government of Gujarat, Secretariat, Gandhinagar.
- iv. The Secretary, Department of Forests, Government of Gujarat, Secretariat, Gandhinagar.

- v. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal - 462016
- vi. The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- vii. The Chairman, Gujarat State Pollution Control Board, Sector 10-A, Gandhi Nagar - 382043, Gujarat.
- viii. The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- ix. The Chief Wildlife Warden, Govt. of Gujarat State, Aranya Bhavan, Near Central Water Commission, Near CH-3 Circle, CH Rd, Sector 10A, Sector 10, Gandhinagar, Gujarat 382010.
- x. The District Collector, Bhavnagar District, Gujarat.
- xi. Guard File.
- xii. MoEF&CC website.

  
(Surendra Kumar)  
Director (S)

GOVERNMENT OF GUJARAT  
Industries and Mines Department,  
Sachivalaya, Gandhinagar,  
Dated: 8/1/2017

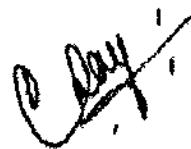
**ANNEXURE A-7****ORDER:-**

No.MCR-102004-1827-CHH:- In exercise of the powers conferred by Section 8(A) and 10 of the Mines and Minerals (Development And Regulation) Act, 1957, Government of Gujarat is pleased to grant a Mining Lease for Limestone and Marl Mineral to M/s Nirma Limited for its captive consumption for a period of 50 (Fifty) years in respect of the area in the Bhavnagar District as detailed below:-

TALUKA	VILLAGE	SURVEY NO.	AREA/ In HECTARES
Mahuva	Vangar & Madhia	Various Survey No.	612.13.36

2. The grant of the mining lease is subject to and as per terms and conditions mentioned below:

- (a) The lessee will have to produce Environmental Clearance Certificate issued by Ministry of Environment, Forest and Climate Change as laid down under the Environment (Protection) Act, 1986 and the rules made there under before commencing the mining activity as stated in Mines and Minerals (Development and Regulation) Removal of Difficulties Order, 2017 dated 4/1/2017. The final area will be as per Environmental Clearance Certificate and the area of the mining lease under consideration is accordingly amended will be bound to the lessee.
- (b) The Mining lease shall be in respect of Limestone and Marl only. If any other minerals are found in association with this mineral, they should be brought to the notice of the Government.
- (c) Royalty at the rate specified for the mineral Limestone and Marl in Schedule IIrd of the Mines and Minerals (Development and Regulation) Act, 1957 as amended from time to time and dead rent at the rate mentioned in the IIIrd Schedule of the said Act, as amended from time to time whichever is greater shall be charged.
- (d) Surface rent and cess/tax assessable on the land shall be charged.
- (e) If beryl or any other substances prescribed under section 3 of the atomic Energy Act, 1948 (XXIX of 1948) is found to occur in the property under the lease, the lessee shall make available such mineral to Government.
- (f) The lease shall be subject to the provision of the following Act and Rules as amended from time to time:
  - i. The MMDR Act, 1957 and M(OTA And HCEM)C Rules, 2016
  - ii. The Minerals (Evidence of Mineral contents) Rules, 2015
  - iii. The Minerals Conservation and Development Rules, 1988
  - iv. The Mines Act, 1952 and Rules made there under.
  - v. Environment (protection) Act, 1986 and Rules framed there under.
  - vi. Forest (Conservation) Act, 1980 and Rules made there under.
  - vii. Environment Impact Assessment Notification dated 27-1-1994 and orders/ notifications issued thereafter in this regard by Ministry of Environment & Forest.
  - viii. Bombay land Revenue Code- 1869
  - ix. Gujarat Panchayat Act, 1961
  - x. Indian Registration Act, 1908.
  - xi. Bombay Stamp Act, 1958 and any laws implemented in area by respective department of the State Government / Central Government as amended from time.
  - xii. Gujarat Mineral (Prevention of illegal mining, transportation and storage) Rules-2005.



.....2

: 2 :

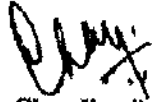
- (g) The lessee shall furnish to the Collector of Bhavnagar an accurate map of the area sanctioned under the lease together with the description giving the situation and boundaries duly attested by the District Inspector of Land Records. The Collector is authorized to get the area of the Mining Lease demarcated.
- (h) The lessee shall pay to the Collector, Bhavnagar necessary performance security deposit as stated in the Rule 8(3)(a) of the Mineral (Other Than Atomic And Hydro Carbons Energy Minerals) Concession Rules, 2016.
- (i) The lessee shall submit the progress report from time to time or when required to the Commissioner of Geology and Mining, Gujarat State, Gandhinagar or to an officer authorized by him along with the sample of the minerals collected during mining operations together with the analysis report.
- (j) The lessee shall not use or sell the said Mineral or deal with it in whatsoever manner or knowingly allow anyone to use or sell the said mineral or deal with it in whatsoever manner as a minor mineral.
- (k) If the area is likely to be submerged on account of the dam to be considered in near future the lessee shall on demand by Government or the Collector Bhavnagar return the mining lease forthwith without claiming any compensation of any kind including inter-alias any claim for land, minerals, machineries, equipment or for loss of business.
- (l) The lease holder has to furnish financial assurance as provided in Rule 23(F) of the Minerals Conservation and Development Rules, 1988 before executing the mining lease deed.
- (m) As the area under demand for lease is owned by a private owner, a statement in writing shall have to be produced that the surface rights over the area has been obtained or consent of the owner for starting mining operation is obtained. The area has to be converted to Non Agriculture before commencing the mining work in the said area.
- (n) The lessee shall use all the Limestone and Marl excavated from the said area for captive use in his proposed/existing cement plant in Gujarat State.
- (o) As per the condition of Letter of Intent (LoI) the mineral which is excavated from the lease shall be used only for the captive purpose and the lessee shall not trade or sell Limestone and Marl minerals other than using it for captive use.
- (p) The lessee will have to adhere to the terms and conditions as mentioned in the letter that may be issued by the Ministry of Environment, Forest and Climate Change Impact Assessment Division, Government of India.
- (q) The terms and conditions mentioned in the IBM, Ministry of Mines, Government of India letter No. 682(23)(622)/2008-UDAY dated 24/03/2009 will be binding to the lessee.
- (r) The lessee will be bounded by the Rule-12 in Terms and Condition of the Mining Lease, as mentioned in the Mineral (Other Than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.
- (s) The lessee will have to pay the NMET fund apart from the royalty and any other levies as decided by the Central Government according to the National Mineral Exploration Trust Rules.
- (t) The lessee will have to pay the DMF fund apart from the royalty and any other levies as decided by the Government according to the District Mineral Foundation Rules.

.....3/-

: 3 :

- (u) All the Environmental related instructions/guidelines issued by Government of India/Government of Gujarat shall be adhered to.
- (v) The lessee will have to abide by any changes made/any new terms and condition added to the present terms and condition by the Government of India or the State Government.
- (w) The lessee shall execute Mine Development & Production Agreement (MDPA) with the competent authority in the format specified by the Central Government as per Rule 8(3)(b) of the Mineral (Other Than Atomic And Hydro Carbons Energy Minerals) Concession Rules, 2016.
- (x) The State Government holds the right to make any amendment or addition in the lease deed. The lessee will abide by this and will have to pay the stamp duty and registration charges.

By order and in the name of the Governor of Gujarat.

  
 (D. G. Chaudhari)  
 Deputy Secretary  
 Industries and Mines Department

R.P.A.D.

To,  
 Nirma Limited,  
 Nirma House, Ashram Road,  
 Ahmedabad-380009

With a request to approach the Collector of Bhavnagar, Dist. Bhavnagar for execution of mining lease deed. The applicant is required to execute and register the lease deed for the said grant order as per the provisions prescribed in Rule 8(4) of Minerals (other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.

Copy to:-

- The Commissioner of Geology & Mining, Gujarat State, Gandhinagar, (By E-mail)
- The Collector of Bhavnagar, Dist. Bhavnagar. (By R.P.A.D. & E-mail)
- (The Collector is directed to execute the lease deed as per the provision in MMDR Act-1957 and MCR-2016.)
- The Assistant Geologist, Office of Geology & Mining, Dist. Bhavnagar, (By R.P.A.D.)
- The Regional Controller of Mines, Indian Bureau of Mines, Sector No.11, Hiran Magri, Scheme, Udaipur. 313001
- The Director General of Mines, Dhanbad-826001
- The Director of Mines Safety, Udaipur Region, 56, Shastri Marg, Udaipur-313 001
- The Revenue Department, Sachivalaya, Gandhinagar.
- The District Inspector of Land Records, Dist. Bhavnagar. (By R.P.A.D.)
- The Accountant General, Gujarat, Ahmedabad.
- The Accountant General, Gujarat, Rajkot
- The Controller General, Indian Bureau of Mines, 6<sup>th</sup> floor, Block No. B & C, Indira Bhavan, Civillines, Nagpur-440001
- The Forest and Environment Department, Sachivalaya, Gandhinagar.
- The Member Secretary, Gujarat Pollution Control Board, Sector: 10-B, Gandhinagar
- Copy for D.S.(Mines), Industries and Mines Department, Select file.
- Copy for Dy.S.O.
- Select file.

  
 //TRUE COPY//

F. No. J-11015/152/2016-IA-II (M)  
Government of India  
Ministry of Environment, Forests and Climate Change  
Impact Assessment Division

3rd Floor, Vayu Block,  
Indira Paryavaran Bhawan,  
Jor Bagh Road, Aliganj,  
New Delhi-110003

Dated: 16<sup>th</sup> March, 2020  
17/3

To,

M/s.Nirma Limited,  
Nirma House,  
Ashram Road, Ahmedabad,  
Gujarat – 380009  
Email: [ashishdesai@nirma.co.in](mailto:ashishdesai@nirma.co.in)  
[environment\\_ho@nirma.co.in](mailto:environment_ho@nirma.co.in)

*OK  
15/3/20  
Sudhakar  
18/3/20*

**Subject: Vangar-Madhiya Limestone Mining of M/s Nirma Ltd. located at villages Vangar & Madhya, Taluka Mahuva, District Bhavnagar, Gujarat (MLA:612.1336 ha, ROM:1.6MTPA)-Extension of validity of TOR reg.**

This is with reference to proposal no IA/GJ/MIN/124411/2019 dated 08 Nov 2019 seeking extension of validity of ToR granted vide No. J-11015/152/2016-IA-II (M) dated 3rd January, 2017 for Vangar-Madhiya Limestone Mining of M/s Nirma Ltd. located at villages Vangar & Madhya, Taluka Mahuva, District Bhavnagar, Gujarat (MLA:612.1336 ha, ROM:1.6MTPA).

2. In view of the above, and in pursuance to OM no J-11013/41/2006-IA-II(I) (Part) dated 29.09.2017 and amendment in EIA notification, 2006 vide S.O.751(E) dated 17.02.2020 the validity of TOR granted by regulatory Authority shall have validity of four years. Therefore, the TOR issued dated 13.11.2017 will be valid up to 12.11.2021.

3. This issues with the approval of the Competent Authority.

Yours faithfully,

*Sharath Kumar Pallerla*  
(Sharath Kumar Pallerla)  
Scientist 'F'  
E-mail: [sharath.kr@gov.in](mailto:sharath.kr@gov.in)  
Phone/Fax: 011-24695325

Copy to

1. **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.

2. **The Secretary**, Department of Mines & Geology, Government of Gujarat, Secretariat, Gandhinagar.
3. **The Secretary**, Department of Environment, Government of Gujarat, Secretariat, Gandhinagar.
4. **The Secretary**, Department of Forests, Government of Gujarat, Secretariat, Gandhinagar.
5. **The Chief Wildlife Warden**, Government of Gujarat, Dr. Jivaji Mehta Bhavan, Block No. 14, 1<sup>st</sup> Floor, Old Sachivalaya, Gandhinagar-382 010.
6. **The Additional Principal Chief Conservator of Forests**, Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal – 462016
7. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
8. **The Member Secretary**, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.
9. **The Chairman**, Gujarat State Pollution Control Board, Sector 10-A, Gandhi Nagar - 382043, Gujarat.
10. **The Controller General**, Indian Bureau of Mines, Indira Bhawan, Civil Lines, Nagpur-440 001.
11. **The District Collector, Bhavnagar** District, Government of Gujarat.
12. **Guard File.**
13. **MoEF&CC Website.**

(Sharath Kumar Pallerla)  
Scientist 'F'

**DRAFT**  
**ENVIRONMENTAL IMPACT ASSESSMENT**  
**AND**  
**ENVIRONMENTAL MANAGEMENT PLAN**  
**FOR**  
**VANGAR & MADHIYA LIMESTONE MINE**  
**AT**  
**VILLAGE VANGAR & MADHIYA,**  
**TALUKA MAHUVA, DISTRICT BHAVNAGAR,**  
**GUJARAT**  
**(EXTENT 612.1336 Ha., 1.6 MTPA R.O.M)**

*Project proponent:*

 **NIRMA LTD.**

Nirma House, Ashram Road, Ahmedabad (Gujarat)  
Phone – 079-27546565 –74. Fax – 079-27546999

**ToR granted:** Letter no. J-11015/152/2016-IA.II (M) dated 3<sup>rd</sup> January, 2017  
and extended vide letter dated 16<sup>th</sup> March 2020

**Baseline Monitoring Period:** 1<sup>st</sup> March- 2<sup>nd</sup> June 2021 (Summer Season) by  
Min Mec R&D Laboratory

**ISSUE 1    REV. 0    EIA-POST TOR**  
**(UID No. 202109001),    September 2021**

*Prepared by:*



**MIN MEC CONSULTANCY PVT. LTD.**

A-121, Paryavaran Complex, IGNOU Road, New Delhi – 110 030

Ph : 91-11-29532236, 29535891; 29532568, Web site: <http://www.minmec.com>

Email: [mining@minmec.com](mailto:mining@minmec.com); [minmec@gmail.com](mailto:minmec@gmail.com)



An ISO 9001:2015  
approved company



# NIRMA LIMITED

REGD. OFFICE : NIRMA HOUSE, ASHRAM ROAD, AHMEDABAD - 380 009. PHONE : 079 - 27546565, 27549000 FAX : 079 - 27546603, 27546605  
CIN : U24240GJ1980PLC003670 • Email : info@nirma.co.in • www.nirma.co.in

## UNDERTAKING

I, hereby, undertake that prescribed ToR with respect to EIA/EMP studies of Vangar & Madhiya Limestone Mine (Extent 612.1336 Ha., 1.6 MTPA R.O.M) located at Village Vangar & Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat, has been complied while conducting the EIA studies. The contents (Information and data) as given by our consultant in the EIA/EMP report are factually correct, with full knowledge of the undersigned.

Place: Ahmedabad  
Dated: 16.09.2021

  
Ashish Desai  
Authorized Signatory



***Better Products. Better Value. Better Living.***

**DECLARATION BY EXPERTS CONTRIBUTING TO THE "EIA FOR VANGAR AND MADHIYA LIMESTONE MINE OF M/S NIRMA LTD. LOCATED AT VILLAGE VANGAR & MADHIYA, TALUKA MAHUVA, DISTRICT BHAVNAGAR, GUJARAT"**

I, hereby, certify that I was a part of the team in the following capacity that developed the above EIA.

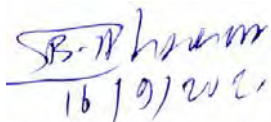
**EIA coordinator**

Name: B. D. Sharma

Signature and Date:

Period of involvement: From 2009 till date (intermittently)

Contact information: Mobile- 9811030881, Email id: minmec@gmail.com

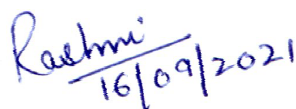

**Associate EIA coordinator**

Name: Rashmi Gupta





Signature and Date:









Period of involvement: From 2016 till date (intermittently)



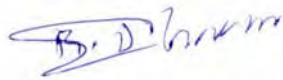

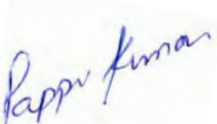


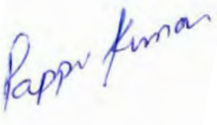
Contact information: Mobile- 9811566245, Email id: minmec@gmail.com


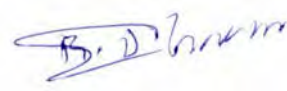
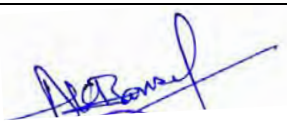


Functional Area Experts:

Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)	Signature and date
1.	Air pollution monitoring, prevention and control (AP)	Marisha Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Supervise monitoring and scrutiny of sections related to air quality, impact and management, interpretation of baseline air environment and preparation of sections of air environment.	
		TM-M.S. Yadav	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Planning of air monitoring station network	
		F AE(B) - Pappu Kumar	<b>Period:</b> January 2020 to till date <b>Task:</b> Assistance in planning & monitoring of air sampling stations & meteorology station, interpretation of ambient air quality result, air quality management measures; Traffic Impact assessment and management proposal, report writing under guidance of FAE.	
2.	Water pollution monitoring, prevention and control (WP)	Dr. Marisha Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> selection of sampling stations & supervise sampling and analysis, scrutiny of section of baseline water environment, assessment of impact on water environment & waste water management.	

Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)	Signature and date
		TM-Gaurav Yadav	<b>Period:</b> January 2020 to till date <b>Task:</b> Water & microbiological analysis and interpretation of results, comparison with limits for writing in present baseline scenario.	
3.	Solid and hazardous waste management (SHW)	Dr. Marisha Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Identification of different sources & types, quantity, handling mechanism and propose management measures of all types of solid wastes (overburden, municipal solid waste, etc) and checking of related sections in the report	
		FAE(B)-Pappu Kumar	<b>Period:</b> January 2020 to till date <b>Task:</b> MSW Generation, impact and management proposal; writing of overburden/Topsoil management for chapter 4	
4.	Socio-economics (SE)	Dr. Marisha Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Analysis of socio-economic status of the area, proposed intervention for CSR activities with budget, socio-economic impact & management.	
5.	Ecology and biodiversity (EB)	Rashmi Gupta	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Overall responsibility of ecological surveys, information/ data interpretation and preparation of ecology section in EIA/EMP report.	
		TM-Gaurav Yadav	<b>Period:</b> January 2020 to till date <b>Task:</b> Writing ecology section of the report, precaution & safety measure for protection of flora & fauna	
6.	HG	B. D. Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Review the hydrogeology report of the project and incorporation of summarised data on water level and assessment of hydrogeological impact due to mining along with mitigation measures.	
7.	Geology (Geo)	B. D. Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Prepare project description sections including geological formation (regional & local) of the area and various geological parameter descriptions, etc.	

Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)	Signature and date
8.	Soil conservation (SC)	Rashmi Gupta	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Impact on soil quality during excavation and stacking, mitigation measures for conservation of soil and soil quality in chapter 4.	
		TM-Gaurav Yadav	<b>Period:</b> January 2020 to till date <b>Task:</b> Interpretation of soil analysis results for writing in present baseline scenario. Report writing under guidance of FAE.	
9.	Meteorology, air quality modeling and prediction (AQ)	B. D. Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Gave guidance on the estimation of emission from the project and scrutinised the air modeling section	
		TM- M.S. Yadav	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> processing of micro meteorological data from field, air quality prediction planning (sources, emission, receptor, etc.), developing micro-meteorological input file and emissions input file for air modelling, model run, collating outputs into annexure, plotting GLC contours.	
		FAE (B)- Pappu Kumar	<b>Period:</b> January 2020 to till date <b>Task:</b> Quantification of emission from project, traffic, etc. for input to air quality modeling, assistance in air quality models run, incorporation of incremental impact in EIA report	
10.	Noise and vibration (NV)	Rajesh Kumar Chopra	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Review of the section of noise and ground vibration and recommended mitigation measures for control of noise and ground vibration.	
		TM- M.S. Yadav	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Calculation for attenuation of noise	
		FAE (B)- Pappu Kumar	<b>Period:</b> January 2020 to till date <b>Task:</b> Analysis and interpretation of noise results, anticipation of impact of noise & blasting due to mining activities & traffic movement followed by mitigation measure, report writing under guidance FAE.	

Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)	Signature and date
11.	Land use (LU)	Dr. Marisha Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Satellite image interpretation and preparation of land use map of study area, prediction of impact on land use pattern (existing & proposed), suggest mitigation measures.	
12.	Risk Assessment and hazard management (RH)	B. D. Sharma	<b>Period:</b> From March 2016 to till date (intermittently) <b>Task:</b> Assess risk due to project and prepare chapter on disaster management plan.	
		TM- D.K. Bansal	<b>Period:</b> From September 2021 <b>Task:</b> Assist in preparation of disaster management plan.	

**Declaration by the Head of the accredited consultant organization/ authorized person**

I, Dr. Marisha Sharma, hereby, confirm that the above-mentioned experts prepared the "EIA for Vangar and Madhiya Limestone Mine of M/s Nirma Ltd. located at Village Vangar & Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat". I also confirm that the consultant organization shall be fully accountable for any misleading information mention in this statement.

Signature:

  
16/9/2021

Name: Dr. Marisha Sharma  
Designation: Director (Technical)

Name of the consultant organization: Min Mec Consultancy Pvt. Ltd.

NABET Certificate No.: Min Mec is preparing and presenting reports as per the High Court of Delhi orders in LPA 110/2014 and CM No.2175/2014 (stay) and in W.P.(C) 3665/2016 (Copy given in **Annexure XXVI**)

---

**CONTENTS**


---

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
<b>CHAPTER 1 : INTRODUCTION</b>		
1.1	Purpose of the EIA report	1-1
1.2	Identification of the project	1-3
1.3	Project proponent	1-6
1.4	Brief description of the project	1-7
1.5	Importance in the region and country	1-10
1.6	Scope of the study	1-11
1.7	Status of litigation	1-15
1.8	Compliance to tor	1-15
<b>CHAPTER 2 : PROJECT DESCRIPTION</b>		
2.1	Geology	2-1
2.2	Details of exploration	2-3
2.3	Reserves estimation	2-7
2.4	Quality parameters	2-10
2.5	Mining	2-11
2.6	Tentative yearwise development programme	2-13
2.7	Production	2-21
2.8	List of mining equipment	2-22
2.9	Site services and infrastructures	2-24
2.10	Fuel and storage of explosives	2-25
2.11	Power requirement	2-25
2.12	Water requirement	2-25
2.13	Employment potential	2-26
<b>CHAPTER 3 : DESCRIPTION OF THE ENEVIRONMENT</b>		
3.1	General	3-1
3.2	Topography and drainage	3-2
3.3	Climate and meteorology	3-3
3.4	Ambient air quality	3-12
3.5	Water resources	3-19
3.6	Land environment	3-25
3.7	Soil quality	3-28
3.8	Noise environment	3-32
3.9	Traffic volume survey	3-33

Sl. No.	Description	Page No.
3.10	Ecology	3-34
3.11	Socio-economic conditions	3-40
3.12	Amenities	3-44
3.13	Seismicity	3-45
3.14	Industries around the project area	3-46
3.15	Places of tourist/religious/historical interest/national park/sanctuary	3-46
3.16	CRZ, coastal features, mangroves, etc.	3-46

#### **CHAPTER 4 : ENVIRONMENTAL IMPACT ASSESSMENT AND MITIGATION MEASURES**

4.1	General aspects	4-1
4.2	Topography and drainage	4-1
4.3	Climate	4-4
4.4	Ambient air quality	4-4
4.5	Water Environment	4-14
4.6	Water quality	4-20
4.7	Noise level	4-23
4.8	Ground vibrations- impact and management	4-26
4.9	Traffic volume	4-30
4.10	Land use	4-31
4.11	Solid waste - impact and management	4-38
4.12	Ecology	4-41
4.13	Socio-economic conditions	4-50
4.14	Occupational health and safety	4-52
4.15	Conservation of natural resources	4-55

#### **CHAPTER 5 : ANALYSIS OF ALTERNATIVES**

5.1	Site alternatives	5-1
5.2	Technology alternatives	5-2

#### **CHAPTER 6 : ENVIRONMENTAL MONITORING PROGRAMME**

6.1	Introduction	6-1
6.2	Proposed set-up	6-1
6.3	Monitoring schedule and parameters	6-3
6.4	Budgetary provision for environmental management	6-4

Sl. No.	Description	Page No.
<b>CHAPTER 7 : ADDITIONAL STUDIES: RISK ASSESSMENT, DISASTER MANAGEMENT PLAN AND PUBLIC CONSULTATION</b>		
7.1	Risk analysis and disaster management plan	7-1
7.2	Care and maintenance during temporary discontinuance	7-6
7.3	Disaster management plan	7-7
7.4	Off-site emergency planning	7-9
7.5	Summary of the proceeding of public consultation	7-14
<b>CHAPTER 8 : PROJECT BENEFITS</b>		
8.1	Employment potential	8-1
8.2	Physical & social infrastructure development due to mine	8-1
8.3	Social welfare initiatives undertaken by M/s Nirma Ltd.	8-2
8.4	Proposed CSR Expenditure	8-10
<b>CHAPTER 9 : ENVIRONMENTAL COST BENEFIT ANALYSIS</b>		9-1
<b>CHAPTER 10 : ENVIRONMENT MANAGEMENT PLAN</b>		
10.1	Environment management plan	10-1
10.2	Corporate Environment policy	10-12
10.3	Standard operating process / procedures to address deviation/ violation	10-13
<b>CHAPTER 11 : EXECUTIVE SUMMARY OF EIA/EMP</b>		
11.1	Introduction	11-1
11.2	Project Description	11-2
11.3	Present environmental scenario	11-4
11.4	Anticipated environmental impact and mitigation measures	11-7
11.5	Analysis of alternatives	11-13
11.6	Environmental control and monitoring organisation	11-13
11.7	Additional studies: Disaster Management Plan	11-13
11.8	Project benefits	11-14
11.9	Consultants	11-14
<b>CHAPTER 12: DISCLOSURE OF CONSULTANTS ENGAGED</b>		12-1

---

**LIST OF TABLES**


---

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
1.1	Salient Features of the Project	1-6
1.2	Production facilities of Nirma group in Gujarat	1-7
1.3	Baseline data generated as per TOR	1-12
1.4	Compliance of generic tor for opencast mine project	1-15
2.1	Regional geological sequence of the area	2-1
2.2	Programme of future exploration	2-7
2.3	Summarized Geological Reserve of Limestone	2-9
2.4	UNFC Classification of resources/ Reserves	2-9
2.5	Anticipated rom quality of different limestone	2-10
2.6	Expected run of mine quality (%)	2-10
2.7	Blasting parameters for limestone	2-21
2.8	Quantum of soil, waste rock and limestone production (CUM)	2-21
2.9	Expected excavation during first plan period (Million Tonne)	2-22
2.10	Phasewise working programme for mine life	2-22
2.11	List of other miscellaneous mining equipment	2-23
2.12	List of machinery/ equipment required for site services	2-23
2.13	Water requirement	2-25
2.14	Manpower details	2-26
3.1	List of water bodies in 10 km radius of mine	3-3
3.2	Monthly average maximum and minimum temperature (°C), Relative humidity (%) and rainfall (mm) at IMD station, Bhavnagar (1981-2010)	3-6
3.3	Summary of monitored micro-meteorological Data, 1 <sup>st</sup> March - 2 <sup>nd</sup> June, 2021	3-9
3.4	Wind frequency of monitored data at site (01/03/2021-02/06/2021)	3-9
3.5	Location of air sampling stations	3-13
3.6	Procedure for determining various air quality parameters	3-17
3.7	Summary of ambient air quality monitoring results (1 <sup>st</sup> March-2 <sup>nd</sup> June 2021)	3-18
3.8	Location of water sampling stations	3-21
3.9	Water test results	3-23
3.10	Pre-operational land ownership in core zone (In Ha)	3-25
3.11	Districts/taluka wise villages in buffer zone	3-27
3.12	Land use pattern in study area (as per Census 2011)	3-27
3.13	Location of soil sampling stations	3-30

Table No.	Particulars	Page No.
3.14	Soil analysis result	3-32
3.15	Ambient noise levels in the study area (in Leq dB(A))	3-33
3.16	Traffic volume survey	3-34
3.17	Tree flora at Doliya	3-37
3.18	Tree flora at Padhiarka	3-38
3.19	Tree flora at Dundas	3-38
3.20	Tree flora at Dudheri	3-38
3.21	District and sub-district wise population in the study area	3-40
3.22	Demographic details of the study area (as per Census 2011)	3-41
3.23	Employment pattern in the study area	3-42
3.24	Amenities available in villages and towns within the study area (as per Census 2011)	3-44
4.1	Predicted incremental ground level concentration by ISCST3 Model ( $\mu\text{g}/\text{m}^3$ )	4-7
4.2	Calculated Maximum Ground Level Concentration ( $\mu\text{g}/\text{m}^3$ ) from road (Mine exit to Cement Plant)	4-8
4.3	Anticipated incremental GLC values due to Vangar & Madhiya Limestone mine at the air quality monitoring stations ( $\mu\text{g}/\text{m}^3$ )	4-9
4.4	Anticipated Cumulative incremental GLC values due to all the three mine at the air quality monitoring stations ( $\mu\text{g}/\text{m}^3$ )	4-10
4.5	Flow-chart indicating the specific areas generating fugitive emissions and control measures throughout the mine	4-11
4.6	Potential impact of mining on water environment	4-15
4.7	Site elevation and ultimate depth of pits at end of life of mine	4-18
4.8	Noise attenuation with distance on flat bare ground without and with green belt Combined noise of more than one source = 103 dB (A)	4-24
4.9	Permissible Peak Particle Velocity (PPV) at the foundation level of structures in mining areas in mm/sec.	4-27
4.10	Existing landuse pattern of core zone as on 01.04.2021 (in Ha.)	4-31
4.11	Land use pattern of the mining lease area at the end of plan period (31.03.2026) (Ha)	4-32
4.12	Land use pattern at the end of the life of the mine (Ha.)	4-32
4.13	Stage wise land use and reclamation area (Ha.)	4-35
4.14	Post mining land use of core zone (Ha)	4-36
4.15	Solid waste generation	4-38
4.16	Removal of soil and its disposal	4-39
4.17	Re-handling of soil towards reclamation after the plan period	4-40
4.18	Programme of backfilling	4-41

---

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
4.19	Species of saplings proposed	4-44
4.20	Summary of protective measures and phasewise plantation	4-48
6.1	Monitoring schedule and parameters	6-3
6.2	Capital investment for environmental protection	6-5
6.3	Recurring cost for environmental protection	6-5
7.1	Check list for likely disaster in opencast mines	7-2
8.1	List of activities/material supplied to nearby villages of Cement Plant & Limestone Mining complex at Mahuva, Bhavnagar	8-2
8.2	Recent CSR activities undertaken since January to June, 2021	8-3
8.3	Proposed annual expenditure CSR for Mahuva Mines	8-10
10.1	Environment management measures	10-1

---

---

**LIST OF FIGURES**


---

<b>Fig No.</b>	<b>Particulars</b>	<b>Page No.</b>
1.1	Location map of the project	1-9
2.1	Present surface plan	2-4
2.2	Geological plan	2-5
2.3	Geological sections of ML	2-6
2.4	Tentative Excavation Plan at the end of Year 2021-22	2-16
2.5	Mine stage plan at the end of Year 2022-2023	2-16
2.6	Tentative excavation plan at the end of Year 2023-24	2-18
2.7	Tentative excavation plan at the end of Year 2024-25	2-19
2.8	Tentative excavation plan at the end of Year 2025-26	2-20
2.9	Water Balance Diagram (KLD)	2-26
3.1	Drainage pattern of core zone & immediate vicinity	3-2
3.2	Topography & drainage map in 10 km radius around the project	3-4
3.3	Monthly avg. max & min temperature (°C) at IMD Station, Bhavnagar (1981-2010)	3-6
3.4	Monthly average rainfall (mm) at IMD Station, Bhavnagar (1981-2010)	3-7
3.5	Monthly average relative humidity (%) at IMD Station, Bhavnagar (1981-2010)	3-7
3.6	Windrose diagram at IMD station, Bhavnagar (at 8:30 hrs)	3-8
3.7	Windrose diagram at IMD station, Bhavnagar (at 17:30 hrs)	3-8
3.8	Windrose diagram of monitored data	3-11
3.9	Location of air & noise sampling stations	3-15
3.10	Location of water sampling stations	3-22
3.11	Khasra plan	3-26
3.12	Land use pattern in the study area (Census 2011)	3-28
3.13	Map showing satellite imagery interpretation for 10 km radius	3-29
3.14	Location of soil sampling stations & traffic census	3-31
3.15	Break-up of SC & ST in the study area (Census 2011)	3-41
3.16	Literacy level in the study area (Census 2011)	3-41
3.17	Employment pattern in the study area (Census 2011)	3-43
3.18	Break up of main workers in the study area (Census 2011)	3-43
3.19	Marginal workers in the study area (Census 2011)	3-43

---

<b>Fig No.</b>	<b>Particulars</b>	<b>Page No.</b>
4.1	Proposed diversion channels	4-3
4.2	Typical rain water harvesting structure on mine office	4-22
4.3	Noise attenuation with distance in all directions over flat open bare ground (Sound at source = 103 dBA)	4-24
4.4	Conceptual plan	4-33
4.5	Conceptual section	4-34
4.6	Environment management plan	4-46
4.7	Reclamation plan	4-46
6.1	Organisation chart for implementation of pollution control measures	6-2
7.2	Organisation chart	7-10
8.1	Some Glimpse of past CSR activities conducted by Nirma Ltd.	9-7

---

---

**LIST OF ANNEXURES**


---

<b>Annexure No.</b>	<b>Particulars</b>
I	TOR issued by MoEF&CC J-11015/154/2016-IA.II (M) dated 3 <sup>rd</sup> January, 2017
II	Copy of mine lease grant order no. MCR-102004-1827-CHH dated 08.01.2017
III	MOEF & NABL certificates for laboratory
IV	Daily micro-meteorological monitored data
V	Ambient air quality test results
VI	National ambient air quality standard (NAAQS)
VII	Water quality test results
VIII	Test characteristics for drinking water (IS 10500 : 2012) and classification of surface water by CPCB
IX	Land use pattern in the study area based on Census 2011
X	Noise levels within the study area [Leq in dB(A)]
XI	Ambient air quality standards in respect of noise
XII	Traffic density monitoring results
XIII	List of flora and fauna in the study area and core zone
XIV	Authenticated map by DCF, Bhavnagar vide letter dated 09.11.2020
XV	Soil test report
XVI	Village wise population and literacy within the study area (Census 2011)
XVII	Village wise employment pattern in the study area (Census 2011)
XVIII	Village wise amenities in the study area (Census 2011)
XIX	CRZ report
XX	ISCST3 & CALINE 4 modeling for Vangar & Madhiya Mine
XXI	Cumulative ISCST3 & CALINE 4 modeling for three mines
XXII	Mining plan approval letter
XXIII	Copy of submission letter to PCCF for Approval of WLCP
XXIV	Permission for withdrawal of water from Gujarat Water Infrastructure limited vide letter no. GWIL/Bhavnagar/Ind.conn./1257 dated 4-6-2008
XXV	Delhi High Court order permission to consultant for preparation of EIA/EMP report

---

## LIST OF ABBREVIATIONS

AMSL	-	Above mean sea level
BDL	-	Below Detectable Limit
BGL	-	Below Ground Level
CGWB	-	Central Ground Water Board
cm	-	Centi meter
CER	-	Corporate Environment Responsibility
CPCB	-	Central Pollution Control Board
CSM	-	Continuous Surface Miner
CRZ	-	Coastal Regulation Zone
CSR	-	Corporate Social Responsibility
CTE	-	Consent to establish
Cum/day	-	Cubic metres per day
Cum/hr	-	Cubic metres per hour
dB	-	Decibel
DG	-	Diesel Generator
DGMS	-	Director General of Mines Safety
DFO	-	Divisional Forest Officer
E	-	East
EAC	-	Expert Appraisal Committee
EC	-	Environmental Clearance
EIA	-	Environment Impact Assessment
EMD	-	Environment Management Department
EMP	-	Environmental Management Plan
G	-	Gram
GLC	-	Ground Level Concentration
Ha	-	Hectare
HEMM	-	Heavy Earth Moving Machinery
HQ	-	Head Quarters
IMD	-	Indian Meteorological Department
Kg	-	Kilogram
KL	-	Kilo litre
KLD	-	Kilo litre/day
KLH	-	Kilo litres per hour
KVA	-	Kilo Volt Ampere
KW	-	Kilo Watt
KWH	-	Kilo Watt Hour
L	-	Litres
Lpd	-	Litres per day
M	-	Meter

---

m <sup>2</sup>	-	Square meter
m <sup>3</sup>	-	Cubic meter
MCM	-	Million Cubic Meter
Mg/l	-	Miligram per litre
ML	-	Mine Lease
MoEF&CC	-	Ministry of Environment, Forest and Climate Change
MOU	-	Memorandum of Understanding
MT	-	Million Tonnes
MTPA	-	Million Tonnes Per Annum
MVA	-	Mega Volt Ampere
MW	-	Mega watt
N	-	North
NABL	-	National Accreditation Board of Laboratories
NOC	-	No objection certificate
NH	-	National Highway
Nos.	-	Numbers
OB	-	overburden
OSHA	-	Occupational Safety & Health Administration
PPE	-	Personal Protective Equipment (s)
PUC	-	Pollution Under Control
PF	-	Protected Forest
RF	-	Reserve Forest
R&R	-	Resettlement and Rehabilitation
ROM	-	Run of Mine
RPM	-	Respirable Particulate Matter
S	-	South
SPM	-	Suspended Particulate Matter
SPCB	-	State Pollution Control Board
SOI	-	Survey of India
Sq.m.	-	Square metre
T	-	Tonnes
TOR	-	Terms of Reference
W	-	West
°C	-	Degree centigrade

---

## CHAPTER 1

### INTRODUCTION

#### 1.1 PURPOSE OF THE EIA REPORT

Environmental Clearances is a statutory requirement for the projects listed in the Schedule of EIA notification dated 14<sup>th</sup> September 2006 and its amendments till date. Mining blocks more than 100 ha lease area fall under Sl. No. 1(a) in category A of the schedule to the EIA Notification 2006. Category A project shall seek Environmental clearance from the Ministry of Environment, Forest & Climate Change (MoEF&CC), New Delhi. The procedure covers submission of application with Form 1 and pre-feasibility report to MoEF&CC, preparation of draft EIA/EMP in line with the Terms of Reference, applying to the State Pollution Control Board for public hearing, recording of suggestions/ objections and statements of the public and finalizing the EIA/EMP report after incorporating the responses and action plans to the points raised by the public. The final EIA/EMP report shall be submitted to the MoEF&CC which shall be appraised by the Expert Committee and thereafter only the Environmental Clearance is granted.

To obtain the Environmental Clearance for the proposed project, environmental studies have been carried out and draft Environmental Impact Assessment (EIA) / Environment Management Plan (EMP) has been prepared in line with Terms of References (TOR) issued by Ministry of Environment, Forest & Climate Change, New Delhi. This EIA/EMP report has been prepared for proposed 1.6 million tonnes per annum (MTPA) ROM production of Limestone by mechanized open cast method in the total ML area of 612.1336 ha. (reduced from 1225.8553 ha) by M/s Nirma Limited in villages Vangar and Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat.

The proposal i.e. Form I and Pre-feasibility Report for proposed open cast Limestone mine project was submitted to Ministry of Environment, Forest and Climate Change, New Delhi vide Letter no. NL/ENV-152/526/2016 dated 28.04.2016 and proposal Reference No. IA/GJ/MIN/53409/2016. The proposal was considered in the EAC meeting held during May 23-24, 2016. The committee was of the view that there was mismatch between limestone requirement of the proposed cement plant, extent of area needed for mining and total area proposed to be acquired. This mismatch is critical considering that most of the area proposed for acquisition is private agricultural land. The case was, therefore, deferred and it was asked to submit a revised plan reducing the area to be acquired to minimum possible commensurate with the limestone production required for the proposed cement plant.

The company submitted the revised documents reducing the area and the proposal was considered in EAC meeting held during August 22-23, 2016. It was submitted that no rejects will be generated in this limestone deposit. The soil cover will be removed before winning the limestone. The soil is non-toxic in nature. The chances of the water quality getting affected due to mining activity are very remote, as no chemical having toxic element will be used in carrying out mining activity. The working pits or the ones not being mined during a particular period will be storing the rain water for use in mines. Also, neither soil nor Limestone contains toxic elements, which can affect the quality of the water. During the course of mining the Mine sump water and Reject water of RO/DM plant (from proposed at Cement plant) will be used in dust suppression, plantation, dumpers/trucks washing etc. Sewage sludge will be used as manure after composting. Oil and grease will get generated in the workshop located in the cement plant where effluent will be skimmed and separated by oil water skimmer and will be sold to recycling vendors authorized by CPCB. The top soil shall be used simultaneously for the plantation over backfill areas, in green belt, avenues, colonies and other areas. Some soil or meager overburden would be backfilled into mined out areas.

Based on the information furnished, the Committee was of the view that there was still mismatch between limestone requirement of the proposed cement plant, extent of area needed for mining and total area proposed to be acquired. Committee was of the view that the project is part of three contiguous projects and taken together these extend approximately over 3300 ha, out of which approximately over 2500 ha area private agriculture lands involving about 7 villages & approximately more than 2500 households. The revised plan doesn't reduce the area to be acquired and only demarcates the areas which are near roads, habitations etc on which mining would not be undertaken. These three projects together would divert large private agricultural land, affect large number of families and would, therefore, have large socio-economic impact by affecting agriculture & allied activities. The mining over this area would also alter the water & moisture regime of the area and would have serious environmental impact affecting even the agriculture and allied activities in nearby area as well. The committee was of the view that ToR could not be granted to the present proposal. It was advised to look for alternative site or reduce the project area substantial.

The company submitted a letter that the total area for mining is reduced to 612.1336 ha. The project proposal was once again considered during the EAC meeting held during 15-16 December 2016. Based on the information furnished and discussion held, the committee recommended the proposal for granting ToR for 612.1336 ha vide ToR letter no. J-11015/152/2016-IA.II (M) dated 3<sup>rd</sup> January, 2017. Meanwhile, company applied for extension of validity of TOR to MoEF & CC, New Delhi within stipulated time period and based on that MoEF & CC, New Delhi has extended validity of TOR upto 12.11.2021 vide letter no. J-11015/152/2016-IA.II (M) dated 16<sup>th</sup> March 2020. The ToR letter dated 3<sup>rd</sup> January, 2017 and extension letter dated 16<sup>th</sup> March 2020 are enclosed as **Annexure I**.

Further, in view of the nation wide lockdowns due to COVID19 pandemic and obstructions triggered by it, MoEF&CC has issued a notification vide S.O. 221(E) dated 18<sup>th</sup> January 2021 stating that “.....*the period from the 1<sup>st</sup> April, 2020 to the 31<sup>st</sup> March, 2021 shall not be considered for the purpose of calculation of the period of validity of Terms of Reference granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the said Terms of Reference shall be treated as valid.....*”. The said Notification is enclosed as **Annexure I**.

Thus, in view of the above the validity of ToR may be considered upto 12.11.2022.

## 1.2 IDENTIFICATION OF THE PROJECT

Nirma Ltd. (NL) is setting up a Cement Plant (capacity 1.91 MTPA) and a Captive Power Plant (capacity 50 MW) in first phase at village Padhiarka, Taluka: Mahuva, District Bhavnagar of Gujarat State.

In order to source the major raw material for the cement plant, the company had applied for various mining leases of limestone for captive use in Cement Plant located at Taluka Mahuva, district Bhavnagar. The State Govt. had issued Letter of Intent (LOI) to grant the mining lease near village Vangar and Madhiya over an area of 1225.8553 ha vide letter no. MCR-102004-1827-CHH dated 15.02.2008. A copy of Letter of Intent (LOI) is attached as **Annexure II**. Mining of limestone will be carried out as per approved mining plan. The proposed run of mine (R.O.M.) excavation of limestone is 5300 tonnes per day i.e.1.6 MTPA.

The ML area for Vangar & Madhiya Limestone Deposit has changed over a period of time. The chronology regarding the project is as follows:

- i. Company applied for mineral Limestone & Marl over an area of 1225.8553 Ha at villages Vangar & Madhiya, Taluka Mahuva in District Bhavnagar (Gujarat) initially for a period of thirty years.
- ii. The State Govt. issued LOI to grant the mining lease for mineral Limestone and Marl over an area of 1225.8553 ha Vide Letter No. MCR-102004-1827-CHH Dated 15.02.2008 for a period of 30 years from the date of execution.
- iii. Meantime, the Environmental Clearance was accorded for company's proposed cement plant at village Padhiarka, District Bhavnagar by MOEF, New Delhi vide letter no. J-11011/992/2007-IAII(I) dated 11.12.2008.
- iv. As per the statutory provisions in MCR at the time of fresh grant, State Govt. had asked for Mining Plan. Thus the Mining Plan including Progressive Mine Closure Plan as per Rule 22 of MCR

- 1960 for said Limestone Deposit at villages Vangar & Madhiya was prepared and its approval obtained from competent authority i.e. IBM vide Letter No. 682(23)(622)/2008-Udp Dated 24.03.2009.
- v. The company submitted the project proposal to Ministry of Environment and Forests, Govt. of India which issued Terms of Reference (ToR) for the said mining lease area vide letter dated 24.03.2009.
  - vi. However, the Environmental Clearance of the cement plant was revoked by MoEF, New Delhi vide their order dated 01.12.2011. Hence, in the corresponding time period, the process of Environmental Clearance of the said mining lease was also stalled.
  - vii. The revoked order of the cement plant was challenged in NGT, which vide their order dated 14.01.2015 in the appeal no. 04 of 2012 has set aside MOEF's revocation order dated 01.12.2011 and directed for restoration of Environment Clearance of Cement Plant granted by MoEF's letter dated 11.12.2008.
  - viii. Accordingly, Company re-initiated the process for grant of Environmental Clearance for the mining lease area as per LOI by submission of a fresh proposal in April 2016 to Ministry of Environment, Forest & Climate Change (MoEF & CC), New Delhi.
  - ix. The Expert Appraisal Committee (Mining) of MoEF&CC recommended the proposal for grant of ToR in Vangar & Madhiya Limestone Mining Lease with reduced Mining Lease Area i.e. 612.1336 Ha. and issued Terms of Reference (ToR) Vide Letter No. J-11015/152/2016-IA II(M) dated 03.01.2017 for the Mining Lease. The Same has been extended vide letter no. F. No. J-11015/152/2016-IA-II (M) dated 16.03.2020 by MOEF&CC.
  - x. Ministry of Mines, Govt. of India, New Delhi issued order titled "Mines & Minerals (Development and Regulations) Removal of Difficulties Order 2017" dated 04.01.2017 for the cases which fall in section 10 A (2) (c) of MMDR (Amendment) Act, 2015. It permitted to consider the grant of the mining lease in those cases where in the condition of obtaining Environment Clearance has not been complied by the applicant on or before 11.01.2017 but all other conditions specified in LOI have been fulfilled.
  - xi. Accordingly, the order for grant of mining lease was issued by Industries and Mines Department, Govt. of Gujarat, Gandhinagar vide order no. MCR-102004-1827-CHH Dated 08.01.2017 in an area of 612.1336 Ha for 50 years (refer **Annexure II**).
  - xii. Thereafter, the mining lease deed was executed on 11.01.2017 between Dist. Collector, Bhavnagar, State Govt. and the lessee Nirma Ltd. for a period of 50 years under the provision of MMDR Amendment Act, 2015 and also registered the executed mining lease deed with Sub, Registrar, Mahuva on 11.01.2017.

- xiii. Under provision of Minerals (other than Atomic Hydro Carbons Energy Minerals) Concession Rules, 2016, "Mine Development and Production Agreement (MDPA) was signed between State Govt. and company on 11.01.2017.
- xiv. Accordingly, the proposal of Nirma Ltd. for seeking Environmental Clearance for production capacity 1.6 MTPA was considered by MoEF&CC and issued Terms of Reference (TOR) vide letter no. J-11015/152/2016-IAIIM) Dated 03.01.2017 for the reduced area 612.1336 ha. The area reduction took place due to exclusion of Gaucher land, part of the Pvt. Land, villages periphery and highway & its periphery area as safety barrier as per directions of EAC, MoEF&CC, New Delhi.
- xv. Modified Mining Plan along with Progressive Mine Closure Plan over an area of 612.1336 ha for Vangar & Madhiya Limestone Mining Lease has been approved by Indian Bureau of Mines, Gandhinagar, Gujarat vide letter No. 684 (4) (1)/MP-196/2018-GNR dated 04.02.2019. Thereafter Review of Mining Plan with progressive Mine closure Plan over area of 612.1336 ha for Vangar & Madhiya Limestone Mining Lease has been approved by Indian Bureau of Mines, Gandhinagar, Gujarat vide letter no. 684(4)(1)/MP-347(196)/2021-22 GNR/1125 dated 05.08.2021. Approval of the mine plan is enclosed as **Annexure XXII**.

The land ownership within the lease is private & government land as per revenue records and no Gauchar land is involved in the lease area. Lease area does not form a part of any Reserve Forest, National park, Wild life Sanctuary or National biosphere reserve.

It is pertinent to be noted here that mining lease of Nirma Ltd. has been executed as saved case under Section 10A(2)(c) of MMDR (Amendment) Act, 2015 and one of the condition is that the lessee will have to produce Environment Clearance Certificate issued by MoEF & CC, New Delhi before commencing mining activity as stated in MM(DR) Removal of Difficulties order 2017, dated: 04.01.2017.

Looking towards its date of execution, lease period as well as the five years block period of mining lease period has been started from year 2016-17. The date of expiry of mining lease period is 10.01.2067. Five year block period was started from the date of execution i.e. 11.01.2017 (FY 2016-17) and was up to FY 2020-21 (31.03.2021) as per earlier approved mining plan & Modified Mining Plan. Furthermore, on expiry of Modified Mining Plan, Review of Mining Plan with Progressive Mine Closure Plan for further five years period from 2021-22 to 2025-26 has been approved by Indian Bureau of Mines, Gandhinagar, as discussed earlier.

### ***Salient features***

The salient features of the project are summarized in **Table 1.1**.

**TABLE 1.1: SALIENT FEATURES OF THE PROJECT**

Project name	Vangar and Madhiya Limestone Mine
Project proponent	Nirma Limited
Villages in block area	Vangar and Madhiya village
Coordinates	Latitude : 21°01'44.5493" to 21° 03' 40.04" N Longitude: 71°38' 35.63" to 71°41'32. 67" E
Mining Lease Area	612.1336 Ha
Rated Capacity	1.6 MTPA
Mineable Reserves	14.913 million tonnes
Life of the mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category to category of reserves 111)
Stripping ratio for plan period	1:0.00 cum/ cum
Total Soil Generation during life of mine	1.37 mio. cum
Method of Mining	Opencast Mechanized (Conventional & Non-conventional)
Working days	300 days/ year, 2 shifts of 8 hours each
Manpower	58
Transportation	By road to Cement Plant of the company
Expected cost of the project	Rs. 24 Crores
Elevation of lease area	5 m to 20.27 m AMSL
Topography	Mostly plain with minor undulations
Water requirement	42 cum/day
Source of water	Narmada Water pipeline and rain water collected in mine pit
Power requirement	100 KW
Power source	Gujarat State Electricity Board / Captive Power Plant located at Cement Plant near Padhiarka.

### 1.3 PROJECT PROPONENT

M/s Nirma Ltd. (a Public Limited Company) is having its registered office at "Nirma House" on Ashram Road, Ahmedabad- 380 009, Gujarat. Nirma Ltd. is one of the leading soda ash producing company in India.

Nirma Ltd. is a part of the Nirma Group engaged in the business of consumer products like Soap, Detergent and Industrial products like Sulphuric acid, Oleum, Distilled Fatty acids, Linear Alkyl Benzene, Soda ash (Light & Dense), Salt etc. This Group came in existence in the year 1980

Company is having Soda Ash manufacturing plant located in Bhavnagar and also acquired Soda Ash plant in Porbandar District of Gujarat in 2006. The present capacity of Soda ash plant is 10,08,000 TPA for Bhavnagar location and 5,40,000 TPA for Porbandar location. Company is also having captive Power Plants along with its Soda Ash plants in Bhavnagar & Porbandar District. The high quality of Limestone i.e. CaO >48% is one of the basic raw materials used in boiler of Power Plant for de-sulfurization process and soda ash manufacturing process.

Company is continuously expanding its wings for increase in production capacities and diversification and set up a cement plant in Rajasthan.

It has overall about 18000 employee-base and annual turnover of around Rs. 7000 crores.

Production facilities of the Nirma group at its various units are given in **Table 1.2.**

**TABLE 1.2: PRODUCTION FACILITIES OF NIRMA GROUP IN GUJARAT**

Sl. No.	Location	District	State	Products Manufactured
1.	Kalatalav	Bhavnagar	Gujarat	Soda Ash, Detergent Powder & Cake, Toilet Soap, Edible Salt & Caustic Soda etc.
2.	Alindra	Baroda	Gujarat	Linear Alkyl Benzene, Detergent Powder & Cake etc.
3.	Mandali	Mehsana	Gujarat	Oleum, Sulphuric Acid, Fatty Acids, Alpha Olefin Sulphonate, Glycerin, Toilet Soap, Detergent Powder & Cake etc.
4.	Moraiya	Ahmedabad	Gujarat	Detergent Powder & Cake, Single Super Phosphate, Packaging materials etc.
5.	Porbandar	Porbandar	Gujarat	Soda Ash
6.	Sachana	Ahmedabad	Gujarat	Intravenous Fluids, Large Volume Parenterals (LVP), Small Volume Parenterals (SVP), Medical Devices etc.

The company (Nirma Ltd.) now diversifying its activities into cement manufacturing in Gujarat and Rajasthan also.

## 1.4 BRIEF DESCRIPTION OF THE PROJECT

### 1.4.1 Nature of project

The proposed project is a limestone Mining Project located in villages Vangar and Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat.

#### 1.4.2 Size

The proposed capacity will be 1.6 million tonnes per annum (MTPA) ROM production by mechanized open cast method (Conventional & Non-conventional) in the total ML area of 612.1336 ha.

#### 1.4.3 Location

The mining lease area falls within the Survey of India Toposheet No. 41 O/12 (restricted). The area is bounded by the following geographical coordinates as per approved mining plan:

Point (Refer Fig 1.1)	Latitude, N	Longitude, E	Remark
A	21° 03' 40.04"	71°41'14.39"	Pillar 314
B	21°03'26.80"	71°41'32.67"	Pillar 330
C	21°01'44.54"	71°39'11.76"	Pillar 104
D	21°03'5.03"	71°38'35.63"	Pillar 200

The location of the project can be seen in **Fig 1.1**.

#### 1.4.4 Communication

##### **Road**

The mining lease area is located at a distance of 9 km, NE of Mahuva town (Tehsil Headquarter) and is easily approachable by road. National Highway NH-8E (Bhavnagar to Una) passes through the ML area. Mahuva is Taluka HQ in Bhavnagar district of Gujarat. Mahuva is about 85 km from District HQ Bhavnagar.

##### **Rail link**

The nearest railway station is Mahuva located at approximately 8 km by road in NE and lies on Mahuva-Rajula broad gauge section of Western Railway Zone.

##### **Air link**

The nearest airport for regular commercial flight is Bhavnagar, situated at about 100 km in NE of mining lease area.

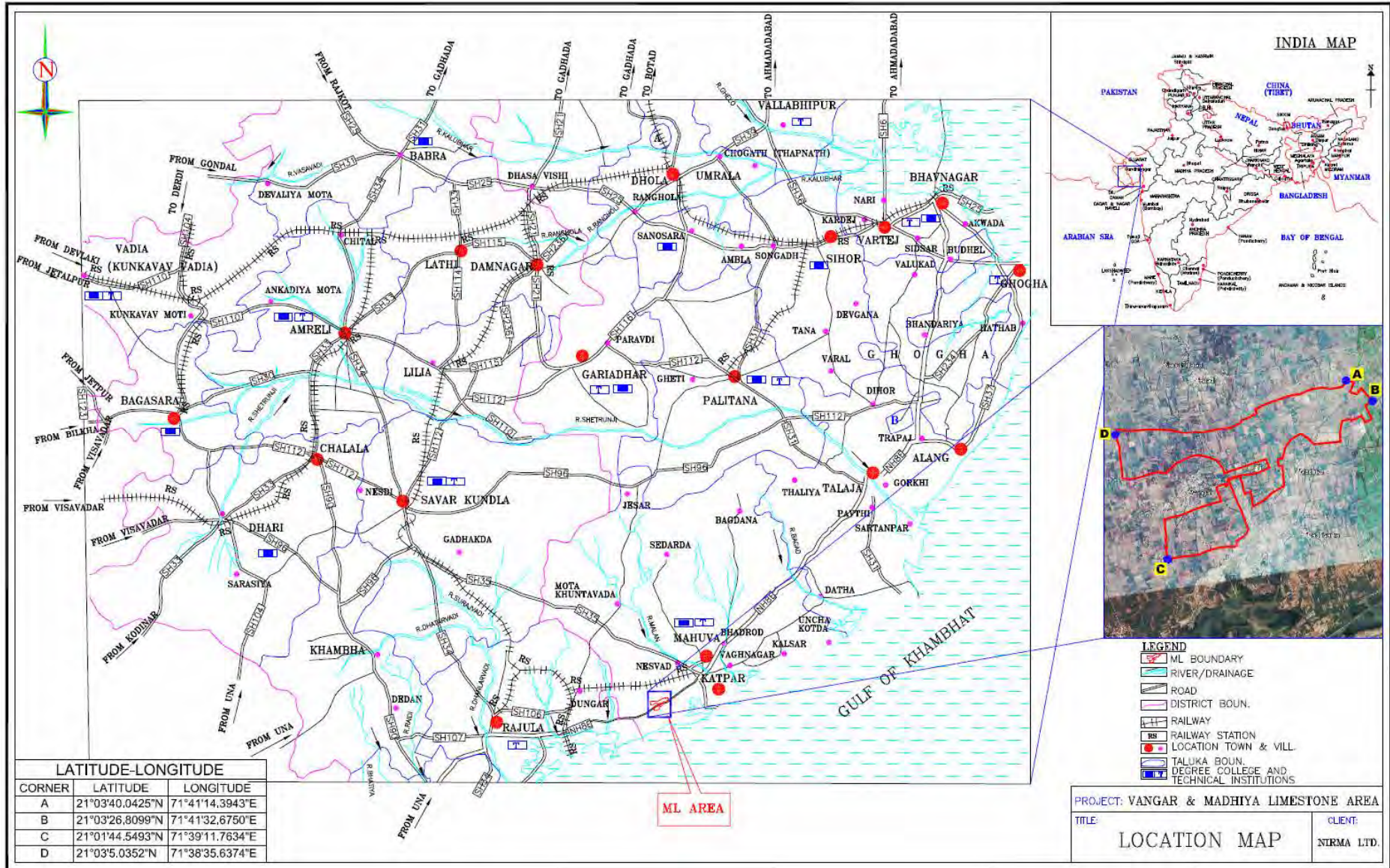
##### **Arabian sea coast**

The nearest Arabian sea coast is 3.8 km to HTL from mine lease.

##### **Port**

Pipavav is the nearest Port at about 25 kms in west of mining lease area.

FIG 1.1: LOCATION MAP OF THE PROJECT



## 1.5 IMPORTANCE IN THE REGION AND COUNTRY

The principal use of limestone is in the Cement Industry. Other important uses are in boiler of Power Plant for de-sulfurization process, as well as in soda ash manufacturing process as raw material and manufacture of quicklime (Calcium Oxide), slaked lime (Calcium hydroxide) and mortar. Pulverized limestone is used as a soil conditioner to neutralize acidic soils (agricultural lime). It is used in sculptures because of its suitability for carving. It is often found in medicines and cosmetics. In some circumstances, limestone is used for glass making. As a reagent in fuel-gas de-sulphurization, it reacts with sulphur dioxide for air pollution control. It can suppress methane explosions in underground coal mines. It is added to toothpaste, paper, plastic, paint, tiles and other materials as both white pigment and cheap filler. In blast furnaces, limestone binds with silica and other impurities to remove them from the iron.

India has huge resources of limestone distributed over different parts of the country. It is comfortably placed in terms of annual capacity and production of cement. Cement-grade limestone occurs in all the limestone-bearing areas, while SMS, BF and chemical-grade limestone occur in selective areas. Concerted efforts to locate SMS and BF grade limestone along with cement- grade limestone are imperative to meet the growing demand.

As per Indian Minerals Yearbook 2018 (Part- III: Mineral Reviews), published by IBM in August 2019, the demand of raw materials for cement, such as limestone and gypsum is expected to cause disruptive growth in the next few decades. The second largest Cement Industry in the world, the Indian Cement Industry, is expected to grow to an extent of 550 million tonnes per annum of capacity by FY2025 from 502 mtpa recorded in 2018. The demand for paper in India is expected to rise at a healthy rate by 2020, due to the Packing Industry and the increasing number of schools. The increasing number of construction projects is expected to lead to a thriving Building and Construction Industry in India. This is anticipated to contribute to around 10% to the GDP of India. Also with rising Indian pharmaceutical, food and beverage industries the consumption of calcium carbonate (limestone) in India is expected to increase.

The company is leading producer of Soda Ash in the country and are now diversifying into the Cement manufacturing sector. The Vangar and Madhiya Limestone mine will be captive mine to the proposed adjacent cement plant of the company, therefore maintaining self-reliance of the state as well as the country. The project will be contributing to the state exchequer, by paying the mineral royalty and strengthening the self-sufficiency in cement industry in the country and if and when required, will earn foreign exchange in the future through exports. Lessee also propose to utilize high quality of Limestone ( $\text{CaO} > 48\%$ ) to its existing Power Plant and Soda Ash plant in Gujarat State for captive purpose.

## 1.6 SCOPE OF THE STUDY

The Environmental Impact Assessment and Environment Management Plan for the mine addressing the environment related issues are prepared in accordance with the requirements of Terms of Reference prescribed by Ministry of Environment, Forest & Climate Change, Govt. of India.

The study evaluates the prevailing environmental conditions. The adverse impacts have been identified and possible mitigation measures have been drawn in order to protect the environment. In order to carry out the study, the baseline environmental scenario has been established and the project activities superimposed on them to assess the impact and subsequent mitigation.

The main objectives of the present EIA study are briefly summarized below:

- To establish the baseline environmental scenario.
- To identify, predict and assess the future impacts of proposed project on the environment.
- To prepare a detailed action plan for implementation of mitigation measures.
- To suggest preventive measures to minimize adverse impacts and to maximize beneficial impacts.
- To suggest a monitoring programme to evaluate the effectiveness of mitigation measures.
- To suggest the formation of a core group responsible for implementation of the EMP.
- To prepare a capital cost estimate for environment management plan.
- To address the concerns of disaster management, R&R plan, CSR and points raised in public hearing.

The scope of the present study is to conduct EIA covering all the disciplines of environment and field monitoring in relevant disciplines over one full season of 3 (three) months (excluding monsoon months). The draft EIA report is prepared as per the MoEF&CC Notification dated 14.09.2006 and its amendments till date. After completion of the Public Consultation, all the environmental concerns expressed during the Public Consultation process will be addressed and appropriate changes in the draft EIA Report will be made accordingly to formulate the Final EIA Report. Thereafter, the final EIA Report will be presented to the Expert Appraisal Committee (EAC) of MoEF&CC. Any queries raised by EAC, will be clarified and replies will be submitted to them.

**Study area:**

The mine lease (ML) area (612.1336 ha) is termed as "core zone". The area within 10 km radius around the periphery of the ML boundary has been considered as the "buffer zone" for identifying and assessing impact with respect to air, water, noise, land use, ecology, socio-economic environment, etc. The core zone and buffer zone together comprise the "study area".

**Data Generation:**

The data that have been generated during summer season from 1<sup>st</sup> March to 2<sup>nd</sup> June 2021 by NABL accredited and MoEF&CC recognized Min Mec R&D Laboratory, New Delhi, in accordance with the requirement of statutory agencies, is given in **Table 1.3**. since there are two other mines also proposed by Nirma Ltd. in the vicinity of Vangar & Madhiya Limestone Mine i.e. (1) Padhiarka & Doliya Limestone mine in South and (2) Gujarda, Dhudheri & Dudhala Limestone Mine in South East direction and EIA/ EMP is also being prepared for the other two mines together, air quality stations were established giving due consideration to all three mines in core zone and buffer zone. The monitoring and testing have been done as per the guidelines of MOEF&CC, CPCB and the Indian standards.

**TABLE 1.3: BASELINE DATA GENERATED AS PER TOR**

Description	No. of	Total No of
	Locations	samples
<b>Air</b> Ambient air monitoring (24 hourly samples), twice a week for 3 months for one season for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>2</sub> , Heavy Metals (Pb, Ni & As) and silica	16 (1 in core zone & 15 in buffer zone)	384
<b>Meteorological parameters</b> Measured at hourly duration simultaneously in the project area for 3 months. Parameters monitored: A. Wind speed, direction B. Relative humidity C. Temperature D. Rainfall	1	90 days
<b>Water (For all 3 mines)</b> Water/ effluent samples collected from various locations (surface and ground water) in core and buffer zone (10 km radius) and tested for physical, chemical and biological parameters according to applicable standards	Ground water-12 Surface water -3	15
<b>Soil (For all 3 mines)</b>	12	12
<b>Noise (For all 3 mines)</b> Hourly readings taken for 24 hours (Leq)	16	16
<b>Traffic Density</b>	1	1

Secondary and primary data collection was done comprising of, but not restricted to the following:

- Long Term Climatic data from Indian Meteorological Department (IMD) for available previous decade
- Geo-hydrological aspects based on available data from various sources as well as field survey
- Identification of water bodies, hills, roads etc. within 10 km radius
- Details of fauna, flora, information in forests, major habitats, sanctuaries, sensitive places within a distance of 10 km from the project site (including forest details).
- Major industries within 10 km radius.
- Historical monuments and sanctuaries within 10 km radius.
- Land use pattern within core zone and buffer zone (10 km radius around the core zone), Cropping pattern.
- Demography and Socio-economic based on last available Census data for entire study area, etc.

The preparation of the EIA/EMP report has been done as per the generic structure prescribed in EIA Notification dated 14th September 2006, as follows:

- ❖ **Chapter 1: Introduction** covering purpose of the report, Identification of project & project proponent, brief description of nature, size, location of the project and its importance to the country, region and Scope of the study – details of regulatory scoping carried out (As per Terms of Reference).
- ❖ **Chapter 2: Project Description** based on study of the Approved Review of Mining Plan with Progressive Mine Closure Plan of Vangar & Madhia Limestone & Marl Mine (period 2021-22 to 2025-26).

This includes condensed description of those aspects of the project (based on project feasibility study, Mining Plan & Mining Scheme), likely to cause environmental effects. Details such as type of project, project boundary & project site layout, size or magnitude of operation (including associated activities required by or for the project), proposed schedule for approval and implementation, technology and process description.

- ❖ **Chapter 3: Present Baseline Scenario.** The base line data generated and collected has been used to establish the present environmental scenario. This covers the Study area, period, components & methodology, establishment of baseline for valued environmental components, as identified in the scope and base maps of applicable environmental components.

- ❖ **Chapter 4: Environmental Impacts & Mitigation.** (Identification, prediction and evaluation of Anticipated Environmental Impacts due to the proposed mine).

The impact assessment and mitigation planning, where applicable, has been done for:

- Topography and drainage
- Air environment
- Traffic density
- Land environment
- Ecology
- Occupational health and safety
- Climate
- Noise environment
- Water environment
- Solid waste
- Socio-economic environment

Environmental Management plan suggesting the environmental safeguards, abatement technology and pollution control measures include the following:

- ❖ Air, water, noise pollution control measures
- ❖ Solid waste management
- ❖ Traffic management
- ❖ Land use changes and mitigation
- ❖ Pronounce the improvement in socio-economic conditions and benefits the people will get on implementation of the project.
- ❖ Ecological and mine reclamation Plan
- ❖ Environmental monitoring, implementation organization and feedback mechanism to effect mid course corrections.
- ❖ Cost for Environmental Protection measure
- ❖ **Chapter 5: Analysis of Alternatives (Technology & Site).** In case, the scoping exercise results in need for alternatives then description of each alternative, summary of adverse impacts of each alternative, mitigation measures proposed for each alternative and selection of alternative is done. In this case, being a site specific project, there are no alternatives to site.
- ❖ **Chapter 6: Environmental Monitoring Program.** Technical aspects of monitoring the effectiveness of mitigation measures including measurement methodologies, frequency, location, data analysis, reporting schedules, detailed budget & procurement schedules.
- ❖ **Chapter 7: Additional Studies.** This shall comprise of public consultation, risk assessment, social impact assessment and R&R action plans or any other studies specified by MoEF&CC.

- ❖ **Chapter 8: Project benefits.** This comprises of the improvements in the physical infrastructure, improvements in the social infrastructure, employment potential– skilled; semi-skilled and unskilled and other tangible benefits. Outline of corporate social responsibility.
- ❖ **Chapter 9: Environmental Cost Benefit Analysis.** If recommended at the Scoping stage. In this case, it has not been prescribed.
- ❖ **Chapter 10: Environmental Management Plan.** Description of the administrative aspects ensuring that mitigation measures are implemented and their effectiveness monitored, after approval of the EIA.
- ❖ **Chapter 11: Executive Summary of EIA/EMP.** This constitutes the summary of the EIA Report.
- ❖ **Chapter 12: Disclosure of Consultants engaged.** The names of the Consultants engaged with their brief resume and nature of Consultancy rendered.

## 1.7 STATUS OF LITIGATION

There are no litigations/ court cases pending against the project as on 25.09.2021.

## 1.8 COMPLIANCE TO TOR

**Table 1.4** gives the compliance of Terms of Reference (TOR) for Vangar and Madhiya limestone mining project (capacity 1.6 MTPA in lease area 612.1336 Ha) of M/s Nirma Ltd., issued by Ministry of Environment, Forest and Climate Change vide Letter no. J-11015/152/2016-IA.II(M) dated 3<sup>rd</sup> January, 2017. The Same has been extended vide letter no. F.No. J-11015/152/2016-IA-II (M) dated 16.03.2020 by MoEF&CC. Further, in view of the nation wide lockdown due to COVID19 pandemic and obstructions triggered by it, MoEF&CC has issued a notification vide S.O. 221(E) dated 18<sup>th</sup> January 2021 and accordingly the validity of ToR may be considered upto 12.11.2022.

**TABLE 1.4: COMPLIANCE OF GENERIC TOR FOR OPENCAST MINE PROJECT**

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
1.	Shallow pits up to depth of 4 mts will be refilled and reclaimed and given back to the farmers as agriculture land.	The shallow pit of depth of approximately 4.0 – 9.0 mts. in the south eastern corner of the ML will be backfilled. The area will be 36.36 Ha. as shown in conceptual plan (Fig 4.4, of Chapter 4). Backfilling is proposed from 7 <sup>th</sup> year i.e. from 2027-28. Backfilled area shall be utilized for

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
		agriculture in case of private land and for plantation purpose in case of government land. Refer section 4.10.1 (pg no. 4-33), of Chapter 4.
2.	Return all the proposed non-mining area to farmers/owners of the land.	Only that land shall be purchased from farmers that will be required for mining & allied activities (including greenbelt). Based on observations of EAC, MoEF&CC during meetings dated 23-24 May 2016 & 22-23 August 2016, the Company revised the initial mine lease proposal of 1225.8553 ha to a reduced area of 612.1336 ha, thus, minimizing the impact on private agricultural land. Furthermore, the shallow pit in south east portion of approximately 4 - 9 m depth shall be backfilled & 36.36 ha area shall be backfilled, the private land portion of the backfilled area shall be utilized for agriculture.
3.	The mining plan, <i>inter-alia</i> , includes the above mentioned details (1 & 2) with regard to pits and reclamation.	The approved review of mining plan includes the details of pits and reclamation area (refer page 82 of Approved Review MP). The review of mining plan has been approved by IBM and the copy of the approval letter is given in <b>Annexure XXII</b> .
4.	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1991. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t the highest production achieved prior to 1994.	Not applicable. This is a new mine. Hence no production has been done till date.
5.	A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.	Copy of Grant Order of Mining Lease dated 08.01.2017 in the name of Nirma Ltd. and the mining lease deed dated 11.01.2017 is given in <b>Annexure II</b> .
6.	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of	All the documents are compatible to each other. The project data given in the EIA Report has been taken from

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.	the approved review of Mining Plan. The Draft EIA report has been prepared accordingly and submitted for Public Hearing.
7.	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	<p>The boundary of the mine lease area superimposed on high resolution satellite image sourced from Google Earth is given in Section 1.4.3 (page no. 1-8), Chapter 1 earlier along with the coordinates.</p> <p>A map showing mine lease area and the 10 km radius around it superimposed on the SOI open series map is shown in Fig 3.2, of Chapter 3.</p> <p>The geological map and section of the mine lease area is given in Fig 2.2 and 2.3, Chapter 2.</p> <p>The interpreted satellite image showing the present land use of the project area and the area within 10 km of the project is given in Fig 3.13, of Chapter 3.</p>
8.	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.	<p>As toposheet of the area is restricted, it is not available. However, open series map is available and the project area superimposed on the same is shown in Fig 3.2, of Chapter 3.</p> <p>The geological map of the area is given in Fig 2.2, of Chapter 2.</p> <p>Geomorphology of the area has been discussed in terms of topography and drainage in Section 3.2 (page no. 3-2), Chapter 3.</p> <p>Existing minerals were assessed through exploration carried out by CGM, GoG as explained in section 2.2.1 (page no. 2-3) of Chapter 2.</p> <p>Mining history of the area- old pits have been found and mapped in present surface plan in Fig 2.1, of Chapter 2.</p>

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
		<p>Important water bodies, streams and rivers have been tabulated in Table 3.1 and can be seen in various maps such as Fig 3.2 (SOI map), and Fig 3.13 (interpreted satellite image), of Chapter 3.</p> <p>Soil characteristics are discussed in Section 3.7 (page no. 3-28), of Chapter 3.</p>
9.	<p>Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the state; land diversion for mining should have approval from State land use board or the concerned authority.</p>	<p>The proposed land use at the end of plan period and life of mine is given in Table 4.10 and 4.11, of Chapter 4.</p> <p>The mine lease has been executed with District Collector, Bhavnagar. The change in land use from its present land use has to be carried out prior to commencement of mining, as per applicable rules of Govt. of Gujarat. Since the execution of lease deed, the second rights in case of government land has already been granted to the Company for mining. In case of private agricultural land, as and when the land becomes available for use, by obtaining consent for mining/ownership, the change in land use to non-agriculture shall be obtained i.e. before entering to start mining activity in said Pvt. Agriculture land.</p>
10.	<p>It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances/ violations of environmental</p>	<p>Nirma Ltd. has a well laid down Environment policy as given in Section 10.2 (page no. 10-12), of Chapter 10.</p> <p>Hierarchical system or administrative order of the Company to deal with environmental issues and for ensuring compliance with the EC conditions is given in Section 10.3.2 (page no. 10-13), of Chapter 10.</p>

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.	
11.	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	<p>Mine safety parameters are addressed as follows:</p> <ul style="list-style-type: none"> <li>● <b>Subsidence</b> - not applicable as this is an open cast mine</li> <li>● <b>Slope</b> - The standard practice of maintaining the slopes below the angle of repose of the material to be handled will be followed for ensuring safe opencast mining. The bench and ultimate pit slope shall be maintained below 45 degree and gradient of ramp at 1 in 16 shall be maintained as per MMR, 1961 as detailed in Approved Reveiw of Mining Plan. After commencement of mine, geotechnical investigations on excavated and dumped material shall be carried out for identifying any mid course corrections, if needed.</li> </ul> <p><b>Blasting</b> - It may be noted that only 50% of the mining operations shall be blasting based and balance shall be through surface miners to avoid blasting in nearby area of village/habitat. Safeguard measures that will be taken for blasting have been given in Section 4.4.2 (page no. 4-13), of Chapter 4. Blasting shall be carried out in compliance to DGMS, Dhanbad (Circular No. 7 dated 29 -08-1997) as detailed in Section 4.8 (page no. 4-28), of Chapter 4. After commencement of operation, blasting studies shall be periodically carried out to check whether any modifications needed as per actual ground conditions.</p>
12.	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the	The study area map is given in Fig 3.2, of Chapter 3. The waste generation in the plan period is given

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	EIA such as waste generation etc. should be for the life of the mine/lease period.	in Table 4.11, and limestone produced is given in Table 2.8, of Chapter 2
13.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	Landuse of the study area as per Census 2011 is given in Table 3.12 and as per the interpreted satellite imagery is given in Fig 3.13, of Chapter 3. The land use plans for existing, after five years and end of life of mine Land use plan of Mine Lease area is given in Table 4.10, 4.11, and 4.12, respectively, in Chapter 4. Impact and Management of land is given in Section 4.10 (page no. 4-33), of Chapter 4.
14.	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, as land us, R&R issues, if any, should be given	There will be no overburden dumps outside mine lease area and no R & R issues are there within the proposed mine.
15.	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.	No Forest land is present within Lease area as per land schedule.
16.	Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	Forest land is not present within Lease area as per Land Schedule.

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
17.	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not Applicable since no forestland is present within mine lease area
18.	The vegetation in the RF/PF areas in the study area, with necessary details, should be given.	The natural vegetation in the study area predominantly consist of <i>Prosopis juliflora</i> . Reserve Forest present in the study area are RF near Patwa (2.1 km, S), RF near Dudheri village (3.9 km, SE), RF near Gujarada village (4.3 km, SE), RF near Doliya village (3.3 km, SSE), RF near Khared village (6.3 km, ESE). Vegetation in study area (including forests) is given in Section 3.10 (page no. 3-34) of Chapter 3.
19.	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.	Impact and management of project on wildlife is given in Section 4.12 (page no. 4-43) of Chapter 4. Peafowl, Chinkara and Asiatic Lion are reported as the only Schedule I species present in the study area. Conservation Plan for the same has been made and submitted for approval to PCCF. Copy of submission is given in <b>Annexure XXIII</b>
20.	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.	There are no National parks, Wildlife Sanctuary, Biospheres reserves or Wildlife corridor of any Schedule-1 species within 10 km radius. Nearest National Park & Wildlife Sanctuary is the Gir National Park, Gir Wildlife Sanctuary & Mithyala Wildlife Sanctuary located at a nearest distance of 76 km, 44.2 km and 43.5 km respectively. Map showing aforesaid distance duly authenticated by DCF, Bhavnagar vide letter dated 09.11.2020 is attached herewith as <b>Annexure - XIV</b>
21.	A details biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of	Ecology of the study area is given in Section 3.10 (page no. 3-34) of Chapter 3. List of Flora and Fauna found in core and buffer zone is given

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	in <b>Annexure XIII</b> and letter from DFO is given in <b>Annexure XIV</b> .  Peafowl, Chinkara and Asiatic Lion are the Schedule I species reported from the study area. Conservation Plan for the same has been made and submitted for approval to PCCF. Copy is of submission given in <b>Annexure XXIII</b> . Budgetary provision of Rs. 2.1 lakhs as capital & Rs. 7.7 Lakhs towards recurring has been allocated for the same.
22.	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. should be secured and furnished to the effect that the proposed mining activities could be considered.	The project does not lie in critically polluted area. The nearest critically polluted area is Gujarat Industrial Development Corporation, Chitra present at a distance of about 90 km, N.  The project does not fall in Aravalli range.
23.	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).	The proposed project lies at a distance of 3.8 km from High Tide Line of Arabian Sea Coast.  The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai and reproduced in <b>Annexure XIX</b> along with the report.
24.	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs/STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their	No R&R Plan has been separately prepared as no habitation is present in the Mine Lease area of 612.1336 ha. Hence, there will be no displacement of villagers. Few huts/ structures can be seen in Agriculture Land of the ML as per Google earth. Although the rehabilitation and resettlement issue are not involved in the project, if required, it will be sorted out by mutual

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	<p>requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of the line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&amp;R and socio-economic aspects should be discussed in the Report.</p>	<p>consense/ in consultation with the district authorities as per rules related to the Land Acquisition.  Out of total ML area, Govt. land is 25.654 ha and private land is 586.4789 ha.  The private land is under process of purchasing/obtaining consent for mining on mutually agreed rates and terms.</p>
25.	<p>One season (non-monsoon) [i.e. March-May (Summer Season); October-December (Post monsoon season); December – February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2006, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so complied presented date-wise in the EIA and EMP Report. Site-Specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the predominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.</p>	<p>Base line data for water quality, noise level, soil and flora and fauna has been collected in summer season (1<sup>st</sup> March- 2<sup>nd</sup> June 2021).   Site specific meteorological data is given in Section 3.3.3 (page no. 3-9) of Chapter 3.   Air monitoring station has been chosen as per in view the predominant downwind direction and location of sensitive receptors and is given in Table 3.5 and shown in Fig 3.9 of Chapter 3.</p>
26.	<p>All quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses</p>	<p>Air quality modelling is given in Section 4.4.1 (page no. 4-5) of Chapter 4 and details is given in <b>Annexure XX</b> and cumulative impact for 3 mines and cement Plant is given in <b>Annexure XXI</b>.</p>

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	showing pre-dominant wind direction may also be indicted on the map.	
27.	The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.	Water requirement and source is given in Section 2.12 (page no. 2-25) and water balance is shown in Fig 2.9 of Chapter 2.
28.	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.	Water permission is given in <b>Annexure XXIV</b>
29.	Description of water conservation measures proposed to be adopted in the project should be given. Details of rainwater harvesting proposed in the project, if any, should be provided.	Water conservation measures is given in Section 4.6.1 (page no. 4-23) of Chapter 4.
30.	Impact of the project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.	Impact and mitigation measures of the project on water quality is given in Section 4.6 (page no. 4-22) of Chapter 4.
31.	Based on actual monitoring data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	<p>There will be no intersection of ground water table during five years of commencement of work.</p> <p>Ground water will not encounter in first 5-years. However, during post monsoon period ground water will encounter at the end of mine life (13th year). However, these shallow depth pits shall be backfilled simultaneously after mining for limestone as per conceptual plan of approved review Mining Plan. Details are given in Table 4.7 of Chapter 4.</p> <p>M/s Ground Water &amp; Mineral Investigation Consultancy Centre (P) Ltd., Jaipur has assessed the hydrogeological conditions and impact of mining. Extract from the same has been included in Section 3.5 (page no. 3-19) of Chapter 3 and Section 4.5.1</p>

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
		(page no. 4-16) of Chapter 4 The permission for mine seepage shall be obtained prior to the deepening of the mine workings below the ground water table and no mining shall be carried out below ground water table without obtaining permission from CGWB. At present, CGWB issues permissions for a maximum of 5 years while the proposed project will not have any seepage in first 5 years. Hence, application shall be made 1 year prior to seepage year.
32.	Details of any stream. Seasonal or otherwise, passing through the lease area and modification/diversion proposed, if any, and the impact of the same on the hydrology should be brought out.	There are few second order streams, passing close to each other, through the lease area near Vangar and Madhiya villages. All streams ultimately lead to Samadiyala Bandhara, which overflows into the sea. The drainage pattern is dendritic in nature.  Impact and management of drainage system is given in Section 4.2.2 (page no. 4-2) of Chapter 4
33.	Information on site elevation, working depth, groundwater table etc. should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.	Site elevation and working depth is given in Table 4.7, chapter 4.
34.	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt	Details of plantation is given in Section 4.12.1 (page no. 4-45) of Chapter 4 Trees recommended for plantation is given in Table 4.19 of Chapter 4 The plant species have been selected from native species and shall aid in pollution abatement. The phase wise plantation is given in Table 4.20, Chapter 4.

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.	
35.	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. project proponent shall conduct impact of transportation study as per Indian Road Congress Guidelines.	Impact on transport is given in Section 4.9 (page no. 3-32), Chapter 4
36.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.	Details of Onsite services and facilities is given in Section 2.9 (page no. 2-24) of Chapter 2
37.	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA Report.	Conceptual post mining land use is given in Table 4.13 and conceptual Mine Plan and section are shown in Fig 4.4 and 4.5 of Chapter 4.
38.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in details. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be details.	As this is a proposed project, anticipated occupational Health and safety impact and preventive measures are given in Section 4.14 (page no. 4-54) of Chapter 4
39.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Implications and mitigation measures on health of surrounding public is given in section 4.14.3 (page no. 4-57) of Chapter 4.

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
40.	Measures of socio economic significance and influence to the local community proposed to be provided by the project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	Measures of socio-economic significance is given in Section 4.13 (page no. 4-52) of Chapter 4 and under CSR planning in section 8.4 (page no. 8-10) of Chapter 8.
41.	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides others impacts specific to the proposed project.	EMP is given in Chapter 10
42.	Public Hearing points raised and commitment of the project proponent on the same along with time bound action plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.	Public hearing is yet to be held
43.	Details of litigation pending against the project, if any, with direction/order passed by any court of Law against the project should be given.	There is no litigation pending against the project as on 17.09.2021.
44.	The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.	Cost of the project is 24 crores. Capital and recurring cost towards implementation of EMP is given in Table 6.2 and 6.3, respectively, of Chapter 6
45.	A disaster management Plan shall be prepared and included in the EIA/EMP Report	Disaster management Plan is given in Chapter 7
46.	Benefits of the Project if the project is implemented should be spelt out. The benefits of the project shall clearly indicate environmental, social economic, employment potential, etc.	Project Benefits is given in chapter 9
47.	The KML file for the revised reduced area to be submitted to the Ministry within 7 days of issue of this letter.	Submitted
	Besides the above, the below mentioned general points are also to be followed:-	

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
48.	All documents to be properly referenced with index and continuous page numbering	All documents are properly referenced with index and continuous numbering
49.	Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.	The data is presented with the period of collection/ source.
50.	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.	All the analysis reports are enclosed and has been done by NABL Accredited Min Mec R & D laboratory. The certificate is given in <b>Annexure III</b> . All the test reports have been given in the Annexures.
51.	Where the documents provided are in a language other than English, an English translation should be provided.	All documents are provided in English.
52.	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	It shall be filled after Public Hearing.
53.	While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.N. No. J-11013/41/2006-IA.II(I) dated 4 <sup>th</sup> August, 2009, which are available on the website of this Ministry, should be followed.	O.M. No. J-11013/41/2006-IA.II(I) dated 4 <sup>th</sup> August, 2009, has been followed while preparing EIA Report.
54.	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post public hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.	No change is there after the grant of TOR
55.	As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in	As the project is proposed, Environment Clearance is yet to be obtain.

Ref. Sl. No. of TOR	Description as per MoEF&CC	Compliance
	the environment clearance for the existing operations of the project should be obtained from the Regional office of ministry of environment, forest and climate change, as may be applicable.	
56.	The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.	<p>The EIA report includes</p> <ul style="list-style-type: none"> <li>(i) Surface plan of the ML area is given in Fig 2.1 of chapter 2.</li> <li>(ii) Topography map indicating contours of main topographic features, drainage and mining area- Fig 3.2, Chapter 3</li> <li>(iii) Geological map and section Fig 2.2 and 2.3 of Chapter 2.</li> <li>(iv) Section of the mine pit-five year development Plan in Fig 2.4 to 2.8 of Chapter 2.</li> </ul>

## CHAPTER 2

### PROJECT DESCRIPTION

The data used in this EIA/EMP Report has been taken from approved Review of Mining Plan with Progressive Mine Closure Plan of Vangar & Madhia Limestone mine. The approval letter of Review of Mining Plan with Progressive Mine Closure Plan issued by IBM is attached as **Annexure XXII**.

#### 2.1 GEOLOGY

##### 2.1.1 Regional geology

The Saurashtra coastal tract is composed extensively of tertiary sediments, which are mostly calcareous in nature. The mainland however, is covered by extensive flows of basalt and its derivatives, developed over a period of time. These basalts have been intersected by a number of acidic and basic dykes. The regional geological setup of the region is defined by the stratigraphic sequence given in **Table 2.1**.

**TABLE 2.1: REGIONAL GEOLOGICAL SEQUENCE OF THE AREA**

Formation	Age
Alluvium and Blown Sand	Recent
Loose Grits and Conglomerates	Sub-Recent
Miliolitic Limestone	Late Tertiary
Gaj sediments comprising of limestone and clays	Miocene
Lateritized/ Bauxitized Volcanics	Post Eocene
Basalt and its variants forming regional bed rock	Eocene to Cretaceous

*Source: Table A1.1 of Review of Mining Plan with Progressive Mine Closure Plan*

##### 2.1.2 Local geology

The area under reference forms part of the Late Tertiary Miliolitic Limestone, which is believed to have been deposited under a marine transgressive environment. Apart from the miliolitic limestone, lithological units of recent age are also seen in the area under reference.

The Vangar & Madhya limestone deposit forms part of a vast flat plain, which has very gentle undulations and is seen to be overlain by the alluvium and windblown sand of recent origin. The deposit is underlain by the Gaj Limestone and clays that have been encountered in the boreholes drilled in the adjoining areas which have similar geological setup. The following rock types are encountered over the lease area:

- Wind Blown Sand/Overlain soil
- Miliolitic Limestone

**NIRMA LIMITED**

REGD. OFFICE : NIRMA HOUSE, ASHRAM ROAD, AHMEDABAD - 380 009. PHONE : 079 - 27546565, 27549000 FAX : 079 - 27546603, 27546605  
CIN : U24240GJ1980PLC003670 • Email : Info@nirma.co.in • www.nirma.co.in

Ref no.: **NL/BH/ENV-152/1932/2022**

Dated :16.11.2022

To,  
The Director, IA (Non-Coal Mining)  
Ministry of Environment, Forest & Climate Change  
Indira Paryavaran Bhawan, 3<sup>rd</sup> Floor, Vayu Wing,  
Aliganj, Jor Bagh Road,  
New Delhi-110003

**Sub: Application for TOR of Vangar and Madhiya Limestone Mine (612.1336 ha) by M/s Nirma Limited located at villages Vangar and Madhiya, District Bhavnagar, Gujarat.**

**Ref.:** TOR issued by MoEF&CC vide Letter no. J-11015/152/2016-IA. II (M) dated 3<sup>rd</sup> January, 2017 and extended vide letter dated 16<sup>th</sup> March 2020.

Dear Sir,

With reference of the above mentioned subject, we would like to submit that we had received TOR issued by MoEF&CC vide Letter no. J-11015/152/2016-IA. II (M) dated 3<sup>rd</sup> January, 2017 and extended vide letter dated 16<sup>th</sup> March 2020.

However, the public hearing could not have held due to unforeseen reasons on the basis of the ToR issued on 03.01.2017 & extended on 16.03.2020. We had submitted the EIA report for public hearing to the Gujarat Pollution Control Board and public hearing was to be scheduled on 16.12.2021. However, Public hearing has been postponed by Gujarat Pollution Control Board due to "unavoidable circumstances" vide Boards letter no. *GPCB/PH/2020-21/Bhavnagar-42/608748* dated 13.12.2021. Since the conduct of public hearing has got delayed, we anticipate that we shall not get adequate time, within the validity period of the TOR, to include the public hearing issues and submit the final report to MOEF&CC.

Hence, we are now submitting a fresh application for the grant of ToR on parivesh portal comprising of:

1. Form- 1 (Part - A & Part - B) duly filled & signed in alongwith annexure
2. Proposed Term of Reference for conducting EIA study
3. Pre-feasibility Report





## NIRMA LIMITED

REGD. OFFICE : NIRMA HOUSE, ASHRAM ROAD, AHMEDABAD - 380 009. PHONE : 079 - 27546565, 27549000 FAX : 079 - 27546603, 27546605  
CIN : U24240GJ1980PLC003670 • Email : info@nirma.co.in • www.nirma.co.in

Our baseline data was generated in during Summer season of 2021 and is still within the validity period of 3 years. Hence we proposed to use the same data for the EIA report.

We request your good self to kindly process our application for grant of TOR so that we can proceed for the public hearing.

**Thanking You,**

**Yours Faithfully**  
**For Nirma Limited**

**Ashish Desai**  
**Authorized Signatory**  
**Enclosed: As above**

**NIRMA**

***Better Products. Better Value. Better Living.***

F. No: J-11015/152/2016-IA.II(M)  
Government of India  
Ministry of Environment, Forest and Climate Change  
Impact Assessment Division

3<sup>rd</sup> Floor, Vayu Wing,  
Indira Paryavaran Bhavan,  
Jor Bagh Road, Aigari,  
New Delhi - 110 003.

Dated: 23<sup>rd</sup> December, 2022

To,

M/s Nirma Limited,  
Nirma House, Ashram Road,  
Ahmedabad - 380 009, Gujarat

**Subject: - Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat - Terms of Reference (ToR) regarding.**

Sir,

This has reference to the online proposal no. IA/GJ/MIN/408558/2022 for grant of Terms of Reference (ToR) for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat.

2. The details of the project as ascertained from the document submitted by the Project Proponent and as revealed from the discussions held during the meeting, are given as under:

- i. The mine lease area is located between Latitude 21°02'2.35"N to 21°03'40.13"N and Longitude 71°38'18.3"E to 71°41'05"E. The mine lease area falls under the Survey of India Toposheet No. 41 O/12 (restricted) and falls in Seismic Zone III.
- ii. 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.
- iii. The Project Proponent submitted that earlier Terms of Reference (ToR) was granted by the Ministry vide letter dated 03.01.2017 and extension of validity of ToR vide letter dated 15.03.2020. The draft EIA report was submitted to the Gujarat Pollution Control Board and public hearing was scheduled on 18.12.2021. However, Public hearing has been postponed by Gujarat Pollution Control Board due to "unavoidable circumstances" vide Board letter no. GPCB/PH/2020/21/Bhavnagar-42/608748 dated 13.12.2021. Since the conduct of public hearing has got delayed, Project Proponent will not be able to submit the Final EIA report within the stipulated time of validity of

ToR. Hence, the Project Proponent submitted the fresh proposal for grant of Terms of Reference.

- iv. The Project Proponent submitted that the mining lease was granted by Industries and Mines Department, Govt. of Gujarat vide Order no. MCR-102004-1827-CHH dated 08.01.2017 for Limestone and Marl to M/s Nirma Limited over an area of 812.13.36 ha for a period of 60 years for its captive consumption.

v. Land Use/Land Cover of the Mine lease area

Private land	586.4789 ha
Government land	25.6547 ha
Total Mining lease area (MLA)	812.1336 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No facilities proposed outside the mine lease area. However crusher will be installed at company's Cement Plant.

vi. Details of Mining Plan:

Review and updation of Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines (IBM)	Letter No.	File No.: 684(4)(1)/MMP-347(196)/2021-22 ONR/1125
	Date	06.09.2021
	Mineral	Limestone
	Mine lease area	612.1336 ha
	Validity	2021-22 to 2025-26 (31.03.2026)
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized	
Geological resource	35.539 Million Tonnes	
Mineable reserve	14.913 Million Tonnes	
Life of mine	13 years. Life of mine may be increased subject to conversions of resources under 333 category to category of reserves 111.	
Bench Height	6.0 m	
Bench Width	12-15m	
Individual bench slope	80-85°	
Overall pit slope	~ 45°	
Drilling/Blasting	Multi-row drilling and V-pattern drill holes for deep hole drilling and blasting. Parameters will be 6.5 m depth x 4.0 m spacing x 3.0 m burden. Slurry explosive -cap sensitive and non-cap sensitive.	
Transportation details	Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease/through dumpers/ trucks to the Soda Ash Plant located at Kalatalav, Bhavnagar.	
Dumpers capacity	25 tonnes	
Overburden	Nil	
Additional information (if any)	Mining will be carried out by using Continuous surface miner with combination of excavator / loader and dumpers. Conventional method i.e. Drilling & blasting shall be proposed for handling of limestone as well for 50% total handling at limestone mine.	

## vii. Water requirement:

Total water requirement	42.0 KLD	Fresh water	3.0 KLD
		Treated water	39.0 KLD
Source	i. Fresh water source Narmada water pipeline/Water tanker ii. Water harvested within mine lease during rainy season iii. Treated water source- Reject water of RO /DM plant & Reject water of RO /DM plant (proposed at Cement plant)		
Permission	Permission for water withdrawal from Narmada water pipeline has been obtained vide letter No. GWIL/Bhavnagar/Ind.conn./125? dated 04.06.2008.		

## viii. Nearest village / town/ highway/railway station / water bodies/monument:

Particulars	Particular's Name	Distance & Direction
Village	Vangar	0.25 km. NW
	Madhiya	0.25 km. SE
Town	Mahuva	6.2km. ENE
Highway	NH-51 (Una-Mahuva highway)	Within
Railway Station	Amitvel	2.0 km. N
Water bodies	Arabian Sea Coast	3.4 km. S to the HTL
	Sandiyata Bandhara	2.3 km. SSW
	Bhambhali River	0.8 Km. W
Monuments	Bhavan Temple, Mahuva	11.8 km. SE

## ix. Presence of Environmentally Sensitive areas in the study area:

Forest Area/Environmental Zone	Land/Protected Sensitivity	Yes/No	Details of Certificate/letter/Remarks
Forest Land		No	Nil
National park		No	
Wildlife Sanctuary		No	
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area(ESA)		No	
Schedule-I species		Yes	Peafowl, Chinkara and Asiatic lion are the Schedule - I species observed in the study area
Status of Wildlife Conservation Plan		Yes	Wildlife Conservation Plan has been prepared

## x. Green belt/plantation details:

Proposed area for green belt/plantation	28.50 Ha
Budget for green plant & plantation till the end of life of mine.	80.35 Lakhs
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	18.50
60 m safety zone of railah, roads, electric lines	10.00
500 m safety zones of nearest habitation villages	-

- xi. The Project Proponent submitted that baseline study conducted during 1<sup>st</sup> March 2021 to 2<sup>nd</sup> June 2021 (Summer season).
- xii. Rehabilitation & Resettlement.
- |               |  |
|---------------|--|
| R & R details | The Project Proponent submitted that there is no displacement proposed from the mining lease area as habitation of villages falls outside the mining lease area. |
|---------------|--|
- xiii. The Project Proponent submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up.
- xiv. The Project Proponent submitted that the total project cost is Rs 25.0 Cr and about 58 persons will get employment.

### 3. Observation and Recommendation of the Committee:

The EAC noted that the Project Proponent earlier obtained Terms of Reference vide letter dated 03.01.2017 and extension of validity of ToR vide letter dated 17.03.2020 for the period upto 12.11.2021 and the Project Proponent submitted the draft EIA report to the Gujarat Pollution Control Board and public hearing was scheduled on 16.12.2021. The Project Proponent informed the EAC that the Public hearing has been postponed by Gujarat Pollution Control Board due to "unavoidable circumstances" vide Board letter dated 13.12.2021 and since the conduct of public hearing has got delayed, Project Proponent will not be able to submit the Final EIA report within the stipulated time of validity of ToR and hence the fresh proposal for grant of Terms of Reference was submitted.

The Project Proponent presented the KML file to indicate the site features in the study area. The Project Proponent has shown the three mine leases located adjacent to each other. PP also informed that the Arabian Sea is located at a distance of 3.4 km, S to the HIL from the mine lease area. No National Park, Wildlife Sanctuary within 10 km radius of the study area. Further, PP has shown the working pits in the KML file. Then, the Project Proponent began the technical presentation.

The Project Proponent informed the EAC that the mining lease has been granted on 08.01.2017 for a period of 50 years. Baseline data was already collected during Summer Season, 2021. Mining Plan approved on 05.08.2021. Life of the mine is 13 years. Water requirement is 42.0 KLD. No groundwater intersection due to mining activity. The Limestone will be transported through internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease through dumpers / trucks to the Soda Ash Plant located at Kalatalav, Bhavnagar. Crusher is proposed in proposed cement plant in the vicinity of ML area. Peafowl, Chinkara and Asiatic lion are the Schedule - I species observed in the study area. Mine working will be on two shift basis. The EAC asked the Project Proponent to submit the proposal for backfilling at the time of appraisal of EC.

After detailed deliberations made by the Project Proponent and the Consultant in the 7<sup>th</sup> EAC (Non-Coal Mining) meeting held during 5<sup>th</sup> - 6<sup>th</sup> December, 2022, the EAC recommended the proposal for grant of Terms of Reference (ToR) under the provisions of

EIA Notification, 2006 and its subsequent amendments for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha located at Villages Vangar & Madhiya, Tehsil: Mahuva District: Bhavnagar, Gujarat for undertaking detailed EIA/EMP study subject to the specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects.

4. The matter was examined in the EAC 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 meeting held during 5<sup>th</sup> - 6<sup>th</sup> December, 2022 hereby accords Specific and Standard Terms of Reference (ToR) for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects.

#### A. SPECIFIC TERMS OF REFERENCE

- i. In view of the agricultural land proposed under the mining lease area, the Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries.
- ii. The Project Proponent shall ensure that the shallow pits up to depth of 4 m shall be refilled and reclaimed and given back to the farmers as agriculture land. Return all the proposed non-mining area to farmers/owners of the land. The mining plan, *inter-alia*, should include the above mentioned details with regard to pits and reclamation.
- iii. The Project Proponent needs to submit the detailed note on mining methodology with specific reference to Continuous Surface Miner.
- iv. The Project Proponent needs to submit the action plan for backfilling.
- v. The Project Proponent needs to submit the detailed measures to be taken for protection of turtle breeding sites and also needs to specifically address the movement of Lions and conservation in the Wildlife Conservation plan in consultation with the Forest Department.
- vi. The Project Proponent should prepare the EMP considering the scenarios of pollution to be generated for normative and peak total excavation for assessing air and noise pollution. PP also needs to submit the breakup of total excavation in tonnes.
- vii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, predominant downwind direction and at other

- sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- vi. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario of the mines in the study area and should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.
- ix. The Project Proponent needs to revisit the location of the waste dump proposed in the mineralized zone and accordingly shall submit the map showing the revised location.
- x. The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. PP need to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. PP also needs to submit the possession certificate and timeline for acquiring the land at the time of appraisal of EC.
- xi. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.
- xii. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xiii. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xiv. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.

- xv. The Project PropONENT needs to submit the documents related to part-surrender of the mine lease area at the time of appraisal of EC.
- xvi. The Project PropONENT shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

## B. STANDARD TOR FOR MINING PROJECT

### I. Project Details

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.
- 2) A copy of the document in support of rightful lessee of the mine should be submitted. In case of new mines copy of Lol granted by State Government to be submitted. PP should ensure that Lol is valid at the time of grant of ToR. PP should submit the copy of lease deed/supplementary lease deed/extension letter/transfer deed, from its initial grant to subsequent renewals/ transfer/extension of validity.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) PP should submit the District Survey Report (DSR) as per S.O. 361(E) dated 25.07.2018 in case of minor minerals.
- 5) Brief of proposal to be submitted which include total excavation of the material required for the production of certain quantity of the minerals, location of the project, mining lease area, latitude longitude, seismic zone etc. In case of expansion project details of expansion viz. expansion in mining lease area or expansion in production of any particular mineral or expansion in total excavation, latest certified Compliance report (CCR) from IRQ of conditions granted in existing EC needs to be submitted.
- 6) The PP should submit the real-time aerial video footage & video of the mining lease area and of the transportation route.
- 7) All corner coordinates of the mine lease area superimposed on a High-Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 8) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 9) The PP should collect the Baseline data (BLD) in respect of initial level of the mining lease. For this permanent bench marks (BM) needs to be established at prominent

- location preferably close to mining leases in question and should have precisely known relationship to the level datum of the area, typically mean sea level.
- 10) In case of sand mining, the entire mining lease area should be divided suitably into grids of 25 m x 25 m with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid needs to be recorded. Each Grid should be suitably numbered for identification. PP should identify grids which will be worked out and grids which will come under no mining zone i.e. safety barriers from the river bank. PP should comply with the sustainable sand mining management guidelines 2016 and enforcement and monitoring guidelines, 2020 etc.
  - 11) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
  - 12) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
  - 13) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
  - 14) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
  - 15) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
  - 16) Compliance of the Ministry's Office Memorandum No. F. 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.

## II. Forest

- 17) PP shall submit a certificate from Chief Conservator of Forests regarding involvement of Forest Land in the mining lease area if any. In case forest land is involved i) PP should submit the proof of application made for obtaining forest clearance and ii) a map clearly showing the forest & non-forest area.
- 18) Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 19) Implementation status of recognition of forest rights under the Scheduled Tribes and

other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

- 20) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

### III. Court Matters

- 21) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

### IV. Land Environment

- 22) PP should submit the details of survey number [viz. survey no. area in hectare, classification of land (government, private, forest, grazing land etc.), villages] duly authenticated by State Government, falling in the mining lease area.
- 23) The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 24) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 25) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

### V. Wildlife

- 26) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 27) A detailed biological study of the study area [core zone and buffer zone] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. PP shall submit list of Schedule-1 species present in core and buffer zone duly authenticated by CWLW. In case of any Schedule-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest/Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost. Proof of its submission of conservation plan to the CWLW needs to be submitted.
- 28) PP shall submit a certificate from Chief Wildlife Warden regarding distance of mining

lease from the protected area falling within 10 KM of the mining lease. In case project requires clearance under Wildlife (Protection) Act, 1972 then copy of application made for the same needs to be submitted.

#### VI. Baseline Environment:

- 29) One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season); December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 30) Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The windrose showing pre-dominant wind direction may also be indicated on the map.
- 31) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this, PP should submit the original test reports and certificates of the labs from which samples were analyzed.

#### VII. Water Environment

- 32) The water requirement for the Project, its availability and source should be furnished. Quantity of surface or ground water to be used for the Project should be indicated. A detailed water balance should also be provided. Submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided. The capital and recurring expenditure to be incurred needs to be submitted.
- 33) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

#### VIII. Hydro Geology

- 34) Details of any stream, seasonal or otherwise, passing through the lease area and

modification / diversion proposed if any, and the impact of the same on the hydrology should be.

- 35) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
- 36) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working bench will intersect groundwater table, a detailed Hydro-Geological Study should be undertaken and Report furnished. The Report Inter-alia shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished. In case of surface water is proposed to be utilized then Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

### IX. Transportation

- 37) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

### X. Land Acquisition and R&R

- 38) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 39) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need-based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

### XI. Socio-Economic Environment

- 40) Public health implications of the Project and related activities for the population in

the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

- 41) Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 42) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 43) Activity-wise time-bound action plan on the issues raised and commitment made during public hearing to be submitted as part of the final EMP Report in compliance of the Ministry's OM F.No.22-65/2017-IA III dated 30<sup>th</sup> September, 2020.

## **XII. Environmental Monitoring and Management**

- 44) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, It may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.
- 45) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

## **XIII. Critically Polluted Areas, Aravali & CRZ**

- 46) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range' (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
- 47) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

## **XIV. Risk Assessment & Disaster Management**

- 48) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be

detailed. The proposed safeguard measures in each case should also be provided.

- 49) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 50) A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.

#### XV. Miscellaneous

- 51) The general points are also to be followed -
  - a) All documents to be properly referenced with index and continuous page numbering.
  - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
  - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
  - d) Where the documents provided are in a language other than English, an English translation should be provided.
  - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
  - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry, should be followed.
  - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
  - h) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
  - i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area. (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

5) The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report, as per the notification S.O 751 (E) dated 17.02.2020. The instant TOR is valid up to four years from the date of issuance of TOR.

6 The Project Proponent should submit the EIA/EMP report as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006 after incorporating the details of public hearing conducted and covering the above mentioned issues, to take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

7 This issues with the approval of the Competent Authority.

Yours faithfully,

*Pankaj Verma*  
(Pankaj Verma)  
Scientist 'E'

**Copy to:**

- i. **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi - 110 001
- ii. **The Secretary**, Department of Environment, Government of Gujarat, Gujarat.
- iii. **The Secretary**, Department of Mines and Geology, Government of Gujarat, Gujarat.
- iv. **The Secretary**, Department of Forests, Government of Gujarat, Gujarat.
- v. **The Deputy Director General of Forests (C)**, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Gandhi Nagar, A-Wing - 407 & 409, Aranya Bhawan, Near CH 3 Circle, Sector-10A, Gandhi Nagar - 382010.
- vi. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- vii. **The Chairman**, Gujarat Pollution Control Board, Parivaran Bhavan, Sector-10A, Gandhinagar-382 010, Gujarat.
- viii. **The Controller General**, Indian Bureau of Mines, Indra Bhavan, Civil Lines, Nagpur-440001
- ix. **The Member Secretary**, Central Ground Water Board, Ministry of Agriculture and Irrigation, 12/1 Jam Nagar House, Shahjahan road, New Delhi-110 011.
- x. **The District Collector**, Bhavnagar District, Govt. of Gujarat.
- xi. **Guard File.**
- xii. **PARIVESH Portal**

*Pankaj Verma*  
(Pankaj Verma)  
Scientist 'E'

*Minerva Shrestha*  
**//TRUE COPY//**

# 3 GUJARAT

ANNEXURE A-13

19-year-old woman's death in Narmada canal: Police track down 'missing' acquaintance

EXPRESS NEWS SERVICE  
VADODARA, MARCH 25

A DAY after the decomposed body of a 19-year-old woman was recovered from the Narmada canal, the Jarod police in Vadodara tracked down a family acquaintance, Abhay Palas, who had "gone missing". The deceased Prerna Sharma's family had accused Palas of "killing" her. However, Palas, 45, has told the police that Sharma allegedly "slipped and fell into the canal" while trying to retrieve her mobile phone from the water Monday evening when the two had visited the canal. He said he tried to save her but as she was swept away by the currents, he fled "fearing accusation", said a senior Jarod police official.

He was picked up by the Jarod police from the Vadodara railway station where he had arrived after being on the run for two days at Indore in Madhya Pradesh. He told the police that he was on the run as he was "scared" of being framed. The Jarod police handed over Palas to their counterparts in Bapod where Sharma's family had registered a 'missing person' complaint Monday. The Bapod police began questioning Palas Saturday.

Sharma had gone missing while returning from her workplace in Sayajipura.

However, officials said the postmortem note has not indicated any foul play. Assistant Commissioner of Police, H Division, MP Bhojani, told The Sunday Express that the police are investigating the unnatural death of Sharma. "We have detained Palas as her family has cast a doubt on him but the post-mortem has only mentioned the cause of death as drowning... At this moment, there is no evidence to suggest a crime... If during the course of the probe of the accidental death, we come across incriminating evidence, we will register the FIR," said Bhojani.

On Thursday evening, after Sharma's decomposed body was found in the Chhani canal, her family had contended that the Bapod police had not "paid heed" to the missing person complaint filed Monday in which the family has expressed suspicion over Palas' involvement in her death. On Friday, Palas' wife had also approached the Jarod police saying her husband had been "missing" since Monday.

## Ganja, phones seized from state's prisons in surprise inspection

EXPRESS NEWS SERVICE  
AHMEDABAD, MARCH 25

CANNABIS (GANJA), mobile phones, lethal items were seized during surprise checks conducted on Friday in district jails, sub-jails and special jails of Gujarat for which 1,700 police personnel were deployed across the state.

According to police, cannabis weighing 100 grams were recovered from the cell of a convicted criminal in Sabarmati Central Jail in Ahmedabad.

Director General of Police Vikas Sahay told The Sunday Express Saturday that this was the first time body worn cameras were used for the searches "in a massive and effective way".

As part of the "mega search operation" 16 mobile phones, 10 electric (sic) and 39 lethal items, 519 smoking items and three narcotic substances were found, state-wide and "FIRs have been lodged in the respective jurisdictional police stations", said Sahay.

According to a press note issued by the home department Saturday, "under the instructions and guidance given by Chief Minister Bhupendra Patel to carry out surprise checking in all jails of the state", Minister of State of Home Department Harsh Sanghavi held an "important, high-level meeting at the DGP office at Gandhinagar Police Bhavan Friday evening" with top police officials of district police divisions and district jails joining in through video conference.

Simultaneous surprise checks



Minister of State for Home Harsh Sanghavi during a surprise inspection of a jail on Saturday. ANI

were initiated in 17 jails across the state Friday night.

Sahay said, "We were very clear that there will be no excesses and the entire search will be conducted cordially with no hardship to the jail authorities or the prisoners. We wanted to maintain the human dignity of the prisoners and conduct the searches professionally, efficiently and with full transparency. The body worn cameras enabled live contact with the search party. The feeds, both audio and videos were of very good quality and we could see it all sitting in the Netram control room at Gandhinagar".

Sanghavi, Sahay and other senior officials were stationed at the control room monitoring and supervising the operation. The searches come close on the heels of a "surprise visit" of the Sabarmati Central Jail that Sanghavi conducted on March 21. Among the jails inspected were the four central jails—Sabarmati Central Jail in Ahmedabad, Vadodara Jail,

Rajkot jail, Lajpore jail in Surat—along with 11 district jails and two jails in Kutch—Palara jail in Bhuj where former IAS officer Pradeep Sharma is lodged, and Galpadar district jail.

While MoS Sanghavi refused to detail why the mega-drive was initiated, the press release notes that the search operation was conducted to "eradicate the illegal nest of prison contraband".

The press release claims this to be "perhaps for the first time in the entire country, a mega surprise check has taken place in prisons across the state".

According to Assistant Commissioner of Police (ACP-Ahmedabad city) Neeraj Kumar Badgujar, the seizure in Sabarmati Central Jail was made from the cell of Akram Sheikh, a convict serving a sentence for looting.

An FIR is being registered in connection with the seizure at Ranip police station under the Narcotic Drugs and Psychotropic Substances (NDPS) Act.

The ACP added that the search operation was conducted for 10 consecutive hours—from 9 pm on Friday until 7:30 am on Saturday—at Sabarmati Central Jail with cells and barracks double-checked by a team of 45 police officers and 100 police personnel.

Badgujar said the most common contraband seized at Sabarmati Central Jail included tobacco and paan masala, while others included electric hot plates and utensils for making food.

Sabarmati Central Jail houses many high-profile convicts and undertrials including Uttar

Pradesh gangster Atiq Ahmed, several convicted of serial blasts in Ahmedabad, TMC spokesperson Saket Gokhale and accused in the Mundra drug haul case. The ACP said "some tobacco" was seized from Atiq Ahmed's cell. No contraband was found in the women's barracks or from barracks where the 2008 serial blast convicts are housed, he added.

Sahay said that the prisoners were "searched at random". In Vadodara Central Jail, about 100 policemen joined three units of scrutiny officers, according to city police officials. The prison currently houses convicts of the 2002 Sabarmati Express fire in Godhra.

A senior police officer of Vadodara, who was among the 150 personnel that went into the Vadodara Central Jail late on Friday evening, said that the instruction was "executed within minutes" of being communicated.

The officer said that many of the tobacco products were hidden in unreachable corners and discovered with the help of search mirrors. The officer did not confirm if narcotics were also recovered during the raid at Vadodara jail. The raid went on until 7 am on Saturday.

In Surat, police seized tobacco, ganja and charas and 10 mobile phones. According to a police officer, some of the inmates set some items on fire as the police personnel arrived for inspection. The fire was brought under control and the police are trying to figure out the items burnt in the fire.

WITH INPUTS FROM SURAT  
VADODARA, AHMEDABAD

## 2 Covid deaths in state, cases jump by 66 pc in a day to 402

EXPRESS NEWS SERVICE  
AHMEDABAD, MARCH 25

GUJARAT REPORTED 402 new Covid-19 cases Saturday with the day's test positivity rate inching towards two per cent—an increase from the one per cent test positivity rate recorded 10 days ago on March 16. The state also reported two patients succumbing to the infection, one from Ahmedabad city and another from Kutch.

After reporting 241 new cases on March 24, cases rose by 66 per cent within a day to 402 cases. Active cases have now risen to 1,529 cases, seven of



A Covid ward at Civil Hospital, Solat. Nirmal Harindran

whom are on ventilators.

The state conducted nearly 21,000 tests Saturday but only 2,400-odd tests were conducted

in Ahmedabad, including the city and rural limits. Ahmedabad recorded 220 cases, of which all but one were reported from Ahmedabad city. The city also reported a patient succumbing to Covid-19. The day's test positivity rate for the district (city and rural combined) stood at nearly 10 per cent.

Surat city reported 25 new cases, while seven other cases were reported from the rural parts of the district. The Rajkot Municipal Corporation reported 28 new cases and 12 cases were reported from its rural parts. Among the smaller districts, Morbi reported 18 cases and Amreli reported 15 new cases.

## Get into Top Universities Crack CUET 2023



On all CUET books at [www.oswaalbooks.com](http://www.oswaalbooks.com)

Get Extra  
25% OFF

USE CODE  
"CUET25"  
Offer Valid  
Only for Today

OSWAAL 360 Prepare, Practice & Score your Win with [Oswaal360.com](http://Oswaal360.com). Your comprehensive Online Exam Preparation Partner.

OSWAAL BOOKS® LEARNING MADE SIMPLE

Exam Preparation Books for Class 1 to 12 : CBSE, CISCE Boards & Karnataka Board | OLYMPIADS | JEE | NEET | CUET | NDA | CDS | CAT | GATE | UPSC | UGC NET | NRA CET | RRB | NTSE & more

We are available in all leading e-commerce platforms and all good bookstores.



### ENVIRONMENT CERTIFICATE

I RAMESH LAKHMAN SOLANKI DECLARE THAT WE GOT ENVIRONMENT CLEARANCE ON DATE 07/05/18 AND NO. OF EC IS DEIAA/EC/QL MAY 18/46/3603 FOR OUR MINING LEASE OF BUILDING LIME STONE AT VILLAGE: AMODRA, TALUKO: UNA, DIST: GIR SOMNATH OF AREA 1-00-00 HAETORS ON SURVEY NO: 769/2P GUJARAT. IT IS UPLOADED ON WEB SITE OF DEIAA GUJARAT.

### RECRUITMENT

WAPCOS Limited, An ISO 9001:2015 Govt. of India Undertaking intends to engage Experts (JLE) on fixed term basis for work relating to EMRS Project, Odisha. For further details visit our website [www.wapcos.co.in](http://www.wapcos.co.in). In case of any further changes, the same shall be notified on the website only.

Sr.GM(CMU-II), Gurgaon

### CORRIGENDUM TO PUBLICATION OF APPENDIX IV-A DATED 06.03.2023 ISSUED UNDER RULE 8(6) READ WITH RULE 9(1) AND PROVISIO THERETO OF SECURITISATION AND RECONSTRUCTION OF FINANCIAL ASSETS AND ENFORCEMENT OF SECURITY INTEREST ACT, 2002 (THE ACT) IN RELATION TO THE PROPERTY BEING UNIT NOS. (1) 001, (2) 002, (3) 003, (4) 004, BLOCK "A", PART 1, RATNA BIZ PARK, NEAR SONI NI CHAL BRIDGE MAUJA- RAKHIAL, AHMEDABAD-380023, GUJARAT, UNDER LOAN ACCOUNT NO. N00301V-03 [old Loan Account No. H.LAPAHE00251001 with Indiabulls Housing Finance Ltd.].

This Corrigendum is issued in relation to the publication of Appendix IV-A dated 06.03.2023, IN THE INDIAN EXPRESS - AHMEDABAD - ENGLISH AND GUJARAT TODAY - AHMEDABAD - GUJARATI, both dated 7th March, 2023, issued by the Authorised Officer of Assets Care & Reconstruction Enterprise Ltd., under Rule 8(6) read with Rule 9(1) and Proviso Thereto of the Security Interest (Enforcement) Rules, 2002 for the following correction(s):

IN THE APPENDIX IV-A DATED 06.03.2023:

- For: "The Reserve Price of the Immovable Property will be Rs. 44,77,800/- (Rupees Forty Four Lakh Seventy Seven Thousand Eight Hundred only) and the Earnest Money Deposit ("EMD") will be Rs. 4,47,780/- (Rupees Four Lakh Forty Seven Thousand Seven Hundred Eighty only) i.e. equivalent to 10% of the Reserve Price."

- To be read as: "The Reserve Price of the Immovable Property will be Rs. 46,90,300/- (Rupees Forty Six Lakh Ninety Thousand Three Hundred only) and the Earnest Money Deposit ("EMD") will be Rs. 4,69,030/- (Rupees Four Lakh Sixty Nine Thousand Thirty only) i.e. equivalent to 10% of the Reserve Price."

The rest of the contents of Appendix IV-A dated 06.03.2023 published in the above-said Newspapers shall remain the same and the above made corrections shall be read as part and parcel of Appendix IV-A dated 06.03.2023.

Sd/-  
Authorized officer  
ASSETS CARE & RECONSTRUCTION ENTERPRISE LTD.  
TRUSTEE OF ACRE-102-TRUST  
Place: AHMEDABAD

**भारतीय प्रबंध संस्थान बोधगया**  
**Indian Institute of Management Bodbh Gaya**

Invites application for Admission to the Doctoral (Ph.D.) Programme commencing June 2023

Applicant must have either a Master's degree or professional qualification like CA /CWA/CS with minimum 60% or equivalent grade point average, or 4 Year/8 Semester Bachelors degree in Engineering (B.E./B.Tech./B.Arch.) with minimum 65% or equivalent. See IIMBG website (<https://iimbg.ac.in/pdhd>) for details.

An applicant is required to have taken the CAT (2020/2021/2022) or GRE/GMAT/GATE/JRF; the date of the examination must be 1st July 2020 or later with score validity on or after 1st January 2023. Details are available at <https://iimbg.ac.in/programs/admission/>

Area of Specialization: Marketing; Economics; Finance & Accounting; Strategy & Entrepreneurship; Organizational Behaviour & Human Resource Management; Information Technology Systems & Analytics; Operations Management & Quantitative Techniques, and Humanities & Liberal Arts (Business Communication).

Financial Support: Stipend, student development support, computer grant, support for field research, and support to attend an international conference.

Reservation: Government of India guidelines for reservation are followed.

How to Apply: For application, visit <https://admission.iimbg.ac.in/pdhd2023/>. Last date to apply - 15<sup>th</sup> April 2023.

**Indian Institute of Engineering Science and Technology, Shibpur**  
শিবপুরে ইঞ্জিনিয়ারিং বিজ্ঞান এবং প্রযুক্তিগত বিশ্ববিদ্যালয়

**Employment Notification**

**Recruitment for the Post of Senior Medical Officer**

Advt. No. RO/MA/23/04 Date: 24.03.2023

Applications in the prescribed format are invited from the eligible Indian Nationals for recruitment to the post of Senior Medical Officer directly / on deputation (including Short Term Contract) at the Indian Institute of Engineering Science and Technology, Shibpur.

Sl. No.	Name of the Post	No. of Post	Pay Band & Grade Pay	Category
1.	Senior Medical Officer	1	Pay Band 3 (Rs. 15600 - Rs. 39100) with Grade Pay of Rs. 7600/- + NPA as per Govt. instructions	UR

The application form, general instructions, qualifications, experience, upper age limit and other conditions required for the above posts may be downloaded from the Institute's website [www.iests.ac.in](http://www.iests.ac.in)

The application duly filled in all respects should reach the Office of the Registrar, Indian Institute of Engineering Science and Technology, Shibpur, West Bengal, Howrah-711103 on or before 24.04.2023 by 5.30 p.m.

Incomplete applications will not be entertained. The Applicants previously applied for the post of Senior Medical Officer as per earlier advertisement no. RO/AU/21/07 dated 08.08.2021, may submit updated CV only.

Registrar

**GUJARAT POLLUTION CONTROL BOARD**  
Paryavaran Bhavan, Sector 10 A, Gandhinagar 382 010  
Tel 079-23232152 Fax 079-23222784, www.gpcb.gujarat.gov.in

**PUBLIC NOTICE**

It is hereby to inform that as per Ministry of Environment, Forest & Climate Change, Government of India, New Delhi vide its Notification no. S.O. 1533 (E) dated September 14, 2006; Public Hearing has been fixed for M/s Nirma Limited (Mine lease Area: 681.62 Ha) for Proposed Gujarda, Dudheri & Dudhala Limestone Mining - Rate Of Mining 2.7 - MTPA, at Villages: Gujarda, Dudheri & Dudhala, Taluka. Mahuva, Dist: Bhavnagar. Covered under Project Category "A" as mentioned in their request application.

All local affected persons of the project are requested to remain present in the public hearing or send their response in writing to Member Secretary, Gujarat Pollution Control Board before the hearing date.

Other concerned persons having a plausible stake in environment aspects of the project or activity can submit their responses to Member Secretary, Gujarat Pollution Control Board in writing before the hearing date.

It may be noted that draft Environmental Impact Assessment Report and Executive Summary of the Environment Impact Assessment Report of the project has been sent to the following authorities or offices to make it available for inspection to the public during normal office hours till the Public Hearing is over.

- District Collector Office, Bhavnagar.
- District Development Office, Bhavnagar.
- District Industry Centre, Bhavnagar.
- Taluka Development Office, Ta. Mahuva, Dist. Bhavnagar.
- Regional Officer, Integrated Regional Office, Ministry of Environment, Forests and Climate Change, Room No. 407, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhinagar, Gujarat-382010.
- Regional Office, Gujarat Pollution Control Board, Bhavnagar. Swastik Complex, First Floor, Plot No. 1616/1617, Near Vir Mokhdaji Circle, Ghogha Road, Bhavnagar 364 001.

The District Magistrate / District Collector / Deputy Commissioner or his/her representative not below the rank of an Additional District Magistrate or any other District Level Officer authorized by him/her in this behalf shall supervise and preside over the entire public hearing process.

(Note:- If a project or activity is confined to the territorial jurisdiction of one sub-division, the District Magistrate/District Collector/Deputy Commissioner may alternatively authorize any officer not below the rank of Sub-Divisional Magistrate to supervise and preside over the entire public hearing process).

The Public Hearing is scheduled to be held on 28/04/2023 at 16:00 Hrs, Venue: Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiarka, Ta. Mahuva, Dist: Bhavnagar.

Considering the present situation of pandemic of Covid-19 all concerned are hereby informed to follow Government guidelines regarding Covid-19 pandemic.

Place : Gandhinagar  
Date : 23/03/2023  
D.M. Thaker  
Member Secretary

**GUJARAT POLLUTION CONTROL BOARD**  
Paryavaran Bhavan, Sector 10 A, Gandhinagar 382 010  
Tel 079-23232152 Fax 079-23222784, www.gpcb.gujarat.gov.in

**PUBLIC NOTICE**

It is hereby to inform that as per Ministry of Environment, Forest & Climate Change, Government of India, New Delhi vide its Notification no. S.O. 1533 (E) dated September 14, 2006; Public Hearing has been fixed for M/s Nirma Limited (Mine lease Area: 332.24 Ha) for Proposed Padhiarka-Doliya Limestone Mining - Rate Of Mining 1.5 MTPA, at Villages: Padhiarka & Doliya, Taluka. Mahuva, Dist: Bhavnagar. Covered under Project Category "A" as mentioned in their request application.

All local affected persons of the project are requested to remain present in the public hearing or send their response in writing to Member Secretary, Gujarat Pollution Control Board before the hearing date.

Other concerned persons having a plausible stake in environment aspects of the project or activity can submit their responses to Member Secretary, Gujarat Pollution Control Board in writing before the hearing date.

It may be noted that draft Environmental Impact Assessment Report and Executive Summary of the Environment Impact Assessment Report of the project has been sent to the following authorities or offices to make it available for inspection to the public during normal office hours till the Public Hearing is over.

- District Collector Office, Bhavnagar.
- District Development Office, Bhavnagar.
- District Industry Centre, Bhavnagar.
- Taluka Development Office, Ta. Mahuva, Dist. Bhavnagar.
- Regional Officer, Integrated Regional Office, Ministry of Environment, Forests and Climate Change, Room No. 407, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhinagar, Gujarat-382010.
- Regional Office, Gujarat Pollution Control Board, Bhavnagar. Swastik Complex, First Floor, Plot No. 1616/1617, Near Vir Mokhdaji Circle, Ghogha Road, Bhavnagar 364 001.

The District Magistrate / District Collector / Deputy Commissioner or his/her representative not below the rank of an Additional District Magistrate or any other District Level Officer authorized by him/her in this behalf shall supervise and preside over the entire public hearing process.

(Note:- If a project or activity is confined to the territorial jurisdiction of one sub-division, the District Magistrate/District Collector/Deputy Commissioner may alternatively authorize any officer not below the rank of Sub-Divisional Magistrate to supervise and preside over the entire public hearing process).

The Public Hearing is scheduled to be held on 28/04/2023 at 13:00 Hrs, Venue: Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiarka, Ta. Mahuva, Dist: Bhavnagar.

Considering the present situation of pandemic of Covid-19 all concerned are hereby informed to follow Government guidelines regarding Covid-19 pandemic.

Place : Gandhinagar  
Date : 23/03/2023  
D.M. Thaker  
Member Secretary

**GUJARAT POLLUTION CONTROL BOARD**  
Paryavaran Bhavan, Sector 10 A, Gandhinagar 382 010  
Tel 079-23232152 Fax 079-23222784, www.gpcb.gujarat.gov.in

**PUBLIC NOTICE**

It is hereby to inform that as per Ministry of Environment, Forest & Climate Change, Government of India, New Delhi vide its Notification no. S.O. 1533 (E) dated September 14, 2006; Public Hearing has been fixed for Vangar-Madhiya Limited (Mine lease Area: 612.1336 Ha) for Proposed Vangar-Madhiya Limestone Mining - Rate Of Mining - 1.6 MTPA, at Villages: Vangar & Madhiya, Taluka. Mahuva, Dist: Bhavnagar. Covered under Project Category "A" as mentioned in their request application.

All local affected persons of the project are requested to remain present in the public hearing or send their response in writing to Member Secretary, Gujarat Pollution Control Board before the hearing date.

Other concerned persons having a plausible stake in environment aspects of the project or activity can submit their responses to Member Secretary, Gujarat Pollution Control Board in writing before the hearing date.

It may be noted that draft Environmental Impact Assessment Report and Executive Summary of the Environment Impact Assessment Report of the project has been sent to the following authorities or offices to make it available for inspection to the public during normal office hours till the Public Hearing is over.

- District Collector Office, Bhavnagar.
- District Development Office, Bhavnagar.
- District Industry Centre, Bhavnagar.
- Taluka Development Office, Ta. Mahuva, Dist. Bhavnagar.
- Regional Officer, Integrated Regional Office, Ministry of Environment, Forests and Climate Change, Room No. 407, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhinagar, Gujarat-382010.
- Regional Office, Gujarat Pollution Control Board, Bhavnagar. Swastik Complex, First Floor, Plot No. 1616/1617, Near Vir Mokhdaji Circle, Ghogha Road, Bhavnagar 364 001.

The District Magistrate / District Collector / Deputy Commissioner or his/her representative not below the rank of an Additional District Magistrate or any other District Level Officer authorized by him/her in this behalf shall supervise and preside over the entire public hearing process.

(Note:- If a project or activity is confined to the territorial jurisdiction of one sub-division, the District Magistrate/District Collector/Deputy Commissioner may alternatively authorize any officer not below the rank of Sub-Divisional Magistrate to supervise and preside over the entire public hearing process).

The Public Hearing is scheduled to be held on 28/04/2023 at 09:30 Hrs, Venue: Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiarka, Ta. Mahuva, Dist: Bhavnagar.

Considering the present situation of pandemic of Covid-19 all concerned are hereby informed to follow Government guidelines regarding Covid-19 pandemic.

Place : Gandhinagar  
Date : 23/03/2023  
D.M. Thaker  
Member Secretary



No. GPCB/PH/2023-24/BHV-42/24256

19 MAY 2023  
Time Limit  
By RPAD/H.D.

To,  
The Director,  
I.A. Division,

Ministry of Environment, Forest and Climate Change  
Indira Paryavaran Bhavan,  
Aliganj, Jorbagh Road,  
New Delhi-110003.

**Sub:** To furnish a copy of the Public Hearing proceeding.

- Ref:** [1] Notification no. S.O. 1533 (E) dated September 14, 2006 published by the Ministry of Environment, Forest & Climate Change, Government of India, New Delhi.  
[2] MoEF&CC's Notification no. S.O.948 dated 12.6.2007 and the Forest and Environment Department, Government of Gujarat's GR no. ENV/10.2006/176/P, dated 25.7.2007  
[3] Request Application of from M/s Nirma Limited (Mine lease Area: 612.1336 Ha) to organize Public Hearing.

Sir,

Based on request received for public hearing M/s Nirma Limited (Mine lease Area: 612.1336 Ha) for Proposed Vangar-Madhiya Limestone Mining – Rate Of Mining 1.6 MTPA, at Villages: Vangar & Madhiya, Taluka. Mahuva, Dist: Bhavnagar, Public hearing was organized 28/04/2023 at 09:30 Hrs, Venue: Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiarka, Ta. Mahuva, Dist: Bhavnagar.

The Public Hearing proceeding along with CD and VCD is enclosed herewith for your information and further necessary action please.

This order is issued after approval of competent authority.

For and on behalf of  
Gujarat Pollution Control Board,

*D. P. Shah*  
(Smt. D. P. Shah)

Senior Environmental Engineer

**Encl:** As above.(Original copy)

**Copy to:**

1. District Collector, Collector Office,  
District: Bhavnagar... for information Please.
2. The Unit Head, Bhavnagar.  
...along with the original case file of aforesaid applicant for further suitable action.
3. The Regional Officer, Bhavnagar..... For further suitable action, if any.
4. M/s Nirma Limited (Mine lease Area: 612.1336 Ha).  
At Villages: Vangar & Madhiya, Taluka. Mahuva, Dist: Bhavnagar... Along with a copy of Public Hearing proceeding.
5. File copy.

REGIONAL OFFICE <b>GUJARAT POLLUTION CONTROL BOARD</b> PLOT NO: 1616/1617, SWASTIK COMPLEX, NR- VIR MOKHADAJI CIRCLE, GHOGHA ROAD, BHAVNAGAR-364 001 PHONE: 2566108	
---	---

### PUBLIC HEARING PROCEEDINGS

It is informed that as per the Ministry of Environment, Forests and Climate Change, Government of India, New Delhi vide its notification no. S.O. 1533(E) dated 14/09/2006 and its subsequent amendment S.O. 3067(E) dated 01/12/2009, Public hearing is arranged for M/s. Nirma Ltd. for proposed Lime Stone Mining (Mine Lease Area: 612.1336 Ha. 1.6 MTPA R.O.M) at Village: Vangar & Madhiya, Taluka: Mahuva, Dist.: Bhavnagar which is covered under category A. The public Hearing is held on 28.04.2023 at 09:30 hrs. at the premises of Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiyarka, Taluka: Mahuva, Dist.: Bhavnagar.

A copy of the draft Environment Impact Assessment report and the Summary of Environment Impact Assessment Report was sent to the following authorities or offices to make available the draft EIA report for inspection to the public during normal office hours, till the Public Hearing is over.

1. The District Collector Office, Bhavnagar
2. District Development Office, Bhavnagar
3. District Industry Centre, Bhavnagar
4. Taluka Development Office, Tal: Mahuva, Dist.: Bhavnagar.
5. Regional Officer,  
Integrated Regional Office, Ministry of Environment, Forests and Climate Change, Room No. 407, Aranya Bhawan, Near CH-3 Circle, Sector – 10A, Gandhinagar, Gujarat – 382010.
6. Regional Office, Gujarat Pollution Control Board, Swastik Complex, Vir Mokhadaji Circle, Bhavnagar-364002.

Other concerned persons having plausible stake in the environmental aspects were requested to send their responses in writing to the concerned regulatory authorities.

The Public Hearing was scheduled on 28.04.2023 at 09:30 hrs. in the premises Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiyarka, Taluka: Mahuva, Dist: Bhavnagar.

An advertisement in English was published in "The Indian Express" on 26/03/2023 and that in Gujarati in "Sandesh" dated 26/03/2023.

Shri R.K.Mehta (IAS), District Collector and District Magistrate, Bhavnagar presided over and supervised the entire public hearing process.

All arrangements for the public hearing were made in strict compliance of Covid-19 prevention guideline.

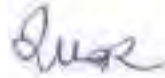
A statement showing participants present during the public hearing is enclosed as **Annexure-A**.

<p>REGIONAL OFFICE <b>GUJARAT POLLUTION CONTROL BOARD</b> PLOT NO: 1616/1617, SWASTIK COMPLEX, NR- VIR MOKHADAJI CIRCLE, GHOGHA ROAD, BHAVNAGAR-364 001 PHONE: 2566108</p>	
--	---

A statement highlighting issues raised by the participants and responded by the representative of the applicant during the public hearing in English and Gujarati Language is enclosed as **Annexure B & B-1** respectively.

Copies of responses received in written from persons having plausible and written representation received before and during Public Hearing in environmental aspects are enclosed herewith collectively as **Annexure C-1 to C-71** and the replies by applicant to the same are enclosed herewith collectively as **Annexure D-1 to D-71**.

Venue: Nirma Cement Plant  
Area, NH 8 E/51, Survey No.  
80, Village: Padhiarka, Ta.  
Mahuva, Dist: Bhavnagar  
Date: 28/04/2023



A.J. Rathod  
Regional Officer,  
GPCB, Bhavnagar



R. K. Mehta (IAS)  
District Collector &  
District Magistrate,  
Bhavnagar

**Encl:**

1. Annexure A, B, B1, C-1 to C-71 & D-1 to D-71 (Hard copy & Soft Copy)
2. Video CD of Public Hearing



Annexure-A

**A Statement showing participants present during the Public Hearing**

As per the Ministry of Environment, Forest and Climate Change Government of India, New Delhi vide its Notification no. S.O. 1533 dated Sept.14, 2006; and its subsequent amendment S.O. 3067(E) dated 01/12/2009, Environment Public Hearing is arranged for M/s Nirma Limited (Mine Lease Area 612.1336 Ha) for proposed of Vangar & madhiya Limestone Mining- Rate of Mining 1.6 MTPA at Village: Vanger & Madhiya, Taluka: Mahuva, Dist: Bhavnagar covered under Category "A" as mentioned in their application.

The Environment Public Hearing is being held on 28.04.2023 at 09:30 hours onwards at Nirma Cement Plant Area, NH 8 E/51; Survey No. 80, Village: Vangar, Taluka: Mahuva, Dist. Bhavnagar.

The statement showing participants present during the Public Hearing is as under:



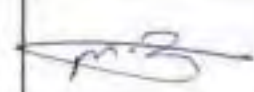
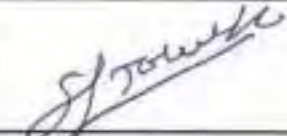
ભારત સરકાર ના પર્યાવરણ વન અને જળવાયુ પરિવર્તન મંત્રાલય, નવી દિલ્હી ના જાહેરનામા ક્રમાંક : S.O. 1533 ના 14/09/2006 અને તેના પછીના સુધારા ક્રમાંક એસ.ઓ.3067 (ઈ), તા.01/12/2009ના તેમજ વાપતી વાપત થયેલ સુધારા તથા જાહેરનામા અંતર્ગત કેટેગરી "એ" માં સમાવિષ્ટ મંસૂરી નિરમા લિમિટેડ (ખાણ લીઝ એરિયા ૬૧૨.૧૩૩૬ હેક્ટર)ની ગામ: વાંગર અને માઢિયા, તા.મહુવા, જી.ભાવનગર ખાતે પ્રસ્તાવિત ગામ: વાંગર અને માઢિયા, સીઈમસ્ટોન માઈનિંગ - રેટ ઓફ માઈનિંગ - ૧.૬ એમ.ટી.પી.એ. માઈનિંગ માટેની અરજી અન્વયે પર્યાવરણીય લોકસુનાવણીનું આયોજન કરવામાં આવેલ.



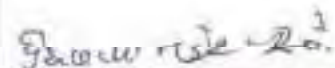
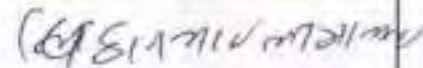
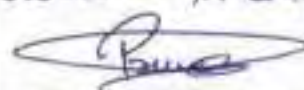
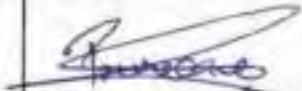


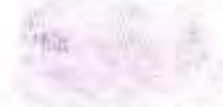
પર્યાવરણીય લોકસુનાવણી નિરમા સિમેન્ટ પ્લાન્ટ વિસ્તાર, નેશનલ હાઈવે ૮ ઈ/૫૧, સર્વે નં. ૮૦, ગામ: પઢિયારકા, તા. મહુવા, જીલ્લો,ભાવનગર ખાતે તા. ૨૮/૦૪/૨૦૨૩ના રોજ ૦૯:૩૦ કલાકે રાખવામાં આવેલ.

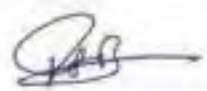


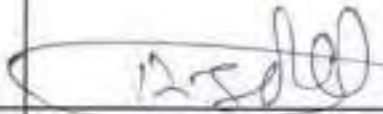
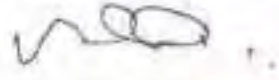
જાહેર લોક સુનાવણી દરમિયાન હાજર રહેલ લોકોની યાદી નીચે મુજબ છે.





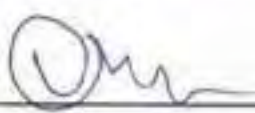
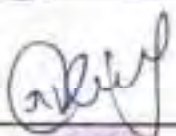


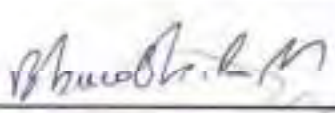

Sr. No. ક્રમાંક.	Name & Address નામ અને સરનામું	Signature સહી
૧	વિજય કાલિ મજુરી મહુવા જામણકા	
2	મહુવા સુનાવણી સિરહા ૨૧૦૦૨	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
3.	કલ્યાણ પી.વ્યાજ	
4.	શેલાબાી આર.ગોષ	S.A M
5.	Shulama Vamdevi	(SM)
6.	નેહા વાસ્ત	
7.	વીપુલ વીજલ	
8.	ગીરમી પાપા	J
9.	કિલિકાંચ પુત્રીયા	
10.	ગુરુમુ વેદ	Acy
11.	સુપ્રદીપ વાસ્ત	J M. S
12.	શ્રીમતી શ્રી શ્રીમતી	શ્રીમતી શ્રી શ્રીમતી
13.	વસ્તી ૨૨ શેલાબાી	
14.	શેલાબાી વાલિફ	વાલિફ
15.	શેલાબાી દલશ્યામ એ.સ.	દલશ્યામ
16.	બી.પી. સાર સોમ	બી.પી. સાર સોમ
17.	શૈલેષ. સુભ. સુભ. ભીલ	શૈલેષ. સુભ. સુભ. ભીલ

Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
18.	શિવાભાઈ વાલાભાઈ	
19.	મોલા દિનેશી ભાઈ. પી	દિનેશી. પી. મોલા
20.	બાપેલા એમ - 57	બાપેલા એમ - 57
21.	બાઈલાલ ભરત. રા	
22.	સોલંકી દર્શન B	સોલંકી દર્શન
23.	ચાપા મુકુંદા ભાઈ ભાઈ	ચાપા મુકુંદા ભાઈ ભાઈ
24.	બેઠવા રમેશી. એમ.	બેઠવા રમેશી એમ.
25.	Sanket bhavesh. b	Vargad
26.	ભાઈભાઈ વિપુલ જી	ભાઈભાઈ વિપુલ જી
27.	રામભાઈ રાહડાભાઈ	વાગર
28.	વજુ વેલ્લુ	વેલ્લુ
29.	Rajiv. mukundan	
30.	શાંભુલાલ. જે. જોશી	
31.	રામભાઈ. પી. રાંબર	R.B. RamBhai
32.	મહેશી એમ વેલ્લુ	વાગર

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું પિરોધીઓ	Signature સહી
33.	અશોકભાઈ જગજીભાઈ	
34.	Jm	
35.	કીર્તિબાઈ જગજીભાઈ જગજીભાઈ	
36.	કુંવરબાઈ જગજીભાઈ	
37.	લિલિતાબાઈ	
38.	ડોહીયા જગજીભાઈ	
39.	મહાબલ પ્રભુભાઈ જગજીભાઈ 	
40.	જદવજી કિશોરજી જગજીભાઈ	જદવજી કિશોરજી
41.	ભાલિયા મહેશભાઈ જગજીભાઈ	M.C. Bhalipya
42.	જિજ્ઞાસાબાઈ જગજીભાઈ મહેશજીભાઈ	
43.	ભાલિયાબાઈ જગજીભાઈ	
44.	જયેશભાઈ જગજીભાઈ	
45.	દાનભાઈ જગજીભાઈ	
46.	અરુણ વા. જીભાઈ	
1		

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
47.	માર્ગીના વિદ્યુત બાંધેલા વિક્રમ સ્વચ્છતા	
48.	બેલીયા મંડળ ગુનામી	Jalig Manj
49.	બાંધેલા કાગળ કાગળ	
50.	કાંબર ફોર્મ બાંધ.	
51	વિભાગ વિભાગ	
52	J.R. રાજક	
53.	બાંધેલા કાગળ, બાંધ	K.B. Bhandari
54.	વિભાગ મેમ્બર, બાંધ	અમલ. જી. ભોજ
55.	મકાનના સ્થળ બાંધ	મકાનના સ્થળ
56.	વિભાગ પાંચ, કાંધ	વિભાગ પાંચ, કાંધ
57.	મકાનના સ્થળ	મકાનના સ્થળ
58.	બાંધેલા કાગળ	M.D. Chakrabarti
59.	બાંધેલા કાગળ, બાંધેલા કાગળ	બાંધેલા કાગળ, બાંધેલા કાગળ
60.	દિનેશભાઈ સીધાભાઈ મંડળ	ગામ-ડાંડીયા
61.	ફાળા માટે હરહર મંડળ	ગામ-ગાંધીયા

Sr. No. અનુક્રમાંક નં.	Name & Address માપગંઠો નામ અને સરનામું	Signature સહી
62.	ગોલીલમાઈ ઉડામાઈ	
63.	વિહીલમાઈ લક્ષ્મીદામાઈ	
64.	ભઈયાબા વિયુલ 5	
65.	મકયાબા વિયુલ બાબુલાલ	
66.	ભાયાબા માદુલાઈ મકયાબાઈ	
67.	શીરીબા મનમુખ. એમી.	
68.	એબા મકયાબા મકયાબા	M B J
69.	ગામીરા વિકાસાઈ બાલાલાઈ	
70.	સાલદા/બાપુ સાલદામાઈ	
71.	દાનમુમાઈ પાપામાઈ	
72.	દાશીમાઈ આચરમાઈ મકયાબાઈ	
73.	મકયાબા માઈ ભાઈચુલાઈ દુવાબાઈ	સિકેબાઈ L-100
74.	રૂમેશી. રૂમેશ. રાખી	R-N-D
75.	મકયાબા ભાઈચુલાઈ લુખામાઈ	
76.	દાશીમાઈ ભાલામાઈ	






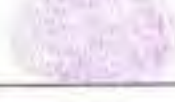
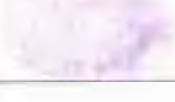
Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
77	માપલિંગો રાજવલ્લભભાઈ	મહારાજ
78	ભાઈ ભાઈ ભાઈ ભાઈ	મહારાજ
79	ભાઈ ભાઈ ભાઈ ભાઈ	દુધેરી.
80	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
81	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
82	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
83	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
84	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
85	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
86	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
87	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
88	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
89	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
90	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી
91	બાઈ ભાઈ ભાઈ ભાઈ	કુચેરી




Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું પિરોધીયાં	Signature સહી
92	બારેયા સરોજી ભુવન માધ	સરોજી. બી. બારેયા
93	બારેયા લાલજી વેલાભાઈ	સીત. બી. બારેયા
94	ગોડીપ દા. જાલાઈ અચ્યુભાઈ	બારેયા
95	મોલંકી રમણભાઈ વેલાભાઈ	સી. જી. કુદોરી
96	મોલંકી દુધાભાઈ વેલાભાઈ	ગ. ગ. કુદોરી
97	બારેયા મહેશ ભાઈ બી. મા. ભાઈ	M. B. BARAIYA
98	બારેયા ભાઈ રાધાભાઈ	B. R. BARAIYA
99	બારેયા વિક્રમ વી	Bharvijay Vikram V.
100	Makwana Vinlesh. I.	<u>Makwana</u>
101	બારેયા લાલજી બી. ગામ = ચઢિયાઈ	સીત. બી. બારેયા
102	મહાલાલ સરોજી દેવજીભાઈ	સી. ડી. મહાલાલ
103	બારેયા લાલજી એમ.	L. M. Baraiya
104	Pintabhai Keshubhai	પં. ટિ. ક.
105	બારેયા દિલેશી માવજીભાઈ	એચ. એમ. બારેયા
106.	Barvijay Gopal V.	G. V. Barvijay


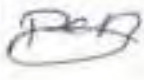





Sr. No. અનુક્રમિક નં.	Name & Address માયકાંઠા નામ અને સરનામું (પરોચીયા)	Signature સહી
107	બાંચી મનોજ માયવુનાથ	મ. મ. બાંચી
108	Shruti Jayashree Jeevan Bhai	જી જી જયશ્રી
109	મેર માયજી યી	M.D.M.
110	મેર મેડુલ કે.	મેર
111	મેર શૈલેષ અમી	મેર
112	કોમલિયા ભાવેશી એવ.	કોમલિયા ભાવેશી
113	ક્રિપાળ P.G	
114	કોલમિયા વજય બાલભાઈ	
115	Joliva V.R	
116	કાલે મહેલ મન	કાલે
117	કોલય, રામજીભાઈ	કોલય,
118	કાલે કોલે વીજિયા	કોલેયા
119	કોમલભાઈ યુવજીયા	કોલે
120	કાલેમજીભાઈ જી. શોભાબાઈ	કાલેમજીભાઈ
121	Shekhar metul V.	



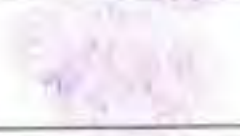


Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
130	કાંબોયા નરેશ ૬૨૨૧૧૧૧૧ વાંગર	નરેશ
131	જાડેવા લાલજી ખીચજી માદ <del>પરિવાર</del>	લાલજી કી ખીચજી
132	મીનોબા કુલદી પ વાગવાદ વાંગર	કુલદી પ . બી મીનોબા
133	કેકાશીયા ખેડકો ભાખા કુચરો	ખેડકો
134	જ/કમીલ ભાયામી હેચા	જ/કમીલ/કમીલ
135	કાલજી પુલખ	કાલજી
136	ભાલજીભાઈ વાડી કાલજી	પરિવાર
137	કારેયા વિપુલ ભરભાઈ	વિપુલ બી
138	કારેયા બીચકો ભાવ ભી ખાલાલ યુવકો નાચી/પાણી	
139	જ રેશી ભાઈ નાગલાલ ભાઈ	જ રેશી ભાઈ
140	શિયામ ભુખમી સેન	શિયામ ભા.સેન
141	ચુરેશી ભાઈ પરમાજી	ચુરેશી સેન
142	વાલા કાલજી ડી.	Valee Kalyal D
143	વાલા ચાપલ ડી	Valee Chappal D.
144	વાલીબેન પરસોતમભાઈ	વાલીબેન

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
145	સૌરાષ્ટ્ર ભાલુજી ભુપતભાઈ	સૌરાષ્ટ્ર ભાલુ ભુપતભાઈ
146	સાંખર મંજુલેજી લીલાભાઈ	
147	જાલોયા ડાચલેજી વ્યાસભાઈ	
148	કાપા કીલીજેજી દાનાભાઈ	
149	સૌરાષ્ટ્ર ડાજલજેજી બાધાભાઈ	સૌરાષ્ટ્ર કાજલ બી
150	લાલીયા કાળોજેજી કવશભાઈ	
151	ભાંગલા વાજલેજી અમરાભાઈ	
152	મકલાલા ગાંગાજેજી જાદાભાઈ	
153	મકલાલા વશલાજેજી ખોડાભાઈ	
154	કોડોયા અમીતાજેજી લાલુભાઈ	
155	મકલાલા વસંતજેજી સુભાજીભાઈ	
156	મકલાલા ચંદ્રીકાજેજી હિંમતભાઈ	
157	મકલાલા કોમલજેજી શામજીભાઈ	
158	મકલાલા દેવજેજી લીમજીભાઈ	
159	કોડોયા અમુતાજેજી હિંમતભાઈ	









Sr. No. अनुक्रमांक नं.	Name & Address नाम અને सरनाમું	Signature સહી
160	ડિડીયા રાઈલેંગ હિંમતભાઈ	
161	મરવૈયા હાલીબેંગ દગાભાઈ	
162	સાંખર સોમીબેંગ આણંદભાઈ	
163	મકવાલા હર્ષાબેંગ જાગજીભાઈ	
164	મકવાલા બેજલબેંગ હિંમતભાઈ	
165	મકવાલા સુમીતાબેંગ ખીમજીભાઈ	
166	મકવાલા જોતીબેંગ હિંમતભાઈ	
167	મકવાલા પાચલબેંગ લીમજીભાઈ	
168	બાદ્ય લગુબેંગ દેવાંગભાઈ	
169	મકવાલા હિંમતબેંગ વીમજીભાઈ	
170	બાદ્ય બાલુબેંગ સુખાભાઈ	
171	રશિમબેંગ હમારભાઈ	
172	રમજીબેંગ જોતીભાઈ	
173	મનસુખભાઈ સુજાભાઈ જોળાપા કુદેરી	મનસુખભાઈ
174	બાદ્યભાઈ સોમાભાઈ મોજીયા	



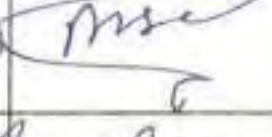
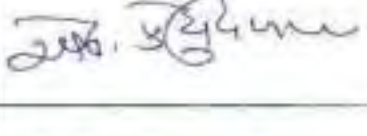

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
175	રામજીભાઈ માલજીભાઈ મેજાયા	
176	દાડગામી પાલગામી મલગામી	દાડગામી પાલગામી મલગામી
177	રાડગામી સામગામી મેજાયા	રાડગામી સામગામી મેજાયા
178	દાડગામી સામગામી	દાડગામી સામગામી
179	દાડગામી સામગામી	
180	મોવડા મમડા મી	K.B.S
181	જેજી પીળી	પીળી
182	રમેશભાઈ જલગામી	વોગર
183	લકુમદાભાઈ મજાભાઈ વોગર	
184	લીલજીભાઈ દહાણી	લીલજીભાઈ
185	અમરા રવા વોગર	અમરા રવા
186	મુખાભાઈ ભાડાભાઈ મેડોજાયા	
187	કાલભાઈ વોગર	
188	ભુખાભાઈ વોગર	
189	ભાડાભાઈ વોગર	

Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
190	નાથાભાઈ દેરાભાઈ ડોખર	
191	ભોયભાઈ દેરાભાઈ ડોખર	
192	કાખાભાઈ મઠાભાઈ ડોખર	
193	મઠાસુકભાઈ પાંડે	
194	દુધા ભાઈ રામરાવભાઈ પાંડે	
195	રવજીભાઈ નાથાભાઈ કુદર	
196	મગાભાઈ જોમાભાઈ કુદર	
197	ચાંદોળા જોમા કે.	ચાંદોળા જોમા કે.
198	H.N. Gokhale.	H.N. Gokhale.
199	ગુજરીયા શાંતી. જી. દુધાભાઈ	ગુજરીયા શાંતી. જી.
200	ગાંધીભાઈ દેવકીભાઈ દોશી	ગાંધીભાઈ દેવકીભાઈ દોશી
201	જોમાભાઈ રામકૃષ્ણભાઈ પાંડે	જોમાભાઈ રામકૃષ્ણભાઈ પાંડે

Sr. No. અનુક્રમિક નં.	Name & Address પ્રાપ્તિંગો નામ અને સરનામું	Signature સહી
202	શિયાળા પુસ્તકાલય - શાર વાંગર	
203	મંગલચંદ્રભાઈ/મંગલચંદ્રભાઈ વાંગર	મંગલચંદ્રભાઈ
204	શિયાળા પુસ્તકાલય વડવાળા	
205	આબાલાલા શા ત્રીવાંગર	આબાલાલા
206	શિયાળા પુસ્તકાલય વડવાળા	
207	દાસરાજી - વાંગર વાલીયા સિંગર	દાસરાજી. વાલીયા
208	મરજીભાઈ મોદલભાઈ સિંગર	મરજીભાઈ. મોદલભાઈ
209	શિયાળા પુસ્તકાલય વડવાળા	
210	શિયાળા પુસ્તકાલય	વાંગર
211	આર.કે. દુધાળા	વાંગર
212	શિયાળા પુસ્તકાલય	વાંગર વડવાળા
213	Pankaj. A. Surwala.	Pankaj. A. Surwala
214	શિયાળા પુસ્તકાલય	
215	મંગલચંદ્રભાઈ મોદલભાઈ સિંગર	મંગલચંદ્રભાઈ. મોદલભાઈ
216	કે.કે. સુભાષી વાંગર	કે.કે. સુભાષી


Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
217 ૧૭	આપમાં જો જામજી ભાઈ નાગજીભાઈ દેવજીયા	જામજી ભાઈ
218 ૧૮	શાંભુભાઈ વરુણકુંભલા પાંગર	શાંભુભાઈ વરુણ
219 ૧૯	મહવાલા જીજાભાઈ દાનાભાઈ વાંગર	મહવાલા
220 ૨૦	મહવાલા નાગજીભાઈ નારણભાઈ વાંગર	નાગજીભાઈ
221 ૨૧	અમરજીભાઈ નાગજીભાઈ દેવજીભાઈ વાંગર	અમરજી
222 ૨૨	સુધાભાઈ સુધાભાઈ રામ પાંગર	સુધાભાઈ
223 ૨૩	વિરરામભાઈ વાંગર	દુધવાલા
224 ૨૪	મહવાલા પિત્રા નાગજીભાઈ વાંગર	મહવાલા પિત્રા
225 ૨૫	મહવાલા વરુણકુંભલા વાંગર	મહવાલા વરુણકુંભલા
226 ૨૬	વંદાના ભાઈ વરુણભાઈ	ગામ વાંગર
227 ૨૭	દુધવાલા દીલીપ વરુણભાઈ વાંગર	ગામ વાંગર
228 ૨૮	ડીડી શિયા દેવાભાઈ/ડીડીભાઈ	ડીડી શિયા
229 ૨૯	દુધવાલા વરુણભાઈ દિલીપભાઈ	Dhundhaval
230 ૩૦	લાજાભાઈ જીજાભાઈ	લાજાભાઈ જીજાભાઈ
231 ૩૧	મહવાલા જીજાભાઈ નારણભાઈ	





Sr. No. અનુક્રમાંક નં.	ભાવમિત્રો Name & Address નામ અને સરનામું (પરોધ)	Signature સહી
232 <del>32</del>	બાબુભાઈ વાંગર	
233 <del>32</del>	બદુભાઈ બાબુભાઈ વાંગર	
234 <del>33</del>	ભરતભાઈ ભીમભાઈ, વાંગર	
235 <del>34</del>	કિશોરભાઈ માધાભાઈ કપડ વાંગર	H. M. KAVAD
236 <del>35</del>	મનુરભાઈ ડાપાભાઈ વાંગર	મનુરભાઈ
237 <del>36</del>	દીપ્તભાઈ બાબુભાઈ ડીકયાં, વાંગર	
238 <del>37</del>	રોડાભાઈ મીનાભાઈ જાંબાભાઈ વાંગર	
239 <del>38</del>	કુન્ડભાઈ બાબુભાઈ રડવાલા વાંગર	કુન્ડભાઈ બાબુભાઈ વાંગર
240 <del>39</del>	દીપ્તભાઈ નરણભાઈ રાણાવાંગર	દીપ્તભાઈ નરણા વાંગર
241 <del>40</del>	ભાવભાઈ ભાવભાઈ, વાંગર	
242 <del>41</del>	વલ્લભ ડાપા વાંગર	વલ્લભ ડાપા
243 <del>42</del>	વલ્લભ નારણ વાંગર	વલ્લભ નારણ
244 <del>43</del>	ગોપિંદભાઈ મણમણભાઈ, કુલરી	
245 <del>44</del>	દાસાભાઈ રા. મ. ભા. વાંગર	વાંગર
246 <del>45</del>	બાબુભાઈ. ભાવભાઈ, વાંગર	



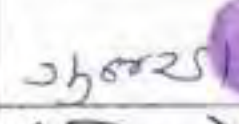

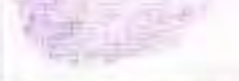
Sr. No. અનુક્રમાંક નં	Name & Address નામ અને સરનામું	Signature સહી
247 <del>48</del>	આપણી પાંચર કાંગર દાનબુલાઈ બુલાલાઈ સરનામું	કાંગર
248 <del>47</del>	મરતલાઈ રાજકોડલાઈ વાંગર	
249 <del>48</del>	મધન રાજકોડલાઈ વાંગર	A. B. Jodan
250 <del>49</del>	હરીલાઈ વાંગર	વાંગર હરીલાઈ
251 <del>50</del>	મધુલાઈ/મધુલાઈ પાંચર	મધુલાઈ
252 <del>51</del>	ભીમાલાઈ ભીમાલાઈ	
253 <del>52</del>	પરેશા મધુલાઈ પાંચ (વાંગર)	
254 <del>53</del>	મુકેશ મગરામલાઈ ચાણા (વાંગર)	
255 <del>54</del>	લાલાલાઈ વેલાલાઈ કુચેરી	લાલાલાઈ
256 <del>55</del>	લાલનલાઈ કુચેરી કુચેરી વાંગર વાંગર	
257 <del>56</del>	શૈલેશા વેલાલાઈ વાંગર	લા. શૈલેશા
258 <del>57</del>	મધુલાઈ રાજકોડલાઈ મધુલાઈ વાંગર	
259 <del>58</del>	શૈલેશા રાજકોડલાઈ (કુચેરી)	શૈલેશા રાજકોડલાઈ
260 <del>59</del>	શૈલેશા કુચેરી ભીમા	
261 <del>60</del>	ગાંધીલાઈ ભીમા	


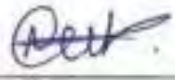

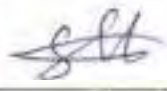


Sr. No. અનુક્રમાંક નં.	Name & Address આવકિંગો નામ અને સરનામું પિરોધી	Signature સહી
262 <del>62</del>	આબાદલાઈ, વાંગીર	
263 <del>63</del>	ભાગલાઈ/માણુજી શાખા ૫૨૨૬	ભાગલાઈ
264 <del>64</del>	શૌરભાઈ અમલ-૫૨૨૬	
265 <del>65</del>	ગોબાઈ ભાઈ રાજાઈ/૬લાઈ ડોલખા	ગોબાઈ
266 <del>66</del>	ગમભાઈ, બચુભાઈ કુદેરી	
267 <del>67</del>	કુદેરી નિજાઈ/ગરમ આવકિંગો Bambhaniyav Khimji B. પિરોધી	Khimji Bambhaniyav-2B
268 <del>68</del>	અંગભાઈ, ડોલખા	
269 <del>69</del>	દેવભાઈ, ડોલખા	
270 <del>70</del>	રવુભાઈ વાઘાભાઈ વાઘાઈ, Pudhi yavaco P. Mahara	
271 <del>71</del>	પાલાભાઈ શાખાભાઈ ભરવાડ	
272 <del>72</del>	માનાગ ભાઈ/દેમાં ભાઈ મોરબા, જોલખા	
273 <del>73</del>	મહાલાઈ/કચાઈ રામભાઈ ભરમાં માઈ/કિંગ પિરોધમાં	
274 <del>74</del>	વાંગીર શિયાળાઈ/શાખા	
275 <del>75</del>	માઈ/કુદેરી કુદેરી	
276 <del>76</del>	રામભાઈ શોમાલાઈ	કુદેરી

Sr. No. અનુક્રમાંક નં.	Name & Address માપનિંગ નામ અને સરનામું (વિરોધી)	Signature સહી
277 જા	સોનરજી મ મડપો	[Signature]
278 જા	વ્યક્ત્ય કુદેરી	[Signature]
279 જા	વિકામ કુદેરી	[Signature]
280 જા	વજુભાઈ પાટિયારકા	[Signature]
281 જા	સાગરભાઈ પાટિયારકા	[Signature]
282 જા	મદવભાઈ વિશ્વભાઈ સોનથી માલિયા	[Signature]
283 જા	મંગળભાઈ જીળાભાઈ વિશ્વભાઈ સોનથી	[Signature]
284 જા	માદનિંગ વિરોધી માલિયા પ્રમણભાઈ સામતભાઈ	[Signature]
285 જા	સોન વિ ભાલિયા	માદનિંગ વિરોધી
286 જા	વિ સોન ભાલિયા	માદનિંગ વિરોધી
287 જા	રવિ. સી ભાલિયા	માદનિંગ વિરોધી
288 જા	સોન વી ભાલિયા	માદનિંગ વિરોધી
289 જા	સુભાઈ ભાલિયા મંગળભાઈ	[Signature]
290 જા	માદનિંગ વિરોધી મોલીયા વ્યસુભ ત્રીના કુદેરી	[Signature]
291 જા	મોલીયા વ્યસુભ ત્રીના કુદેરી	[Signature]

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું વિરોધી	Signature સહી
282 ૧૧	માલીયા માનજી કુદેરી	માલીયા માનજી
283 ૧૨	માલીયા માનજી. એમ. કુદેરી	L.M. Bhalani
284 ૧૩	એમ. જી. મલ્યાલા કુદેરી	એમ. જી. મલ્યાલા
285 ૧૪	એ. એન. બોલીયા કુદેરી	એ. એન. બોલીયા માનજીંગ વિરોધી
286 ૧૫	એ. બી. લાલિયા કુદેરી	એ. બી. લાલિયા માનજીંગ વિરોધી
287 ૧૬	એમ. બી. લાલડીયા વાંગર	એમ. બી. લાલડીયા માનજીંગ વિરોધી
288 ૧૭	એસ. એમ. સોલંકી વાંગર	એસ. એમ. સોલંકી
289 ૧૮	પરશોત્તમ ખામા બોલીયા ડોળીયા	પરશોત્તમ ખામા
300 ૧૯	અમલો બાલુ ચૌહાણ ડોળીયા	A.B. Chauhan માનજીંગ વિરોધી
301 ૨૦	લક્ષ્મી ગોપિંદ બાર્થે, ડોળીયા	લક્ષ્મી ગોપિંદ બાર્થે
302 ૨૧	રાજુ સામલ મલ્યાલા	M. Bhalani માનજીંગ વિરોધી
303 ૨૨	દાસી ભાઈ ચુભાઈ અકતરિયા	
304 ૨૩	રાજુભાઈ, રોડાભાઈ. સોલંકી	માનજીંગ, વિરોધી
305 ૨૪	ભીમ ગોડાભાઈ. ભગવાનભાઈ	માનજીંગ, વિરોધી
306 ૨૫	રજાભાઈ, પાતાભાઈ. ભાખડોત્તમ.	માનજીંગ, વિરોધી








Sr. No. અનુક્રમાંક નં.	Name & Address માપણી નામ અને સરનામું	Signature સહી
307 106	બેનગીયા રવજીભાઈ બચ્ચાભાઈદેસી	રવજીભાઈ ✓
308 107	ભાનુજીરામભાઈ, માવજીભાઈ	માવજીભાઈ (વડોદરા)
309 108	ભાનુજીભાઈ, રામજીભાઈ, ગોળીયા	માવજીભાઈ (વડોદરા)
310 109	કોમળભાઈ જીવભાઈ વાગર	કોમળભાઈ વાગર
311 110	રવજીભાઈ વાગર	રવજીભાઈ વાગર
312 111	ભાનુજીભાઈ અમીર કોલાર	ભાનુજીભાઈ
313 112	લાલજીભાઈ અમીર કોલાર	B. M. M
314 113	ભાનુજીભાઈ વાગર, ભાનુજીભાઈ, વડોદરા	
315 114	ભાનુજીભાઈ ભાનુજીભાઈ, વાગર	
316 115	વરજી રામજી કોલાર	વરજી
317 116	ભાનુજીભાઈ રામજીભાઈ	ભાનુજીભાઈ
318 117	ભાનુજીભાઈ ભાનુજીભાઈ, કોલાર	
319 118	ભાનુજીભાઈ ભાનુજીભાઈ, વાગર	
320 119	રવજીભાઈ વાગર	રવજીભાઈ
321 120	વાગર દિવ્યજીભાઈ સુભાષભાઈ વાગર	દિવ્યજીભાઈ





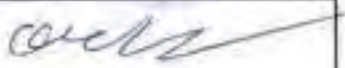

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
322 121	માયળિંગી વાંગે મહાકાળી મહાકાળીમાલ મહાકાળી	
323 122	કુદાલાનં. વામ મદાલારસેદ દારના	મજી
324 123	કુદરી બંલોમ સિદ્ધરલાઈ જાભુવ	બંલોમ સિદ્ધરલાઈ
325 124	કુદરી મપુરલાઈ જહાલાઈ	
326 125	વાંગે દરેલાલાઈ વાંગેલાઈ જોખા	જોખાદરેલા.વી.
327 126	માયળિંગી માયળિંગી સાલીક	કુદરી
328 127	માયા માલ કુદા માલ	કુદરી
329 128	બરનાભાઈ સુડાસમા કાલોર	બરનાભાઈ
330 129	મલાલ વદ ગુજરા	મલાલ વદ
331 130	ગુજરાત ચીરણી ભપકુળ વા	ગુજરાત
332 131	ભુપાળ માઈ ભડગા ભવ	ગુજરાત 
333 132	કિશોર. એન કુદાલા-૧	કિશોર. એન કુદાલા-૧
334 133	મળુલાઈ કુદાલા-૨ B	મળુલાઈ B કુદાલા-૨
335 134	અરજાભાઈ સંયુભાઈ કોળીયા	
336 135	માધાભાઈ મારાભાઈ સમઠીયાળા	




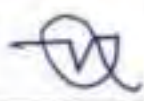

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
337 <del>136</del>	ગાંધીજીના વ્યક્તિગત કાર્યાલય ગામ:- માલિયા	
338 <del>137</del>	શિવાજી પુસ્તકાલય કે ગામ દુધરી	પ્રવાળ. ખોડા. શિવાજી
339 <del>138</del>	શિવાજી અભિદં. વી ગામ દુધરી	એ.વી. શિવાજી
340 <del>139</del>	શિવાજી ગામ માલદેવરામાલ	દુધરી
341 <del>140</del>	સાંચર વ્યક્તિગત વ્યક્તિગત માલદે	પાંચલ
342 <del>141</del>	લાલજી મિસ્ત્રા અધિકારી વાંગલ	
343 <del>142</del>	દેવજીના વ્યક્તિગત વ્યક્તિગત માલદે મદલ	વિજય
344 <del>143</del>	સામુદાયિક સંસ્થા	
345 <del>144</del>	વાંગલ Jhambhujana Shiksha, P	
346 <del>145</del>	વાંગલ S. N. BHARAR	S. N.
347 <del>146</del>	વાંગલ કવચ અધિકારી સોલંકી	K R
348 <del>147</del>	વાંગલ GOHIL AJAY	A R
349 <del>148</del>	વાંગલ ગાંધી	
350 <del>149</del>	ભરવાડ કરશનભાઈ જી સોલંકી	
351 <del>150</del>	General Bakhshali S DOLIZIY	G S



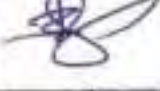
Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું પિરોધીઓ	Signature સહી
352 151	ગભારા મેયા રમેશ ડોળીયા	
353 152	રવેશી વાગર	રવેશી
354 153	શાબામીય દુધરી	શાબામીય
355 154	વધ્યા સામાળ વાગર	
356 155	રઘુભાઈ ભરતભાઈ વાંગર	
357 156	મહાવળા જે. શ્યામલોયા	જે. શ્યામ
358 157	મહાભાઈ રમેશ. ડોળીયા	રમેશ, રમે.
359 158	જીવાબ સવળ સુખા ડોળીયા	સવળ સુખા
360 159	દેશભાઈ. ડોળીયા	
361 160	રવિભાઈ રામ, દુધરી	રવિભાઈ રામ
362 161	રમેશભાઈ. દુધરી	
363 162	રામજીભાઈ. ડોળીયા	
364 163	બાલાભાઈ. સુખાભાઈ. ડોળીયા	
365 164	ગોકારભાઈ મહાભાઈ, ડોળીયા	
366 165	વરુણ ભાઈ ભાસ્કરભાઈ ડોળીયા	



Sr. No. અનુક્રમણિકા નં.	Name & Address નામ અને સરનામું	Signature સહી
373 ૦૨	મંજુલાબેઈ રાણદેવભાઈ	મંજુલા
374 ૦૨	મધુબેઈ વલજીભાઈ	
375 ૦૩	સામકેરબેઈ ઉડવાભાઈ	
376 ૦૪	દેવુબેઈ રાણદેવભાઈ	
377 ૦૫	કુલીબેઈ લેલાબાઈ	
378 ૦૬	ગેડડા વાજીબ રાણદેવભાઈ	વાજીબ
379 ૦૭	<del>સામકેરબેઈ ઉડવાભાઈ</del>	વાજીબ
380 ૦૮	સામકેરબેઈ ઉડવાભાઈ	સામકેરબેઈ ઉડવાભાઈ
381 ૦૯	મોહનભાઈ ઉડવાભાઈ	મોહનભાઈ ઉડવાભાઈ
382 ૧૦	ઉડવાભાઈ/ભાઈભાઈ	ઉડવાભાઈ
383 ૧૧	કેચન ત્રેતાસ.	કેચન ત્રેતાસ
384 ૧૨	રોહિતભાઈ	
385 ૧૩	જાણીભાઈ ભાઈભાઈ	
386 ૧૪	બેનુભાઈ જાણી	બેનુભાઈ જાણી
387 ૧૫	જાણીભાઈ ઉડવાભાઈ	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું પિરોધીયાં	Signature સહી
૩૮૮ ૨૬	નરેશભાઈ માધુભાઈ ચરેડ	નરેશભાઈ માધુભાઈ
૩૮૯ ૨૭	દુર્ગાબાઈ શિંદે, વાંગર ભાડ	Durgabai - C.
૩૯૦ ૨૮	રામચંદ્ર શાંભુભાઈ, વાંગર	Ramesh
૩૯૧ ૨૯	રબારી વિવેક પિ, વાંગર	
૩૯૨ ૩૦	મહિપાલા શૈલેષ લેલાભાઈ, વાંગર	
૩૯૩ ૩૧	સાંભાલા શાંભુભાઈ શાંભુભાઈ, વાંગર	
૩૯૪ ૩૨	વેળાયા શાંભુભાઈ, શાંભુભાઈ	Velaia Shambhushankar
૩૯૫ ૩૩	વીળાયા મધુર શાંભુભાઈ	Velaia Madhur Shambhushankar
૩૯૬ ૩૪	આર. એમ. શાંભુભાઈ ગુજરાત	R.M. Shambhushankar
૩૯૭ ૩૫	સંતોષભાઈ, વાંગર	S.V. Santosh
૩૯૮ ૩૬	શિવજી શાંભુભાઈ શાંભુભાઈ, વાંગર	J.P. Shivji
૩૯૯ ૩૭	લાલજી ભાઈ શાંભુભાઈ, વાંગર	
૪૦૦ ૩૮	વાદાલાલ/શાંભુભાઈ શાંભુભાઈ	
૪૦૧ ૩૯	ગોવિંદભાઈ શાંભુભાઈ, વાંગર	Govindbhai Shambhushankar
૩૯૪૦૨	શાંભુભાઈ શાંભુભાઈ શાંભુભાઈ, વાંગર	

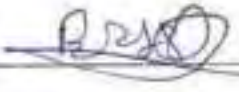

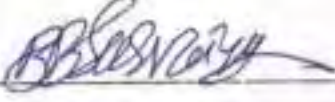
Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
403 ૩૬	કુમારભાઈ બાલુભાઈ કુદેરી	
404 ૩૭	જીજ્ઞાભાઈ જાલજાનભાઈ વાંઘ	
405 ૩૮	કુદેરી એમ વિ ભુવલિયા	માદનિંગા વિશોધ
406 ૩૯	કુદેરી વિદ્યાભાઈ રાજુભાઈ	માદનિંગા વિશોધ
407 ૪૦	કોવોથ પરશંભાઈ નસાભાઈ	માદનિંગા વાસોધ
408 ૪૧	શામળી ભાયા કોવોથ	
409 ૪૨	કાપ્પિયા VIPUL Harsabhai Chhelani	
410 ૪૩	કુચામ-૨ ગોવિંદભાઈ એ. વાલા	ગોવિંદભાઈ
411 ૪૪	કુદેરી લચમાઈ	લચમાઈ
412 ૪૫	કુદેરી ભાગીયા કાંબા એમ	Bhaliya - K.
413 ૪૬	કુદેરી બાળીયા પ્રહલાદ વાલુ	કુદેરી પ્રહલાદભાઈ
414 ૪૭	કુદેરી મદનભાઈ દગાજીભાઈ	કુદેરી
415 ૪૮	કુદેરી પુત્રાભાઈ જીજ્ઞાભાઈ	

Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
૫૧૬	સીંગલાર્ડ બચુભાઈ બારેલા ૫૩૨૫૨૬૧	
૫૧૭	રામી ૨૨ ૬૨૧૧૦ માવ મેડીયાલ ૫૧૧૧૨	Sankhatk.mg
૫૧૮	સાઈ ૨૧૦૧૦૧ મલારાવ ૫૧૧૧૨	R. B. Sankhat
૫૧૯	વિક્રમભાઈ ભી શોભી દુધેરા	
૫૨૦	ભાગી.ભરતીર પોપરના ૫૨૬૧ પોરન સરનામી ૫૨૬૨૫	ભરતીર પી
૫૨૧	વરુભાઈ શાવભાઈ સોની ૫૧૧૧૨	વરુભાઈ/શાવભાઈ ૫૧૧૧૨
૫૨૨	સાઈ ૨૧૨૨૨૫ ૫૧૨૨૫	સાઈ ૨૧૨૨૨૫
૫૨૩	Siyamic વજીયાત ૫૩૧૧૨૬૧	
૫૨૪	સુરભાઈ સોની ૫૧૦૧૨૫	સુરભાઈ
૫૨૫	૫૨૧૨૧૦ ભાઈ વસાભાઈ સોની	
૫૨૬	બાઈલા સુખા સુખાભાઈ (વજીયાત)	
૫૨૭	ગરુડા સી ભાઈ વજીયાત	ગરુડા સી ભાઈ
૫૨૮	ફ.મ. ભાઈ, વજીયાત	F.M.
૫૨૯	ગરુડા વજીયાત-૨ વજીયાત	
૫૩૦	વજીયાત/વજીયાત/વજીયાત ૫૨૬૨૫ ૫૨૬૨૫	૫૨૬૨૫

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
431	ભાલગા ભાલગાઈ ખોડાભાઈ	Bhungal Kumar Ji
432	જેઠીભાઈ વેઠીભાઈ/જેઠીભાઈ	Jethai Vethaiji
433	ચોંબાલા રમેશભાઈ ભાલગાભાઈ	ચોંબાલા
434	ચોંબાલા દેવેશભાઈ ભાલગાભાઈ	ચોંબાલા
435	ભાલગા રમેશભાઈ ભાલગાભાઈ	રમેશ ભાલગા
436		
437	ચાંદુભાઈ પુજાભાઈ	ચાંદુભાઈ
438	જ્ઞાન મહાકુમારભાઈ ભાલગાભાઈ	જ્ઞાન મહાકુમાર
439	જ્ઞાન મહાકુમારભાઈ ભાલગાભાઈ	J. Mahakar
440	જ્ઞાન મહાકુમારભાઈ ભાલગાભાઈ	J. Mahakar
441	જ્ઞાન મહાકુમારભાઈ ભાલગાભાઈ	J. Mahakar
442	Jethava Sunil M	Sunil
443	ભાલગા મહેશભાઈ ભાલગાભાઈ	M. Mahakar
444	જ્ઞાન મહાકુમારભાઈ ભાલગાભાઈ	J. Mahakar
445	જ્ઞાન મહાકુમારભાઈ ભાલગાભાઈ	J. Mahakar

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
446	શંભુ કે. શિવરૂપ	ગુણગુણ
447	બાલુભાઈ મણીભાઈ	બાલુ
448	પિંશીય શિખરભાઈ માલકભાઈ	કુદેરી
449	<del>કરોરભાઈ શાવરભાઈ</del>	<del>કોળીયા</del>
450	કરોરભાઈ	પરવલડા
451	શિખર ભુવનભાઈ-કે.કે.	કુદેરી
452	પેરારામ કાલા મહાપાટા	કુદેરી
453	વિક્રમલા ઇ. નક્કીલાલ ભાલિયા	કુદેરી
454	વિશાલ ભાલિયા	કુદેરી
455	અમરુત સુભિક સોલંકી	કુદેરી
456	સુદામજી મુબ-ભાઈ	કુદેરી
457	વનભાઈસોમભાઈ	કુદેરી
458	બાજુભાઈ	કુદેરી
459	R. G. Bhanrajiya	કુદેરી.
460	MUKESH. M	કુદેરી.

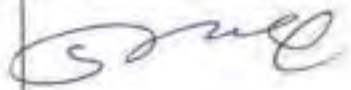
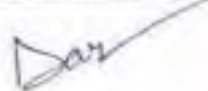
Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
૫૬૧	ખીમા ભાવે દેસા ભાવે	કુધેરી
૫૬૨	માવણ જાલણ	કુધેરી
૫૬૩	હજીતભાઈ રામભાઈ	કુધેરી
૫૬૫	વૈશી રામ કાળા	કુધેરી
૫૬૫	એસોક પાલા	કુધેરી
૫૬૬	જાલણ રાધા	પડોખા
૫૬૭	SrA	વાંગર
૫૬૮	કંઠારી	વાંગર
૫૬૯	ભાઈ ભાઈ મહા	કુધેરી
૫૭૦	લાલા રાજાપાંડ	કુધેરી
૫૭૧	VG, ભવાંચુ	કુધેરી
૫૭૨	N.M. જાલણ	કુધેરી
૫૭૩	શિખાજી રાજીવ, જી.	કુધેરી
૫૭૫	બાંચા ભાઈ. ૬	<u>Bhambhani</u> કુધેરી.
૫૭૫	સુજાતા રામા કાલામા	કુધેરી

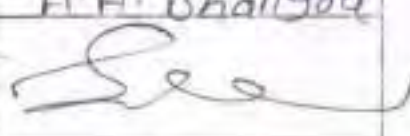



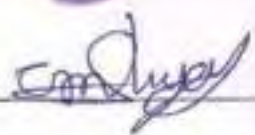

Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
૫૭૬	આરંચા માટેજી ભીખુભાઈ દુધેરી	M.B. Jivani
૫૭૭	આરંચા ચંગોશ મુજાભાઈ દુધેરી	
૫૭૮	આલખા જેન્ના માપજીભાઈ દુધેરી	Z. B. B. B. B.
૫૭૯	ગાંભીરાયા બરુક કાળાભાઈ	
૫૮૦	ગાંભીરાયા પચ્ચે કાળાભાઈ	પરેશી. આ
૫૮૧	પ્રાણીકાંતી પી. પપ્પા	પી. પી. પપ્પા
૫૮૨	ગિલકભાઈ ભામણભાઈ લાંચા	બેન ૧૦ લાંચા
૫૮૩	આરંચા ભામણભાઈ ભીખાભાઈ	
૫૮૪	કાંચેશ હમ્મરભાઈ મોહાભાઈ	હમ્મીરભાઈ
૫૮૫	દુધેરા પંજાભાઈ રુમ્બાઈ	વેલાભાઈ
૫૮૬	Buzungel v. P. L. Purnushahi દુધેરી	v. P. Buzungel
૫૮૭	Bekungel Buzungel - ૧૦.	Bekungel
૫૮૮	સાધુભાઈ વિપુલ. બી	Vipul S.
૫૮૯	કાલેશી નાવરોભાઈ	નાવરોભાઈ
૫૯૦	ધનુચાંદ નાવરુભાઈ	









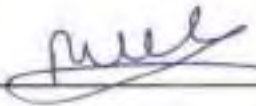

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
491	દિપક માધવ નરસામાઈ ગામ દુધેરી	
492	ફરજી/નલાઈ જાલર (ગામ) દુધેરી	
493	શિયાળ દિંશામાઈ બી દુધેરી	
494	ચોદાગ. અશોક બી.	દુધેરી
495	રવજી માઈ રુખામાઈ	દુધેરી
496	ગોપિંદ દેવરા	દુધેરી
497	મણિય ત્રીવેળાઈ	દુધેરી
498	જય સુખ ભાઈ રાવજીભાઈ	દુધેરી
499	વેળામાઈ વેળામાઈ	દુધેરી
500	પ્રેમજીમાઈ દુધેરી	દુધેરી
501	Natish Bombhanji	Maluva
502	Jaydip TShete	Maluva
503	Jaliga Ashok S.	દુધેરી.
504	Jaliga Bhavesh m.	દુધેરી
505	આર. બી. જોળ્યા	દુધેરી







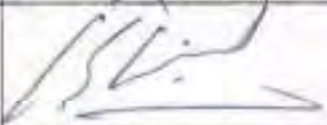
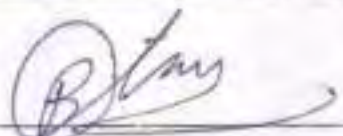
Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
506	Jodiyu. A. B.	કુદેરી
507	Shyam Gopal Ji	કુદેરી
508	Chauhann Vikram	કુદેરી
509	સુકાંતિબેન	કુદેરી
510	ભાઈચંદ્ર જ્ઞાનાલાલ ભાઈ કુદેરી ના પુત્ર	<del>કુદેરી</del>
511	કુદેરી ભાઈચંદ્ર	કુદેરી
512	ભાઈચંદ્ર ભાઈચંદ્ર	કુદેરી
513	સુભાષી નરશાલાયે સુભાલાયે	કુદેરી
514	B. M. K. K. K.	કુદેરી
515	Jodiyu Bhishe	કુદેરી
516	જોડિયા પાંચાકાલાયે ગોલકાલાયે	કુદેરી
517	જોડિયા પાંચાકાલાયે ગોલકાલાયે	કુદેરી
518	Jodiyu Bhishe	કુદેરી
519	સુભાષી નરશાલાયે સુભાલાયે	કુદેરી
520	મન ભુ વાળુ ભાઈ	કુદેરી



Sr. No. અનુક્રમણિકા નં.	Name & Address નામ અને સરનામું	Signature સહી
521	રમેશ માધુ માધુજી	રમેશ માધુ
522	કે. જી. આદ્રોજા	કે. જી. આદ્રોજા
523	મણવંદર રામ	મણવંદર રામ
524	ગણેશ માધુજી	ગણેશ માધુજી
526	ASHISH DESAI Nirma Ltd	Ashish Desai
527	Tejal Patel Nirma Ltd	Tejal Patel
528	AJAY KHUSHU NIRMA LTD	Ajay Khushu
529	G. J. ADROJA Nirma - Sukum	G. J. Adroja
530	D. G. Jakhade Nirma - Bhavnagar	D. G. Jakhade
531	K. N. Patel consultant mines Nirma Ltd	K. N. Patel
532	Mehul Shalema, Nirma Ltd. Geologist	M. S. Shalema
533	Shailendra Kumar Soni Geologist, Mining Consultant Jambhvir	Shailendra Kumar Soni
534	Gaurav Gadani, Nirma Ltd Ahmedabad	Gaurav Gadani
535	Kavish J. Bhavsar, Nirma Ltd Porbandar	Kavish J. Bhavsar
537	Kalpesh V. Trivedi Nirma Ltd. Dharnagar	Kalpesh V. Trivedi

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
537	Dr K.C. PATHAK NIRMA-BHAVNAGAR	
538	Govind C. Khatri Nirma Ltd. Ahmedabad	
539	Khushali Oza Nirma Ltd. Ahmedabad	K.P. 029
540	Dr. P.K. Jain GUMICC (P) LTD.	
541	UMESH BHAVSAR NIRMA LTD AHMEDABAD	
542	Rishat Kumar MIMIC Big D Laboratory	
543	Sudhansu Kumar Dash CEMC PA. LTD.	
544	<del>SAVITRI PATEL</del> NIRMA LTD AHMEDABAD	
545	Bhurell Tanna Nirma Ltd. A. bad	BT
546	Dr. G. Megha shyam GUMICC P. LTD	
547	PURNIMA S. SHARMA	
548	Nilesh K. Pandya	
549	Paresh Rathod	Paresh
550	Pradyumn R. Patel	Pradyumn
551	Laxmi 1 Bala	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું પિરોધીયા	Signature સહી
552 +	કુબી શેલાલા	K.B. Shelana
553 +	શંભુભાઈ દાસ	
554 +	B.N. Shelana	
555 +	વજીરુલ હાકીમ	A.A. Bhangra
556 +	મીરાબાઈ મિસ્તા આપડેનોબોલ	
557 +	ઉર્મીશ શાંરુ	U.S
558 +	Parthiv Doshi	
559 +	Sudhakar	
560 +	Chatterjee	Chatterjee
561 +	શંભુભાઈ રવિ વા.	Ravi
562 +	લકીમીદ મજબૂબ	
563 +	દયાનંદ. સી. શિખર	
564 +	મુ. સ. શિખર	મુ. સ. શિખર
565 +	દલાલમીદ સામી	
566 +	મગન. R. ચાંડીયા	3/8251

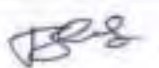
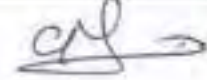



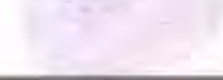
Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું (પરોચીય)	Signature સહી
567 ૧૬	ભાઈયા મજબૂબખાન/સામણીયા	
568 ૧૭	ભરૂચાભાઈ જતાભાઈ	
569 ૧૮	જેઠવાભાઈ મારુ કુદરેશ	
570 ૧૯	કેશભાઈ દામણ	
571 ૨૦	ખાલભાઈ દામણ	
572 ૨૧	કામલ દામણ	
573 ૨૨	શિખાલ પ્રકાશભાઈ ડે.	
574 ૨૩	અસ્તમભાઈ દામણ	
575 ૨૪	કેશભાઈ કામણ	
576 ૨૫	વાલકામણ દામણ	
577 ૨૬	રામુભાઈ રામભાઈ	
578 ૨૭		
579 ૨૮	મલભાઈ મલભાઈ	
580 ૨૯	કુચ ભાઈ મદાલા	
581 ૩૦	J.S. Joliva	

Sr. No. અનુક્રમિક નં.	Name & Address માપનિંગો નામ અને સરનામું પિરોધીરો?	Signature સહી
582 ૩૧	ચીલાલાઈ હાલપાળી	
583 ૩૨	મગધસુભાઈભાઈભાઈ મથાલ	
584 ૩૩	પદસામભાઈ દોંબા	
585 ૩૪	પ્રવાલભાઈભાઈ	પ્રવાલભાઈભાઈ
586 ૩૫	જોશભાઈ મથાલ	
587 ૩૬	નરસામભાઈ ભામણપલ	
588 ૩૭	વેલભાઈ પારાભાઈ	વેલભાઈ પારાભાઈ
589 ૩૮	દાસભાઈ ભાઈભાઈ	
590 ૩૯	સાવળભાઈ ભાઈભાઈ	
591 ૪૦	સાવળભાઈ શિયાલ	
592 ૪૧	માધનભાઈ પિરોધીરો સોંડલા સુરેશ	HCL/PS
593 ૪૨	સુલભાઈ મનુભાઈ કોળીય માપનિંગો પાલિકા	Kholiy
594 ૪૩	વિદેવો ચોખાભાઈ પુમ્મી	
595 ૪૪	ભાઈભાઈ જ્ઞાન સુરેશ	
596 ૪૫	મુખામલો મેખામલો વાદશીખા	


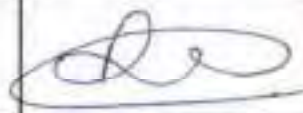
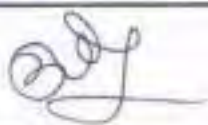
Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
587 46	આપણું) નામ અને સરનામું પિરોઈરૂડી બાબા મિરોલાઈ ગોકિયા	
588 47	બેલળ માધ ભામા માધ	
589 48	ભાગવા ભાગ એવ	
590 49	ભાગવા બીચા ગાંડી	
591 50	માપણ રામ ગીનારાય	
592 51	પ્રેમજી લેખાભાઈ સોલંકી	
593 52	માપણગી વાલેદી માપણ વલ્લભ વાલેદી	
594 53	અવન દેવજી જોશી માપણગી વાલેદી	
595 54	માપણગી વાલેદી. મિરોલાઈ સુખાભાઈ સુખા	M.S. Jadhav
596 55	માપણગી વાલેદી કુળાભાઈ વાલેદી	
597 56	શિયાળ વિક્રમ પી	શિયાળ વિક્રમ પી
598 57	શિયાળ સંજયભાઈ ગોપાલભાઈ	શિયાળ સંજયભાઈ
599 58	સોળયા શાંતિ વલ્લભભાઈ	સોળયા શાંતિ વલ્લભભાઈ
600 59	સોળયા સંજય. એન	સંજય સોળયા
601 60	શિયાળ. સુભાષ. વેલ્લભ	શિયાળ. વી.વી

Sr. No. અનુક્રમિક નં.	Name & Address નામ અને સરનામું	Signature સહી
612 જ	આવડિંગ મીલકતી રામચંદ્ર સિંઘ	પરોચી
613 જ	મસ્જીદા વલિયામાઈ સફરમાઈ	મસ્જીદા વલિયામાઈ
614 જ	કાલાલા વજીરામાઈ વજીરામાઈ	R.V. MU WAZIR
615 જ	બી. કે.	બી. કે.
616 જ	વિદ્યાલય બાલ માઈ માલાઈ	વિ. ડી. માલાઈ
617 જ	બાલા માઈ કાલામાઈ બાલામાઈ	
618 જ	વપુલમાઈ લખમાઈ સોલેહ	
619 જ	દરમતી માઈ બોદામાઈ બોદામાઈ	
620 જ	અવમાઈ મધુમાઈ બાલકામાઈ	
621 જ	શિયાલ કિલ્લા વજીરામાઈ	S. K. R.
622 જ	મસ્જીદા કાલામાઈ વજીરામાઈ	M. K. R.
623 જ	સોલેહ સોલેહ બાલામાઈ	
624 જ	વેલમાઈ બાલામાઈ બાલામાઈ	સિંઘ
625 જ	સુબામાઈ બાલામાઈ બાલામાઈ	
626 જ	બાલામાઈ બાલામાઈ બાલામાઈ	સુબામાઈ







Sr. No. અનુક્રમાંક નં.	Name & Address માયળાં નામ અને સરનામું પરીણીયાં	Signature સહી
633	Bhadrabhai. Patel Gujarat Sahasra Padhi Paper	
634	Dipak M. Maheshwari	
635	Bhadrabhai Patel	
636	Girish Patel	
637	Ravi Kumar Choudhary	Ravi Kumar
638	R.K. Chaudhary	R.K.C
639	Rajendra K. Jethi	Rajendra K. Jethi
640	Dipak Maheshwari	
641	SANKHAT GHANSHYAM.	G.N. Semant
642	Bhadrabhai Patel	B.P.S
643	Ravi Singh	
644	Ravi Kumar	R.K. Semant
645	Ravi Kumar	A.L. Semant
646	Dipak Maheshwari	Dipak M.
647	Dipak Maheshwari	Dipak M.



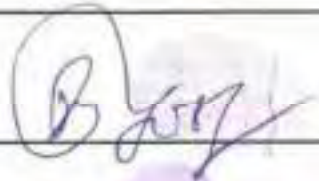
Sr. No. અનુક્રમણિકા નં.	Name & Address નામ અને સરનામું	Signature સહી
648 16	m B Chaudhari	
649 17	Sankhat Nitesh . B	
650 18	સુરેશભાઈ વાઘા	કે. જી. વાઘા
651 19	મહિપાલભાઈ વેળાણી સેવક	B M
652 20	શ્રીમતી. જસાવ શાળાભવન કચ્છાવાડી માર્ગે	શ્રીમતી. જસાવ
653 21	શિયાળ સરિત. શામળાણી મડ	Shital B.S
654 22	વિપુલ કે ચૌહાણી વાગર	VIPUL
655 23	Chandam Vishal B.	vishal chandam
656 24	MOKLAKAR Vipul m.	
657 25	Jariya Jyotish S	
658 26	શિયાળ શિયાળ P	
659 27	ભાસ્કર રાજીવ D	
660 28	મોહિયા મોહિયા એ	મોહિયા એ
661 29	મોહિયા વાલક. કે	વાલક
662 30	દેવદાસ વાલક. કે	

Sr. No. અનુક્રમાંક નં.	Name & Address માયમિંગો નામ અને સરનામું પરીચીત્તી	Signature સહી
663 <del>31</del>	શૈલગામ રિખા, આર	H.R.S.
664 <del>32</del>	જુંગરીયા રિજવાન આર.	D.R.R.
665 <del>33</del>	લાલાપા રાજુ-ડી	લાલાપા રાજુ-ડી
666 <del>34</del>	Kharabhala Kharabha H	<u>Kharabha</u>
667 <del>35</del>	Khalijee vijay S.	V.S. Khalijee
668 <del>36</del>	M.D. Bhau	m-d B
669 <del>37</del>	Jaljee bhupat D.	
670 <del>38</del>	Bhaljee dinesh B	<u>D.B.</u>
671 <del>39</del>	Jalav guresh	જાલવ
672 <del>40</del>	સવાળા લાલા ભાવ	B.A.M
673 <del>41</del>	ગદવ સંજલ	S.L. Jalav
674 <del>42</del>	વિપુલ જાલવ	V.H. Jalav.
675 <del>43</del>	લવાળી ભરવાડ	લવાળી ભરવાડ
676 <del>44</del>	ધુધવાળી રાજુકે રાં.	
677 <del>45</del>	શૈલાડગા વપલ આર.	

Sr. No. અનુક્રમાંક નં.	Name & Address આપણિંગી નામ અને સરનામું	Signature સહી
678 ૫૪	નાગજી રાજાલાલ મહાલાલ	લાંગીર
679 ૫૫	મહાલાલ પુત્રાલાલ (કડવાલાલ)	P.H. Mahala.
680 ૫૬	શિયાળી મહાલાલ ફરીમી (મહાલાલ)	
681 ૫૭	મહાલાલ મેરુલાલ જેમજલાલ	મહેમ. મહાલાલ
682 ૫૮	મહાલાલ મુકેશ શિંમલાલ	M.H. મહાલાલ
683 ૫૯	મહેલ ભરણાલ મહાલાલ	લાંગીર
684 ૬૦	મહેલ હરેશાલાલ દુધાલાલ લાંગીર	H.G. JADAV
685 ૬૧	મહેલ	મહેલ
686 ૬૨	Khetanand Chemsingh	
687 ૬૩	મહેલ મહાલાલ મહાલાલ	
688 ૬૪	મહેલ મહાલાલ	
689 ૬૫	મહેલાલ મહાલાલ	મહેલાલ મહાલાલ
690 ૬૬	મહેલાલ મહાલાલ	લાંગીર
691 ૬૭	મહેલાલ મહાલાલ મહેલાલ	મહેલાલ
692 ૬૮	મહેલાલ મહાલાલ મહેલાલ	મહેલાલ મહેલાલ




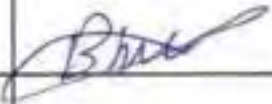
Sr. No. અનુક્રમિક નં.	Name & Address આપણું નામ અને સરનામું પિરોયીઓ	Signature સહી
693 ૬૧	ભાભીયા શામળ કી દુધેરી	ભાભીયા શામળ કી.
694 ૬૨	ભાભીયા ગોતમ ગોચાલવાડુપુરી	ભાભીયા ગોતમ
695 ૬૩	ભાભીયા રાહુલ શામળભાઈ દુધેરી	ભાભીયારાહુલ
696 ૬૪	અવકાશીય જીવનભાઈ	પાંગર
697 ૬૫	આર. કૃષ્ણ શામળ	પાંગર
698 ૬૬	ચિરાગ અમ. મકવાણા	પાંગર
699 ૬૭	જલિયા દીલીપ રાહુલ ભાઈ	પાંગર
700 ૬૮	<del>સુભાષી</del>	વનજીવ
701 ૬૯	સુભાષી પટેલ	પાંગર
702 ૭૦	મકવાણા વડુ B.	પાંગર
703 ૭૧	મકવાણા દિગેશ P	પાંગર
704 ૭૨	Ashok C. Kherkar	પાંગર
705 ૭૩	R.C. Chavhan	પાંગર
706 ૭૪	S. D. Jadhav	પાંગર
707 ૭૫	ભાભીયા અમ. જી ભાભીયા ભાઈ	કૃષ્ણ ચિત્રા ભાભીયા

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું પિરોધારનો	Signature સહી
708 <del>708</del>	કે. રાજીવ માલ ૦૮૫૧૬ માલવા	
709 <del>709</del>	મહેશ માલ લાંભાજીરા	મહેશ માલ
710 <del>710</del>	વૃદ્ધા મુગલા	
711 <del>711</del>	ડો. વાસુદેવ અમલ અરેક	
712 <del>712</del>	ડો. વાસુદેવ અમલ અરેક	
713 <del>713</del>	ડો. વે. સી. શેઠ	ડો. વે. સી. શેઠ
714 <del>714</del>	ડો. વે. સી. શેઠ	
715 <del>715</del>	મો. અરેક અમલ અરેક	મો. અરેક
716 <del>716</del>	ડો. વે. સી. શેઠ	ડો. વે. સી. શેઠ
717 <del>717</del>	GS Sumer	GS Sumer
718 <del>718</del>	Chetan	Chetan
719 <del>719</del>	Jogin Redu. d.	Jogin Redu. d.
720 <del>720</del>	Gokul J Bhandari	Gokul J Bhandari
721 <del>721</del>	V M Bhandari	V M Bhandari
722 <del>722</del>	મો. અરેક અમલ અરેક	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
723 ૧૧	માયમિંગી પિરોધીયા	
724 ૧૨		વાંગર
725 ૧૩	વિમ્બર દામોરી બી	વાંગર <del>સહી</del>
726 ૧૪	શાંભુ	વાંગર
727 ૧૫	V.M. વેપા	
728 ૧૬	વી.કે. તેડાલાલા	વાંગર
729 ૧૭	Rohel L. Soliya	વાંગર
730 ૧૮	mankawane Ramani V	Vankar
731 ૧૯	L D	Vankar
732 ૨૦		વાંગર
733 ૨૧	Ramesh N Soliya	Dehri
734 ૨૨	મોહનલાલ અમરશીભાઈ	દુધેરા
735 ૨૩	રમેશભાઈ જરશીભાઈ	દુધેરા
736 ૨૪		વાંગર
737 ૨૫	Hingambhatt	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
738 104	મોખરિંગી સાંખર-ચિત્રાવાલુકા કીર્તી	
739 104	શ્રી સમીક્ષા	શ્રી. સમીક્ષા
740 104	સમીક્ષા @ 10/10/2021	
741 104	P.K	
742 110	સમીક્ષા સમીક્ષા	
743 111	Kool. S. K.	
744 112	R.K	
745 113	UMPSH	US
746 114	સાંખર જિલ્લો	S.K.M
747 115	Harish	
748 116	Mr. Badshah.	Mr. Badshah
749 117	Piyush	P.H
750 118	સમીક્ષા ભુવેશ	
751 119	સાંખર-ચિત્રાવાલુકા વી.	
752 120	Heemal	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
753 121	માયજિંગી Sankesh Keshk	
754 122	L.K. Vrushiyev	L.K. Vrushiyev
755 123	એમ એસિયાલ	એમ એસિયાલ
756 124	એસ કે સરવેયા	એસ કે સરવેયા
757 125	રાજુભાઈ ભુસાભાઈ મલ્યાણ, વાંગર	રાજુ. બી. મલ્યાણ
758 126	સરવૈયા નરેશભાઈ કેશભાઈ વાંગર	
759 127	કરશાભાઈ નાભભાઈ મલ્યાણ	ક.એન. મલ્યાણ
760 128	બેલભાઈ	
761 129	<u>સુલેશ R. Mankhane</u>	<u>સુલેશ</u>
762 130	ગુણુ ભાઈ મલ્યાણ	સુલેશ
763 131	રમેશભાઈ પીલાભાઈ	મેર
764 132	ભાસ્કરભાઈ મલ્યાણ રાગર	
765 133	મણુ ભાઈ દુર્લાભાઈ રાગર	મણુભાઈ
766 134	બેલભાઈ	
767 135	કરશાભાઈ રાગરભાઈ રાગર દેવજી કરશાભાઈ	પીલા

Sr. No. અનુક્રમાંક નં.	Name & Address માપમાંગ નામ અને સરનામું પરોધીઓ	Signature સહી
768 136	દેવજી કુરુડાન લાઇ મહુવા	દેવજી કુરુડાન
769 137	માલીયા દગમમીય જનામજી	દગમમીય
770 138	મહવાડા વિભાલ ખોડામીય	V
771 139	મહવાડા આબા પંચમીય	
772 140	મહવાડા આંબીજીકુમાર વેળામીય	S.V. વાળા
773 141	મહવાડા વિક્રમ રવજીયાઈ	
774 142	મહવાડા કિરણ હિંમતલાઈ	
775 143	કે.બી.મહવાડા K.B. Mahwada	
776 144	મહવાડા S. B. Mahwada	
777 145	દુધવડા આબે. જનામીય	
778 146	દુધવડા આબે. જનામીય	આબે જનામીય
779 147	આમાલાઈ જનામીયા	શેલાબાઈ જનામીયા
780 148	દુધવડા કિરણ લાડલાઈ	Kishan
781 149	દુધવડા દુધાબાઈ દગવજાઈ	દુધાબાઈ
782 150	દુધવડા વગદીશલાઈ દેવાલલાઈ	વગદીશલાઈ

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
783 151	પરોદીયા	
784 152	જીવનભાઈ જસુભાઈ દુધળા	જીવન જસુભાઈ
785 153	ગોપરભાઈ જગજીભાઈ દુધળા	ગોપરભાઈ
786 154	દુધળા કમ્બેરાલાલ લાલભુલાલ	દુધળા કમ્બેરા રમેશ
787 155	દુધળા કાશીબાઈ વાગ	<u>Kashibai</u>
788 156	દુધળા મુનેરા ડી	<u>M.D</u>
789 157	દુધળા જગજીભાઈ લાલભુલાલ	દુધળા જગજી રમેશ
790 158	દુધળા વાલુભાઈ ડી.	vaalubhai
791 159	દુધળા મણી રમેશ	manish
792 160	સિદ્ધાંત વાગ. વ.	sidhant
793 161	સિદ્ધાંત વાઈ રમેશ	S.H
794 162	સિદ્ધાંત વાઈ રમેશ	<u>Sidhant</u>
795 163	સિદ્ધાંત વાઈ રમેશ	umb
796 164	પરમજી પુલેજી સોપાભાઈ	P.P.B.
797 165	સિદ્ધાંત વાઈ રમેશ	sidhant

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
798 166	મનજી ભાઈ રાગભાઈ	સી. જાળ
799 167	જી. પી. મહાલાલ	સી. જાળ
800 168	શાંતલાલ રામજી. વિ	સી. જાળ
801 169	અમલક રંગ રોડ	પદોજી
802 170	અમલક ભાઈ અમલક	પદોજી
803 171	Chakum Jirani	જી. જી.
804 172	મગ. સુભાઈ	પદોજી
805 173	દુબઈ બંધ	વાંગીર
806 174	આઈ	મહાલાલ
807 175	સિંઘલાલ રામલાલ લાંબાગીચ	વાંગીર જી. જી.
808 176	દુબાઈ મોહાલાલ લાંબાગીચ	અગાલરીયા
809 177	લાલુલાલ રામલાલ	વાંગીર
810 178	જી. જી. ભાઈ	દુબઈ
811 179	બા. સી. ભાઈ જી. જી.	દુબઈ
812 180	અ. જી. ભાઈ	દુબઈ

Sr. No. અનુક્રમાંક નં.	આપણો મોજા	Name & Address નામ અને સરનામું પિરીષીઓ	Signature સહી
813 141		વિષ્ણુભાઈ	
814 142		ગિલગીયા ડગુ જે.	સાવત્રિયા ડગુ
815 143		વિજયે. રમેશ. બાંધવડીયા	વિજય
816 144		જેજીયા દુધાભાઈ	દુધાભાઈ જેજીયા
817 145		જેજીયા બુલભાઈ-ભાઈ	જે. જી. ભાઈ
818 146		દેવાઈયા ભાઈ ભાઈ	કે. રમેશ ભાઈ
819 147		ભાઈયા અરવિંદભાઈ. જી.	AB Bheerappa
820 148		પદ્માભાઈ પદ્માભાઈ	
821 149		પદ્માભાઈ ભુવનભાઈ	P. B
822 150		દેવાઈયા રાજીભાઈ	જયેશભાઈ
823 151		ભાઈભાઈ ભાઈ ભાઈ	
824 152		રાજીભાઈ ભાઈ	
825 153		રાજીભાઈ ભાઈ	રાજીભાઈ
826 154		સુભાઈ ભાઈ ભાઈ	સુભાઈ ભાઈ
827 155		સુભાઈ ભાઈ ભાઈ	સુભાઈ ભાઈ

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
828 146	પરીધીયા અ. ર. ભા. મ.	
829 147	વડલભાઈ ડોળયા	
830 148	કાશી ભાઈ ગામીભાઈ ડોળયા	K.G.S
831 149	ભાવેશભાઈ વેલ્યા ભાઈ જોષીયા	જી.સી. જોષીયા
832 150	પ્રેમજીભાઈ જીગાભાઈ શીયાળ	ડોળયા
833 151	મુકેશભાઈ ભવશુભાઈ સુડાસમી	બી.ભ.ડી
834 152	સામલ સાંભી બી	બી.ભ.ડી
835 153	સુખાભાઈ સંતે દુધવાળા	બી.ભ.ડી
836 154	ભાર્ગવી ભાઈ બી	પર્યાયલકા
837 155	પ્રીયંભાઈ ડોળયા	દુધવાળા
838 156	શિવાજી ભાઈ	ડોળયા
839 157	સુખાજી સીંગ	ડોળયા
840 158	ભાઈભાઈ ભાઈભાઈ	દુધવાળા
841 159	સુભાષભાઈ ભાઈ જી.ભ.ભાઈ	દુધવાળા
842 160	સામલભાઈ સામલભાઈ સામલભાઈ	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
843 <del>74</del>	માપગિંગા પિરોધીચૌ જગદિશભાઈ સુકાભાઈ ચૌહાણ	ગુણેશ
844 712	મોહનભાઈ	
845 <del>711</del>	મોહનભાઈ	
846 711	અરવિંદરાવ	
847 715	બાપાપુત્રી અડભાઈ અરભાઈ	બાપુજી
848 216	બા. જી. પારમેશભાઈ આપજી	અમીતભાઈ
849 711	રિશભાઈ અમીતભાઈ	રુચી
850 716	શામળ સીલ્લા	
851 714	ગાંધી લાલા	
852 <del>711</del>	અનંદ સી મલભાઈ	સાગર
853 711	Shanti Muldubhai Malbhai	Shanti
854 712	અમીતભાઈ ચૌહાણ	કુચેરા
855 713	મોહનભાઈ	
856 714	મોહનભાઈ	
857 715	C.D.B H L	

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
858 <del>226</del>	આંપાંગા અમજીભાઈ પરીધીયા	
859 <del>227</del>	જરસી ભાઈ જાસરાભાઈ	
860 <del>228</del>	જયપુરાભાઈ વાજેડા ભાઈ	
861 <del>229</del>	કાંભાણ/વડાવેડાભાઈ ચાંદલા	કાંભાણ
862 <del>230</del>	કુશાભાઈ જાનભાઈ	કોશાભાઈ
863 <del>231</del>	ભુપાભાઈ ગોપીદાસ	ભુપાભાઈ ગોપીદાસ
864 <del>232</del>	શાંતી ભાઈ	શાંતી ભાઈ
865 <del>233</del>	શાંતી દેવાઈ	શાંતી દેવાઈ
866 <del>234</del>	દેવાઈભાઈ	
867 <del>235</del>	જરસી ભાઈ	જરસી ભાઈ
868 <del>236</del>	દેવાઈભાઈ	
869 <del>237</del>	શાંતીભાઈ	
870 <del>238</del>	શાંતીભાઈ શાંતીભાઈ	
871 <del>239</del>	શાંતીભાઈ	
872 <del>240</del>	શાંતીભાઈ શાંતીભાઈ	શાંતીભાઈ શાંતીભાઈ

Sr. No. અનુક્રમાંક નં.	Name & Address નામ અને સરનામું	Signature સહી
873 241	મોપળિંગ પિરોધીયા	
874 242	સરજા સિયા	સરજા સિયા મળાગી ગામ પાલિકા
875 243	જી. ભુલાઈ ભાઈ ભાઈ	જી. ભુલાઈ ભાઈ
876 244	બાલુભાઈ	
877 245	દેવેન્દ્રભાઈ	
878 246	બાલુભાઈ ભાઈ ભાઈ ભાઈ ભાઈ ભાઈ	સરજી
879 247	સરજાભાઈ શંભુભાઈ	મકવાડા
880 248	શંભુભાઈ સંપતભાઈ	
881 249	બાલુભાઈ જી. ભાઈ	
882 250	સરજાભાઈ ભાઈ	
883 251	મરજાભાઈ/ગો. ભાઈ/મોજીયા	કુધેરી
884 252	બેલ જી. ભાઈ મોજીયા ભાઈ	કુધેરી
885 253	મનજીભાઈ ભાઈ જી. ભાઈ	કુધેરી
886 254	સરજાભાઈ/સા. ભાઈ	કુધેરી
887 255	બાલુભાઈ	

**Annexure-B (ENGLISH)**

**A statement showing issues raised by the participants and responses by the representative of the applicant during the public hearing**

It is hereby informed that as per the Ministry of Environment, Forest & Climate Change, Government of India, New Delhi vide its notification no. S.O. 1533 dated 14th September 2006 and its subsequent amendment S.O. 3067 (E) dated 1st December 2009, Public Hearing is Fixed for M/s Nirma Limited (Mine lease Area: 612.1336 Ha) for Proposed Vangar & Madhiya Limestone Mining – Rate of Mining 1.6 MTPA, at Villages: Vangar & Madhiya, Taluka: Mahuva, Dist: Bhavnagar, covered under Project Category "A" at Nirma Cement Plant Area, NH 8 E/51, Survey No. 80, Village: Padhiarka, Ta. Mahuva, Dist: Bhavnagar on 28/04/2023 at 09:30 hrs under the chairmanship of Shri R.K. Mehta, IAS, District Collector and District Magistrate, Bhavnagar.

Shri A. J. Rathod, Regional officer, Gujarat Pollution Control Board, Bhavnagar and representative of the Member Secretary, Gujarat Pollution Control Board, Gandhinagar welcomed all people present during the Public Hearing. He outlined various provisions of the EIA Notification and briefed the procedural details for conducting this Public Hearing. He informed that for establishment of new industries and for expansion or change in production or modernization of existing industries/projects, it is mandatory to obtain environmental clearance as per notifications published by Ministry of Environment Forests & Climate Change, New Delhi. He also informed that as per provisions of notifications published by Ministry of Environment Forests & Climate Change, New Delhi, locally affected people would be able to make oral representations at this public hearing whereas other individuals having plausible stake, have to submit their representation in writing which would be included in the proceedings. He also clarified that all the representations made during the public hearing would be included in the proceedings of the hearing.

He mentioned the advertisement for this public hearing was published in Gujarati Daily News Paper "Sandesh" and in English News Paper "Times of India" dated 26/03/2023. He also stated that the copies of executive summary of this proposed project was distributed in the villages within 10 km radius of the proposed limestone mining project.

He further stated that following persons/organizations have submitted objections and suggestions related to the proposed project prior to the public hearing. He said that these objections and suggestions along with reply made by the project proponent will be included in the minutes of the proceedings.

- Shri Mahuva Bandhara Khetiwadi Paryavaran Bachav Samiti, Po:Vangar, Ta: Mahuva, Dist: Bhavnagar
- Vangar Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Madhiya Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Padiyaraka Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Doliya Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Dudhala No-1 Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Dudheri Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Gujarda Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Devaliya Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Khared Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Katpar Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Sandhiyala-1 Gram Panchayat Office, Ta: Rajula, Dist: Amreli
- Patwa Gram Panchayat Office, Ta: Rajula, Dist: Amreli
- Gadhda Gram Panchayat Office, Ta: Mahuva, Dist: Bhavnagar
- Sushri Shantuben Narshibhai Chauhan, Member, District Panchayat Electoral Board, Dist: Bhavnagar
- Shri Mohanbhai Hamirbhai Makwana, President, Shri Mahuva Taluka (Rural), BJC, Dist: Bhavnagar
- Sushri Anjuben Ghelabhai Makwana, President, Taluka Panchayat, Ta: Mahuva, Dist: Bhavnagar
- Shri Vitthalbhai Madhubhai Vadhelu, Chairman, Executive Committee, Ta: Mahuva, Dist: Bhavnagar
- Shri Bharatbhai Naranbhai Shiyal, Member, 9-Dudheri Taluka Panchayat Constituency, Ta: Mahuva, Dist: Bhavnagar
- Shri Chhaganbhai Nanbhai Bhalia, Member, 8-Doliya Taluka Panchayat Constituency, Ta: Mahuva, Dist: Bhavnagar
- Shri Ramjibhai Chitharbhai Dolashiya, 14- Katpar, Taluka Panchayat Constituency, Ta: Mahuva, Dist: Bhavnagar
- Shri Mahesh Pandya, Paryavarn Mitra, Dist: Ahmedabad
- Shri Vitthalbhai B Solanki, President (Mahuva), Kisan Ekta Samiti, Dist: Bhavnagar
- Shri Sagar Rabari, Trustee, Gujarat Farmers Ekta Manch, Dist: Bhavnagar
- Shri Nitish Bambhaniya, President, Jarayu Nature Club, Mahuva, Dist: Bhavnagar

Then Shri A. J. Rathod, Regional Officer, GPCB, Bhavnagar & Representative of the Member Secretary, GPCB, Gandhinagar has asked representative of project proponent to make the presentation of their proposed project in local language (i.e. Gujarati) after due permission from Shri R. K. Mehta, I.A.S. District Collector & District Magistrate and Chairman of this public hearing.

On behalf of the project proponent, Shri G. J Adroja, Vice President, M/s. Nirma Ltd welcomed all present in public hearing. Thereafter, Ms. Tejalben Patel, Sr. Manager (Environment), Nirma Ltd, has given an outline of the proposed project through a power point presentation in Gujarati language. In this presentation, she briefed all present about details of project introduction, background, project details, product information, environmental management system, its impacts and proposed controls, project benefits, socio-economic development plan.

After completion of above mentioned presentation, Shri A. J. Rathod, Regional Officer, GPCB, Bhavnagar & Representative of the Member Secretary, GPCB, Gandhinagar has declared the forum open for local public for submissions/objections/suggestions after due permission from Shri R. K. Mehta, I.A.S. District Collector & District Magistrate and Chairman of this public hearing. During the public hearing, public remained present raised questions/suggestions/objections/opinions. The statement showing these representations during public hearing and responses given by Shri Ashish Desai, President (Project), Representative of project proponent, are as under:

<b>Sr No</b>	<b>Name &amp; Village of the person</b>	<b>Issue raised</b>	<b>Response made by Representative of Project</b>
1	<b>Name:</b> Hamirbhai Rudabhai Shiyal (Mantri-Shri Mahuva Bandhara Khetivadi Paryavaran Bachav Samiti) <b>Village:</b> Vangar	His written submission dated 28/04/2023 was read out literally. The written submission is enclosed herewith as Annexure-C24.	A written response was read out by the project proponent. A written copy of the reply is enclosed as Annexure-D24.

Additionally, Project proponent also informed that as per representations received from GPCB and Collector Office, following four points are common and are the questions of the people of this area.

(1) About Private Land- Privately owned agricultural land can be purchased and mined by the company with farmer's/land owner's consent only. No land is to be acquired by the Government. If the land once sanctioned on lease by the Government, it doesn't mean that the villagers will lose the land and thus there is no question to migrate.

(2) Salinity Ingress – Mining will only be done by leaving 500 meters from the High Tide Level (HTL) of the sea i.e. in half a km from the HTL, there will be no excavation in that area. There will be no change in the condition of the stone belt preventing salinity. Ground water will not be intersected at any place resulting in no change in groundwater salinity due to mining. Mining will be done with eco-friendly surface miner only. Drilling-blasting will be required only in case of hard rock. Mining will be done as per mining plan approved by Indian Bureau of Mines (IBM).

(3) Regarding Schedule-I species & wetland- Government of India notify any places as Wetland/Ramsar Convention Site through study. No such site has been notified in or around the mining lease area as per notification of 2022. A conservation plan for wild life has been prepared in consultation with the Forest Department, Government of Gujarat which has been approved by the Principal Conservator of Forests, Government of Gujarat which will be implemented. According to the last 2016 declaration of Important Bird Area (IBA) for migratory birds, this mining lease area is not included in it. Even as per the judgment of the High Court, there is no wetland in this area and the Honorable NGT has also approved the same.

(4) Regarding Environment protection-As you all are concerned about environment, the company is more concerned about the environment and it is our responsibility also. We assure that we are going to fulfil this responsibility sincerely. You can see that the company has invited experts of different subject matter from all over the country for the EIA study. The company has a separate environment department to follow up all matters related to the environment. We are also responsibly improving the environment with the development of industries. Recently the Honourable NGT and Supreme Court have given important reforms to work in Eco Sensitive Zones (ESZ). From my side as well as from the company, we give an assurance that we will not cause any kind of damage to the environment and mining will be done in accordance with environmental regulations. First of all, mining will be started only in approved government waste land; no private land will be grabbed by the company or acquired by the government. With the above guarantee, we are present here to answer any other questions.

2	<b>Name:</b> Mohanbhai Makwana (President-Mahuva Taluka Rural-Bhartiya Janata Party) <b>Village:</b> Gujarda	His written submission dated 28/04/2023 was read out literally by him. The written submission is enclosed herewith as per Annexure-C29.	Representative of project proponent replied. A detailed written reply is enclosed as per Annexure-D29.
3	<b>Name:</b> Bharatbhai Naranbhai Shiyal (Member- Dudheri Taluka Panchayat	The presenter informed that he is a member of Khedoot Ekta Manch & he read out literally the letter dtd.	The Project Proponent informed that all submissions given by the presenter are included in EIA as per EPA Act.

	Constituency) <b>Village:</b> Dudheri	28/04/2023 of Khedoot Ekta Manch.  The written submission is enclosed as Annexure-C37 of Khedoot Ekta Manch.	In addition, it was also informed to people present that the Ministry of Environment & Forest which gives us the Terms of Reference, for which we have to give proper compliance which covers everything that said by Bharathbai. He added that Committee of Expert people are verifying application. Then after only they decide for granting environment clearance. A written copy of the reply is enclosed as per Annexure-D37.
4	<b>Name:</b> Manishbhai Jitubhai <b>Village:</b> Dudheri	He opposed the proposed mining project and told not to destroy Saurashtra's Kashmir.	The benefits of the project were explained by the representative of the project proponent and the guarantee was given to contribute in the development of Mahuva with coordination with villagers.
5	<b>Name:</b> Chhaganbhai Nanbhai Bhaliya (Member- Doliya Taluka Panchayat) <b>Village:</b> Doliya	The mining lease area granted to the company consists of privately owned agricultural land. Millets, sorghum, vegetables are cultivated in this agricultural land, so such land should not be given.	Representative of the project proponent informed that the land owner who wants to give the land by sale/consent will only be taken by the company for mining.
6	<b>Name:</b> Babhrmiya Kharajibhai Bhanabhai <b>Village:</b> Dudheri	Information sought for species included in Schedule-1. The main occupation of the people here is agriculture and animal husbandry. With the coming of the mining project, both these businesses will be destroyed.	Representative of the project proponent has informed that mining will be done according to the rules of Environment and Mining, hence will cause negligible loss to the both businesses.
7	<b>Name:</b> Rameshbhai Bhagabhai Gohil  Up-Pranukh, Kisan Morcho <b>Village:</b> Vaghnagar	As a representative of Mahuva Municipality, he asked that is it legal to conduct the environmental public hearing of three different mining leases of these seven villages on the same date and at the same place at different times?  This point needs to be included in the minutes.	In response, the representative of the project proponent informed that three mining leases have been approved by the Government through separate lease deeds. According to the rules under the Environment Protection Act and its amendments the three environmental hearings of the three mining leases are to be held on the same day and at the same place. The villages included in 10 km of

			all three mining leases are almost the same. According to the Terms of Reference of three mining leases, cumulative impact to be presented when they operate together. So the environmental public hearing of these three has been held on the same date and place.
8	<b>Name:</b> Mavjibhai Chauhan on behalf of Shantuben Narsinh Chauhan, Member of Jilla Panchayat Mairdar Mandal (Katpar Jilla Panchayat) <b>Village:</b> Gujarada	My name is Mavjibhai Dudhabhai Chauhan, resident of village Gujarada & I am representing on behalf of Shantuben Narshibhai Chauhan resident of Katpar district Member of Jilla Panchayat Mairdar Mandal & I don't have to say anything in particular but submitting written representation. His written submission is included in Annexure-C32.	The Project Proponent will reply to the letter submitted by the presenter which is enclosed as Annexure-D32.
9	<b>Name:</b> Bhaliya Rameshbhai Bhimabhai <b>Village:</b> Dudheri	Earlier the leaders here discussed all kinds of issues but why the canal work has not been started in our area which was approved for the cost of 40 crores.	Regional Officer informed that this matter is not related to this project so represent only for environmental impact due to this project.
10	<b>Name:</b> Bhikhabhai Valabhai Bhil <b>Village:</b> Padhiyarka	Collector Bhavnagar and GPCB officers have come to hear us today. Collector is the King here and we all are here so please take a proper decision in this matter.	Regional Officer informed that represent only for environmental impact due to proposed project.
11	<b>Name:</b> Kishangiri Hiragiri Goswami <b>Village:</b> Dudheri	There are 7 villages in core zone in which population is around 50 thousand. Only 84 people will get employment opportunity due to this project. Excavation only increases the pollution of the environment, it cannot decrease. the Gujarat Pollution Control Board should take a decision keeping in mind our 50	The project proponent stated that the mining will be done after receiving EC in accordance with environmental laws and regulations. This project will create thousands of indirect employment opportunities.

		thousand people.	
12	<b>Name:</b> Rajubhai Chbelana <b>Village:</b> Vangar	He presented verbally that there is movement of wild life in the proposed mining area. There are wild animals' corridors which fall under Schedule-I, Lion in this area is taking care of his cubs. This location has 17 km long sweet water bund which is important area for birds as notified by IBA. Large no. of migratory birds spends their time during winter. And efforts are being put to declare this location as Ramsar Site.	A detailed response is already given earlier by the representative of Project Proponent. Even though, it is ensured that the mining work will be done as per Environmental Laws & Regulations.
13	<b>Name:</b> Baraiya Bhupatbhai Sukhabhai, on behalf of Rekhaben Baraiya. <b>Sarpanch-Padhiyarka</b> <b>Village:</b> Padhiyarka	I am submitting on behalf of Padhiarka Gram Panchayat. It does not make any sense of the Panchayat if all permit of the revenue kasbas are given for mining except of village area. Panchayat is the foundation of the constitution. If the Collector/Government approves all waste land, then what should the Panchayat do? In this area, there was gauchar of Vangar and Padhiarka, which was also converted into waste land by the Government & was given to Nirma. With this project, major farmers of our village will become homeless. Due to this project, the Samdhiyala Bund will get depleted, natural water flow will be diverted, employment will be lost and migratory birds will also not come to the nearby Samdhiyala and Malan Bunds.	The project proponent stated that the Department of Industries and Mines of the State Government takes prior approval of the Central Government before granting mining leases in Lime Stone Bearing Areas. Mineral rights in all types of land are held by the Government. This mining lease area has been approved by Govt. Samdhiyala Salinity Ingress Control Bund is not a part of the mining area and will not be affected by the proposed scheme. Project will generate direct and indirect employment opportunities. This mining lease area is not included as per last 2016 notification of Important Bird Area (IBA) for birds. A conservation plan for wild life has been prepared in consultation with the Forest Department, Government of Gujarat, which has been approved by the Principal Conservator of Forests, Government of Gujarat & the same will be followed.

		Constitutional institutions like Gram Panchayat will also get destroyed due to this project.	
14	<b>Name:</b> Shiyal Triambhai Rusikbhai, on behalf of Manjulaben Ranchhodbhai Dhundhalva, Sarpanch Vangar <b>Village:</b> Vangar	His written submission was read out literally. The written submission is enclosed herewith as per Annexure-C54.	The project proponent informed that the written reply will be given for the written representation. Copy of the reply is enclosed as per Annexure-D54.
The Regional Officer said that if there is a similar written representation, it should be submitted to the present officers instead of being read so that new submissions can be heard.			
15	<b>Name:</b> Narsinhbhai Mohaabhai Joliya, on behalf of Sonaben Mohaabhai Joliya, Doliya Gram Panchayat <b>Village:</b> Doliya	Written submission dated 28/04/2023 of Doliya Gram Panchayat was read out literally. The written submission is enclosed herewith as per Annexure-C61.	Verbal response was given by representative of Project Proponent that written reply will be given to the written submission. A written copy of the reply is enclosed as per Annexure-D61.
16	<b>Name:</b> Himmatbhai Danabhai Makwana <b>Village:</b> Vangar	When the presenter was reading his written representation dated 28/04/2023 literally, the Regional Officer-GPCB asked to submit written submission instead of reading if representations are identical. The written submission is enclosed herewith as per Annexure-C42.	A representative of the project proponent said that a conservation plan for wildlife has been prepared in consultation with the Forest Department, which has been approved by the Chief Conservator of Forests, Government of Gujarat and will be implemented. The written reply is enclosed as Annexure-D42.
17	<b>Name:</b> Devbhai, Gir Nature Club, Mahuva	His written submission of Gir Nature Club dated 28/04/2023 was read out literally. The written submission is enclosed herewith as per Annexure-C25.	Verbal answer was given by representative of Project Proponent that written reply will be given to the written submission. A written copy of the reply is enclosed as per Annexure-D25.
18	<b>Name:</b> Purshottam Maganbhai Baraiya (On behalf of Anjuben Chelabhai Makwana, President Mahuva Taluka Panchayat) <b>Village:</b> Dudheri	The written submission of President Mahuva Taluka Panchayat dated 28/04/2023 was read out literally by the presenter. The written submission is enclosed herewith as per Annexure-C41.	Verbal answer was given by representative of Project Proponent that written reply will be given to the written submission. A written copy of the reply is enclosed as per Annexure-D41.

During the public hearing, Shri Bharatbhai Naranbhai Shiyal publically asked opinion of the present villagers that whether the land is to be given for mining project of M/s Nirma Ltd & the permission is to be granted to the mining project or not ? In response of that majority of people present in Public Hearing expressed their opposition by raising their hands and voice to give the land to M/s Nirma Ltd and to grant permission.

Shri A.J. Rathod, Regional Officer, repeatedly asked the people present from villages to do representations, if any. However, no further representations were made. He added that during public hearing too some written representations are received which all written representations and replied by project proponent will be included in the proceedings of the hearing. He summarized the entire Public Hearing proceedings.

Then after he thanked all present villagers and with due permission of District Collector and District Magistrate, Bhavnagar, he declared Public Hearing process as completed.

Venue: Nirma Cement  
Plant Area, NH 8 E/51,  
Survey No. 80, Village:  
Padhiarka, Ta. Mahuva,  
Dist: Bhavnagar  
Date: 28/04/2023



A.J. Rathod  
Regional Officer,  
GPCB, Bhavnagar



R. K. Mehta (IAS)  
District Collector &  
District Magistrate,  
Bhavnagar

*Mhanna  
Shrestha*  
**///TRUE COPY//**

ANNEXURE A-15

308

**FINAL**  
**ENVIRONMENTAL IMPACT ASSESSMENT**  
**AND**  
**ENVIRONMENTAL MANAGEMENT PLAN**

**OF**

**VANGAR & MADHIYA LIMESTONE MINE**  
**AT**  
**VILLAGES VANGAR & MADHIYA,**  
**TALUKA MAHUVA, DISTRICT BHAVNAGAR, GUJARAT**  
**(EXTENT 612.1336 Ha., 1.6 MTPA R.O.M)**

*Project Proponent:*

 **NIRMA LTD.**

Nirma House, Ashram Road, Ahmedabad (Gujarat)  
Phone – 079-27546565-74. Fax – 079-27546999

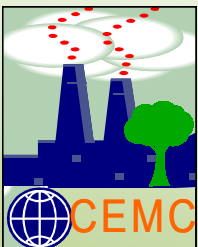
**ToR Granted: Letter No. J-11015/152/2016-IA.II (M)**  
**Dated 23<sup>rd</sup> December, 2022**

**Baseline Monitoring Period: 1<sup>st</sup> March - 2<sup>nd</sup> June 2021**  
**(Summer Season) by Min Mec R&D Laboratory**

**AUGUST 2023**  
*(Issue 02, Rev. 0)*

**EIA Consultant:**

**Centre for Envotech and Management Consultancy Pvt. Ltd.**



AN ISO: 9001:2015, ISO 14001:2015 & ISO 45001:2018 certified company,  
Empanelled with OCCL, Govt. of Odisha, OSPCB as Category "A" Consultant Organization,

**Accredited by NABET, Quality Council of India for EIA studies**  
**As Category "A" Consultant Organization**

Regd. Off: Plot No. 522/3458, Pahal, Bhubaneswar-752101, Odisha.

E-mail: [cemc\\_consultancy@yahoo.co.in](mailto:cemc_consultancy@yahoo.co.in), [cemc122@gmail.com](mailto:cemc122@gmail.com)

Website: [www.cemcpl.com](http://www.cemcpl.com)



## NIRMA LIMITED

REGD. OFFICE : NIRMA HOUSE, ASHRAM ROAD, AHMEDABAD-380 009. PHONES : 079-27546565 - 74. FAX : (079) 27546603 - 27546605 Email : info@nirma.co.in

### UNDERTAKING

I, Ashish Desai, S/O Shri Kantilal Desai, hereby, undertake that prescribed Terms of Reference received vide letter No. J-11015/152/2016-IA. II(M) dated 23.12.2022 with respect to EIA/EMP studies of Vangar & Madhiya Limestone Mine (Extent 612.1336 Ha., 1.6 MTPA R.O.M) located at Village Vangar & Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat, has been complied while conducting the EIA studies. The contents (Information and data) as given by our consultant in the EIA/EMP report are factually correct, with full knowledge of the undersigned.

Place: Ahmedabad  
Dated: 04.01.2023

*Ashish Desai*  
Ashish Desai  
Authorized Signatory

**NIRMA**

*Better Products. Better Value. Better Living.*

### DECLARATION BY EXPERTS CONTRIBUTING TO THE EIA

EIA/EMP Report for Vangar & Madhiya Limestone Mine of M/s Nirma Ltd. located at Village Vangar and Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat" of M/s Nirma Ltd.

The baseline data was generated by MoEF & NABL Accredited Laboratory M/s Min Mec R&D Laboratory, a division of Min Mec Consultancy Pvt. Ltd., New Delhi.

We have carried out verified the baseline measurements carried out by M/s Min Mec R&D Laboratory.

I, hereby certify that I was a part of the EIA team in the following capacity that developed the above EIA.

#### EIA Coordinator:

Name: Mr. Debashish Mishra


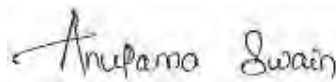





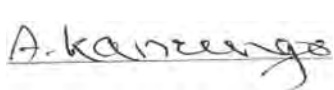
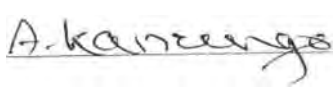


Signature and Date: 14.08.2023



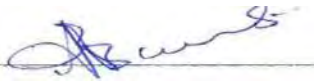
Period of Involvement: December 2022-till date

Contact Information: 9438500471

#### Functional area experts:

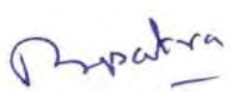
Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)	Signature and date
1	Air pollution monitoring, prevention and control (AP)	Mr. Dayananda Pandey	<b>Period:</b> December 2022-till date <b>Task:</b> Prediction of Air Pollution and its Impacts & Mitigation Measures. Interpretation of Baseline Environment.	
2	Water pollution monitoring, prevention and control (WP)	Mrs. Anupama Swain	<b>Period:</b> December 2022-till date <b>Task:</b> Prediction of Water Pollution and its Impacts & Mitigation Measures. Interpretation of results, comparison with limits for writing in present baseline scenario.	
3	Solid and hazardous waste management (SHW)	Er. Ananta Prasad Barik	<b>Period:</b> December 2022-till date <b>Task:</b> Identification of nature of waste, categorization, and quantity of generated waste. Prediction of waste pollution and its management.	

Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)		Signature and date
4	Socio-economics (SE)	Dr. Nihar Ranjan Das	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Secondary data of Census of India, 2011. Socio-Economic Survey; Socio Economic Impact Assesment.	
5	Ecology and biodiversity (EB)	Mr. Debashish Mishra	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Ecological and biodiversity survey. Identification of species (flora and fauna) and preparation of ecology section in EIA/EMP report.	
6	Hydrogeology (HG)	Mr. Ashutosh Kanungo	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Hydrogeological survey for assessing aquifer distribution of the area. Water resource evaluation of the area. Pre-monsoon & Post-monsoon collection of water level & quality data.	
7	Geology (Geo)	Mr. Ashutosh Kanungo	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Geological survey for assessing aquifer distribution of the area. Water resource evaluation of the area. Pre-monsoon & Post-monsoon collection of water level & quality data.	
8	Soil conservation (SC)	Dr. Rabindra Kumar Mishra	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Identification of existing quality of soil. Prediction of Impact and its management.	
9	Meteorology, air quality modeling and prediction (AQ)	Mr. Dayananda Pandey	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Study of primary data, Air Quality Modelling and its interpretation.	

Sl. No.	Functional Area	Name of the expert/s	Involvement (period and task)		Signature and date
10	Noise and vibration (NV)	Dr. Dilip Kumar Pandey	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Prediction of Noise Pollution & its Mitigation Measures. Review of the section of noise and vibration and recommended mitigation measures for control of noise and vibration.	
11	Land use (LU)	Dr. Nihar Ranjan Das	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Satellite image interpretation and preparation of land use map of study area, prediction of impact on land use pattern (existing & proposed), suggest mitigation measures.	
12	Risk Assessment and hazard management (RH)	Er. Ananta Prasad Barik	<b>Period:</b>	December 2022-till date	
			<b>Task:</b>	Assess risk due to project and prepare chapter on disaster management plan & safety measures.	

### Declaration by the Head of the Accredited Consultant Organization

I, Dr. Bidyut Kumar Patra, hereby, confirm that the above mentioned experts prepared the EIA for Vangar & Madhiya Limestone Mine of M/s Nirma Ltd. located at Village Vangar and Madhiya, Taluka Mahuva, District Bhavnagar, Gujarat" of **M/s Nirma Ltd.** I also confirm that I shall be fully accountable for any misleading information mentioned in this statement.

Signature: 

Name: **Dr. Bidyut Kumar Patra**

Designation: **Director**

Name of the EIA Consultant Organization: **Centre for Envotech & Management Consultancy Pvt. Ltd.**

NABET Certificate No. & Issue Date: **NABET/EIA/2124/RA 0243, dated 05.09.2022 and Valid upto 18.03.2024.**



## National Accreditation Board for Education and Training



# Certificate of Accreditation

**Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar**

N5/305, IRC Village, Nayapalli, Bhubaneswar-751015, Odisha

The organization is accredited as **Category-A** under the QCI-NABET Scheme for Accreditation of EIA Consultant Organization, Version 3: for preparing EIA-EMP reports in the following Sectors –

S.No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals – opencast only	1	1 (a) (i)	A
2	River Valley projects	3	1 (c)	A
3	Thermal power plants	4	1 (d)	B
4	Coal washeries	6	2 (a)	A
5	Mineral beneficiation	7	2 (b)	A
6	Metallurgical industries (ferrous & non-ferrous)	8	3 (a)	A
7	Petroleum refining industry	10	4 (a)	A
8	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	18	5 (c)	A
9	Highways	34	7 (f)	A
10	Common Municipal Solid Waste Management Facility (CMSWMF)	37	7 (i)	B
11	Building and construction projects	38	8 (a)	B

**Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated May 06, 2022 and posted on QCI-NABET website.**

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no QCI/NABET/ENV/ACO/22/2511 dated Sept 05, 2022. The accreditation needs to be renewed before the expiry date by Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar following due process of assessment.

**Sr. Director, NABET**  
Dated: Sept 05, 2022

# NABET

**Certificate No.**  
NABET/EIA/2124/RA 0243

**Valid up to**  
March 18, 2024



**CONTENTS**

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
	<b>COMPLIANCE OF TERMS OF REFERENCE (TOR)</b>	1 to 21
	<b>CHAPTER 1 : INTRODUCTION</b>	
1.1	Purpose of the EIA report	C1-1
1.2	Identification of the project	C1-1
1.3	Project proponent	C1-6
1.4	Brief description of the project	C1-7
1.5	Importance in the region and country	C1-9
1.6	Scope of the study	C1-10
1.7	Status of litigation	C1-12
	<b>CHAPTER 2 : PROJECT DESCRIPTION</b>	
2.1	Geology	C2-1
2.2	Details of exploration	C2-3
2.3	Reserves estimation	C2-7
2.4	Quality parameters	C2-10
2.5	Mining	C2-11
2.6	Tentative year wise development programme	C2-13
2.7	Production	C2-22
2.8	List of mining equipment	C2-24
2.9	Site services and infrastructures	C2-25
2.10	Fuel and storage of explosives	C2-26
2.11	Power requirement	C2-27
2.12	Water requirement	C2-27
2.13	Employment potential	C2-28
	<b>CHAPTER 3 : DESCRIPTION OF THE ENVIRONMENT</b>	
3.1	General	C3-1
3.2	Topography and drainage	C3-2
3.3	Climate and meteorology	C3-4
3.4	Ambient air quality	C3-11
3.5	Water resources	C3-18
3.6	Land environment	C3-30
3.7	Soil quality	C3-33
3.8	Noise environment	C3-37
3.9	Traffic volume survey	C3-38
3.10	Ecology	C3-39

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
3.11	Socio-economic conditions	C3-48
3.12	Amenities	C3-52
3.13	Seismicity	C3-54
3.14	Industries or polluted area around the project area	C3-54
3.15	Places of tourist/religious/historical interest/ national park/sanctuary	C3-55
3.16	CRZ, coastal features, mangroves, etc.	C3-55
	<b>CHAPTER 4 : ENVIRONMENTAL IMPACT ASSESSMENT AND MITIGATION MEASURES</b>	
4.1	General aspects	C4-1
4.2	Topography and drainage	C4-1
4.3	Climate	C4-4
4.4	Ambient air quality	C4-4
4.5	Water Environment	C4-16
4.6	Water quality	C4-23
4.7	Noise level	C4-26
4.8	Ground vibrations- impact and management	C4-28
4.9	Traffic volume	C4-32
4.10	Land use	C4-33
4.11	Solid waste - impact and management	C4-40
4.12	Ecology	C4-43
4.13	Socio-economic conditions	C4-56
4.14	Occupational health and safety	C4-59
4.15	Conservation of natural resources	C4-63
	<b>CHAPTER 5 : ANALYSIS OF ALTERNATIVES</b>	
5.1	Site alternatives	C5-1
5.2	Technology alternatives	C5-2
	<b>CHAPTER 6 : ENVIRONMENTAL MONITORING PROGRAMME</b>	
6.1	Introduction	C6-1
6.2	Proposed set-up	C6-1
6.3	Monitoring schedule and parameters	C6-3
6.4	Budgetary provision for environmental management	C6-6
	<b>CHAPTER 7 : ADDITIONAL STUDIES: RISK ASSESSMENT, DISASTER MANAGEMENT PLAN AND PUBLIC CONSULTATION</b>	
7.1	Risk analysis and disaster management plan	C7-1
7.2	Care and maintenance during temporary discontinuance	C7-6
7.3	Disaster management plan	C7-7

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
7.4	Off-site emergency planning	C7-9
7.5	Summary of the proceeding of public consultation	C7-14
7.6	Budget of welfare expenditure based on public consultation	C7-151
	<b>CHAPTER 8 : PROJECT BENEFITS</b>	
8.1	Employment potential	C8-1
8.2	Physical & social infrastructure development due to mine	C8-1
8.3	Social welfare initiatives undertaken by M/s Nirma Ltd.	C8-2
8.4	Need assessment	C8-7
8.5	Proposed CSR Expenditure	C8-13
8.6	Environmental benefit	C8-13
	<b>CHAPTER 9 : ENVIRONMENTAL COST BENEFIT ANALYSIS</b>	C9-1
	<b>CHAPTER 10 : ENVIRONMENT MANAGEMENT PLAN</b>	
10.1	Environment management plan	C10-1
10.2	Corporate environment policy	C10-12
10.3	Standard operating process / procedures to address deviation/ violation	C10-13
	<b>CHAPTER 11 : SUMMARY OF CONCLUSION</b>	
11.1	Introduction	C11-1
11.2	Project Description	C11-3
11.3	Present environmental scenario	C11-4
11.4	Anticipated environmental impact and mitigation measures	C11-8
11.5	Analysis of alternatives	C11-14
11.6	Environmental control and monitoring organisation	C11-14
11.7	Additional studies: Disaster Management Plan	C11-15
11.8	Project benefits	C11-15
11.9	Consultants	C11-15
	<b>CHAPTER 12: DISCLOSURE OF CONSULTANTS ENGAGED</b>	
12.1	Centre for Envotech and Management Consultancy (P) Ltd. (CEMC)	C12-1

**LIST OF TABLES**

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
Table No. C1-1	Salient Features of the Project	C1-5
Table No. C1-2	Production facilities of Nirma group in Gujarat	C1-6
Table No. C1-3	Baseline data generated as per TOR	C1-11
Table No. C2-1	Regional geological sequence of the area	C2-1
Table No. C2-2	Programme of future exploration	C2-7
Table No. C2-3	Summarized Geological Reserve of Limestone	C2-9
Table No. C2-4	UNFC Classification of resources/ Reserves	C2-9
Table No. C2-5	Anticipated ROM quality of different limestone	C2-10
Table No. C2-6	Expected Run of mine quality (%)	C2-11
Table No. C2-7	Blasting parameters for limestone	C2-21
Table No. C2-8	Quantum of soil, waste rock and limestone production (CUM)	C2-22
Table No. C2-9	Expected excavation during first plan period (Million Tonne)	C2-22
Table No. C2-10	Phasewise working programme for mine life	C2-22
Table No. C2-11	Removal of soil and its disposal	C2-23
Table No. C2-12	Programme of backfilling	C2-24
Table No. C2-13	List of other miscellaneous mining equipment	C2-24
Table No. C2-14	List of machinery/ equipment required for site services	C2-25
Table No. C2-15	Water requirement	C2-27
Table No. C2-16	Manpower details	C2-28
Table No. C3-1	List of water bodies in 10 km radius of mine	C3-4
Table No. C3-2	Monthly average maximum and minimum temperature (°C), Relative humidity (%) and rainfall (mm) at IMD station, Bhavnagar (1991-2020)	C3-5
Table No. C3-3	Summary of monitored micro-meteorological Data, 1st March - 2nd June, 2021	C3-8
Table No. C3-4	Wind frequency of monitored data at site (01/03/2021- 02/06/2021)	C3-8
Table No. C3-5	Location of air sampling stations	C3-12
Table No. C3-6	Procedure for determining various air quality parameters	C3-16
Table No. C3-7	Summary of ambient air quality monitoring results (1 <sup>st</sup> March- 2 <sup>nd</sup> June 2021)	C3-17
Table No. C3-8	Hydrogeological well inventory in the Buffer Zone of Vangar-Madhiya Limestone mine.	C3-20
Table No. C3-9	Location of water sampling stations	C3-26
Table No. C3-10	Water test results	C3-28

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
Table No. C3-11	Pre-operational land ownership in core zone (In Ha)	C3-30
Table No. C3-12	Districts/taluka wise villages in buffer zone	C3-32
Table No. C3-13	Land use pattern in study area (as per Census 2011)	C3-32
Table No. C3-14	Location of soil sampling stations	C3-35
Table No. C3-15	Soil analysis result	C3-37
Table No. C3-16	Ambient noise levels in the study area (in Leq dB(A))	C3-38
Table No. C3-17	Traffic Volume survey	C3-39
Table No. C3-18	Area under major field crop and horticulture in Bhavnagar district	C3-41
Table No. C3-19	Tree flora at Doliya	C3-44
Table No. C3-20	Tree flora at Padhiarka	C3-44
Table No. C3-21	Tree flora at Dundas	C3-44
Table No. C3-22	Tree flora at Dudheri	C3-45
Table No. C3-23	Summary of Land	C3-48
Table No. C3-24	District and sub-district wise population in the study area	C3-49
Table No. C3-25	Demographic details of the study area (as per Census 2011)	C3-49
Table No. C3-26	Employment pattern in the study area	C3-50
Table No. C3-27	Amenities available in villages and towns within the study area (as per Census 2011)	C3-52
Table No. C4-1	Predicted incremental ground level concentration by ISCST3 Model ( $\mu\text{g}/\text{m}^3$ )	C4-7
Table No. C4-2	Calculated Maximum Ground Level Concentration ( $\mu\text{g}/\text{m}^3$ ) from road (Mine exit to Cement plant)	C4-9
Table No. C4-3	Anticipated PEAK incremental GLC values due to Vangar & Madhiya Limestone mine at the air quality monitoring stations ( $\mu\text{g}/\text{m}^3$ )	C4-11
Table No. C4-4	Anticipated Cumulative PEAK incremental GLC values due to all the three mine at the air quality monitoring stations ( $\mu\text{g}/\text{m}^3$ )	C4-12
Table No. C4-5	Flow-chart indicating the specific areas generating fugitive emissions and control measures throughout the mine	C4-13
Table No. C4-6	Potential impact of mining on water environment	C4-16
Table No. C4-7	Site elevation and working depths of conceptual pits as per mining plan and its likely intersection with ground water table	C4-20
Table No. C4-8	Noise attenuation with distance on flat bare ground without and with green belt Combined noise of more than one source = 103 dB (A)	C4-27
Table No. C4-9	Permissible Peak Particle Velocity (PPV) at the foundation level of structures in mining areas in mm/sec.	C4-30
Table No. C4-10	Existing landuse pattern of core zone as on 01.04.2021 (in Ha.)	C4-33

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
Table No. C4-11	Land use pattern of the mining lease area at the end of plan period (31.03.2026) (Ha)	C4-34
Table No. C4-12	Land use pattern at the end of the life of the mine (Ha.)	C4-34
Table No. C4-13	Stage wise land use and reclamation area (Ha.)	C4-37
Table No. C4-14	Post mining land use of core zone (Ha)	C4-38
Table No. C4-15	Solid waste generation	C4-40
Table No. C4-16	Removal of soil and its disposal	C4-41
Table No. C4-17	Re-handling of soil towards reclamation after the plan period	C4-42
Table No. C4-18	Programme of backfilling	C4-42
Table No. C4-19	Species of saplings proposed	C4-47
Table No. C4-20	Summary of protective measures and phasewise plantation	C4-51
Table No. C6-1	Monitoring schedule and parameters	C6-3
Table No. C6-2	Capital investment for environmental protection	C6-6
Table No. C6-3	Recurring cost for environmental protection	C6-7
Table No. C7-1	Check list for likely disaster in opencast mines	C7-2
Table No. C7-2	Statement of main Issues Raised by the Public and Comments of the Project Proponent	C7-16
Table No. C7-3	Budget of welfare expenditure based on public hearing for Vangar & Madhiya limestone mine, District Bhavnagar	C7-151
Table No. C8-1	List of Activities/material supplied (under CSR) to nearby villages of Cement Plant & Limestone Mining complex at Mahuva, Bhavnagar	C8-2
Table No. C8-2	Recent CSR activities & expenditure made in last 10 years by M/s Nirma limited, Bhavnagar	C8-3
Table No. C8-3	Present physical & social infrastructure, need assessment and proposed interventions in villages around Vangar & Madhiya Limestone Mine	C8-8
Table No. C9-1	Environmental Cost Benefit (ECB) analysis for opencast mining vs. no mining scenario	C9-2
Table No. C10-1	Environment management measures	C10-1

**LIST OF FIGURES**

<b>Fig No.</b>	<b>Particulars</b>	<b>Page No.</b>
Fig No. C1-1	Location map of the project	C1-8
Fig No. C2-1	Surface plan	C2-4
Fig No. C2-2	Geological plan	C2-5
Fig No. C2-3	Geological sections of ML	C2-6
Fig No. C2-4	Tentative Excavation Plan at the end of Year 2021-22	C2-16
Fig No. C2-5	Mine stage plan at the end of Year 2022-2023	C2-17
Fig No. C2-6	Tentative excavation plan at the end of Year 2023-24	C2-18
Fig No. C2-7	Tentative excavation plan at the end of Year 2024-25	C2-19
Fig No. C2-8	Tentative excavation plan at the end of Year 2025-26	C2-20
Fig No. C2-9	Water Balance Diagram (KLD)	C2-27
Fig No. C3-1	Topography & drainage map in 10 km radius around the project	C3-3
Fig No. C3-2	Monthly Average Max. & Min Temperature (°C) at IMD Station, Bhavnagar (1991-2020)	C3-5
Fig No. C3-3	Monthly Average rainfall (mm) at IMD Station, Bhavnagar (1991-2020)	C3-6
Fig No. C3-4	Monthly Average Relative Humidity (%) at IMD Station, Bhavnagar (1991-2020)	C3-6
Fig No. C3-5	Windrose diagram at IMD station Bhavnagar at 8:30 Hrs	C3-7
Fig No. C3-6	Windrose diagram at IMD station Bhavnagar at 17.30 Hrs	C3-7
Fig No. C3-7	Windrose diagram of monitored data	C3-10
Fig No. C3-8	Location of air & noise sampling stations	C3-14
Fig No. C3-9	Location of water sampling stations	C3-27
Fig No. C3-10	Khasra plan	C3-31
Fig No. C3-11	Land use Pattern in the Study area (Census 2011)	C3-33
Fig No. C3-12	Map showing satellite imagery interpretation for 10 km radius	C3-34
Fig No. C3-13	Location of soil sampling stations & traffic census	C3-36
Fig No. C3-14	Break up of SC & ST in the Study area (Census 2011)	C3-49
Fig No. C3-15	Literacy level in the study area (Census 2011)	C3-50
Fig No. C3-16	Employment pattern in the study area (Census 2011)	C3-51
Fig No. C3-17	Break up of Main Workers in the study area (Census 2011)	C3-51
Fig No. C3-18	Break up of Marginal Workers in the study area (Census 2011)	C3-51
Fig No. C3-19	Earthquake Hazard Map	C3-54
Fig No. C4-1	Proposed diversion channels	C4-3

<b>Fig No.</b>	<b>Particulars</b>	<b>Page No.</b>
Fig No. C4-2	Transportation Route	C4-10
Fig No. C4-3	Typical Roof Top rain water harvesting structure on mine office	C4-25
Fig No. C4-4	Noise attenuation with distance in all directions over flat open bare ground (Sound at source = 103 dBA)	C4-27
Fig No. C4-5	Conceptual plan based on review of mining plan	C4-35
Fig No. C4-6	Conceptual section	C4-36
Fig No. C4-7	Environment management plan	C4-49
Fig No. C4-8	Reclamation plan	C4-50
Fig No. C6-1	Organisation chart for implementation of pollution control measures	C6-2
Fig No. C7-2	Organisation chart	C7-10
Fig No. C8-1	Some Glimpse of past CSR activities conducted by Nirma Ltd.	C8-4

**LIST OF ANNEXURES**

<b>Annexure No.</b>	<b>Particulars</b>	<b>Page No.</b>
I	TOR issued by MoEF&CC vide letter no. J-11015/152/2016-IA.II (M) Dated 23 <sup>rd</sup> December, 2022	A-1
II	Copy of mine lease grant order no. MCR-102004-1827-CHH dated 08.01.2017, Lease deed and Letter of intent	A-15
III	MOEF & NABL certificates for laboratory	A-28
IV	Daily micro-meteorological monitored data	A-33
V	Ambient air quality test results	A-35
VI	National ambient air quality standard (NAAQS)	A-41
VII	Water quality test results	A-43
VIII	Classification of surface water by CPCB and Test characteristics for drinking water (IS 10500 : 2012)	A-52
IX	Land use pattern in the study area based on Census 2011	A-56
X	Noise levels within the study area [Leq in dB(A)]	A-58
XI	Ambient air quality standards in respect of noise	A-64
XII	Traffic volume monitoring data	A-66
XIII	List of flora and fauna in the study area and core zone	A-68
XIV	Authenticated map by PCCF, Bhavnagar vide letter dated 13.01.2022	A-83
XV	Soil test report	A-87
XVI	Village wise population and literacy within the study area (Census 2011)	A-91
XVII	Village wise employment pattern in the study area (Census 2011)	A-93
XVIII	Village wise amenities in the study area (Census 2011)	A-95
XIX	CRZ report	A-103
XX	ISCST3 & CALINE 4 modeling for Vangar & Madhiya Mine	A-128
XXI	Cumulative ISCST3 & CALINE 4 modeling for three mines	A-146
XXII	Mining plan approval letter	A-172
XXIII	Approval letter of Wildlife Conservation Plan	A-174

<b>Annexure No.</b>	<b>Particulars</b>	<b>Page No.</b>
XXIV	Permission for withdrawal of water from Gujarat Water Infrastructure limited vide letter no. GWIL/Bhavnagar/Ind.conn./1257 dated 4-6-2008	A-177
XXV	Letter from Deputy Chief Conservator of Forest regarding distance of turtle breeding centre	A-178
XXVI	List of land Khasras falling with proposed lease area certified by Land Authority	A-180
XXVII	Monitoring stations photographs	A-187
XXVIII	Drone image of the lease area and transportation route photographs	A-195
XXIX	Sample consent agreement with land owner	A-198
XXX	Proceedings of the public hearing	A-201

**LIST OF ABBREVIATIONS**

AMSL	-	Above mean sea level
AAQ	-	Ambient Air Quality
APHA	-	American Public Health Association
ANFO	-	Ammonium Nitrate–Fuel Oil
BDL	-	Below Detectable Limit
BGL	-	Below Ground Level
°C	-	Degree centigrade
CER	-	Corporate Environment Responsibility
CGWB	-	Central Ground Water Board
CHC	-	Community Health Centres
cm	-	Centi meter
CPCB	-	Central Pollution Control Board
CRZ	-	Coastal Regulation Zone
CSM	-	Continuous Surface Miner
CSR	-	Corporate Social Responsibility
CTE	-	Consent to establish
Cum/day	-	Cubic metres per day
Cum/hr	-	Cubic metres per hour
CGM	-	Commissioner of Geology and Mining
CCOM	-	Office of the Chief Controller of Mines
D	-	Dispensary
dB	-	Decibel
DCAS	-	Degree College Arts & Science only
DFO	-	Divisional Forest Officer
DG	-	Diesel Generator
DGMS	-	Director General of Mines Safety
E	-	East
EAC	-	Expert Appraisal Committee
EC	-	Environmental Clearance
EC	-	Engineering College
EIA	-	Environment Impact Assessment
EMD	-	Environment Management Department
EMP	-	Environmental Management Plan
EO	-	Others
FWC	-	Family Welfare Centre
FY	-	Financial Year
G	-	Gram
GDP	-	Gross Domestic Project

GLC	-	Ground Level Concentration
GoG	-	Government of Gujarat
Ha	-	Hectare
HA	-	Hospital Allopathic
HAM	-	Hospital Alternative Medicine
HEMM	-	Heavy Earth Moving Machinery
HQ	-	Head Quarters
HTL	-	High Tide Line
H.P.	-	Horsepower
HSD	-	High Speed Diesel
HRS	-	Hours
HMV	-	Heavy Motor Vehicles
IMD	-	Indian Meteorological Department
IBM	-	Indian Bureau of Mines
Kg	-	Kilogram
KL	-	Kilo litre
KLD	-	Kilo litre/day
KLH	-	Kilo litres per hour
KVA	-	Kilo Volt Ampere
KW	-	Kilo Watt
KWH	-	Kilo Watt Hour
L	-	Litres
Lpd	-	Litres per day
LOI	-	Letter of Intent
LTL	-	Low Tide Line
LMV	-	Light Motor Vehicles
M	-	Meter
m <sup>2</sup>	-	Square meter
m <sup>3</sup>	-	Cubic meter
MC	-	Medicine College
MCM	-	Million Cubic Meter
MCWC	-	Maternity And Child Welfare Centre
Mg/l	-	Miligram per litre
MHC	-	Mobile Health Clinic
MI	-	Management Institute
ML	-	Mine Lease
MoEF&CC	-	Ministry of Environment, Forest and Climate Change
MOU	-	Memorandum of Understanding
MS	-	Middle school
MT	-	Million Tonnes

MTPA	-	Million Tonnes Per Annum
MVA	-	Mega Volt Ampere
MW	-	Mega watt
MMDR	-	Mines and Minerals (Development and Regulation) Act
MMR	-	The Metalliferous Mines Regulations, 1961
MEMC	-	The Minerals(Evidence of Mineral Contents) Rules, 2015
MCDR	-	Mineral Conservation and Development Rules, 2017
N	-	North
NABL	-	National Accreditation Board of Laboratories
NFTC	-	Non Formal Training Centre
NGMF-C	-	Non Govt. Medical Facilities: Charitable
NGMF-IOP	-	Non Govt. Medical Facilities: In&Out patient
NGMF-MBBS	-	Non Govt. Medical Facilities: Medical practitioner with MBBS degree
NGMF-MS	-	Non Govt. Medical Facilities: Medicine shop
NGMF-ND	-	Non Govt. Medical Facilities: Medical practitioner with no degree
NGMF-O	-	Non Govt. Medical Facilities: Others
NGMF-OD	-	Non Govt. Medical Facilities: Medical practitioner with other degree
NGMF-OP	-	Non Govt. Medical Facilities: Out Patient
NGMF-TPFH	-	Non Govt. Medical Facilities: Traditional practitioner and faith healer
NH	-	National Highway
NOC	-	No objection certificate
Nos.	-	Numbers
NE	-	North- East
NAAQS	-	National Ambient Air Quality Standards
OB	-	overburden
OSHA	-	Occupational Safety & Health Administration
ONGC	-	Oil & Natural Gas Corporation
OPC	-	Ordinary Portland Cement
P	-	Polytechnic
PF	-	Protected Forest
PHC	-	Primary Health Centre
PHSC	-	Primary Health Sub-Centre
PPS	-	Pre-Primary School
PS	-	Primary school
PUC	-	Pollution Under Control
PM	-	Particulate Matter
PCU	-	Passenger Car Unit

PPE	-	Personal Protection Equipment
R&R	-	Resettlement and Rehabilitation
RF	-	Reserve Forest
ROM	-	Run of Mine
RPM	-	Respirable Particulate Matter
RO/ DM	-	Reverse Osmosis/ Demineralised
RET	-	Rare, Endangered and Threatened species
SFD	-	School For Disabled
SOI	-	Survey of India
SPCB	-	State Pollution Control Board
SPM	-	Suspended Particulate Matter
Sq.m.	-	Square metre
SS	-	Secondary school
SSS	-	Senior Secondary School
SC	-	Scheduled Caste
ST	-	Scheduled Tribe
T	-	Tonnes
TBC	-	TB Clinic
TOR	-	Terms of Reference
TPA	-	Tonnes Per Annum
UNFC	-	United Nations Framework Classification
VH	-	Veterinary Hospital
VTS/ITI	-	Vocational Training School/ Industrial Training Institute
W	-	West

**COMPLIANCE OF TERMS OF REFERENCE (TOR)**

**Table No. 1** gives the compliance of Terms of Reference (TOR) for Vangar and Madhiya limestone mining project (capacity 1.6 MTPA in lease area 612.1336 Ha) of M/s Nirma Ltd., issued by Ministry of Environment, Forest and Climate Change vide Letter No. J-11015/152/2016-IA. II(M) dated 23<sup>rd</sup> December, 2022.

**TABLE NO. 1: COMPLIANCE OF GENERIC TOR FOR OPENCAST MINE PROJECT**

<b>Sl. No. of TOR</b>	<b>Description as per MoEF&amp;CC</b>	<b>Compliance</b>
	<b>SPECIFIC TERMS OF REFERENCE</b>	
1.	In view of the agricultural land proposed under the mining lease area, the Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries.	Cost Benefit analysis has been given in Table No. C9-1, Chapter 9.
2.	The Project Proponent shall ensure that the Shallow pits to depth of 4 mts will be refilled and reclaimed and given back to the farmers as agriculture land. Return all the proposed non-mining area to farmers/owners of the Land. The mining plan, <i>inter-alia</i> , includes the above mentioned details with regard to pits and reclamation.	<p>The shallow pit of depth &lt;4.0 mts. will be backfilled. The area of &lt;4 m depth pits will be 36.36 Ha as shown in conceptual plan (Fig No. C4-4, Chapter 4). Backfilling is proposed after 2026-27/ 2027-28. Backfilled area shall be utilized for agriculture in case of private land and for plantation purpose in case of government land. Refer section 4.10.2, Chapter 4.</p> <p>Only that land shall be purchased from farmers that will be required for mining &amp; allied activities (including greenbelt). Based on observations of EAC, MoEF&amp;CC during meetings dated 23-24 May 2016 &amp; 22-23 August 2016, the Company revised the initial mine lease proposal of 1225.8553 ha to a reduced area of 612.1336 ha, thus, minimizing the impact on private agricultural land. Furthermore, the shallow pit in southern side of approximately &lt;4 m depth &amp; 36.36 ha area shall be backfilled and the private land portion of the backfilled area shall be returned to the owner. Accordingly, an agreement shall be executed prior to commencement of mining.</p>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
		The approved review of mining plan includes the details of pits and reclamation area. The review of mining plan has been approved by IBM and the copy of the approval letter is given in <b>Annexure XXII</b> .
3.	The Project Proponent needs to be submit the detailed note on mining methodology with specific reference to Continuous Surface Miner.	Detailed note on use of Continuous Surface Miner is given at section 2.5.1 in Chapter 2 & alternatives of the technology in respect of Continuous Surface Miner is given at section 5.2 in Chapter 5
4.	The Project Proponent needs to submit action plan for backfilling.	Action plan for backfilling is given at Section 2.7.1 in Chapter 2.
5.	The Project Proponent needs to submit the detailed measures to be taken for protection of turtle breeding sites and also needs to specifically address the movement of Lions and conservation in the Wildlife Conservation plan in consultation with the Forest Department.	The ecological sensitives areas Turtle breeding sites are not in vicinity of proposed site. The letter no. A/GMN/T-11/2075/22-23 dated 27.01.2023 from Deputy Chief Conservator of Forest, Bhavnagar certifying that the nearest turtle breeding centre is approximately 70 km from the limestone mines is given in <b>Annexure- XXV</b> .  As per authenticated map provided by the forest department, there is no been any National Park, Sancturries, Biosphere Reserve, Wildlife Corridor, Ramsar Site, Tiger/Elephant Reserves in 10 km area of the mine (Letter given in <b>Annexure XXV</b> ). Financial layout for conservation plan along with approval letter is given in <b>Annexure XXIII</b> .
6.	The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution. PP also needs to submit the breakup of total excavation in tonnes.	The EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air is given at section 4.4.1 & 4.4.2 in chapter 4 and for noise pollution given at section 4.7.1 & 4.7.2 in chapter 4. The expected excavation during first plan period in terms of million tonnes is given in Table C2-9 of chapter 2.
7.	The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, predominant downwind direction and	Ambient air quality and noise level has been monitored as a part of baseline study and is given at Section 3.4 & 3.8 in Chapter 3. Continuous ambient air quality monitoring station will be installed after commencement

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	at other sensitive receptors. Accordingly, Project Proponent shall propose to_ install Continuous Ambient Air Quality Monitoring Station within certain timeline.	of operation of mine during the first year of operation.
8.	The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario of the mines in the study area and should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.	The cumulative impact assessment due to 3 mines is given at Section 4.4.1, Table No. C4-3 & Table No. C4-4 in Chapter 4.
9.	The project proponent needs to revisit the location of the waste dump proposed in mineralized zone and accordingly shall submit the map showing the revised location.	Addressed at section 2.7.1 in Chapter 2
10.	The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. PP need to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. PP also needs to submit the possession certificate and timeline for acquiring the land at the time of appraisal of EC.	Detailed R&R Plan is given at section 3.11, Chapter 3, section 4.13 Chapter 4, Table No. C10-1 Chapter 10 & section 11.3.8 & 11.4.11 Chapter 11.  Plan for socio economic development of the neighbourhood habitats based on the need based assessment along with the time bound action plan is given in section 8.4, Chapter 8.  The company has purchased/ obtained surface rights (i.e. consented land) of some land and shall purchase/ obtain surface rights (i.e. consented land) as per the timeline given in Section 4.13, Chapter 4
11.	The Project Proponent shall carry out the assessment of impact due to the	There will be no intersection of ground water table during five years of plan period or upto

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.	13 <sup>th</sup> year of operation. i.e. end of mine life. The shallow depth pits shall be backfilled simultaneously after mining for limestone and shall be converted into agriculture land / utilized for plantation purpose. M/s Ground Water & Mineral Investigation Consultancy Centre (P) Ltd., Jaipur has assessed the hydrogeological conditions and impact of mining in "Report on hydrogeological & hydrological studies of core and buffer zone of Vangar & Madhiya limestone mine and impact of mining on water regime near village Vangar & Madhiya, Taluka Mahuva, district Bhavnagar, Gujarat" in January 2022. Extract from their report has been included in Section 3.5, Chapter 3 and Section 4.5.1, Chapter 4. Since the proposed mine pits will not intersect the ground water table, no mine seepage is envisaged and hence no permission is required from Central Ground Water Authority.
12.	The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.	Optimised water requirement and source is given in section 2.13 and water balance is shown in Fig No. C2-9 of Chapter 2.
13.	The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.	No ground water withdrawal is envisaged for this project. The rain water collected in mine pits as well reject from RO / DM plant of the proposed cement plant (when it becomes operational) shall be used to minimise fresh water requirement.
14.	The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the	The time bound action plan on concerns of the public has been incorporated in Table C7-3 of Chapter 7 after conducting the public hearing on 28.04.2023. We have completely ensured that the activities proposed under the public hearing is different from the CSR activities and public hearing activities have been given in the <b>Table No.</b>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	public hearing shall be different from the CSR activities.	<b>C7-3</b> and CSR activities proposed have been given in the table <b>Table No. C8-2</b>
15.	The Project Proponent needs to submit the documents related to part surrender of the mine lease area at the time of appraisal of EC.	LOI was granted for an area 1225.8553 ha vide letter dated 15.02.2008. The EC process, for this proposal had previously also initiated in 2016 (ToR lapsed). During the process of grant of that TOR, MoEF & CC, New Delhi had directed to reduce the area and TOR was recommended for an area of 612.1336 ha. Accordingly, on our request vide letter dated 30.12.2016, the State Govt. had issued grant order for an area of 612.1336 ha vide letter dated 08.01.2017. Copy of grant order dated 08.01.2017 is attached herewith as <b>Annexure II.</b>
16.	The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.	Drone image attached in <b>Annexure XXVIII.</b>
	<b>STANDARD TOR FOR MINING PROJECT</b>	
17.	Year-wise production detail since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t the highest production achieved prior to 1994. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.	Not Applicable. This is a new mine and no production has been done till date.
18.	A copy of the document in support of rightful lessee of the mine should be submitted. In case of new mines copy of Lol granted by State Government to be submitted. PP should ensure that Lol is valid at the time of grant of ToR. PP should submit the copy of lease deed/supplementary lease	Copy of Grant of Order of Mining Lease dated 08.01.2017 is in the name of Nirma Ltd. and the mining lease deed dated 11.01.2017 for 50 years i.e. upto 10.01.2067 is given in <b>Annexure II.</b>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	deed/extension letter/transfer deed, from its initial grant to subsequent renewals/ transfer/extension of validity.	
19.	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.	All the documents are compatible to each other. The project data given in the EIA Report has been taken from approved Review of Mining Plan. The final Draft EIA report has been prepared.
20.	PP should submit the District Survey Report (DSR) as per S.O. 3611(E) dated 25.07.2018 in case of minor minerals.	Not applicable since this project is proposed for mining of major minerals only
21.	Brief of proposal to be submitted which include total excavation of the material required for the production of certain quantity of the minerals, location of the project, mining lease area, latitude longitude, seismic zone etc. In case of expansion project details of expansion viz. expansion in mining lease area or expansion in production of any particular mineral or expansion in total excavation, latest certified Compliance report (CCR) from IRO of conditions granted in existing EC needs to be submitted.	Brief of proposal can be seen in Chapter 1, Section 1.4 Total excavation for production is given in Table C2-8, Chapter 2. Location of the project along with latitude longitude can be seen in Chapter 1, Section 1.4.3 and 1.4.4. Mining lease area boundary can be seen in Fig C2-1, Chapter 2. Seismic zone is given in Chapter 3, Section 3.13. CCR and expansion not Applicable. This is a new mine. Hence no production has been done till date.
22.	The PP should submit the real-time aerial video footage & video of the mining lease area and of the transportation route.	Drone image attached in <b>Annexure XXVIII</b> . Photos of road also given in <b>Annexure XXVIII</b> . Video shall be submitted to and presented to MOEF during appraisal for EC since there is no provision to upload a video file of such large size in Form C on parivesh.nic.in, which is the application for the environmental clearance.
23.	All corner coordinates of the mine lease area, superimposed on a high resolution imagery/ Toposheet,	The boundary of the mine lease area superimposed on high resolution satellite image sourced from Google Earth is given in

<b>Sl. No. of TOR</b>	<b>Description as per MoEF&amp;CC</b>	<b>Compliance</b>
	topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)	<p>Section 1.4.3 earlier along with the coordinates.</p> <p>A map showing mine lease area and the 10 km radius around it superimposed on the SOI open series map is shown in Fig No. C3-1 of Chapter 3.</p> <p>The geological map of the mine lease area is given in Fig No. C2-2, Chapter 2.</p> <p>The interpreted satellite image showing the present land use of the project area and the area within 10 km of the project is given in Fig No. C3-12, Chapter 3.</p>
24.	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.	<p>As toposheet of the area is restricted, it is not available. However, open series map is available and the project area superimposed on the same is shown in Fig No. C3-1 of Chapter 3.</p> <p>The geological map of the area is given in Fig No. C2-2, Chapter 2.</p> <p>Geomorphology of the area has been discussed in terms of topography and drainage in Section 3.2, Chapter 3.</p> <p>Existing minerals were assessed through exploration carried out by CGM, GoG as explained in section 2.2.1, Chapter 2.</p> <p>Mining history of the area- old pits have been found and mapped in present surface plan in Fig No. C2-1, of Chapter 2.</p> <p>Important water bodies, streams and rivers have been tabulated in Table No. C3-1 and can be seen in various maps such as Fig No. C3-2 (SOI map) and Fig No. C3-12 (interpreted satellite image), Chapter 3.</p> <p>Soil characteristics area discussed in Section 3.7 of Chapter 3.</p>
25.	The PP should collect the Baseline data (BLD) in respect of initial level of the mining lease. For this permanent bench marks (BM) needs to be established at prominent location preferably close to mining leases in	<p>Baseline study has been carried out. (Chapter 03).</p> <p>Permanent Ground Control Points as permanent benchmarks have been established in lease area as follows:</p>

Sl. No. of TOR	Description as per MoEF&CC	Compliance																																							
	question and should have precisely known relationship to the level datum of the area, typically mean sea level.	<table border="1"> <thead> <tr> <th colspan="4">Bench Mark</th> </tr> <tr> <th colspan="4">Ground Control Points survey by DGPS</th> </tr> <tr> <th>Sr. No.</th> <th>Latitude, N</th> <th>Longitude, E</th> <th>Altitude in m, AMSL</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21.04827</td> <td>71.6451</td> <td>16.406</td> </tr> <tr> <td>2</td> <td>21.04411</td> <td>71.66768</td> <td>11.551</td> </tr> <tr> <td>3</td> <td>21.04431</td> <td>71.66841</td> <td>12.023</td> </tr> <tr> <td>4</td> <td>21.04324</td> <td>71.66608</td> <td>10.882</td> </tr> <tr> <td>5</td> <td>21.04066</td> <td>71.66793</td> <td>8.472</td> </tr> <tr> <td>6</td> <td>21.03918</td> <td>71.66814</td> <td>7.847</td> </tr> </tbody> </table>				Bench Mark				Ground Control Points survey by DGPS				Sr. No.	Latitude, N	Longitude, E	Altitude in m, AMSL	1	21.04827	71.6451	16.406	2	21.04411	71.66768	11.551	3	21.04431	71.66841	12.023	4	21.04324	71.66608	10.882	5	21.04066	71.66793	8.472	6	21.03918	71.66814	7.847
Bench Mark																																									
Ground Control Points survey by DGPS																																									
Sr. No.	Latitude, N	Longitude, E	Altitude in m, AMSL																																						
1	21.04827	71.6451	16.406																																						
2	21.04411	71.66768	11.551																																						
3	21.04431	71.66841	12.023																																						
4	21.04324	71.66608	10.882																																						
5	21.04066	71.66793	8.472																																						
6	21.03918	71.66814	7.847																																						
26.	In case of sand mining, the entire mining lease area should be divided suitably into grids of 25 m x 25 m with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid needs to be recorded. Each Grid should be suitably numbered for identification. PP should identify grids which will be worked out and grids which will come under no mining zone i.e. safety barriers from the river bank. PP should comply with the sustainable sand mining management guidelines 2016 and enforcement and monitoring guidelines, 2020 etc.	Not applicable.																																							
27.	A time bound progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good	<p>Details of plantation is given in para 4.12.1 of Chapter 4.</p> <p>Trees recommended for plantation is given in Table No. C4-19 of Chapter 4.</p> <p>The plant species have been selected from native species and shall aid in pollution abatement.</p> <p>The phase wise plan for plantation is given in Table No. C4-20, Chapter 4.</p>																																							

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.	
28.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report	Details of Onsite services and facilities is given in section 2.10 of Chapter 2.
29.	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA Report	Conceptual post mining land use is given in Table No. C4-14 and conceptual Mine Plan and section are shown in Fig No. C4-7 and C4-8 respectively of Chapter 4.
30.	The cost of the project (Capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.	Capital and recurring cost towards implementation of EMP is given in Table No. C6-2 and C6-3, respectively of Chapter 6.
31.	Benefits of the project if the project is implemented should be spelt out. The benefits of the project shall clearly indicate environmental, social, economic, employment potential, etc.	This is a new mine. There is no violation in this mine, hence, not applicable.
32.	Compliance of the Ministry's Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.	Noted
33.	PP shall submit a certificate from Chief Conservator of Forests regarding involvement of Forest Land in the mining lease area if any. In case forest land is involved i) PP should submit the proof of application made for obtaining forest clearance and ii) a map clearly showing the forest & non-forest area.	Not applicable as no forest land is involved.
34.	Status of forestry clearance for the broken up area and virgin forestland	Forest land is not present within Lease area.

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	
35.	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act. 2006 should be indicated.	Not Applicable since no forestland is present within mine lease area
36.	The vegetation in the RF/PF areas in the study area, with necessary details, should be given.	The natural vegetation in the study area predominantly consist of <i>Prosopis juliflora</i> . Reserve Forest present in the study area are RF near Patwa (2.1 km, S), RF near Dudheri village (3.9 km, SE), RF near Gujarada village (4.3 km, SE), RF near Doliya village (3.3 km, SSE), RF near Khared village (6.3 km, ESE). The vegetation in the study area (including forests) is given in Section 3.10, Chapter 3.
37.	Details of litigation pending against the project, if any, with direction/order passed by any Court of Law against the project should be given	There is no litigation against this mining project.  Company's adjoining proposed cement plant Environment Clearance is sub-judice before Hon. Supreme Court. Earlier, EC was cancelled by MoEF, New Delhi. However, NGT has set aside the cancellation of EC. An appeal has been filed in Hon. Supreme Court against the NGT order by the opponent and the matter is sub-judice, there is no stay in the matter.  As per the direction of Hon. Gujarat High Court vide order dated: 26.04.2010, 100 Ha plant land was surrendered and required to be deepened to store more fresh water. Some part of this surrendered land is falling in mining lease area which will be deepened in process of mining with consultation of irrigation dep't and surrendered to the State Government.
38.	PP should submit the details of survey number [viz. survey no, area in hectare, classification of land	Mining lease deed has been executed in favour of PP on 11.01.2017 by the State Government and details of survey number [viz. survey no,

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	(government, private, forest, grazing land etc.), villages] duly authenticated by State Government, falling in the mining lease area.	area in hectare, classification of land (government, private, forest, grazing land etc.), villages] duly authenticated by State Government, falling in the mining lease area has been given in lease deed. Copy of details of survey nos authenticated by DILR, State Government is given in <b>Annexure-XXVI</b> .
39.	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine/lease period.	The study area map is given in Fig No. C3-1, Chapter 3. The waste generation in the plan period is given in Table No. C4-16 and limestone produced is given in section 2.8 of Chapter 2.
40.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted, impact, if any, of change of land use should be given.	Land use of the study area as per Census 2011 is given in Table No. C3-12 of Chapter 3 and as per the interpretation for 10km satellite imagery is given in Fig No. C3-12, Chapter 3.  The land use plan for existing, after five years and end of life of mine is given in Table No. C4-10, C4-11 and C4-12 respectively.  Impact and Management of land is given in section 4.10 of Chapter 4.
41.	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.	There will be no overburden dumps outside mine lease area and no R & R issues are there for the proposed mine.
42.	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.	Impact and management of project on wildlife is given in section 4.12 of Chapter 4. Peafowl, Chinkara and Asiatic Lion are reported as the only Schedule I species present in the study area as per Wildlife Protection Act 1972 as amended upto 2019. Wildlife Conservation Plan for the same had been approved by the Forest Department on 20.12.2021. Approval letter & conservation plan are given in <b>Annexure XXIII</b>
43.	A detailed biological study of the study area [core zone and buffer zone (10	Ecology of the study area is given in section 3.10 of Chapter 3. List of Flora and Fauna

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	<p>km radius of the periphery of the mine lease)] shall be carried out. Detailed of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost. Proof of its submission of conservation plan to the CWLW needs to be submitted.</p>	<p>found in core and buffer zone is given in <b>Annexure XIII</b> and letter from DFO is given in <b>Annexure XIV</b>.</p> <p>Peafowl, Chinkara and Asiatic Lion area the Schedule I species reported from the study area. Conservation Plan for the same has been approved from Chief Wildlife Warden., Gandhinagar. Approval letter &amp; conservation plan are given in <b>Annexure XXIII</b>. Rs. 19.9 lakh has been approved for the conservation of wildlife in the study area.</p>
44.	<p>PP shall submit a certificate from Chief Wildlife Warden regarding distance of mining lease from the protected area falling within 10 KM of the mining lease. In case project requires clearance under Wildlife (Protection) Act, 1972 then copy of application made for the same needs to be submitted.</p>	<p>There are no National parks, Wildlife Sanctuary, Biospheres reserves or Wildlife Corridor within 10 km radius. However, nearest National Park &amp; Wildlife Sanctuary is the GIR National Park, GIR Wildlife Sanctuary &amp; Mitiyala Wildlife Sanctuary located at a nearest distance of 76.0 km, 44.2 km and 43.5 km respectively. Duly authenticated map showing aforesaid distance alongwith certificate issued by the Chief Wildlife Warden, Gandhinagar vide letter dated: 13.01.2022 &amp; 14.02.2022 are attached herewith as <b>Annexure XIV</b></p>
45.	<p>One Season (non-monsoon) [i.e. March - May (Summer Season); October-December (Post monsoon Season); December - February (winter Season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented</p>	<p>Base line data for water quality, noise level, soil and flora and fauna has been collected in summer season (1<sup>st</sup> March- 2<sup>nd</sup> June 2021). Site specific meteorological data is given in para 3.3.3 of Chapter 3.</p> <p>Air monitoring station has been chosen as per in view the pre-dominant downwind direction and location of sensitive receptors and is given in Table No. C3-5 and shown in Fig No. C3-8 of Chapter 3.</p>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	data-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. the location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.	The mineralogical composition of PM10 of core zone is given in <b>Annexure V</b> .
46.	Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.	Air quality modelling is given in section 4.4.1 of Chapter 4 and details is given in <b>Annexure XX</b> and cumulative impact for 3 mines is given in <b>Annexure XXI</b> .
47.	The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this, PP should submit the original test reports and certificates of the labs from which samples were analyzed.	The photograph of monitoring stations & sampling locations are given in <b>Annexure-XXVII</b> .  Test Reports for Air, Water, Noise & Soil are given in <b>Annexure V, VII, X &amp; XV</b> and certificates of the labs are given in <b>Annexure III</b> .
48.	The water requirement for the Project, its availability and source should be furnished. Quantity of surface or ground water to be used for the	Water requirement and source is given in section 2.13 and water balance is shown in Fig No. C2-9 of Chapter 2.  The rain water collected in mine pits as well

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	Project should be indicated. A detailed water balance should also be provided. Submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided. The capital and recurring expenditure to be incurred needs to be submitted.	reject from RO / DM plant of the proposed cement plant (when it becomes operational) shall be used to minimize fresh water requirement.
49.	Impact of the project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.	Impact and mitigation measures of the project on water quality is given in section 4.6 of Chapter 4.
50.	Details of any stream, seasonal or otherwise, passing through the lease area and modification/diversion proposed, if any, and the impact of the same on the hydrology should be.	There are few second order streams, passing close to each other, through the lease area near Vangar and Madhiya villages. All streams ultimately lead to Samadiyala Bund which overflows into the sea. The drainage pattern is dendritic in nature.  Rainwater will fall directly into the mine pit and reused, to the extent possible prior to discharge into the salinity ingress control Bandhara, after passing through the settling tank. There will be garland drains around all pits to protect from runoff inflow into the mine.
51.	Information on site elevation, working depth, groundwater table etc. should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.	Site elevation, working depth is given in Table No. C4-7, Chapter 4.
52.	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard	There will be no intersection of ground water table during five years of plan period. Only during post-monsoon period, ground water will be encountered in 13 <sup>th</sup> year i.e. end of mine

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	<p>may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished. In case of surface water is proposed to be utilized then Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.</p>	<p>life period in pit no. 4 &amp; 5. However, conceptual pit bottom level will be kept above ground water level i.e. +2.0m AMSL to avoid intersecting ground water level. The shallow depth pits shall be backfilled simultaneously after mining for limestone and shall be converted into agriculture land / utilized for plantation purpose.</p> <p>M/s Ground Water &amp; Mineral Investigation Consultancy Centre (P) Ltd., Jaipur has assessed the hydrogeological conditions and impact of mining. Extract from the same has been included in Section 3.5, Chapter 3 and Section 4.5.1, Chapter 4.</p> <p>Since the proposed mine pits will not intersect the ground water table, no mine seepage is envisaged and hence no permission is required from Central Ground Water Authority.</p>
53.	<p>Impact on local transport infrastructure due to the project should be indicated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load, arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. project proponent shall conduct impact of Transportation study as per Indian Road Congress Guidelines.</p>	<p>Impact on transport is given in section 4.9 of Chapter 4.</p>
54.	<p>Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.</p>	<p>The proposed land use at the end of plan period and life of mine is given in Table No. C4-11 and No. C4-12 of Chapter 4.</p> <p>The mine lease has been executed with District Collector, Bhavnagar. The change in land use from its present land use has to be carried out prior to commencement of mining,</p>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
		as per applicable rules of Govt. of Gujarat. Since the execution of lease deed, the second rights in case of government land has already been granted to the Company for mining. In case of private agricultural land, as and when the land becomes available for use by obtaining consent for mining/ownership, the change in land use to non-agriculture shall be obtained.
55.	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs/STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.	<p>The R&amp;R Plan/compensation details for the Project Affected People (PAP) has been incorporated in Chapter 3 within the private land in conceptual pits at initial stage, as per latest survey carried out there are 24 houses/hutments in Vangar (17 nos.) &amp; Madhiya (7 Nos.) villages. There will be direct purchase or leasing of private land, with the willing consent of the private land owners. The detailed R&amp;R Plan is given at section 3.11, Chapter 3, section 4.13 Chapter 4, Table No. C10-1 Chapter 10 &amp; section 11.3.8 &amp; 11.4.11 Chapter 11. Table C8-3, Chapter-8 is need based assessment.</p> <p>There are no ST in the villages touched by mine lease area as per Census 2011. SC are 17 in Padhiarka. The schemes available for them from government are given in point 9, Table C8-3 along with action plan (proposed intervention) to aid them to use these schemes efficiently.</p>
56.	Public health implications of the project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Implications and mitigation measures of surrounding public is given in section 4.14.2 of Chapter 4.
57.	Measures of socio economic significance and influence to the local community proposed to be provided by the project proponent should be	Measures of socio economic significance is given in section 4.13 of Chapter 4 and under CSR and CER planning in sections 9.3 & 9.4 of Chapter 9.

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	
58.	Public Hearing points raised and commitment of the project proponent on the same along with time bound Action plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the project.	The points raised in Public hearing & commitments have been incorporated in Table C7-3 of Chapter 7 after conducting the public hearing on 28.04.2023.
59.	Activity-wise time-bound action plan on the issues raised and commitment made during public hearing to be submitted as part of the final EMP Report in compliance of the Ministry's OM F.No.22-65/2017-IA.III dated 30 <sup>o</sup> September, 2020.	The time bound action plan on concerns of the public has been incorporated in Table C7-3 of Chapter 7 after conducting the public hearing on 28.04.2023.
60.	It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.	Nirma Ltd. has a well laid down Environment policy as given in section 10.2 of Chapter 10. Hierarchical system or administrative order of the Company to deal with environmental issues and for ensuring compliance with the EC conditions is given in section 10.3.1 of Chapter 10. The hierarchy of environmental cell is given in Fig C6.1 of Chapter 6 also.
61.	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of	EMP is given in Chapter 10.

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed project.	
62.	Proximity to Areas declared as 'Critically Polluted' or the project areas likely to come under the 'Aravali Range' (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. should be secured and furnished to the effect that the proposed mining activities could be considered.	The project does not lie in critically polluted area. The nearest critically polluted area is Gujarat Industrial Development Corporation, Chitra, Bhavnagar present at a distance of 89 km, NE. The project does not fall in Aravalli range.
63.	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should furnished (Note: The mining projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).	The proposed project lies beyond distance of 0.5 km from High Tide Line of Arabian Sea Coast.  The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai and reproduced in <b>Annexure XIX</b> along with report.
64.	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of opencast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	Mine safety parameters are addressed as follows: <ul style="list-style-type: none"> <li>▪ <b>Subsidence</b> - not applicable as this is an open cast mine</li> <li>▪ <b>Slope stability</b>- The standard practice of maintaining the slopes below the angle of repose of the material to be handled will be followed for ensuring safe opencast mining. The bench and ultimate pit slope shall be maintained below 45 degree and gradient of ramp at 1 in 16 shall be maintained as per MMR, 1961 as detailed in Approved Review of Mining Plan. After commencement of mine, geo-technical investigations on excavated and dumped material shall be carried out for identifying any mid course corrections, if needed.</li> </ul>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
		<b>Blasting</b> - It may be noted that only 50% of the mining operations shall be blasting based and balance shall be through surface miners. Safeguard measures that will be taken for blasting have been given in section 4.4.2, point 15 of Chapter 4. Blasting shall be carried out in compliance to DGMS, Dhanbad (Circular No. 7 dated 29-08-1997) as detailed in Section 4.8, Chapter 4. After commencement of operation, blasting studies shall be periodically carried out to check whether any modifications needed as per actual ground conditions.
65.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	As this is a proposed project, anticipated occupational Health and safety impact and preventive measures are given in section 4.14 of Chapter 4.
	The general points are also to be followed: -	
66.	A Disaster management Plan shall be prepared and included in the EIA/EMP report	Disaster management Plan is given in Chapter 7
a)	All documents to be properly referenced with index and continuous page numbering	All documents are properly referenced with index and continuous numbering
b)	Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.	The data is presented with the period of collection.
c)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be	All the analysis reports are enclosed and has been done by NABL Accredited Min Mec R & D laboratory. The certificate is given in <b>Annexure-III.</b>

Sl. No. of TOR	Description as per MoEF&CC	Compliance
	available during appraisal of the project.	
c)	Where the documents provided are in a language other than English, an English translation should be provided.	All documents are provided in English
d)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	The latest forms of MOEF&CC on parivesh portal shall be filled.
e)	While preparing the EIA Report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4 <sup>th</sup> August, 2009, which are available on the website of this Ministry, should be followed.	O.M. No. J-11013/41/2006-IA.II(I) dated 4 <sup>th</sup> August, 2009, has been followed while preparing EIA Report.
f)	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing Changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. Process) will entail conducting the PH again with the revised documentation.	No change is there after the grant of TOR
h)	As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional office of ministry of environment, forest and climate change, as may be applicable	As the project is proposed, Environment Clearance is under process.

Sl. No. of TOR	Description as per MoEF&CC	Compliance
i)	The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.	<p>The EIA report includes</p> <ul style="list-style-type: none"> <li>(i) Surface plan of the ML area is given in Fig No. C2-1 of Chapter 2.</li> <li>(ii) Topography map indicating contours of main topographic features, drainage and mining area- Fig No. C3-1, Chapter 3</li> <li>(iii) Geological map and section Fig No. C2-2 and No. C2-3, respectively, of Chapter 2.</li> <li>(iv) Section of the mine pit-five year development Plan in Fig No. C2-4 to C2-8 of Chapter 2.</li> </ul>

## CHAPTER 1 INTRODUCTION

---

### 1.1 PURPOSE OF THE EIA REPORT

Environmental Clearances is a statutory requirement for the projects listed in the Schedule of EIA notification dated 14<sup>th</sup> September 2006 and its amendments till date. Leases more than 250 ha mining lease area fall under Sl. No. 1(a) in category A of the schedule to the EIA Notification 2006. Category A project shall seek Environmental clearance from the Ministry of Environment, Forest & Climate Change (MoEF&CC), New Delhi. The procedure covers submission of application with Form 1(Part-A & B) and pre-feasibility report to MoEF&CC, preparation of draft EIA/EMP in line with the Terms of Reference, applying to the State Pollution Control Board for public hearing, recording of suggestions/ objections and statements of the public and finalizing the EIA/EMP report after incorporating the responses and action plans to the points raised by the public. The final EIA/EMP report shall be submitted to the MoEF&CC which shall be appraised by the Expert Committee and thereafter only the Environmental Clearance is granted.

To obtain the Environmental Clearance for the proposed project, environmental studies have been carried out and draft Environmental Impact Assessment (EIA) / Environment Management Plan (EMP) has been prepared in line with Terms of References (TOR) issued by Ministry of Environment, Forest & Climate Change, New Delhi. This EIA/EMP report has been prepared for proposed 1.6 million tonnes per annum (MTPA) ROM production of Limestone by mechanized open cast method in the total ML area of 612.1336 ha. (reduced from 1225.8553 ha) by M/s Nirma Limited in villages Vangar and Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat.

### 1.2 IDENTIFICATION OF THE PROJECT

Nirma Ltd. (NL) is setting up a Cement Plant (Cement 1.91 MTPA) and Captive Power Plant (capacity 50 MW) in first phase at village Padhiarka, in District Bhavnagar of Gujarat State. Company is also having Soda ash plant near Bhavnagar & limestone is used for manufacturing of Soda ash & company is proposing to use limestone in Soda ash plant with the permission of the State Govt.

In order to source the major raw material for the cement plant, the company had applied for various mining leases of limestone for captive use in Cement Plant located at Taluka Mahuva, district Bhavnagar. The State Govt. had issued Letter of Intent (LOI) to grant the mining lease near village Vangar and Madhiya over an area of 1225.8553 ha vide letter no. MCR-102004-1827-CHH dated 15.02.2008. A copy of Letter of Intent (LOI) is attached as **Annexure II**. Mining of limestone will be carried out as per Review of Mining Plan with

EIA/EMP for Vangar and Madhiya Limestone Mine of M/s Nirma Ltd.

Progressive Mine Closure Plan approved by IBM on 05.08.2021. The proposed run of mine (R.O.M.) excavation of limestone is 5300 tonnes per day i.e.1.6 MTPA.

The proposed "Vangar & Madhiya Limestone Mines" of M/s Nirma Ltd. having lease area of 612.1336 ha of land, according to the environmental notification 14<sup>th</sup> September, 2006 at project identification schedule read at 1(a)" Mining of Mineral", comes under category 'A' project.

The project is located within village Vangar & Madhiya in under Mahuva Taluka of District Bhavnagar, Gujarat.

### 1.2.1 Background of the Project

Company submitted the fresh Form I(Part A & Part B) and Pre-feasibility Report for grant of Terms of Reference vide letter No. NL/BH/ENV-152/1932/2022 dated 18.11. 2022. The EAC recommended the proposal in the 7<sup>th</sup> EAC (Non-Coal Mining) meeting held during 5<sup>th</sup>-6<sup>th</sup> December, 2022 for grant of Terms of Reference (ToR) under the provisions of EIA Notification, 2006 for M/s Nirma Limited for mining of Limestone in Vangar and Madhiya Limestone mine with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha. The Terms of Reference were issued for the preparation of EIA/EMP Report vide MOEF&CC's letter no. J-11015/152/2016-IA. II(M) dated 23.12.2022 (copy given in **Annexure I**).

The chronology regarding the project is as follows:

- i. Company applied for mineral Limestone & Marl over an area of 1225.8553 Ha at villages Vangar & Madhiya, Taluka Mahuva in District Bhavnagar (Gujarat).
- ii. The State Govt. issued LOI to grant the mining lease for mineral Limestone and Marl over an area of 1225.8553 ha Vide Letter No. MCR-102004-1827-CHH Dated 15.02.2008.
- iii. Meantime, the Environmental Clearance was accorded for company's proposed cement plant at village Padhiarka, District Bhavnagar by MOEF, New Delhi vide letter no. J-11011/992/2007-IAII(I) dated 11.12.2008.
- iv. As per the statutory provisions in MCR at the time of fresh grant, State Government had asked for Mining Plan. Thus the Mining Plan including Progressive Mine Closure Plan as per Rule 22 of MCR 1960 for said Limestone Deposit at villages Vangar & Madhiya was prepared and its approval obtained from competent authority i.e. IBM vide Letter No. 682(23)(622)/2008-Udp Dated 24.03.2009.

EIA/EMP for Vangar and Madhiya Limestone Mine of M/s Nirma Ltd.

- v. The company submitted the project proposal to Ministry of Environment and Forests, Govt. of India which issued Terms of Reference (ToR) for the said mining lease area vide letter dated 24.03.2009.
- vi. However, the Environmental Clearance of the cement plant was revoked by MoEF, New Delhi vide their order dated 01.12.2011. Hence, in the corresponding time period, the process of Environmental Clearance of the said mining lease was also stalled.
- vii. The revoked order of the cement plant was challenged in National Green Tribunal (NGT), which vide their order dated 14.01.2015 in the appeal no. 04 of 2012 has set aside MOEF's revocation order dated 01.12.2011.
- viii. Accordingly, Company re-initiated the process for grant of Environmental Clearance for the mining lease area as per LOI by submission of a fresh proposal in April 2016 to Ministry of Environment, Forest & Climate Change (MoEF & CC), New Delhi.
- ix. The Expert Appraisal Committee (Mining) of MoEF&CC recommended the proposal for grant of ToR in Vangar & Madhiya Limestone Mining Lease with reduced Mining Lease Area i.e. 612.1336 Ha. and issued Terms of Reference (ToR) Vide Letter No. J-11015/152/2016-IA II(M) dated 03.01.2017 for the Mining Lease. The Same has been extended vide letter no. F. No. J-11015/152/2016-IA-II (M) dated 16.03.2020 by MOEF&CC.
- x. Ministry of Mines, Govt. of India, New Delhi issued order titled "Mines & Minerals (Development and Regulations) Removal of Difficulties Order 2017" dated 04.01.2017. It permitted to consider the grant of the mining lease in those cases where in the condition of obtaining Environment Clearance has not been complied by the applicant on or before 11.01.2017 but all other conditions specified in LOI have been fulfilled.
- xi. Accordingly, the order for grant of mining lease was issued by Industries and Mines Department, Govt. of Gujarat, Gandhinagar vide order no. MCR-102004-1827-CHH Dated 08.01.2017 in an area of 612.1336 Ha for 50 years (refer **Annexure II**).
- xii. Thereafter, the mining lease deed was executed on 11.01.2017 between Dist. Collector, Bhavnagar, State Govt. and the lessee Nirma Ltd. for a period of 50 years under the provision of MMDR Amendment Act, 2015 and also registered the executed mining lease deed with Sub, Registrar, Mahuva on 11.01.2017.
- xiii. Under provision of Minerals (other than Atomic & Hydro Carbons Energy Minerals) Concession Rules, 2016, "Mine Development and Production

Agreement" (MDPA) was signed between State Govt. and company on 11.01.2017.

- xiv. Accordingly, the proposal of Nirma Ltd. for seeking Environmental Clearance for production capacity 1.6 MTPA was considered by MoEF&CC and issued Terms of Reference (TOR) vide letter no. J-11015/152/2016-IAIIM) Dated 03.01.2017 for the reduced area 612.1336 ha. The area reduction took place due to exclusion of Gaucher land, part of the Private Land, villages periphery and highway & its periphery area as safety barrier as per directions of EAC, MoEF&CC, New Delhi.
- xv. Modified Mining Plan along with Progressive Mine Closure Plan over an area of 612.1336 ha for Vangar & Madhiya Limestone Mining Lease has been approved by Indian Bureau of Mines, Gandhinagar, Gujarat vide letter No. 684 (4) (1)/MP-196/2018-GNR dated 04.02.2019. Thereafter Review of Mining Plan with progressive Mine closure Plan over area of 612.1336 ha for Vangar & Madhiya Limestone Mining Lease has been approved by Indian Bureau of Mines, Gandhinagar, Gujarat vide letter no. 684(4)(1)/MP-347(196)/2021-22 GNR/1125 dated 05.08.2021. Approval of the mine plan is enclosed as **Annexure XXII**.

The land ownership within the lease is private & government land as per revenue records and no Gauchar land is involved in the lease area. Lease area does not form a part of any Reserve Forest, National park, Wild life Sanctuary or National biosphere reserve.

It is pertinent to be noted here that mining lease of Nirma Ltd. with the condition is that the lessee will have to produce Environment Clearance Certificate issued by MoEF & CC, New Delhi before commencing mining activity as stated in MM(DR) Removal of Difficulties order 2017, dated: 04.01.2017.

Looking towards its date of execution, lease period as well as the five years block period of mining lease period has been started from year 2016-17. The date of expiry of mining lease period is 10.01. 2067. Furthermore, the applicability of approved mining plan has also been started from the date of execution i.e. 11.01.2017 (FY 2016-17) and shall five year block period will be up to FY 2020-21 (31.03.2021).

Modified Mining Plan has been approved by IBM which was valid up 31.03.2021. On expiry of Modified Mining Plan, Review of Mining Plan with Progressive Mine Closure Plan for further five years period from 2021-22 to 2025-26 has been approved by Indian Bureau of Mines, Gandhinagar on 05.08.2021 as discussed earlier.

### ***Salient features***

The salient features of the project are summarized in **Table No. C1-1**.

**TABLE NO. C1-1: SALIENT FEATURES OF THE PROJECT**

Project name	Vangar and Madhiya Limestone Mine
Project proponent	Nirma Limited
Villages in block area	Vangar and Madhiya village
Coordinates	Latitude : 21°01'44.5493" to 21° 03' 40.04" N Longitude: 71°38' 35.63" to 71°41'32. 67" E
Mining Lease Area	612.1336 Ha
Rated Capacity	1.6 MTPA
Mineable Reserves	14.913 million tonnes
Life of the mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category to category of reserves 111)
Stripping ratio for plan period	1:0.00 tonne/ cum
Total Soil Generation during life of mine	1.37 mio. cum
Method of Mining	Opencast Mechanized (Conventional & Non-conventional)
Working days	300 days/ year, 2 shifts of 8 hours each
Manpower	58
Transportation	Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease/ through dumpers/ trucks to the Soda Ash Plant located at Kalatalav, Bhavnagar.
Expected cost of the project	Rs. 25 Crores
Elevation of lease area	5 m to 20.27 m AMSL
Topography	Mostly plain with minor undulations
Water requirement	42 cum/day
Source of water	(i) Water harvested within mine lease during rainy season. (ii) Narmada water pipeline, permission has been taken vide letter No. GWIL/Bhavnagar/Ind.conn. /1257 dated 4.06.2008 or private water tankers. (iii) Reject water of RO /DM plant (proposed at Cement plant)
Power requirement	100 KW, DG Set-5 KVA
Power source	Gujarat State Electricity Board / Captive Power Plant located at Cement Plant near Padhiarka.

**1.3 PROJECT PROPONENT**

M/s Nirma Ltd. (a Public Limited Company) is having its registered office at "Nirma House" on Ashram Road, Ahmedabad- 380 009, Gujarat. Nirma Ltd. is one of the leading soda ash producing company in India.

Nirma Ltd. is a part of the Nirma Group engaged in the business of consumer products like Soap, Detergent and Industrial products like Sulphuric acid, Oleum, Distilled Fatty acids, Linear Alkyl Benzene, Soda ash (Light & Dense), Salt & Caustic Soda etc. This Group came in existence in the year 1980. Company has established Soda Ash manufacturing plant located in Bhavnagar and also acquired Soda Ash plant in Porbandar District of Gujarat. The present capacity of Soda ash plant is 10,08,000 TPA for Bhavnagar location and 5,40,000 TPA for Porbandar location. Company is also having captive Power Plants along with its Soda Ash plants in Bhavnagar & Porbandar District.

The high quality of Limestone i.e. CaO >48% is one of the basic raw materials used in boiler of Power Plant for de-sulfurization process and soda ash manufacturing process. Company is continuously expanding its wings for increase in production capacities and diversification and set up a cement plant in Rajasthan. It has overall about 18000 employee-base and annual turnover of around Rs. 7000 crores.

Production facilities of the Nirma group at its various units are given in **Table No. C1-2**.

**TABLE NO. C1-2: PRODUCTION FACILITIES OF NIRMA GROUP IN GUJARAT**

Sl. No.	Location	District	State	Products Manufactured
1.	Kalatalav	Bhavnagar	Gujarat	Soda Ash, Detergent Powder & Cake, Toilet Soap, Edible Salt & Caustic Soda etc.
2.	Alindra	Baroda	Gujarat	Linear Alkyl Benzene, Detergent Powder & Cake etc.
3.	Mandali	Mehsana	Gujarat	Oleum, Sulphuric Acid, Fatty Acids, Alpha Olefin Sulphonate, Glycerin, Toilet Soap, Detergent Powder & Cake etc.
4.	Moraiya	Ahmedabad	Gujarat	Detergent Powder & Cake, Single Super Phosphate, Packaging materials etc.
5.	Porbandar	Porbandar	Gujarat	Soda Ash
6.	Sachana	Ahmedabad	Gujarat	Intravenous Fluids, Large Volume Parenterals (LVP), Small Volume Parenterals (SVP), Medical Devices etc.

The company (Nirma Ltd.) diversifying its activities into cement manufacturing in Gujarat.

## 1.4 BRIEF DESCRIPTION OF THE PROJECT

### 1.4.1 Nature of project

The proposed project will be an Opencast Mechanized limestone mine having production capacity 1.6 MTPA.

### 1.4.2 Size

The proposed capacity will be 1.6 million tonnes per annum (MTPA) ROM production by mechanized open cast method (Conventional & Non-conventional) in the total ML area of 612.1336 ha.

### 1.4.3 Location

The proposed project is a limestone Mine present in villages Vangar and Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat.

The lease area falls within the Survey of India Toposheet No. 41 O/12 (restricted). The area is bounded by the following geographical coordinates as per approved mining plan. Complete geographical coordinates are given in **Fig No. C1-1**.

Point (Refer Fig 1.1)	Latitude, N	Longitude, E	Remark
A	21° 03' 40.04"	71°41'14.39"	Pillar 314
B	21°03'26.80"	71°41'32.67"	Pillar 330
C	21°01'44.54"	71°39'11.76"	Pillar 104
D	21°03'5.03"	71°38'35.63"	Pillar 200

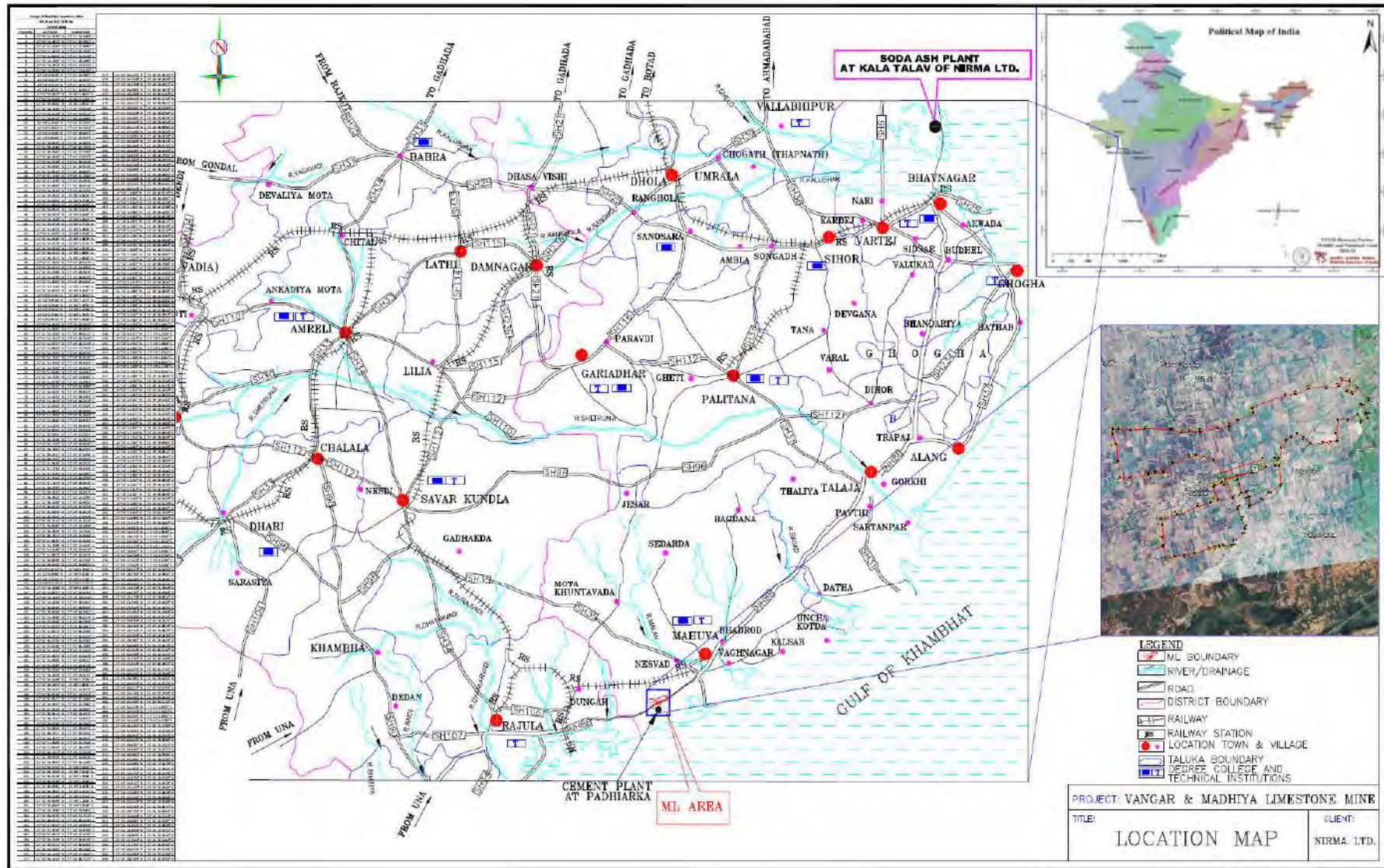
The location of the project can be seen in **Fig No. C1-1**.

### 1.4.4 Communication

#### **Road link**

The mining lease area is located at a distance of 6.2 km, NE of Mahuva town (Tehsil Headquarter) and is easily approachable by road. National Highway NH-51/NH-8E (Una/Rajula-Mahuva/Bhavnagar highway) passes through the ML area. Mahuva is Taluka Head Quarter in Bhavnagar district of Gujarat. Mahuva is about 94 km from District HQ Bhavnagar.

FIG NO. C1-1: LOCATION MAP OF THE PROJECT



**Rail link**

The nearest railway station is Mahuva located at approximately 7.7 km by road in NE and lies on Mahuva-Rajula broad gauge section of Western Railway Zone.

**Air link**

The nearest airport for regular commercial flight is Bhavnagar, situated at about 92 km in NE of mining lease area.

**Arabian sea coast**

The nearest Arabian sea coast is 3.4 km to HTL from mine lease.

**Port**

Pipavav is the nearest Port at about 25 kms in west of mining lease area.

**1.5 IMPORTANCE IN THE REGION AND COUNTRY**

The principal use of limestone is in the Cement Industry. Other important uses are in boiler of Power Plant for de-sulfurization process, as well as in soda ash manufacturing process as raw material and manufacture of quicklime (Calcium Oxide), slaked lime (Calcium hydroxide) and mortar. Pulverized limestone is used as a soil conditioner to neutralize acidic soils (agricultural lime). It is used in sculptures because of its suitability for carving. It is often found in medicines and cosmetics. In some circumstances, limestone is used for glass making. As a reagent in fuel-gas de-sulphurization, it reacts with sulphur dioxide for air pollution control. It can suppress methane explosions in underground coal mines. It is added to toothpaste, paper, plastic, paint, tiles and other materials as both white pigment and cheap filler. In blast furnaces, limestone binds with silica and other impurities to remove them from the iron.

India has huge resources of limestone distributed over different parts of the country. It is comfortably placed in terms of annual capacity and production of cement. Cement-grade limestone occurs in all the limestone-bearing areas, while SMS, BF and chemical-grade limestone occur in selective areas. Concerted efforts to locate SMS and BF grade limestone along with cement-grade limestone are imperative to meet the growing demand.

As per Indian Minerals Yearbook 2018 (Part- III: Mineral Reviews), published by IBM in August 2019, the demand of raw materials for cement, such as limestone and gypsum is expected to cause disruptive growth in the next few decades. The second largest Cement Industry in the world, the Indian Cement Industry, is expected to grow to an extent of 550 million tonnes per annum of capacity by FY2025 from 502 mtpa recorded in 2018. The demand for paper in India is expected to rise at a healthy rate by 2020, due to the Packing Industry and the increasing number of schools. The increasing number of construction

projects is expected to lead to a thriving Building and Construction Industry in India. This is anticipated to contribute to around 10% to the GDP of India. Also with rising Indian pharmaceutical, food and beverage industries the consumption of calcium carbonate (limestone) in India is expected to increase.

The company is leading producer of Soda Ash in the country and are now diversifying into the Cement manufacturing sector. The Vangar and Madhiya Limestone mine will be captive mine to the proposed adjacent cement plant of the company, therefore maintaining self-reliance of the state as well as the country. The project will be contributing to the state exchequer, by paying the mineral royalty and strengthening the self-sufficiency in cement industry in the country and if and when required, will earn foreign exchange in the future through exports. Lessee also propose to utilize high quality of Limestone (CaO>48%) to its existing Power Plant and Soda Ash plant in Gujarat State for captive purpose.

## **1.6 SCOPE OF THE STUDY**

The Environmental Impact Assessment and Environment Management Plan for the mine addressing the environment related issues are prepared in accordance with the requirements of Terms of Reference prescribed by Ministry of Environment, Forest & Climate Change, Govt. of India.

The study evaluates the prevailing environmental conditions. The adverse impacts have been identified and possible mitigation measures have been drawn in order to protect the environment. In order to carry out the study, the baseline environmental scenario has been established and the project activities superimposed on them to assess the impact and subsequent mitigation.

The main objectives of the present EIA study are briefly summarized below:

- To establish the baseline environmental scenario.
- To identify, predict and assess the future impacts of proposed project on the environment.
- To prepare a detailed action plan for implementation of mitigation measures.
- To suggest preventive measures to minimize adverse impacts and to maximize beneficial impacts.
- To suggest a monitoring programme to evaluate the effectiveness of mitigation measures.
- To suggest the formation of a core group responsible for implementation of the EMP.
- To prepare a capital cost estimate for environment management plan.
- To address the concerns of disaster management, R&R plan, CSR and points raised in public hearing.

The scope of the present study is to conduct EIA covering all the disciplines of environment and field monitoring in relevant disciplines over one full season of 3 (three) months (excluding monsoon months). The draft EIA report is prepared as per the MoEF&CC Notification dated 14.09.2006 and its amendments till date to submit at GPCB for Public Hearing.

**Study area:**

The mine lease (ML) area (612.1336 ha) is termed as "core zone". The area within 10 km radius around the periphery of the ML boundary has been considered as the "buffer zone" for identifying and assessing impact with respect to air, water, noise, land use, ecology, socio-economic environment, etc. The core zone and buffer zone together comprise the "study area". After public hearing, Final Report has been prepared for submission to MoEF&CC.

**Data Generation:**

The data that had been generated during summer season from 1<sup>st</sup> March to 2<sup>nd</sup> June 2021 by NABL accredited and MoEF&CC recognized Min Mec R&D Laboratory, New Delhi, in accordance with the requirement of statutory agencies, is given in **Table No. C1-3**. since there are two other mines also proposed by Nirma Ltd. in the vicinity of Vangar & Madhiya Limestone Mine i.e. (1) Padhiarka & Doliya Limestone mine in South and (2) Gujarda, Dudheri & Dudhala Limestone Mine in South East direction and EIA/ EMP is also being prepared for the other two mines together, air quality stations were established giving due consideration to all three mines in core zone and buffer zone. The monitoring and testing have been done as per the guidelines of MOEF&CC, CPCB and the Indian standards.

**TABLE NO. C1-3: BASELINE DATA GENERATED AS PER TOR**

<b>Description</b>	<b>No. of Locations</b>	<b>Total No of samples</b>
<b>Air</b> Ambient air monitoring (24 hourly samples), twice a week for 3 months for one season for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>2</sub> , Heavy Metals (Pb, Ni & As) and silica	16 (1 in core zone & 15 in buffer zone)	384
<b>Meteorological parameters</b> Measured at hourly duration simultaneously in the project area for 3 months. Parameters monitored: A. Wind speed, direction B. Relative humidity C. Temperature D. Rainfall	1	90 days

<b>Description</b>	<b>No. of Locations</b>	<b>Total No of samples</b>
<b>Water (For all 3 mines)</b> Water/ effluent samples collected from various locations (surface and ground water) in core and buffer zone (10 km radius) and tested for physical, chemical and biological parameters according to applicable standards	Ground water-12 Surface water -3	15
<b>Soil (For all 3 mines)</b>	12	12
<b>Noise (For all 3 mines)</b> Hourly readings taken for 24 hours (Leq)	16	16
<b>Traffic Density</b>	1	1

Secondary and primary data collection was done comprising of, but not restricted to the following:

- Long Term Climatic data from Indian Meteorological Department (IMD) for available previous decade.
- Geo-hydrological aspects based on available data from various sources as well as field survey.
- Identification of water bodies, hills, roads etc. within 10 km radius.
- Details of fauna, flora, information in forests, major habitats, sanctuaries, sensitive places within a distance of 10 km from the project site (including forest details).
- Major industries within 10 km radius.
- Historical monuments and sanctuaries within 10 km radius.
- Land use pattern within core zone and buffer zone (10 km radius around the core zone), Cropping pattern.
- Demography and Socio-economic based on last available Census data for entire study area, etc.

The preparation of the EIA/EMP report has been done as per the generic structure prescribed in EIA Notification dated 14th September 2006.

## **1.7 STATUS OF LITIGATION**

There is no litigation against this mining project.

Company's adjoining proposed cement plant Environment Clearance is sub-judice before Hon. Supreme Court. Earlier, EC was canceled by MoEF, New Delhi. However, NGT has set aside the cancellation of EC. An appeal has been

EIA/EMP for Vangar and Madhiya Limestone Mine of M/s Nirma Ltd.

filed in Hon. Supreme Court against the NGT order by the opponent and the matter is sub-judice, there is no stay in the matter.

As per the direction of Hon. Gujarat High Court vide order dated: 26.04.2010, 100 Ha plant land was surrendered and required to be deepen to store more fresh water. Some part of this surrendered land is falling in mining lease area which will be deepen in process of mining with consultation of irrigation dept and surrendered to the State Government.

*Munish  
Sharma*  
**//TRUE COPY//**



सत्यमेव जयते

**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**(Non-Coal Mining)**

\*\*\*



**Minutes of AGENDA FOR 21ST EAC MEETING OF THE EXPERT APPRAISAL COMMITTEE (NON-COAL MINING SECTOR), SCHEDULED TO BE HELD DURING 18-20 OCTOBER, 2023 THROUGH VIDEO CONFERENCE. meeting** **Date: 27/10/2023**  
**Non-Coal Mining held from 18/10/2023 to 19/10/2023**

**MoM ID:** EC/MOM/EAC/313507/10/2023

**Agenda ID:** EC/AGENDA/EAC/313507/10/2023

**Meeting Venue:** N/A

**Meeting Mode:** Virtual

**Date & Time:**

18/10/2023	10:30 AM	05:30 PM
19/10/2023	10:30 AM	05:30 PM

### 1. Opening remarks

The 21st meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 18-20 October, 2023 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

### 2. Confirmation of the minutes of previous meeting

The minutes of the 20th EAC meeting held during 21-22 September, 2023 were placed before the members of the EAC.

### 3. Details of proposals considered by the committee

**Day 1 -18/10/2023**

#### 3.1. Agenda Item No 1:

##### 3.1.1. Details of the proposal

**EC for Ravirala Limestone Mine (Revenue); Extent 124.33 Ha & Production of Limestone-0.115 MTPA (ROM), Topsoil-0.005 MTPA, Over Burden-0.211 MTPA (Total Excavation- 0.331 MTPA) at Sy. No. 20, 28, 38, 39, 41, 42, etc., of Ravirala village, Jaggayyapeta Mandal, NTR District, Andhra Pradesh by The Ramco Cements Limited by THE RAMCO CEMENTS LIMITED located at NTR,ANDHRA PRADESH**

**Proposal For**

Fresh EC

## 3.6. Agenda Item No 6:

## 3.6.1. Details of the proposal

<b>Vangar &amp; Madhiya Limestone Mine by Nirma Limited located at BHAVNAGAR, GUJARAT</b>			
<b>Proposal For</b>		Fresh EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
IA/GJ/MIN/443498/2023	J-11015/152/2016-IA-II(NCM)	13/09/2023	Mining of minerals (1(a))

## 3.6.2. Project Salient Features

The proposal is for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 21°01'44.54" to 21° 03' 40.04" N and Longitude 71°39'18.3"E to 71°41'05"E. The mine lease area falls under the Survey of India Toposheet No: 41 O/12 (restricted) and falls in Seismic Zone-III.
- ii. 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.
- iii. Details of Terms of Reference (ToR):

Date of application	Proposal No/ File No	Consideration by EAC	Details of ToR	Date of accord
18.11.2022	IA/GJ/MIN/403568/2022 J-11015/152/2016-IA.II(M)	5-6 Dec., 2022	Terms of Reference (ToR) for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat for undertaking detailed EIA/EMP study	23.12.2022

iv. Details of Mine Lease: -

- a) The Project Proponent has submitted that initially the State Govt has granted the Letter of Intent for grant of mining lease vide letter no. MCR-102004-1827-CHH dated 15.02.2008 for mineral Limestone and Marl over an area of 1225.8553 ha for a period of 30 years.
- b) Then, the Govt. of Gujarat, Industries and Mines Department, vide Order no: MCR102004-1827-CHH dated 08.01.2017 granted the mining lease for Limestone and Marl to M/s Nirma Limited over an area of 612.1336 ha for a period of 50 years for its captive consumption.
- c) The mining lease deed was executed on 11.01.2017 between Dist. Collector, Bhavnagar, State Govt. and the Project Proponent, M/s Nirma Ltd. for a period of 50 years and also registered the executed mining

lease deed with Sub, Registrar, Mahuva on 11.01.2017 under the provision of MMDR Amendment Act, 2015.

v. Land Use/Land Cover of the Mine Lease Area:-

Private land	586.4789 ha
Government land	25.6547 ha
Forest land	-
Total Mining lease area (MLA), ha	612.1336 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No any facilities outside the ML area. However crusher will be installed at company's Cement Plant.

Review of Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines	Letter No.	File No.: 684(4)(1)/MP-347(196)/2021-22 GNR/1125
	Date	05.08.2021
	Mineral & (Major/Minor)	Limestone, Major mineral
	Mine Lease Area, Ha	612.1336
	Validity	2021-22 to 2025-26
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized	
Drilling/Blasting	Multi-row drilling and V-pattern drill holes for deep hole drilling and blasting. Slurry explosive -cap sensitive and non-cap sensitive.	
Geological Reserves	35.539 Million tonnes	
Mineable Reserves	14.913 million tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Waste, MTPA)	Top soil- 0.99 mi.cum OB/SB/IB/Mineral Rejects- Nil Waste-Nil	
Life of mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category into category of reserves 111)	
Mine Bench Height & Bench Width	6.0 m, for working bench 12-15 m for closing (conceptual) bench Optimum	
No. of Mine Benches	2	
Existing Depth, m bgl	New mine	
Ultimate Depth of Mining, m bgl	10 m	
Ground Water Table, m bgl	15 m (Post monsoon)	
Details of ground water intersection	No ground water will be encountered during planning stage i.e. in 5 years of working plan in neither pre monsoon nor post monsoon season in any of the pits. However, the ground water table may get touched in post monsoon in pit no. 4 & 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 & 5.	
Individual bench slope	80-85°	
Overall pit slope	~ 45°	
Details of existing/ proposed Crusher	Proposed crusher will be installed at Cement Plant.	
Mineral Beneficiation	-	
RoM output size	-	

Transportation details including capacity of dumper/tipper, mode of transport and distance	Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease. For the Soda Ash Plant located at approx.100 km at Kalatalav, Bhavnagar limestone will be transported in dumpers/ trucks through National Highway 51. Internal haul road from mine face to crusher means of dumper/tippers of 25 tonnes capacity.
Generation of Topsoil/OB & its Management during plan period & conceptual period	Top soil at 1 <sup>st</sup> plan period- 150000 cu.m, temporary stacking at one location Top soil at 2 <sup>nd</sup> plan period- 840000 cu.m, temporary stacking at one location Top soil at conceptual period-380000 cu.m, simultaneously backfilling
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Nil
Additional information(if any)	Surface miner as well as ripper/dozer & rock breaker will be used for mining to minimize drilling & blasting.

## vii. Water requirement:

Total water requirement	42 KLD	Fresh water	3 KLD
		Treated water	39 KLD
Source	i. Fresh water source Narmada water pipeline/Water tanker. ii. Water harvested within mine lease during rainy season. iii. Treated water source- Reject water of RO /DM plant &Reject water of RO /DM plant (proposed at Cement plant)		
Permission for withdrawal/ intersection along with details of grant and its validity	Permission for water withdrawal from Narmada water pipeline has been taken vide letter No. GWIL/ Bhavnagar/Ind.conn./1257 dated 4.06.2008.		

Particulars	Particular's Name	Distance & Directions
Village	Vangar	0.25 km, NW
	Madhiya	0.25 km, SE
Town	Mahuva	6.2km, ENE
Highway	NH-51 (Una-Mahuva highway)	Within
Interstate Boundary	Rajasthan	Approx.500 KM,N
Railway Station/Railway line	Amrutvel	2.0 km, N
Water Bodies	Arabian Sea Coast	3.4 km S to the HTL
	Samdiyala Salinity ingress control bund	2.3 km, SSW
	Bhambhali River	0.9 Km, W
	Garasawo River	2.5 Km,NE
Forest	RF near Patwa	2.1 KM,S
	RF near Doliya	3.3 KM,SSE
	RF near Dudheri	3.9 KM,SE
	RF near Gujarda	4.3 KM,SE

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/ No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
---	---------	--

Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	<p>The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests vide Lr.No: WLP/32/C826-827/2021-22 dated 13.01.2022 regarding the map showing the location of protected areas within 10km of the Limestone mining project and the and distance of protected areas and proposed Limestone mine.</p> <table border="1"> <thead> <tr> <th>Protected areas</th> <th>Distance between Limestone mines and Protected areas</th> </tr> </thead> <tbody> <tr> <td>Gir National Park</td> <td>76.0 km</td> </tr> <tr> <td>Gir Wildlife Sanctuary</td> <td>44.2 km</td> </tr> <tr> <td>Mitiyala Wildlife Sanctuary</td> <td>43.5 km</td> </tr> </tbody> </table> <p>The Project Proponent has submitted the letter from the Office of the Deputy Chief Conservator of Forest, Bhavnagar vide letter no. A/GMN/T11/2075/22-23 dated 27.01.2023 certifying that the nearest turtle rearing/breeding site is located at a distance of about 70km away from the mines.</p>	Protected areas	Distance between Limestone mines and Protected areas	Gir National Park	76.0 km	Gir Wildlife Sanctuary	44.2 km	Mitiyala Wildlife Sanctuary	43.5 km
Protected areas	Distance between Limestone mines and Protected areas									
Gir National Park	76.0 km									
Gir Wildlife Sanctuary	44.2 km									
Mitiyala Wildlife Sanctuary	43.5 km									
National Park	No									
Wildlife Sanctuary	No									
Elephant/Tiger Reserve	No									
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area (ESA)	No									
Coastal Regulation Zone (CRZ)	No	<p>Arabian Sea Coast: 3.4 km S to the HTL</p> <p>The proposed project lies beyond distance of 0.5 km from High Tide Line of Arabian Sea Coast. The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai.</p>								
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Yes	<p>The Project Proponent has submitted the authenticated list of flora and fauna from the Office of the Deputy Forest Conservator vide Lr.No: A/Jaman/ Te.11/233/ 17-18 dated 08.02.2018 stating that there are three Schedule-I species such as Peafowl, Chinkara and Asiatic lion in the study area.</p> <p>After the amendment of the Wild Life (Protection) Amendment Act, 2022, No 18 of 2022, a number of additional species have been added into Schedule-I such as Leopard, Striped hyaena, Jackal, Bengal fox, Indian porcupine, Jungle cat, Grey wolf, Dog faced water snake, Russell viper, Checkered Keelback, Indian Rat snake, Red sand boa and Naag/cobra.</p>								
Wildlife Conservation Plan	Yes	<p>On the basis of the fauna study findings &amp; list of fauna authenticated by Forest Department, Wildlife Conservation Plan was prepared and submitted for approval.</p> <p>The Wildlife Conservation Plan was approved by the Chief Wildlife Warden vide Lr.No: WLP/32/C670-672 dated 20.12.2021 with a budget of Rs. 19.9 Lakhs for the conservation of wildlife in the study area.</p>								

## x. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	26.50 Ha.
Budget for green plant & plantation till the end of life of mine.	Rs 80.35 Lakhs
Budget for nursery	-
Details of existing plantation and its survival rate	-
No. of tree cuts in the mine lease area and compensatory afforestation	As per actual during mining
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	16.50
50 m safety zone of nallah, roads, electric lines	10.00

## xi. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	01.03.2021 to 02.06.2021
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer
Predominant Wind direction (From)	South
Ambient Air Quality (no. of locations) and results – 16 locations	PM10: 27.6 –71.1 $\mu\text{g}/\text{m}^3$ PM2.5: 11.2 – 40.0 $\mu\text{g}/\text{m}^3$ SO2: 2.7 – 10.2 $\mu\text{g}/\text{m}^3$ NO2: 3.6 – 14.5 $\mu\text{g}/\text{m}^3$
Noise level (no. of locations) and results – 16 locations	Day Time: 47.57 dB(A) – 52.46 dB(A) Night Time: 39.42 dB(A) - 42.89 dB(A)
Water Quality (no. of locations) and results - 12Ground water and 3 Surface water	
Soil Quality (no. of locations) and results – 12 locations	Soil quality was monitored at 12 no. of stations. The result indicates that the maximum and minimum values of pH ranges between 7.7 - 8.2, Potassium ranges from 157.0 - 845.0 kg/ha and Nitrogen ranges from 0.01 - 12.57mg/kg.
Hydro geological study and results	
Traffic study (no. of locations) and results	The traffic volume survey was conducted on Bhavnagar to Una Road (NH8E/51) Near Vangar Village. Total numbers of vehicles were found as 6793 per day and equivalent PCUs is 9382 per day. There will be daily movement of 512 numbers of dumpers (to & fro) per day or 1536 PCU/ day on the road. V/C = 31.27.

## xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	26.03.2023 in Sandesh Newspaper (Gujarati) & Indian Express (English)
Date of PH	28.04.2023 @ 9:30 AM
Venue	At the premises of Nirma Cement Plant Area, NH 8E/51, Survey No. 80, Village: Padhiyarka, Taluka: Mahuva, Dist. Bhavnagar
Chaired by	Shri R.K Mehta (IAS), District Collector & District Magistrate, Bhavnagar District &

	Regional Officer, GPCB Bhavnagar
Main issues raised during PH	Air pollution, salinity ingress, wildlife protection, acquisition of agriculture land
Budget proposed for addressing issues raised during PH over 3 years	Rs 34 Lakhs

R & R details	The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. Land will be required for quarrying an area of 197.0 ha of Private land and Government land including houses/hutment in Vangar village (17 No.s) & houses/hutments Madhiyavillage (7 No.s). The houses/hutment fall in the conceptual pits of the mine lease. There will be total of 494 land losers. There will be direct purchase or leasing of private land, with the willing consent of the private land owners. Approx. total compensation will be Rs 24.0 Lakhs. In addition to above, the registration cost of sale of the land and homesteads shall be borne by the Company.
---------------	---

## xiv. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking vide letter dated 07.10.2023 stating that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters in which the project proponent is a respondent.
Undertaking by Project Proponent w.r.t court case	
Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an undertaking by way of notarized Affidavit dated 09.10.2023 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking vide letter dated 04.01.2023 stating that the contents (information and data) as given by the Consultant in the EIA/EMP report are factually correct with full knowledge of the undersigned (Shri Ashish Desai).
Undertaking by Consultant in EIA/EMP report	The Director of the EIA Consultant (M/s Centre for Envotech & Management Consultancy Pvt. Ltd) has informed that the baseline data was generated by MoEF & NABL Accredited Laboratory M/s Min Mec R&D Laboratory, a division of Min Mec Consultancy Pvt. Ltd., New Delhi and the same has been verified and also confirmed that he shall be fully accountable for any misleading information mentioned in this statement.

## xvi. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Pollution Control	0.241	9.54
Pollution monitoring	0.016	3.88
Occupational health	0.011	0.65
Environmental Studies, etc.	0.10	—
Green belt	—	5.10
Reclamation	—	11.39
Others (Environmental studies, Rehabilitation, Realignment, Expert advice, fencing etc.	—	5.28
Overheads	—	0.30
Total	0.3680	36.12

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	0.70
Project Cost	25
Employment (No.s)	58

### 3.6.3. Deliberations by the EAC in previous meetings

N/A

### 3.6.4. Deliberations by the EAC in current meetings

The EAC deliberated the instant proposal along with Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka & Doliya Limestone mine. The Project Proponent has informed the EAC that the proposed method of mining is same in all three mines such as Vangar & Madhiya Limestone Mine, Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka and Doliya Limestone mine. NH-51 (Una-Mahuva highway) is passing within the mine lease area. A safety distance of 45m will be maintained. The underpass road has been proposed below Highway by NHAI for the safe passage of the villagers. The EAC asked the Project Proponent to explore the possibility of laying overbridge over the Highway. In the proposed 3<sup>rd</sup> pit, displacement will be taking place. Discrete houses are located within the mine lease area. The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. In this project, Pvt land is more than the previous project. There are 5 mine pits are proposed. Project Affected Families will be 494 no.s. In this project, a budget of Rs 34.0 Lakhs has been earmarked to address the concerns of the public hearing. The geological conditions, method of mining, environmental sensitivity and implications, impact on socio economic are similar in all these three mines.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC noted that the project is part of three contiguous projects namely Padhiarka and Doliya Limestone mine (332.24 ha), Vangar & Madhiya Limestone Mine (612.336 ha) and Gujarda, Dudheri & Dudhala Limestone Mine (681.62 ha) and together it extends over an area of 1626.196 ha. The mine lease area comprises of partly Private Agriculture land and partly Govt. land. NH-51 (Una-Mahuva highway) is passing within the mine lease area. Also, Vangar (0.25 km, NW) and Madhiya villages (0.25 km, SE) are located close to the proximity of the mine lease area. The EAC was not convinced with the proposed backfilling plan and the activities proposed under the Wildlife Conservation Plan. The EAC observed that the pits are isolated and the mine lease area is partly Private and Govt. land. The EAC also observed that there will be direct purchase or leasing of private land with the willing consent of the private land owners. The EAC was of the view that what if the land owners are not willing to give their land. There are likely chances that mining will not take place sequentially if the land acquisition does not happen. There will be failure of scientific mining. Large no. of Project Affected Families is involved in all these projects. The EAC opined that the Saltwater intrusion through surface or ground water sources may diminish the availability or quality of source waters for drinking water utilities. Some salt pans i.e., salt manufacturing industries and few wind mills exists in the study area. Old mine pits also exist within the mine lease area. The EAC noted that the Bhavnagar is categorized as a Severely Polluted Areas. The EAC reiterated the Ministry of Defence letter dated 08.05.2023 regarding security considerations for construction activities/other activities in Border areas/other areas wherein it has been mentioned that "*all activities connected with mining within 20kms from all the borders including seaboard frontier should be planned in consultation with Ministry of Defence*". Accordingly, EAC opined that PP should obtain NOC from Ministry of Defence.

Thus the EAC opined that there is a need to ascertain the ground reality w.r.t natural low lying areas, water logging areas, old mine pits, sequence of mining, feasibility for backfilling, impact on socio economic, agriculture land, transportation route, traffic congestion, salt pans, effectiveness of salinity ingress control bund, proximity of habitations, schools, water bodies, roads etc., The EAC was of the view that a site visit needs to be conducted by a sub-committee comprising of EAC Members and officers from MoEF&CC. The EAC opined that the Ministry may constitute a sub-committee and submit its report to enable the committee to take a decision on the proposal. Therefore, the EAC **deferred** the

proposal for want of following additional information: -

- i. The site visit report of the subcommittee.
- ii. Since the mine site is located within 20 km from seaboard frontier, the Project Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.
- iii. The Project Proponent needs to submit the action for laying common Over Land Belt Conveyor (OLBC) for transportation of mineral from mine lease area to the Cement Plant. The Project Proponent also needs to submit the action plan for expansion of road with a width of 7m and by passing the village road till the commission of the Over Land Belt Conveyor (OLBC).
- iv. The Project Proponent needs to explore the possibility of laying overbridge over the Highway and shall submit the permission from the National Highways Authority of India (NHAI).
- v. The Project Proponent needs to submit the protection measures to be taken for salt water intrusion and the effectiveness of the salinity ingress control bund.
- vi. The Project Proponent needs to submit the site specific mitigation measures for backwaters from Arabian Sea coming into the mine lease area.
- vii. The Project Proponent needs to revisit the plan for backfilling with clearly indicating the voids area and the capacity available/required for backfilling.
- viii. The Project Proponent needs to revise the activities proposed under the Wildlife Conservation Plan. The Project Proponent also needs to ensure that the Schedule-I species as per the latest Wildlife Protection Amendment Act, 2022 shall also be included in the Wildlife Conservation Plan for their conservation.
- ix. The EAC was of the view that the compensation rate is very less and asked the Project proponent to revisit and justify the budget proposed for Resettlement & Rehabilitation (R&R). The Project Proponent also needs to submit the action plan for land acquisition and timeline.
- x. The Project Proponent needs to submit the action plan for year wise exploration program.
- xi. The Project Proponent needs to submit the copy of the permission letter obtained from the State Govt. for utilization of Chemical Grade of Limestone for non-cement purposes.
- xii. The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Gujarat clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s. Nirma Limited or not?

#### 3.6.5. Recommendation of EAC

Deferred for ADS

#### 4. Any Other Item(s)

N/A

#### 5. List of Attendees

**//TRUE COPY//**



सत्यमेव जयते

**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**(Non-Coal Mining)**

\*\*\*



**Minutes of AGENDA FOR 25 TH EAC MEETING OF THE EXPERT APPRAISAL COMMITTEE (NON-COAL MINING SECTOR), SCHEDULED TO BE HELD DURING 9-10 JANUARY, 2024 THROUGH VIDEO CONFERENCE.** Date: 15/01/2024  
meeting Non-Coal Mining held from 09/01/2024 to 10/01/2024

MoM ID: EC/MOM/EAC/580285/12/2023

Agenda ID: EC/AGENDA/EAC/580285/12/2023

Meeting Venue: N/A

Meeting Mode: Virtual

Date &amp; Time:

09/01/2024	10:30 AM	05:30 PM
10/01/2024	10:30 AM	05:30 PM

**1. Opening remarks**

The 25th meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 9-10 January, 2024 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

**2. Confirmation of the minutes of previous meeting**

The minutes of the 24th EAC meeting held during 26-28 December, 2023 were placed before the members of the EAC.

**3. Details of proposals considered by the committee**

Day 1 -09/01/2024

**3.1. Agenda Item No 1:****3.1.1. Details of the proposal**

**Choutapalli Limestone Mine of M/s. My Home Industries Private Limited, with production of Limestone: 1.82 MTPA and Top Soil : 0.35 MTPA (Total Excavation of 2.17 MTPA) over an area of 262.247 Ha (Amalgamated Mining Lease Area) by SURESH BATTU located at SURYAPET, TELANGANA**

Proposal For

Fresh EC

**Village: Damanjodi, Tehsil: Pottangi, District: Koraput, Odisha – [F.No: J-11015/49/2008-IA-II(M), Proposal no: IA/OR/MIN/455896/2023; EIA Consultant: M/s Global Tech Enviro Experts Pvt., Ltd.] – Amendment in ToR**

The instant proposal is for amendment in ToR dated 14.11.2023 for mining of Bauxite in Panchpatmali Central and North Block Bauxite Mine of M/s National Aluminium Company Limited (NALCO) with production capacity of 6.825 MTPA of Bauxite along with existing crusher of 2 x 900 TPH & SMCP- 1x 900 TPH and proposed crusher of 1 x 900 TPH in the mine lease area of 1315.264 ha, located at Village: Damanjodi, Tehsil: Pottangi, District: Koraput, Odisha.

## **2. Observation and Recommendation of the EAC: -**

The EAC noted that the Hon'ble Supreme Court vide its order dated 02.01.2024 in Writ Petition(s)(Civil) No(s). 1394/2023 in the matter of Vanashakti versus Union of India directed that *“Until further orders, there shall be stay of operation of the Office Memoranda dated 7<sup>th</sup> July, 2021 and 28<sup>th</sup> January, 2022 issued by the Ministry of Environment, Forest and Climate Change”*. The EAC also noted that the Ministry issued an Office Memorandum dated 08.01.2024 regarding the stay imposed by the Hon'ble Supreme Court with reference to the SOP dated 7<sup>th</sup> July, 2021 and OM dated 28.01.2022. In view of the above Hon'ble Supreme Court order dated 02.01.2024, the EAC **deferred** the proposal.

### **Additional Agenda:**

#### **2.4 Site Visit Report to three projects of M/s Nirma Limited in Bhavnagar Gujarat**

Three proposals of M/s Nirma Limited namely Padhiarka and Doliya Limestone mine (MLA: 332.24 ha, Proposal No. IA/GJ/MIN/443206/2023) located at Villages Padhiarka & Doliya, Tehsil: Mahuva, District: Bhavnagar, Gujarat and Gujarda, Dudheri & Dudhala Limestone Mine (MLA: 681.62 ha, Proposal No. IA/GJ/MIN/443968/2023) located at Villages Gujarda, Dudheri & Dudhala, Tehsil: Mahuva, District: Bhavnagar, Gujarat and Vangar & Madhiya Limestone Mine (MLA: 612.1336 ha, Proposal No. IA/GJ/MIN/443498/2023) located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat was considered in the 21st EAC-NCM Meeting held during 18-19 October 2023.

2. After detailed deliberations made by the Project Proponent and the consultant, the EAC opined that these projects are part of three contiguous projects namely Padhiarka and Doliya Limestone Mine (332.24 ha), Vangar & Madhiya Limestone Mine (612.1336 ha) and Gujarda, Dudheri & Dudhala Limestone mine (681.62 ha) and together it extends over an area of 1626.196 ha. The EAC also opined that there is a need to ascertain the ground reality w.r.t natural low lying areas, water logging areas, old mine pits, sequence of mining, feasibility for backfilling, impact on socio economic, agriculture land, transportation route, traffic congestion, salt pans, effectiveness of salinity ingress control bund, proximity of habitations, schools water bodies roads etc. The EAC was of the view that a site

visit needs to be conducted by a sub- committee comprising of EAC members and officers from the Ministry.

3. In view of the aforesaid recommendation of EAC, the Ministry constituted a sub-committee comprising of the following members to undertake the site visit during 22-25 December 2023:

1. Shri Avijit Ghosh, EAC Member
2. Dr. K.G. Asha Manjari, EAC Member
3. Shri Pankaj Verma, Scientist E & Member Secretary, EAC (NCM), MoEF&CC
4. Dr. Yogesh Kumar, Scientist C, MoEF&CC, Regional Office Gandhinagar
5. Shri Vidyasagar Jha, Research Officer, MoEF&CC

4. The committee undertook the site visit during 22-25 December 2023 and observed the following in each of the mine which are given as under:

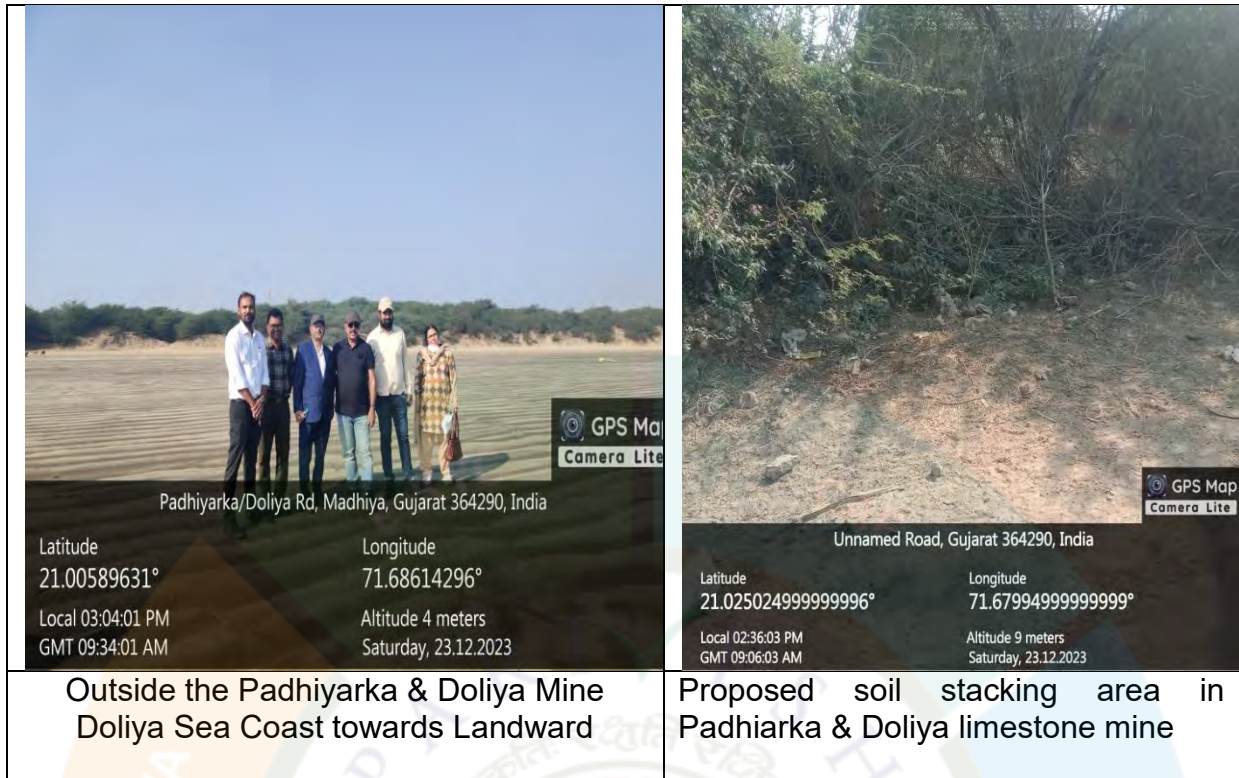
**A. Padhiarka and Doliya Limestone mine** (MLA: 332.24 ha, Proposal No. IA/GJ/MIN/443206/2023)

#### **Observations of the sub-committee**

1. The Padhiarka and Doliya Limestone Mine is located in the villages Padhiarka and Doliya, Taluka Mahuva, Dist Bhavanagar, Gujarat. As submitted by the Project Proponent, the Total Geological reserves are estimated to 28.177 Million Tonnes and Mineable reserves are 10.707 million tonnes. The life of mine is 11 years in accordance with the mining plan and PP intends to produce 1.5 Million Tonnes per annum (ROM).
2. As submitted by PP, the mine site is located at 0.5 km from High Tide line and the samdhiyala salinity ingress control bund is located at a distance of 2.3 km. Habitations were about 0.12 to 0.45 km away from Padhiarka village and 0.05 km away from Doliya village. The school nearest to Padhiarka & Doliya Limestone mine is Doliya Primary school located at distance of 0.13 km. The National Highway 51 was at a distance of 0.8 km. Reserve Forest Doliya was at a distance of 0.4 km, the committee visited this area. There are other reserves forests in nearby vicinity extending from a distance between 0.4 km to 5.8 km. Only one salt pan exists and that too at a distance of 4.3 Km
3. PP have proposed 6 pits in the mine lease area, the committee visited the Pit 1 of the Padhiarka Mine and it was informed by PP that maximum pit depth would be around 11 m. The land is mostly agricultural land used for farming at present along with bushy vegetation. Sub- Committee also enquired about the dump site for soil overburden; PP indicated the same on the map and provided the geo-coordinates of the same.
4. It was also observed that PP has not placed any boundary pillars alongside the lease boundary; accordingly, with the GPS device sub-committee visited some of the proposed boundary pillars.
5. The sub-committee also observed huge patch of low lying area that has developed into a wetland near pit 4, pit 3 and pit 2. The wetlands were full of avian biota predominantly having native bird species mostly Painted Storks

- (Mycteria leucocephala) and other avian species. PP informed that these low lying areas are mostly filled during rainy seasons.
6. PP informed that for they will fill pit 4, pit 3 and pit 2 during 2026-2031 and the rest pits are proposed to be used for rainwater storage at the end of conceptual period. The limestone produced in these mines will be used by PP in their soda ash plant and cement plant. PP is yet to purchase the lands coming under these proposed pits. The majority junks of land in most of the proposed pits are private lands held by farmers.
  7. The sub-committee observed that most of the mine lease area is under cultivation and major crop was cotton. Pit 1 was accessible from village road and was located approx at a distance of 500 meters.
  8. The sub-committee observed several low lying areas other than the wetlands in the lease area.
  9. The sub-committee also visited Doliya Sea Coast side. It was informed that mine lease is 500 m away from HTL from the sea side.
  10. The sub-committee also visited the Samdhaliya Salinity Ingress Control Bund which is located at a distance of 2.3 km to 4.3 km from all three mine lease area. Samdiyala Salinity ingress control bund is situated on the western side on the mine lease area. Part of the Doliya Village is located within the mine lease area on southern side. No mining activity is proposed in the side of the Doliya Village.

	
<p>Padhiarka &amp; Doliya Mine Link Road to proposed Pit 1, Limestone Exposures</p>	<p>Low lying areas in Padhiarka &amp; Doliya Mine that have developed into a wetland</p>



**B. Gujarda, Dudheri & Dudhala Limestone Mine (MLA: 681.62 ha, Proposal No. IA/GJ/MIN/443968/2023)**

**Observations of the sub-committee**

1. The Gujarda, Dudheri Limestone Mine is located in the villages Gujarada, Dudheri & Dudhala, Taluka Mahuva, Dist Bhavanagar, Gujarat. As submitted by the Project Proponent, the Total Geological reserves are estimated to be 57.280 Million Tonnes and Mineable reserves are 20.574 million tonnes. The life of mine is 11 years in accordance with the mining plan and PP intends to produce 2.7 Million Tonnes per annum (ROM).
2. As submitted by PP, the mine site is located at 0.5 km from High Tide line and the samdhiyala salinity ingress control bund is located at a distance of 2.3 km. Habitations were about 0.05 to 0.5 km away from Gujarada village, 0.015 km to 0.25 km away from Dudhala village and 0.08 km to 0.25 km from Dudheri village. Few habitations were also observed within the lease area. The school nearest to Gujarada, Dudheri & Dudhala limestone mine is Bellur school located at distance of 0.17 km. The National Highway 51 is located within the mine lease area. Reserve Forest Gujarada is located at a distance of 0.2 km. There are other reserves forests in nearby vicinity extending from a distance between 0.2 km to 7.4 km. Only one salt pan exists and that too at a distance of 6.10 km.
3. PP have proposed 6 pits in the mine lease area and it was informed by PP that maximum pit depth would be around 10 m. The land is mostly agricultural land used for farming at present along with bushy vegetation. Sub- Committee also enquired about the dump site for soil overburden, PP indicated the same on the map and provided the geo-coordinates of the same.

4. It was also observed that PP has not placed any boundary pillars alongside the lease boundary; accordingly, with the help of handheld GPS device sub-committee visited some of the proposed boundary pillars.
5. The sub-committee also observed huge patch of low lying area developed into a wetland near pit 4, pit 5 and pit 6. The wetlands were full of avian biota predominantly having native bird species (Painted Stork (*Mycteria leucocephala*) and other avian species.
6. PP informed that for they will only fill the pit 6 and rest pits are proposed to be used for rainwater storage at the end of conceptual period i.e 2026-2031. PP also informed that there are couple of old mining pits. The limestone produced in these mines will be used by PP in their soda ash plant and cement plant. PP is yet to purchase the lands coming under these proposed pits. The majority junks of land in most of the proposed pits are private lands held by farmers.
7. The sub-committee observed that most of the mine lease area is under cultivation and major crop was cotton.
8. Sub-committee also observed that pit1, pit 2 and pit 5 are near to the existing village road which of very poor quality and mostly broken roads.
9. The sub-committee observed several low lying areas other than the wetlands in the lease area.





### C. Vangar & Madhiya Limestone Mine (MLA: 612.1336 ha, Proposal No. IA/GJ/MIN/443498/2023)

#### Observations of the sub-committee

1. The Vangar & Madhiya Limestone Mine is located in the villages Vangar and Madhiya, Taluka Mahuva, Dist Bhavanagar, Gujarat. As submitted by the Project Proponent, the total Geological reserves are estimated to be 35.539 Million Tonnes and Mineable reserves are 14.913 million tonnes. The life of mine is 13 years in accordance with the mining plan and PP intends to produce 1.6 Million Tonnes per annum (ROM).
2. As submitted by PP, the mine site is located at 3.4 km from High Tide line and the samdhiyala salinity ingress control bund is located at a distance of 4.5 km. Habitations were about 0.12 to 0.45 km away from vangar village and 0.2 km to 0.3 km away from Madhiya village. Few habitations were also observed within the lease area. The school nearest to Vangar & Madhiya limestone mine is Bellur school located at distance of 0.04 km. The National Highway 51 is located within the mine lease area. Reserve Forest Patwa is located at a distance of 2.1 km. There are other reserves forests in nearby vicinity extending from a distance between 3.3 km to 6.3 km. Only one salt pan exists and that too at a distance of 3.20 km.
3. PP have proposed 5 pits in the mine lease area and it was informed by PP that maximum pit depth would be around 10 m. The land is mostly agricultural land used for farming at present along with bushy vegetation. Sub-Committee also enquired about the dump site for soil overburden, PP indicated the same on the map and provided the geo-coordinates of the same.
4. It was also observed that PP has not placed any boundary pillars alongside the lease boundary, accordingly with the help of handheld GPS device sub-committee visited some of the proposed boundary pillars.
5. PP informed that for they will only back fill the pit 4 and pit 6 and rest pits are proposed to be used for rainwater storage at the end of conceptual period i.e 2026-2031. The limestone produced in these mines will be used by PP in their soda ash plant and cement plant. PP is yet to purchase the lands coming under these proposed pits. The majority junks of land in most of the proposed pits are private lands held by farmers.

6. The sub-committee observed that most of the mine lease area is under cultivation and major crop was cotton.
7. Sub-committee also observed that except the newly constructed village road, all other existing village roads are not in proper condition, mostly broken not suitable for dumpers.
8. Sub-committee also visited the proposed pit 1 and pit 2 in the mine lease area. Sub-committee also observed the presence of a water park in the mine lease area.

 <p>Latitude 21° 31' 29.334" N Longitude 71° 40' 55.854" E Mahuva, Gujarat 364290, India</p> <p>Local 01:12:56 PM GMT 07:42:56 AM Altitude 22 meters Date Sat, 23 Dec 2023</p>	 <p>Latitude 21° 2' 59.664" N Longitude 71° 40' 28.008" E Unnamed Road, Gujarat 364290, India</p> <p>Local 01:24:36 PM GMT 07:54:36 AM Altitude 16 meters Date Sat, 23 Dec 2023</p>
<p>Vangar &amp; Madhiya Mine Proposed Pit No. 1</p>	<p>Vangar &amp; Madhiya Mine Proposed Pit No. 2</p>
 <p>Latitude 21° 31' 30.768" N Longitude 71° 40' 39.024" E Amrutvel Rd, Madhiya, Gujarat 364290, India</p> <p>Local 01:06:59 PM GMT 07:36:59 AM Altitude 22 meters Date Sat, 23 Dec 2023</p>	 <p>Mahuva, Gujarat 364290, India</p> <p>Latitude 21.056163333333334° Longitude 71.68586833333333° Local 03:14:41 PM GMT 09:44:41 AM Altitude 20 meters Saturday, 23.12.2023</p>
<p>Vangar &amp; Madhiya Mine Boundary on Amrutvel Road</p>	<p>Proposed soil stack Vangar &amp; Madhiyamine</p>

**Recommendations of the sub-committee**

1. PP should submit an action plan and timeline to indicate the purchase of lands across all three mining leases wherein it has proposed mining pits to initiate mining activities since as on date PP has only purchased/obtained surface rights over 101.1967 ha out of 1351.6489 ha of private agriculture land.
2. Since PP envisages to handover the land with shallow quarry having depth upto 4 m to land owners for farming and mostly all three mining leases are having agricultural land PP is requested to conduct a survey to indicate the present status and number of low lying areas, their respective areas which

may be backfilled with available capacity of top soil/overburden and can be handed over to farmers for agricultural purpose.

3. Project Proponent needs to provide year wise exploration plan for all the three mining leases.
4. Since Bhavanagar falls under severely Polluted Area Category, PP shall ensure that during initiation phase itself they should include the provision of permanent water sprinklers across the haul roads in all three mining leases
5. Since Bellur and other schools are in close proximity to mine lease area, PP shall ensure that necessary safety measures are taken as per DGMS norms for all three mining leases.
6. PP shall ensure to construct bunds near the existing low lying areas that has developed into wetland to prevent the ingress of sea water in Padhiarka & Doliya Limestone mine lease area and Gujarada, Dudheri & Dudhala limestone mine lease area.
7. The Project Proponent needs to submit the integrated management plan describing the strategies and actions for achieving wise use of the wetland and the plan shall include objectives of site management; management actions required to achieve the objectives; factors that affect, or may affect, the various site features; monitoring requirements for detecting changes in ecological character and for measuring the effectiveness of management; and resources for management implementation.
8. PP needs to engage and impart skill among the villagers and local population mainly the land losers and also submit a plan for their alternate livelihood arrangement since most of them will be losing their fertile lands.
9. PP should widen the existing village roads before using it for transportation in all three mining leases, wherever widening is not possible PP shall submit an action plan for making alternate roads.
10. PP should engage wildlife experts/avian experts for conservation of the avian fauna within and near its mine lease.
11. PP shall plant native fruit bearing plants across all the proposed green patches.
12. PP shall put up boundary pillars across all mining leases.
13. The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Gujarat clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s. Nirma Limited or not?
14. PP needs to submit plan to transport crushed limestone from all the three leases to plant
15. PP need to take some measures to keep the migration bird ponds un harmed and protected by activity of mining in future.
16. PP needs to install water treatment plant to reduce the hardness of water.
17. PP needs to explore possibility of deploying surface miners for mining.

#### 4. Observation and Recommendation of the EAC: -

The EAC noted that the site visit was conducted by the subcommittee during 22-25 December 2023. The EAC agreed to the recommendations of the subcommittee.

\*\*\*\*\*

**List of members of Expert Appraisal Committee participated through VC**

S.No	Member Name	Member Address	Designation	9 <sup>th</sup> Jan., 2024	10 <sup>th</sup> Jan., 2024
1	Dr. Dinesh Misra, IFS (Retd.)	Plot No 65, Sector 8, Gandhinagar, Gujarat, 382 008	Chairman	Yes	Yes
2	Sh. Niranjan Kumar Vasu, IFS (Retd.)	816, Shanti Nagar, Opposite Durgapur Railway Station, Jaipur-Rajasthan, 302018	Member	Yes	Yes
3	Dr. Asha Rajvanshi, Scientist 'G' (Retd.), WII	B/104/106 Rock Valley Apartments, GMS Road, Sewla Kalan, P.O. Majra, Dehradun, Uttarakhand-248171.	Member	Yes	Yes
4	Shri. Avijit Ghosh (CMD- Heavy Engineering Corporation Limited) (Retd.)	Singhee Marg, A- 604 Shahadeo Tower, P.P.Compound, Ranchi 834001, Jharkhand	Member	Yes	Yes
5	Shri. Bandi Ramchandra Reddy (Former CMD-South Eastern Coalfields Limited)-(Retd.)	Flat No-503 A, Jyoti Cosmos, White Fields, Hi-Tech City, Kondapur, Hyderabad-500081	Member	Yes	Yes
6	Prof. Pramod Kumar, Professor, Shri Aurobindo College, University of Delhi	Shri Aurobindo College, University of Delhi 1372, B-1, Vasant Kunj, New Delhi-110070	Member	No	No
7	Prof. Devesh Walia, Department of Environmental Studies	Department of Environmental Studies, NEHU, Shillong-793022 Meghalaya	Member	Yes	Yes
8	Dr. Suresh Tiwari Scientist-F	Indian Institute of Tropical Meteorology, Pune, New Delhi Branch, Prof. Ram Nath Vij Marg Rajinder Nagar, New Delhi – 110060	Member	Yes	Yes
9	Dr. K.G Asha Manjari, Professor, University of Mysore	10/B, "SPARSHA", 2nd Main, 2 <sup>nd</sup> Cross, Bhogadi Ind Stage, Mysore-570026, Karnataka	Member	Yes	Yes

10	Prof. Dev Dutt Sharma, Vice-Chancellor	Sardar University, Mandi 175001	Patel H.P.	Member	No	No
11	Shri V. K. Soni, Representative of India Meteorological Department	Government of India, Ministry of Earth Sciences, India Meteorological Department, Mausam Bhawan, Lodi Road, New Delhi – 110003		Member	No	No
12	Shri Yogesh Kale/ Shri Abhay Agarwal, Representative of Indian Bureau of Mines	Controller of Mines, IBM Block D, Second Floor, Indira Bhawan, Civil Lines, Nagpur - 440001		Member	Yes	Yes
13	Shri Niazi Mohammed, Representative of Directorate General of Mines Safety	Directorate General of Mines Safety		Member	Yes	Yes
14	Shri Pankaj Verma	3 <sup>rd</sup> Floor, Vayu Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi- 110003.		Member Secretary	Yes	Yes
15	Dr. Saurabh Upadhyay	2 <sup>nd</sup> Floor, Vayu Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi- 110003.		Scientist C	Yes	Yes

\*\*\*\*\*

e-Compliance

e-Payments

e-Processing

*Minister*  
*Sharma*

**// TRUE COPY //**



सत्यमेव जयते

**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**(Non-Coal Mining)**

\*\*\*



**Minutes of AGENDA FOR 28th MEETING OF THE EXPERT APPRAISAL COMMITTEE (NON-COAL MINING SECTOR), SCHEDULED TO BE HELD DURING 14th & 15th MARCH, 2024 THROUGH VIDEO CONFERENCING (VC) meeting of Non-Coal Mining held from 14/03/2024 to 15/03/2024** Date: 22/03/2024

**MoM ID:** EC/MOM/EAC/446256/3/2024

**Agenda ID:** EC/AGENDA/EAC/446256/3/2024

**Meeting Venue:** N/A

**Meeting Mode:** Virtual

**Date & Time:**

14/03/2024	10:30 AM	05:30 PM
15/03/2024	10:30 AM	05:30 PM

**1. Opening remarks**

The 28th meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 14-15th March, 2024 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

**2. Confirmation of the minutes of previous meeting**

The minutes of the 27th Meeting of the EAC (NoN-Coal) held during 20th February, 2024 & 21st February, 2024 were placed before the members of the EAC and confirmed by the Chairman.

**3. Details of proposals considered by the committee**

Day 1 -14/03/2024

**3.1. Agenda Item No 1:****3.1.1. Details of the proposal**

**Expansion of Sanu-I Limestone Mining Project (ML No. 27/1996, Area-1000 Ha.) with Mine Material handling capacity from 3.3 MTPA to 3.848 MTPA (Less than 20 %) in second phase which includes keeping ROM SMS grade Limestone resource- 3.3 MTPA same (SMS Grade Limestone-1.50 MTPA) & recovery of mineral from Handling of old backfilled limestone size reject dumps (0-30 mm size)- 0.548 MTPA along with Crushing (1X300 TPH, 1X250 TPH, 1X200 TPH, 1X150 TPH), Screening plant (2X300TPH, 2X250TPH, 2X200TPH) by RAJASTHAN STATE MINES & MINERALS LIMITED located at JAISALMER, RAJASTHAN**

detailed deliberations , EAC **deferred** the proposal for the want of following information:-I. The Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.

II. PP needs to undertake a study to showcase the probable impact of mining on migratory bird species and their fly-way passage (Central Asian Flyway). Accordingly, PP shall submit the revised conservation plan for the migratory bird species.

III. The Project Proponent needs to undertake a study and submit the action for laying common Over Land Belt Conveyor(OLBC) for transportation of mineral from mine lease area to the proposed Cement Plant.

IV. The project proponent needs to submit a letter from the Commissioner of Geology & Mining, Govt. of Gujarat, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s Nirma Limited or not?

V. PP submitted that National Highway is under construction, and they have submitted letter to National Highway Authorities of India(NHAI) regarding grant of permission to provide Underpass near their proposed cement plant entry. Accordingly, PP needs to submit the permission letter for the underpass.

VI. The Project Proponent needs to carry out study by reputed institute to ascertain hardness of strata for deployment of surface miners for mining.

VII. The Project Proponent needs to submit time line for acquiring land from the villegers.

### 3.3.5. Recommendation of EAC

Deferred for ADS

### 3.4. Agenda Item No 4:

#### 3.4.1. Details of the proposal

Vangar & Madhiya Limestone Mine by Nirma Limited located at BHAVNAGAR, GUJARAT			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
<a href="#">IA/GJ/MIN/443498/2023</a>	J-11015/152/2016-IA-II(NCM)	13/09/2023	Mining of minerals (1(a))

#### 3.4.2. Project Salient Features

The proposal is for Environmental Clearance for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil Mahuva, District Bhavnagar (Gujarat).

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

i. The mine lease area is located between Latitude 21°01'44.54" to 21° 03' 40.04" N and Longitude 71°39'18.3"E to 71°41'05"E. The mine lease area falls under the Survey of India Toposheet No:

41 O/12 (restricted) and falls in Seismic Zone-III.

ii. 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.

iii. Details of Terms of Reference (ToR):

Date of application	Proposal No/ File No	Consideration by EAC	Details of ToR	Date of accord
18.11.2022	IA/GJ/MIN/40 3568/2022	06.12.2022	Letter no. J-11015/152/2016-I A.II (M)	23 <sup>rd</sup> December, 2022

iv. Details of Mine Lease in chronological manner:

S.no	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1	MCR-102004-1 827-CHH	15.02.2008	Limestone	30 years	IMD, Government of Gujarat	1225.8553
2	MCR-102004-1 827-CHH	08.01.2017	Limestone	50 years	IMD, Government of Gujarat	612.1336

S. No	Details of grant of Mine Lease deed execution	Period of Grant		Name of the Mineral	Mine lease area in Ha
		From	To		
1	MCR-102004-1827-CHH	11.01.2017	10.01.2067	Limestone	612.1336

v. Land Use/Land Cover of the Mine Lease Area:

Private land	586.4789
Government land	25.6547
Forest land	-
Total Mining lease area (MLA), ha	612.1336
Private land for crusher, workshop & other infrastructure outside the MLA	No any facilities outside the ML area. However crusher will be installed at company's Cement Plant.
Additional information (if any)	

vi. Mining plan details:

Mining Plan including Progressive Mine Closure Plan (approved)	Letter No.	File No.: 684(4)(1)/MP-347(196)/2021-22 GNR/1125
	Date	05.08.2021

ed by Indian Bureau of Mines/DMG)	Mineral & (Major/Minor)	Major
	Mine Lease Area, Ha	612.1336
	Validity	31.03.2026
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized	
Drilling/Blasting	Multi-row drilling and V-pattern drill holes for deep hole drilling and blasting. Slurry explosive- cap sensitive and non-cap sensitive.	
Geological Reserves	35.539 Million tonne	
Mineable Reserves	14.913 million tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Top soil- 0.99 million cum OB/SB/IB/Mineral Rejects- Nil Waste- Nil	
Life of mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category into category of reserves 111)	
Mine Bench Height & Bench Width	6.0 m, for working bench 12-15 m for closing (conceptual) bench Optimum	
No. of Mine Benches	2	
Existing Depth, m bgl	New mine	
Ultimate Depth of Mining, m bgl	10 m	
Ground Water Table, m bgl	15 m (Post monsoon)	
Details of ground water interse	No ground water will be encountered during planning stage i.e. in 5 years of working plan in neither pre monsoon nor post monsoon season in any of the pits. Grou	

ction	nd water will also not intersect during mining at the end of mine life. However, the ground water table may get touched in post monsoon in pit no. 4 & 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 & 5.
Individual bench slope	80-85°
Overall pit slope	~ 45°
Details of existing/ proposed Crusher	Proposed crusher will be installed at Cement Plant.
Mineral Beneficiation	-
RoM output size	-
Transportation details including capacity of dumper/tipper, mode of transport and distance	Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease. For the Soda Ash Plant located at approx. 100 km at Kalatalav, Bhavnagar limestone will be transported in dumpers/ trucks through National Highway 51. Internal haul road from mine face to crusher means of dumper/tippers of 25 tonnes capacity.
Generation of Topsoil/OB & its Management during plan period & conceptual period	Top soil at 1 <sup>st</sup> plan period- 150000 cu.m, temporary stacking at one location Top soil at 2 <sup>nd</sup> plan period- 840000 cu.m, temporary stacking at one location Top soil at conceptual period-380000 cu.m, simultaneously backfilling
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Nil
Additional information(if any)	Surface miner as well as ripper/dozer & rock breaker will be used for mining to minimize drilling & blasting.

## vii. Water requirement:

Total water requirement	42 KLD	Fresh water	3 KLD
		Treated water	39 KLD

Source	i. Fresh water source Narmada water pipeline/Water tanker. ii. Water harvested within mine lease during rainy season. iii. Treated water source- Reject water of RO /DM plant &Reject water of RO /DM plant (proposed at Cement plant)
Permission for withdrawal/ intersection along with details of grant and its validity	Permission for water withdrawal from Narmada water pipeline has been taken vide letter No. GWIL/Bhavnagar/Ind.conn./1257 dated 4.06.2008.

viii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particulars	Particular's Name	Distance & Directions
Village	Vangar Madhiya	0.25 km, NW 0.25 km, SE
Town	Mahuva	6.2km, ENE
Highway	NH-51 (Una-Mahuva highway)	Within
Interstate Boundary	Rajasthan	Approx.500 KM,N
Railway Station/Railway line	Amrutvel	2.0 km, N
Water Bodies	Arabian Sea Coast	3.4 km S to the HTL
	Samdiyala Salinity ingress control bund	2.3 km, SSW
	Bhambhali River	0.9 Km, W
	Malan River	7.4 KM,E
	Malan Bandhara	5.4 KM,SE
	Garasawo River	2.5 Km,NE
Forest	RF near Patwa	2.1 KM,S
	RF near Doliya	3.3 KM,SSE
	RF near Dudheri	3.9 KM,SE
	RF near Gujarda	4.3 KM,SE
	RF near Khared	6.3 KM,SE

ix. Presence of Environmentally Sensitive areas in the study area

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
---	--------	--

Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	<p>The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests vide Lr.No: WLP/32/C826-827/2021-22 dated 13.01.2022 regarding the map showing the location of protected areas within 10km of the Limestone mining project and the and distance of protected areas and proposed Limestone mine.</p> <table border="1"> <thead> <tr> <th>Protected areas</th> <th>Distance between Limestone mines and Protected areas</th> </tr> </thead> <tbody> <tr> <td>Gir National Park</td> <td>76.0 km</td> </tr> <tr> <td>Gir Wildlife Sanctuary</td> <td>44.2 km</td> </tr> <tr> <td>Mitiyala Wildlife Sanctuary</td> <td>43.5 km</td> </tr> </tbody> </table>	Protected areas	Distance between Limestone mines and Protected areas	Gir National Park	76.0 km	Gir Wildlife Sanctuary	44.2 km	Mitiyala Wildlife Sanctuary	43.5 km
Protected areas	Distance between Limestone mines and Protected areas									
Gir National Park	76.0 km									
Gir Wildlife Sanctuary	44.2 km									
Mitiyala Wildlife Sanctuary	43.5 km									
National Park	No									
Wildlife Sanctuary	No									
Elephant/Tiger Reserve	No									
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area (ESA)	No	<p>The Project Proponent has submitted the letter from the Office of the Deputy Chief Conservator of Forest, Bhavnagar vide letter no. A/GMN/T11/2075/22-23 dated 27.01.2023 certifying that the nearest turtle rearing/breeding site is located at a distance of about 70km away from the mines.</p>								
Coastal Regulation Zone (CRZ)	Yes	<p>Arabian Sea Coast: 3.4 km S to the HTL The proposed project lies beyond distance of 0.5 km from High Tide Line of Arabian Sea Coast. The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai.</p> <p>ML area outside CRZ- GCZMA letter no.E NV-10-2023-170-T dated 19.07.2023</p>								
Schedule-I species (Nos. and name of schedule-I species with authenticated letter)	Yes	<p>As per WLCP approved on 20.12.2021 (3 nos.) : Peafowl, Chinkara and Asiatic lion Additional as per WPA amendment of 2022 (9 nos.): Indian Leopard, Striped Hyena, Jungle Cat, Indian Fox, Jackal, Indian Grey Mongoose, Indian Porcupine, Indian Grey Wolf, and Eurasian Spoonbill</p> <p>The above have been updated in WLCP.</p>								
Wildlife Conservation Plan	Yes	<p>On the basis of the fauna study findings &amp; list of fauna authenticated by Forest Department, Wildlife Conservation Plan (WLCP) was prepared and submitted for approval. The said Wildlife Conservation Plan had been approved by the Forest Department on 20.12.2021. Rs. 19.9 lakh had been approved for the conservation of wildlife in the study area.</p> <p>The WLCP has been updated w.r.t. Schedu</p>								

		le-I species as per WPA amendment of 2022 and budget allocation has been increased to Rs.65.9 Lakh for all 3 mines.
--	--	---

## x. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	26.50 Ha.
Budget for green plant & plantation till the end of life of mine.	80.35 Lakhs
Budget for nursery	-
Details of existing plantation and its survival rate	-
No. of tree cuts in the mine lease area and compensatory afforestation	As per actual during mining
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	16.50
50 m safety zone of nallah, roads, electric lines	10.00
500 m safety zones of nearest habitation villages	-

## xi. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	01.03.2021 to 02.06.2021
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer
Predominant Wind direction (From)	South
Ambient Air Quality (no. of locations) and results	16 Core zone (1 no.) - PM10 from 40.8 to 68.8 $\mu\text{g}/\text{m}^3$ , PM2.5 from 21.7 to 37.4 $\mu\text{g}/\text{m}^3$ , SO <sub>2</sub> from 4.8 to 7.7 $\mu\text{g}/\text{m}^3$ and NO <sub>2</sub> from 4.9 to 10.5 $\mu\text{g}/\text{m}^3$ . Buffer zone (15 nos.) : PM10 from 27.6 to 71.7 $\mu\text{g}/\text{m}^3$ , PM2.5 from 11.2 to 40.0 $\mu\text{g}/\text{m}^3$ , SO <sub>2</sub> from 2.7 to 10.2 $\mu\text{g}/\text{m}^3$ and NO <sub>2</sub> from 3.6 to 14.5 $\mu\text{g}/\text{m}^3$ .
Noise level (no. of locations) and results	16 Buffer zone : Between 47.57 dB(A) to 52.46 dB(A) during day time and 39.42 dB(A) to 42.89 dB(A) during night time.

Water Quality (no. of locations) and results	15 (12 ground water and 3 surface) water sampling stations were monitored within the study area. All the parameters of ground water were well within the permissible limits as per IS 10500: 2012. The surface water quality in all samples was found B to below E class. The result indicates that the maximum and minimum values of DO ranges between 5.8 to 6.3 mg/l, hardness ranged between 360 - 8300 mg/l in surface water.
Soil Quality (no. of locations) and results	12 pH ranges between 7.7 - 8.2, Potassium ranges from 157.0 - 845.0 kg/ha and Nitrogen ranges from 0.01 - 12.57 mg/kg
Hydro geological study and results	As per planned mining and Report of hydrogeological & hydrological studies of core and buffer zone of Vangar & Madhiya limestone mine, the groundwater table may get touched in post - monsoon in pit no. 4 & 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 & 5.
Traffic study (no. of locations) and results	The traffic volume survey was conducted on Bhavnagar to Una Road (NH8E/51) Near Vangar Village. Total numbers of vehicles were found as 6793 per day and equivalent PCUs is 9382 per day. There will be daily movement of 512 numbers of dumpers (to & fro) per day or 1536 PCU/ day on the road. 01 location & V/C = 31.27

xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	26.03.2023 in Sandesh Newspaper & Indian Express
Date of PH	28.04.2023
Venue	At the premises of Nirma Cement Plant Area, NH 8E/51, Survey No. 80, Village: Padhiyarka, Taluka: Mahuva, Dist. Bhavnagar
Chaired by	District Collector & District Magistrate, Bhavnagar District & Regional Officer, GPCB Bhavnagar
Main issues raised during PH	Air pollution, salinity ingress, wildlife protect

	ion, acquisition of agriculture land
Budget proposed for addressing issues raised during PH over 3 years	34 Lakhs
Additional information (if any)	-

xiii. Details of CTE/CTO, Certified Compliance Report, Certified Production Details from the inception of the mine:

Particulars	Details of Letter along with date of grant and validity
Consent to Establish	GPCB CTE granted vide dated 25/01/2021 & valid upto 24/01/2028.
Consent to Operate	-
Certified Compliance Report and Inspection date	-
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	Fresh mine

xiv. Rehabilitation & Resettlement (R&R):

R & R details	For private land, company has obtained surface rights for mining by purchasing land/consent in some of the land & for remaining land, company is in process to procure ownership or surface right for mining on mutually agreed commercial terms. Rs. 2466.88 lakhs cost envisaged for 1 and (189.76 ha) and Rs. 48 lakhs approx. for homestead.
---------------	--

xv. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking vide letter dated 07.10.2023 stating that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters in which the project proponent is a respondent.
Undertaking by Project Proponent w.r.t court case	

xvi. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an undertaking by way of notarized Affidavit dated 09.10.2023 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking vide letter dated 04.01.2023 stating that the contents (information and data) as given by the Consultant in the EIA/EMP report are factually correct with full knowledge of the undersigned (Shri Ashish Desai)
Undertaking by Consultant in EIA/EMP	The Director of the EIA Consultant (M/s Centre for Env

report	otech & Management Consultancy Pvt. Ltd) has informed that the baseline data was generated by MoEF &NABL Accredited Laboratory M/s Min Mec R&D Laboratory, a division of Min Mec Consultancy Pvt. Ltd., New Delhi and the same has been verified and also confirmed that he shall be fully accountable for any misleading information mentioned in this statement.
Plagiarism Certificate	

xvii. Earlier the Proposal was considered in the 21<sup>st</sup> EAC meeting held during 18-20<sup>th</sup> October, 2024 wherein the Committee has deferred the proposal for the submission of requisite information. The Project Proponent has submitted the relevant information on Parivesh are as follows:

S. No	Observation of EAC in the 21 <sup>st</sup> meeting held during 18-20 <sup>th</sup> October, 2023	Reply by Project Proponent
1.	The site visit report of the subcommittee.	Site visit has been conducted by subcommittee on 22nd - 25th December, 2023.
2.	Since the mine site is located within 20 km from seaboard frontier, the Project Proponent shall submit No Objection Certificate from Ministry of Defense for consideration of the instant project.	<ul style="list-style-type: none"> <li>◆ We have submitted letter via registered post to Ministry of Defense, New Delhi, Govt. of India for issuance of NOC in this regard. Copy of the same is attached on Parivesh Portal.</li> <li>◆ We also have submitted letter to Department of Geology &amp; Mining, Govt. of Gujarat, Bhavnagar for recommendation to issue NOC to Ministry of Defense, Govt. of India. Copy of the same is attached on Parivesh Portal.</li> <li>◆ As per our understanding, there is no clarity or guideline in respect of process to be followed to obtain NoC of Ministry of Defense (MoD), therefore, our humble request is that issue the EC without condition of obtaining NOC from MoD.</li> </ul>
3.	The Project Proponent needs to submit the action for laying common Over Land Belt Conveyor (OLBC) for transportation of mineral from mine lease area to the Cement Plant. The Project Proponent also needs to submit the action plan for expansion of road with a width of 7m and by passing the village road till the commission of the Over Land Belt Conveyor (OLBC).	<ul style="list-style-type: none"> <li>◆ The mine is captive mine to proposed cement plant at Mahuva and Highgrade limestone to be used in company's own existing Soda Ash plant located at Kalatalav, Bhavnagar as per permission accorded by the Govt. of Gujarat vide letter dated: 17.08.2023. (Copy attached on Parivesh Portal).</li> <li>◆ The cement plant is adjoining to the mine lease while the Soda ash plant is located around 100 km away and accessed through National Highway</li> <li>◆ Establishment of cement plant may take some time as the appeal is pending before Hon'ble Supreme Court while the soda ash plant is already operational.</li> <li>◆ Hence, till the commencement of proposed cement plant, maximum 5% i.e. 265 TPD chemical grade limestone will be transported through dumpers @ 11 trips per day via existing village road of 7 m (out of which 4 m is black topped) to National Highway and ultimately Soda Ash plant at Bhavnagar.</li> </ul>

		<p>Company is very much keen to establish cement plant as early as possible &amp; will produce &amp; consume required limestone for cement manufacturing on its highest rated capacity.</p> <p>We assure your kind authority that we will widen the black top of the existing village road from mines to National Highway prior to commencement of Proposed Cement Plant. Section plan of proposed road black top widening is attached on Parivesh Portal.</p> <p>Also, as discussed during the EAC meeting, we will explore the possibility of Over Land Belt Conveyor (OLBC) on either side of the highway based on the technical possibility &amp; feasibility by reputed consultant. We are going to approach M/s. Holtec Consultants for regulatory, commercial &amp; technical feasibility for above stated OLBC.</p>
4.	The Project Proponent needs to explore the possibility of laying over bridge over the Highway and shall submit the permission from the National Highways Authority of India (NHAI).	
5.	The Project Proponent needs to submit the protection measures to be taken for salt water intrusion and the effectiveness of the salinity ingress control bund.	<p>Samdhiyala Salinity Ingress Control bund (Samdhiyala bund) was constructed by Government of Gujarat in the year 2000 on Motpet Creek to prevent sea water from coming towards landward side. On the landward side, rain water gets accumulated as well.</p> <p>Presently, the accumulated rain water of Samdhiyala bund is being used during post monsoon by adjoining agriculture land owners and in other seasons they are extracting ground water through borewell. For agriculture land which is away from Samdhiyala bund, farmers are extracting ground water through borewell for agriculture due to which salinity &amp; TDS are increasing in ground water.</p> <p>As per company's water management strategy, after commencement of cement plant, company will undertake deepening of 100 ha surrendered land out of our total allotted plant land and also pledged to construct garland drains around the proposed plant area which will improve the overall fresh water storage capacity of Samdhiyala bund on landward side. Regular desiltation of canal will improve water retention capacity of Samdhiyala bund.</p> <p>At the time of mining, bottom level of conceptual pit will be kept above ground water level to avoid intersection.</p> <p>Hydrogeological monitoring network will be established by constructing piezometers in and around the lease.</p> <p>During mining, present hydrological system will keep intact by constructing garland drain around the pits to ma</p>

		<p>intain present hydraulic gradient towards the Samdhiyala Bund.</p> <ul style="list-style-type: none"> <li>After exhaustion of mineral, voids left will act as natural water harvesting structures. Collected rain water will stand and gradually percolate into the sub surface water &amp; in long term improve the quality of ground water.</li> <li>Positive pressure of fresh water on landward side will be created, which will aid in pushing back the saline front, which may be at a lower elevation.</li> <li>In view of the above, due to mining there is no possibility of salt water intrusion in the area &amp; effectiveness of the salinity ingress control bund as well as hydrogeological system of bund will not be disturbed &amp; infact will significantly improve the effectiveness of salinity ingress control bund.</li> </ul>													
6.	<p>The Project Proponent needs to submit the site specific mitigation measures for backwaters from Arabian Sea coming into the mine lease area.</p>	<p>In this regard, following site specific mitigation measures will be taken:</p> <ul style="list-style-type: none"> <li>Arabian sea is situated at a distance of 3.8 km in the south of the said mine lease &amp; it is outside of CRZ area.</li> <li>There was only one probability of sea water coming to mine lease area which is through Motpet Creek. Samdhiyala Salinity ingress bund has been constructed on Motpet Creek to restrict backwater coming from Arabian sea towards landward side. Therefore, there is no possibility of backwater from Arabian sea to come to mine lease area.</li> <li>Hydrogeological monitoring network will be established by constructing piezometers in and around the lease to monitor the water level &amp; water salinity.</li> <li>Positive pressure of fresh water on landward site will be created due to water storage in mine pits, which will aid in pushing back the saline front as well.</li> </ul>													
7.	<p>The Project Proponent needs to revisit the plan for backfilling with clearly indicating the voids area and the capacity available/required for backfilling.</p>														
	<p>The Indian Bureau of Mines, Govt. of India, Gandhinagar has approved the Mining Plan vide its letter dated: 05.08.2021 for the period of 5 years i.e. up to 2025-26. As per approved Mining Plan, Removal of soil and its disposal as below.</p> <table border="1"> <thead> <tr> <th>Mine plan period</th> <th>Removal of soil (mio. cum)</th> <th>Means of disposal</th> <th>Area covered under stacking (ha)</th> </tr> </thead> <tbody> <tr> <td>FY 2021-22 to FY 2025-26</td> <td>0.15</td> <td>Temporary stacking at one location near Proposed Pit no.1. Then, temporary stacked soil will be shifted for Backfilling of shallow pits of around 4.0 m depth (Proposed Pit No. 4 &amp; 5) after five year <b>mine</b> plan period. (As demonstrated in map attached on Parivesh Portal).</td> <td>4.63</td> </tr> <tr> <td>FY 2026-27 to</td> <td>0.84</td> <td>No stacking proposal is envisaged as simult</td> <td>nil</td> </tr> </tbody> </table>			Mine plan period	Removal of soil (mio. cum)	Means of disposal	Area covered under stacking (ha)	FY 2021-22 to FY 2025-26	0.15	Temporary stacking at one location near Proposed Pit no.1. Then, temporary stacked soil will be shifted for Backfilling of shallow pits of around 4.0 m depth (Proposed Pit No. 4 & 5) after five year <b>mine</b> plan period. (As demonstrated in map attached on Parivesh Portal).	4.63	FY 2026-27 to	0.84	No stacking proposal is envisaged as simult	nil
Mine plan period	Removal of soil (mio. cum)	Means of disposal	Area covered under stacking (ha)												
FY 2021-22 to FY 2025-26	0.15	Temporary stacking at one location near Proposed Pit no.1. Then, temporary stacked soil will be shifted for Backfilling of shallow pits of around 4.0 m depth (Proposed Pit No. 4 & 5) after five year <b>mine</b> plan period. (As demonstrated in map attached on Parivesh Portal).	4.63												
FY 2026-27 to	0.84	No stacking proposal is envisaged as simult	nil												

FY 2030-31		aneously backfilled material will be utilized for shallow pits of around 4.0 m depth Proposed Pit No. 4 & 5) (As demonstrated in map attached on <b>Parivesh Portal</b> ).	
FY 2031-32 to FY 2033-34 (conceptual stage)	0.38		nil
Total	1.37		nil

Looking towards availability of topsoil, backfilling of part area is envisaged.  
conceptual period = 197.00ha

◆ Total soil removal envisaged till  
conceptual period = 1.37 million cum  
(197 Ha \*0.7m avg. soil thickness)

◆ Total backfilling area envisaged till  
conceptual period = 36.36 ha

Ultimate Dimensions of Pits at the end of mine life

1	92.57	20 to 15	10	10 to 5	No backfilling proposal
2	40.84	15 to 13	7	8 to 6	No backfilling proposal
3	14.47	18 to 16	10	8 to 6	No backfilling proposal
4	12.76	11 to 7	2	8 to 4	No backfilling proposal
	16.84	7 to 6	3 to 2	4	Backfilling of Pit area of 16.84 Ha for entire depth. (618480 cu.m)
5	19.52	9.5 to 7.5	2	7.5 to 5.5	Backfilling of Pit of 19.52 Ha for 4.0 m depth (751520 cu.m)
Total	197 Ha				36.36 Ha (1370000 cu.m)

8. The Project Proponent needs to revise the activities proposed under the Wildlife Conservation Plan. The Project Proponent also needs to ensure that the Schedule-I species as per the latest Wildlife Protection Amendment Act, 2022 shall also be included in the Wildlife Conservation Plan for their conservation.
- As advised, revised wildlife conservation plan incorporating the Schedule-I species as per the latest Wildlife Protection Amendment Act, 2022 is attached on Parivesh Portal.

9. The EAC was of the view that the compensation rate is very less and asked the Project proponent to revisit and justify the budget proposed for Resettlement & Rehabilitation (R&R). The Project Proponent also needs to submit the action plan for land acquisition and timeline.

	Land rate, Rs.	Land	Total Amount
Private	13.00 *	189.76	2466.88
Government	On mining lease	7.24	-
Total		197.0	2466.88

\*: Total amount given considering as per DLC rate. However, land will be procured/get consent for mining purpose on mutual agreed commercial rates.

Type of	Rate, Rs. /	Approx. Homestead	Total compensation,
Pucca	10000	480	48
Semi pucca	5000		
Kutchha	2000		
Total		480	48

\*\* Company will consider homestead losers falling in proposed mine area on actual basis at the time of starting of mining activity and such homestead losers shall be compensated on mutual

ually agreed commercial terms.

Since the land owners as well as homestead owners shall be compensated on commercial terms, therefore, they will have better economic strength to rehabilitate or reinvest the compensation amount. Hence, no separate R & R plan is envisaged.

Action plan for land acquisition and timeline is as below:

Sr. No.	Timeline for land requirement	Pvt. Land, Ha	Govt. Land, Ha	Total, Ha
1	Present			
1.1	Purchased	0	0	0
1.2	Consented	25.14	0	25.14
1.3	Leased	0	25.65	25.65
2	<b>Future</b>			
2.1	1 <sup>st</sup> to 5 <sup>th</sup> year mining	42.94	0	42.94
2.2	6 <sup>th</sup> year to Conceptual stage -13 <sup>th</sup> year	194.36	7.24	201.60
2.3	Mine life (up to lease period)	586.48	25.65	612.13

Mining lease deed has already been executed for said mining lease so mining can be started in Govt. lease land. As far as private land is concerned, company has obtained surface rights for mining by purchasing land/consent in some of the land & for remaining land, company is in process to procure ownership or surface right for mining on mutually agreed commercial terms. We hereby assure that company will obtain surface rights of the land before entry in private land for starting mining activity in the mining lease area.

10. The Project Proponent needs to submit the action plan for year wise exploration program

The Indian Bureau of Mines, Govt. of India, Gandhinagar has approved the Mining Plan vide its letter dated: 05.08.2021 for the period of 5 years i.e. up to 2025-26.

Looking towards the systematic exploration of the entire area, 183 nos. of Core Bore Holes has been proposed in the area in order to bring the ML area within G1 stage in accordance with MEMC Rules 2015 and MCDR 2017 as per approved mining plan.

The deposit is sedimentary origin and simple in nature, therefore boreholes are kept at an interval of 200m grid pattern. A total of 183 number of Core Boreholes are proposed up to a level of +1.0 MRL. Initially BH drilling shall be at an interval of 400m. If limestone potentiality proves, then further BH can be done closely at 200m interval. All proposed BH shall be drilled vertically. The exploration shall be carried out in five years of working i.e. year 2021-22 to 2025-26. Exploration shall be carried out as shown in table to bring BH at 200m interval

**Program of Future Exploration**

YEAR	No. of BH	Grid Interval	Total Meterage
2021-22 to 2025-26	PBH-1 to PBH-119	400 m & 200 m	Up to +1.0 MRL
	PBH-120 to PBH -183	200 m	Up to +1.0 MRL

The exploration shall be started as soon as mining work is started on grant of EC and try to accomplish within shorter period if conditions are favorable.

The location of Proposed BH is depicted in Surface Geolo

		gical plan of the approved mine plan and given in EIA report in figure no. C 2-2 in Chapter 2. (Copy given on Parivesh Portal).
11.	The Project Proponent needs to submit the copy of the permission letter obtained from the State Govt. for utilization of Chemical Grade of Limestone for non-cement purposes.	Permission accorded by the Govt. of Gujarat vide order dated: 17.08.2023 for utilization of Chemical Grade of Limestone for non-cement purposes is attached on Parivesh portal.
12	The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Gujarat clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s. Nirma Limited or not?	The company has not carried out any mining within the lease area much less any illegal mining in the lease area. There are old pits pre-dating the allotment of the lease to the company, which were received in legacy and shown in the present surface geological plan (Copy given on Parivesh portal). Request letter in this regard has been submitted to Department of Geology and Mining, Government of Gujarat on 03.11.2023. Acknowledgement of the same is attached on Parivesh portal.

xviii. Compliance of Sub-Committee Site Visit Recommendation given in 25<sup>th</sup> EAC meeting MoM held on 9<sup>th</sup> – 10<sup>th</sup> January, 2024.

Sr. No.	Recommendation of Sub-Committee	Reply by Project Proponent
1	PP should submit an action plan and timeline to indicate the purchase of lands across all three mining leases wherein it has proposed mining pits to initiate mining activities since as on date PP has only purchased / obtained surface rights over 101.1967 Ha out of 1351.6489 of Private Agriculture Land.	Action plan and Timeline indicating the purchase /obtain surface rights of land for mining for all three mining leases to initiate mining activities is attached on Parivesh Portal.
2.	Since PP envisages to handover the land with shallow quarry having depth upto 4 m to landowners for farming and mostly all three mining leases are having agricultural land. PP is requested to conduct a survey to indicate the present status and number of low-lying areas, their respective which may be backfilled with available capacity of top soil/overburden and can be handed over to farmers for agricultural purpose.	In said mine, survey has been conducted & 2 nos. of pits i.e. Pit No. 4 & 5 (total Pit area -49.12 Ha) will have shallow depth pit in Pit area -36.36 Ha, will be backfilled for entire depth / partial depth, looking to availability of Soil for backfilling. <ul style="list-style-type: none"> <li>• Pit no. 4 -16.84 Ha Pit area of 4.0 m bgl for entire depth out of total pit area of 29.6 Ha.</li> <li>• Pit No. 5 – 19.52 Ha Pit area of 4.0 m bgl for entire pit area in partial depth.</li> </ul> Action plan for backfilling of shallow depth pits of depth up to 4.0 m and handing over to farmers for agriculture is attached on Parivesh Portal..
3.	Project Proponent needs to provide year	Exploration plan of said mining lease is a

	wise exploration plan for all the three mining leases.	ttached on Parivesh Portal..
4.	Since, Bhavnagar falls under severely Polluted Area category, PP shall ensure that during initiation phase itself they should include the provision of permanent water sprinklers across the haul roads in all three mining leases.	Chitra Industrial area (severely polluted area) in Bhavnagar city is located around 100 km away from our said mining lease area. On initial stage, company will engage water tanker with sprinkler arrangement to suppress the dust on haul road and company will make provision of permanent water sprinklers across the haul roads in all three mining leases.
5.	Since, Bellur and other schools are in close proximity to mine lease area, PP shall ensure that necessary safety measures are taken as per DGMS norms for all three mining leases.	Company will ensure to maintain require safety measures & distance from Bellur School & other schools as per DGMS norms for all three mining leases during mining.
6.	PP shall ensure to construct bunds near the existing low lying areas that has developed into wetland to prevent the ingress of sea water in Padhiyarka and Doliya Limestone Mine lease area and Gujarada, Dudheri & Dudhala limestone mine lease area.	Not applicable
7.	The project Proponent needs to submit the integrated management plan describing the strategies and actions for achieving wise use of the wetland and the plan shall include objectives of the site management, management actions required to achieve the objectives, factors that affects, or may affect, the various site features, monitoring requirements for detecting changes in ecological character and for measuring the effectiveness of management, and resources for management implementation.	Not applicable
8.	PP needs to engage and impart skill among the villagers and local population mainly the land losers and also submit a plan for their alternate livelihood arrangement since most of them will be losing their fertile lands.	Company will not acquire any agricultural land through land acquisition by Govt. or without willingness of land owner and will purchase / obtain surface rights for mining on market commercial negotiated rates. Land owners may purchase agriculture land in nearby area in the amount which is to be paid to them against their land and can continue their livelihood. Company will give priority to engage lan

		<p>d owners who have given land for mining purposes as per requirement of manpower for mines.</p> <p>Also, company will arrange to impart training to build capacity for self-employment [stitching, embroidery, tailoring, pickles, dairy improvement, poultry farming, etc.] to land losers and will facilitate vocational training along with skill development for getting better job opportunities (Budget Rs. 3 lakhs/year).</p>
9.	<p>PP should widen the existing village roads before using it for transportation in all three mining leases, wherever widening is not possible, PP shall submit an action plan for making alternate roads.</p>	<p>On initial stage, company has proposed to mine out limestone for Soda ash plant in lower capacity and company will use existing village road for transportation of limestone by maintaining the existing village road as number of trips of truck / dumpers will be very less i.e. around 11 numbers of trips/day maximum in this mine.</p> <p>Company will widen the existing village road or make alternate road in all three mining leases on installation of cement plant. Section plan of the road widening is attached on Parivesh Portal..</p>
10.	<p>PP should engage wildlife experts/ avian experts for conservation of the avian fauna within and near its mine lease.</p>	<p>Company has already engaged wildlife expert / avian expert for conservation of the avian fauna within and near its mine lease.</p>
11.	<p>PP shall plant native fruit bearing plants across all the proposed green patches.</p>	<p>Native fruit bearing plants will be planted across all the proposed green patches.</p>
12.	<p>PP shall put boundary pillars across all mining leases.</p>	<p>Company had erected boundary pillars at the time of lease deed execution and got authentication of all boundary pillars coordinates through the DILR / State Govt. and provided in the approved mining plan for all three mining leases. Some pillars have been dislodged/ removed by local people. Company will put such boundary pillars again prior to commencement of mine so that they can be maintained.</p>
13.	<p>The project proponent needs to submit a letter from the Department of Geology &amp; Mining, Govt. of Gujarat, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by</p>	<p>The company has not carried out any illegal mining in the lease area and request letter to provide required certificate regarding no mining carried out by company or others has been submitted to the District Geologist, Department of Geology and</p>

	M/s Nirma Limited or not?	<p>Mining, Government of Gujarat, Bhavnagar vide letter dated: 01.11.2023. In turn, the District Geologist, Bhavnagar has submitted his report to the Commissioner of Geology &amp; Mining, Govt. of Gujarat, Gandhinagar vide its letter dated: 01.02.2024 to communicate the same to MoEF and copy endorsed to us. As per his report, No case of Illegal mining of limestone mineral has been registered within the mining lease area against the company M/s Nirma Limited or against any other individual or entity.</p> <p>Copy of our submitted letter dated: 01.11.2023 and copy of report of the District, Geologist, Geology &amp; Mining Dep't, Bhavnagar dated 01.02.2024 is annexed on Parivesh Portal..</p>
14.	PP needs to submit plan to transport crushed limestone from all the three leases to plant.	<p>The mine is captive mine to proposed cement plant at Padhiarka, Mahuva and High grade limestone to be used in company's own existing Soda Ash plant located as Kalatalav, Bhavnagar.</p> <p>The cement plant is adjoining to the mine lease while the Soda ash plant is located around 100 km away and accessed through National Highway.</p> <p>Establishment of cement plant may take some time while the soda ash plant is already operational.</p> <p>Hence, till the commencement of proposed cement plant, maximum 5% i.e. 265 TPD limestone will be transported to Soda ash plant located near Bhavnagar through dumpers @11 trips per day. The trucks will pass through existing Madhiya - Amrutvel village road of 7 m width (out of which 4 m is black topped) for around 1.0 km and meet National Highway no. 51, from where the truck will move around 100 km.</p>
15.	PP needs to take some measures to keep the migration bird ponds unharmed and protected by activity of mining in future.	<p>Migratory birds are seen in Malan Bandhara as well as other nearby Bandhara areas, which areas located at distance of 5.4 km and 2.3 km from our mining lease areas, respectively.</p> <p>Birds are also seen in low lying area, in which rain water accumulates temporarily during monsoon. However, they are predominantly resident water birds.</p> <p>The company is committed to the measur</p>

		<p>es proposed in the site specific wildlife c onservation plan (summarised in point 7 earlier), which include points related to p rotection of shallow ponds, ecology and birds.</p> <p>The company will mine above 2m AMS L in low lying areas to maintain the fresh water nature of the water in it. The enlarg ening of the low lying area in pit no. 2 &amp; 3 of Padhiaryka &amp; Doliya Mine and pit n o. 5 &amp; 6 of Gujarda, Dudheri &amp; Dudhala will provide more area to birds. Also co mpany will ensure that transportation wil l be carried out by maintaining safety dist ance from low lying areas.</p>
16.	PP needs to install water treatment plant to reduce the hardness of water.	<p>Drinking water is provided in every near by villages through Narmada water pipeli ne by the State Govt. and drinking water requirements for mines shall also be fulfil led through Narmada water pipe line wh ich is passing through nearby area. Henc e, presently there is no proposal to use th e hard ground water. However, if any req uirement sought in future we will provide treatment plant.</p>
17.	PP needs to explore possibility of deploying surface miners for mining.	<p>Company has proposed mining with surf ace miner (50% quantity) in IBM approv ed mine plan and also in EIA report. Co mpany explored use of Ripper dozer for c ement plant use to eliminate drilling &amp; bl asting in the remaining 50% and committ ed the same in point no. 3, Specific Term s of Reference received from MOEF&amp;C C vide Letter no. J-11015/154/2016-IA. I I(M) dated November 28, 2022.</p> <p>For soda ash plant, we need sized limesto ne i.e. 25 mm to 100 mm, so surface min er cannot be deployed for limestone mini ng for Soda ash plant use. However, com pany will deploy rock breaker to avoid bl asting during mining.</p>
Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Pollution Control	0.241	9.54
Pollution monitoring	0.016	3.88
Occupational health	0.011	0.64

Environmental Studies, etc.	0.10	–
Green belt	–	5.10
Reclamation	–	11.39
Others (Environmental studies, Rehabilitation, Realignment, Expert advice, fencing etc.	–	5.28
Overheads	–	0.30
<b>Total</b>	<b>0.3680</b>	<b>36.12</b>
<b>Particulars</b>	<b>(Rs. In Crore)</b>	
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	0.70	
Project Cost	25	
Employment (No.s)	58	

### 3.4.3. Deliberations by the committee in previous meetings

**Date of EAC 1 :19/10/2023**



**Deliberations of EAC 1 :**

The EAC deliberated the instant proposal along with Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka & Doliya Limestone mine. The Project Proponent has informed the EAC that the proposed method of mining is same in all three mines such as Vangar & Madhiya Limestone Mine, Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka and Doliya Limestone mine. NH-51 (Una-Mahuva highway) is passing within the mine lease area. A safety distance of 45m will be maintained. The underpass road has been proposed below Highway by NHAI for the safe passage of the villagers. The EAC asked the Project Proponent to explore the possibility of laying overbridge over the Highway. In the proposed 3<sup>rd</sup> pit, displacement will be taking place. Discrete houses are located within the mine lease area. The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. In this project, Pvt land is more than the previous project. There are 5 mine pits are proposed. Project Affected Families will be 494 no.s. In this project, a budget of Rs 34.0 Lakhs has been earmarked to address the concerns of the public hearing. The geological conditions, method of mining, environmental sensitivity and implications, impact on socio economic are similar in all these three mines.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC noted that the project is part of three contiguous projects namely Padhiarka and Doliya Limestone mine (332.24 ha), Vangar & Madhiya Limestone Mine (612.336 ha) and Gujarda, Dudheri & Dudhala Limestone Mine (681.62 ha) and together it extends over an area of 1626.196 ha. The mine lease area comprises of partly Private Agriculture land and partly Govt. land. NH-51 (Una-Mahuva highway) is passing within the mine lease area. Also, Vangar (0.25 km, NW) and Madhiya villages (0.25 km, SE) are located close to the proximity of the mine lease area. The EAC was not convinced with the proposed backfilling plan and the activities proposed under the Wildlife Conservation Plan. The EAC observed that the pits are isolated and the mine lease area is partly Private and Govt. land. The EAC also observed that there will be direct purchase or leasing of private land with the willing consent of the private land owners. The EAC was of the view that what if the land owners are not willing to give their land. There are likely chances that mining will not take place sequentially if the land acquisition does not happen. There will be failure of scientific mining. Large no. of Project Affected Families is involved in all these projects. The EAC opined that the Saltwater intrusion through surface or ground water sources may diminish the availability or quality of source waters for drinking water utilities. Some salt pans i.e., salt manufacturing industries and few wind mills exists in the study area. Old mine pits also exist within the mine lease area. The EAC noted that the Bhavnagar is categorized as a Severely Polluted Areas. The EAC reiterated the Ministry of Defence letter dated 08.05.2023 regarding security considerations for construction activities/other activities in Border areas/other areas wherein it has been mentioned that *“all activities connected with mining within 20kms from all the borders including seaboard frontier should be planned in consultation with Ministry of Defence”*. Accordingly, EAC opined that PP should obtain NOC from Ministry of Defence.

Thus the EAC opined that there is a need to ascertain the ground reality w.r.t natural low lying areas, water logging areas, old mine pits, sequence of mining, feasibility for backfilling, impact on socio economic, agriculture land, transportation route, traffic congestion, salt pans, effectiveness of salinity ingress control bund, proximity of habitations, schools, water bodies, roads etc., The EAC was of the view that a site visit needs to be conducted by a sub-committee comprising of EAC Members and officers from MoEF&CC. The EAC opined that the Ministry may constitute a sub-committee and submit its report to enable the committee to take a decision on the proposal. Therefore, the EAC **deferred** the proposal for want of following additional information: -

- i. The site visit report of the subcommittee.
- ii. Since the mine site is located within 20 km from seaboard frontier, the Project Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.
- iii. The Project Proponent needs to submit the action for laying common Over Land Belt Conveyor (OLBC) for transportation of mineral from mine lease area to the Cement Plant. The Project Proponent also needs to submit the action plan for expansion of road with a width of 7m and by passing the village road till the commission of the Over Land Belt Conveyor (OLBC).
- iv. The Project Proponent needs to explore the possibility of laying overbridge over the Highway

and shall submit the permission from the National Highways Authority of India (NHAI).

- v. The Project Proponent needs to submit the protection measures to be taken for salt water intrusion and the effectiveness of the salinity ingress control bund.
- vi. The Project Proponent needs to submit the site specific mitigation measures for backwaters from Arabian Sea coming into the mine lease area.
- vii. The Project Proponent needs to revisit the plan for backfilling with clearly indicating the voids area and the capacity available/required for backfilling.
- viii. The Project Proponent needs to revise the activities proposed under the Wildlife Conservation Plan. The Project Proponent also needs to ensure that the Schedule-I species as per the latest Wildlife Protection Amendment Act, 2022 shall also be included in the Wildlife Conservation Plan for their conservation.
- ix. The EAC was of the view that the compensation rate is very less and asked the Project proponent to revisit and justify the budget proposed for Resettlement & Rehabilitation (R&R). The Project Proponent also needs to submit the action plan for land acquisition and timeline.
- x. The Project Proponent needs to submit the action plan for year wise exploration program.
- xi. The Project Proponent needs to submit the copy of the permission letter obtained from the State Govt. for utilization of Chemical Grade of Limestone for non-cement purposes.
- xii. The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Gujarat clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s. Nirma Limited or not?

#### 3.4.4. Deliberations by the EAC in current meetings

The EAC deliberated the instant proposal along with Padhiarka & Doliya Limestone Mine and Gujarda, Dudheri & Dudhala Limestone Mine. The Project Proponent presented its reply to the ADS points raised vide minutes of the 21<sup>st</sup> EAC as well as the recommendation of the sub-committee. After detailed deliberations, EAC **deferred** the proposal for the want of following information:-

I. The Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.

II. PP needs to undertake a study to showcase the probable impact of mining on migratory bird species and their fly-way passage (Central Asian Flyway). Accordingly, PP shall submit the revised conservation plan for the migratory bird species.

III. The Project Proponent needs to undertake a study and submit the action for laying common Over Land Belt Conveyor(OLBC) for transportation of mineral from mine lease area to the proposed Cement Plant.

IV. The project proponent needs to submit a letter from the Commissioner of Geology & Mining, Govt. of Gujarat, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s Nirma Limited or not?

V. PP submitted that National Highway is under construction, and they have submitted letter to National

Highway Authorities of India(NHAI) regarding grant of permission to provide Underpass near their proposed cement plant entry. Accordingly, PP needs to submit the permission letter for the underpass.

VI. The Project Proponent needs to carry out study by reputed institute to ascertain hardness of strata for deployment of surface miners for mining.

VII. The Project Proponent needs to submit time line for acquiring land from the villegers.

### 3.4.5. Recommendation of EAC

Deferred for ADS

Day 2 -15/03/2024

### 3.1. Agenda Item No 1:

#### 3.1.1. Details of the proposal

<b>Gandhamardan Block B Iron Ore Mining Project by ODISHA MINING CORPORATION LIMITED located at KENDUJHAR,ODISHA</b>			
<b>Proposal For</b>		Amendment in EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/OR/MIN/451209/2023</a>	J-11015/1084/2007-IA.II(M)	04/11/2023	Mining of minerals (1(a))

#### 3.1.2. Project Salient Features

The proposal is for amendment in EC dated 03.02.2009 w.r.t specific condition no. xx of Gandhamardan Block B Iron Ore Mining Project of M/s Odisha Mining Corporation Limited for production capacity of 9.12 MTPA in the mine lease area of 1590.8673 ha, located at Village: Upper Jagar, Urumunda, UparKainsari, Nitigotha, Ambadahara, Salarapentha, Daonla & Gandhamardan Protected Reserve Forest, Tehsil Banspal, Dist. Keonjhar, Odisha.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. Initially, the Project Proponent obtained Environmental Clearance vide EC letter dated 03.02.2009 for an annual production capacity of 91,20,000 tonnes (9.12 million tonnes) of Iron Ore over an area of 1590.8673 ha. One of the specific condition no: xx states that "Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral within the mine lease. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral within the mine lease shall not be overloaded. No transportation of ore outside the mine lease area shall be carried out after the sunset".
- ii. Now, the Project Proponent has requested for amendment in EC dated 03.02.2009 to allow the transportation of ore outside the mine lease area after the sunset in respect of Gandhamardan Block B Iron ore mines of OMC.
- iii. Justification for amendment in EC:
  - a. The Project Proponent has submitted that the total mine lease area is 1590.8673 ha, out of which 1409.6489 ha is a forest land and 181.2184 ha is a non-forest land.
  - b. Stage-II Forest Clearance was granted in two phases. (i) MoE&F vide letter dated 17.08.2007 granted forest clearance under Section-2 of the Forest (Conservation) Act, 1980 for diversion



सत्यमेव जयते

**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**(Non-Coal Mining)**

\*\*\*



**Minutes of AGENDA FOR 30th MEETING OF THE EXPERT APPRAISAL COMMITTEE (NON-COAL MINING SECTOR), SCHEDULED TO BE HELD DURING 12th, 13th & 14th JUNE, 2024 THROUGH VIDEO CONFERENCING (VC) meeting Non-Coal Mining held from 12/06/2024 to 14/06/2024** **Date: 26/06/2024**

**MoM ID:** EC/MOM/EAC/548553/5/2024

**Agenda ID:** EC/AGENDA/EAC/548553/5/2024

**Meeting Venue:** N/A

**Meeting Mode:** Virtual

**Date & Time:**

12/06/2024	10:30 AM	06:30 PM
13/06/2024	10:30 AM	06:30 PM
14/06/2024	10:30 AM	06:30 PM

**1. Opening remarks**

The 30<sup>th</sup> meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 12-14<sup>th</sup> June, 2024 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

**2. Confirmation of the minutes of previous meeting**

The minutes of the 29<sup>th</sup> Meeting of the EAC (Non-Coal) held during 9-10<sup>th</sup> May were placed before the members of the EAC and confirmed by the Chairman.

**3. Details of proposals considered by the committee**

Day 1 -12/06/2024

**3.1. Agenda Item No 1:****3.1.1. Details of the proposal**

**Unroi-I SMS Grade Limestone Mines, ML-05/2020, LEASE AREA : 998.00 Hectares by RAJASTHAN STATE**

describing their process layout and probable emission rate in terms of incremental increase in terms of Air & Water during the 2015 and as of now.

In view of the above, the Committee deferred the proposal for the submission of following information:

- i. PP needs to submit a report on the difference between the technologies mentioned w.r.t. the process layout and complete technological process in the EC dated 13th March, 2015 and in the proposed application of Amendment in EC with regard to installation of wet beneficiation plant.
- ii. PP needs to submit a report on the difference of probable emission rate in terms of incremental increase in Air & Water pollution during the issuance of EC dated 13.03.2015 and as per proposed scenario.
- iii. PP needs to submit the detail plan for Zero liquid discharge for the proposed wet beneficiation plant.
- iv. PP needs to submit the copy of DPR and approved mining plans.
- v. The Project Proponent should confirm whether same capacity of beneficiation plant with similar technology has been included in approved Mining Plan.
- vi. At the time of auction, EC for 6MTPA beneficiation plant was not in place. This needs to be clarified.

### 3.8.5. Recommendation of EAC

Deferred for ADS

Day 3 -14/06/2024

### 3.1. Agenda Item No 1:

#### 3.1.1. Details of the proposal

Vangar & Madhiya Limestone Mine by Nirma Limited located at BHAVNAGAR, GUJARAT			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
<a href="#">IA/GJ/MIN/443498/2023</a>	J-11015/152/2016-IA-II(NCM)	13/09/2023	Mining of minerals (1(a))

#### 3.1.2. Project Salient Features

The proposal is for Environmental Clearance for mining of Limestone in Vangar & Madhiya Limestone Mine of M/s Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil Mahuva, District Bhavnagar (Gujarat).

3.1.2 The details of the project as ascertained from the document submitted by the Project Proponent are given as under: i. The mine lease area is located between Latitude 21°01'44.54" to 21° 03' 40.04" N and Longitude 71°39'18.3"E to 71°41'05"E. The mine lease area falls under the Survey of India Toposheet No: 41 O/12 (restricted) and falls in Seismic Zone-III. ii. 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. iii. Details of Terms of Reference (ToR):

Date of ap	Proposal No/ File No	Consideration	Details of ToR	Date of ac

Application		by EAC		Order
18.11.2022	IA/GJ/MIN/403568/2022	06.12.2022	Letter no. J-11015/152/2016-IA.II (M)	23 <sup>rd</sup> December, 2022

## iv. Details of Mine Lease in chronological manner:

S.n	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/Minor)	Period of Grant	Granted by	Mine lease area in Ha
1	MCR-102004-1827-CHH	15.02.2008	Limestone	30 years	IMD, Government of Gujarat	1225.8553
2	MCR-102004-1827-CHH	08.01.2017	Limestone	50 years	IMD, Government of Gujarat	612.1336

S. No	Details of grant of Mine Lease deed execution	Period of Grant		Name of the Mineral	Mine lease area in Ha
		From	To		
1	MCR-102004-1827-CHH	11.01.2017	10.01.2067	Limestone	612.1336

## v. Land Use/Land Cover of the Mine Lease Area:

Private land	586.4789
Government land	25.6547
Forest land	-
Total Mining lease area (MLA), ha	612.1336
Private land for crusher, workshop & other infrastructure outside the MLA	No any facilities outside the ML area. However crusher will be installed at company's Cement Plant.

## vi. Mining plan details:

Mining Plan including Progressive Mine Closure Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	File No.: 684(4)(1)/MP-347(196)/2021-22 GNR/1125
	Date	05.08.2021
	Mineral & (Major/Minor)	Major
	Mine Lease Area, Ha	612.1336
	Validity	31.03.2026
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized	
Drilling/Blasting	Multi-row drilling and V-pattern drill holes for deep hole drilling and blasting. Slurry explosive- cap sensitive and non-cap sensitive.	
Geological Reserves	35.539 Million tonne	
Mineable Reserves	14.913 million tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	Top soil- 0.99 million cum OB/SB/IB/Mineral Rejects- Nil Waste-Nil	
Life of mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category into category of reserves 111)	
Mine Bench Height & Bench Width	6.0 m, for working bench 12-15 m for closing (conceptual) bench Optimum	
No. of Mine Benches	2	
Existing Depth, m bgl	New mine	
Ultimate Depth of Mining, m bgl	10 m	
Ground Water Table, m bgl	15 m (Post monsoon)	
Details of ground water intersecti	No ground water will be encountered during planning s	

on	tage i.e. in 5 years of working plan in neither pre monsoon nor post monsoon season in any of the pits. Ground water will also not intersect during mining at the end of mine life. However, the ground water table may get touched in post monsoon in pit no. 4 & 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 & 5.
Individual bench slope	80-85°
Overall pit slope	~ 45°
Details of existing/ proposed Crusher	Proposed crusher will be installed at Cement Plant.
Mineral Beneficiation	-
RoM output size	-
Transportation details including capacity of dumper/tipper, mode of transport and distance	Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease. For the Soda Ash Plant located at approx.100 km at Katalav, Bhavnagar limestone will be transported in dumpers/ trucks through National Highway 51. Internal haul road from mine face to crusher means of dumper/tippers of 25 tonnes capacity.
Generation of Topsoil/OB & its Management during plan period & conceptual period	Top soil at 1 <sup>st</sup> plan period- 150000 cu.m, temporary stacking at one location Top soil at 2 <sup>nd</sup> plan period- 840000 cu.m, temporary stacking at one location Top soil at conceptual period-380000 cu.m, simultaneously backfilling
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Nil
Additional information(if any)	Surface miner as well as ripper/dozer & rock breaker will be used for mining to minimize drilling & blasting.

vii. Water requirement:

Total water requirement	42 KLD	
Source		i. Fresh water ii. Water haulage iii. Treated water
Permission for withdrawal/ intersection along with details of grant and its validity		Permission for water

viii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particulars	Particular's Name	Distance & Directions
Village	Vangar Madhiya	0.25 km, NW 0.25 km, SE
Town	Mahuva	6.2km, ENE
Highway	NH-51 (Una-Mahuva highway)	Within
Interstate Boundary	Rajasthan	Approx.500 KM,N
Railway Station/Railway line	Amrutvel	2.0 km, N
Water Bodies	Arabian Sea Coast	3.4 km S to the HTL
	Samdiyala Salinity ingress control bund	2.3 km, SSW
	Bhambhali River	0.9 Km, W
	Malan River	7.4 KM,E
	Malan Bandhara	5.4 KM,SE
	Garasawo River	2.5 Km,NE
Forest	RF near Patwa	2.1 KM,S
	RF near Doliya	3.3 KM,SSE

	RF near Dudheri	3.9 KM,SE
	RF near Gujarda	4.3 KM,SE
	RF near Khared	6.3 KM,SE

## ix. Presence of Environmentally Sensitive areas in the study area

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks									
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	<p>The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests vide Lr. No: WLP/32/C826-827/2021-22 dated 13.01.2022 regarding the map showing the location of protected areas within 10km of the Limestone mining project and the distance of protected areas and proposed Limestone mine.</p> <table border="1"> <thead> <tr> <th>Protected areas</th> <th>Distance between Limestone mines and Protected areas</th> </tr> </thead> <tbody> <tr> <td>Gir National Park</td> <td>76.0 km</td> </tr> <tr> <td>Gir Wildlife Sanctuary</td> <td>44.2 km</td> </tr> <tr> <td>Mitiyala Wildlife Sanctuary</td> <td>43.5 km</td> </tr> </tbody> </table>		Protected areas	Distance between Limestone mines and Protected areas	Gir National Park	76.0 km	Gir Wildlife Sanctuary	44.2 km	Mitiyala Wildlife Sanctuary	43.5 km
Protected areas	Distance between Limestone mines and Protected areas										
Gir National Park	76.0 km										
Gir Wildlife Sanctuary	44.2 km										
Mitiyala Wildlife Sanctuary	43.5 km										
National Park	No										
Wildlife Sanctuary	No										
Elephant/Tiger Reserve	No										
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	No	<p>The Project Proponent has submitted the letter from the Office of the Deputy Chief Conservator of Forest, Bhavnagar vide letter no. A/GMN/T11/2075/22-23 dated 27.01.2023 certifying that the nearest turtle rearing/breeding site is located at a distance of about 70km away from the mines.</p>									
Coastal Regulation Zone (CRZ)	Yes	<p>Arabian Sea Coast: 3.4 km S to the HTL The proposed project lies beyond distance of 0.5 km from High Tide Line of Arabian Sea Coast. The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai.</p> <p>ML area outside CRZ- GCZMA letter no. ENV-10-2023-170-T dated 19.07.2023</p>									
Schedule-I species (Nos. and name of schedule-I species with authenticated letter)	Yes	<p>As per WLCP approved on 20.12.2021 (3 nos.): Peafowl, Chinkara and Asiatic lion. Additional as per WPA amendment of 2022 (9 nos.): Indian Leopard, Striped Hyena, Jungle Cat, Indian Fox, Jackal, Indian Grey Mongoos</p>									

		e, Indian Porcupine, Indian Grey Wolf, and Eurasian Spoonbill  The above Schedule-I species have been updated in WLCP.
Wildlife Conservation Plan	Yes	On the basis of the fauna study findings & list of fauna authenticated by Forest Department, Wildlife Conservation Plan (WLCP) was prepared and submitted for approval. The said Wildlife Conservation Plan had been approved by the Forest Department on 20.12.2021. Rs. 19.9 lakh had been approved for the conservation of wildlife in the study area.  The WLCP has been updated w.r.t. Schedule-I species as per WPA amendment of 2022 and budget allocation has been increased to Rs.65.9 Lakh for all 3 mines.

## x. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	26.50 Ha.
Budget for green plant & plantation till the end of life of mine.	80.35 Lakhs
No. of tree cuts in the mine lease area and compensatory afforestation	As per actual during mining
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	16.50
50 m safety zone of nallah, roads, electric lines	10.00

## xi. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	01.03.2021 to 02.06.2021
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer
Predominant Wind direction (From)	South
Ambient Air Quality (no. of locations) and results	16

Its	<p>Core zone (1 no.) - PM10 from 40.8 to 68.8 <math>\text{g}/\text{m}^3</math>, PM2.5 from 21.7 to 37.4 <math>\text{g}/\text{m}^3</math>, SO<sub>2</sub> from 4.8 to 7.7 <math>\text{g}/\text{m}^3</math> and NO<sub>2</sub> from 4.9 to 10.5 <math>\text{g}/\text{m}^3</math>.</p> <p>Buffer zone (15 nos.) : PM10 from 27.6 to 71.7 <math>\text{g}/\text{m}^3</math>, PM2.5 from 11.2 to 40.0 <math>\text{g}/\text{m}^3</math>, SO<sub>2</sub> from 2.7 to 10.2 <math>\text{g}/\text{m}^3</math> and NO<sub>2</sub> from 3.6 to 14.5 <math>\text{g}/\text{m}^3</math>.</p>
Noise level (no. of locations) and results	<p>16</p> <p>Core zone: 48.95 dB(A) during day time and 41.42 dB(A) during night time, Buffer zone : Between 47.57 dB(A) to 52.46 dB(A) during day time and 39.42 dB(A) to 42.89 dB(A) during night time.</p>
Water Quality (no. of locations) and results	<p>15 (12 ground water and 3 surface) water sampling stations were monitored within the study area. All the parameters of ground water were well within the permissible limits as per IS 10500: 2012. The surface water quality in all samples was found B to below E class. The result indicates that the maximum and minimum values of DO ranges between 5.8 to 6.3 mg/l, hardness ranged between 360 - 8300 mg/l in surface water.</p>
Soil Quality (no. of locations) and results	<p>12</p> <p>pH ranges between 7.7 - 8.2, Potassium ranges from 157.0 - 845.0 kg/ha and Nitrogen ranges from 0.01 - 12.57 mg/kg</p>
Hydro geological study and results	<p>As per planned mining and Report of hydrogeological &amp; hydrological studies of core and buffer zone of Vangar&amp;Madhiya limestone mine, the groundwater table may get touched in post - monsoon in pit no. 4 &amp; 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 &amp; 5.</p>

Traffic study (no. of locations) and results	<p>The traffic volume survey was conducted on Bhavnagar to Una Road (NH8E/51) Near Vangar Village. Total numbers of vehicles were found as 6793 per day and equivalent PCUs is 9382 per day. There will be daily movement of 512 numbers of dumpers (to &amp; fro) per day or 1536 PCU/day on the road.</p> <p>01 location &amp; V/C = 31.27</p>
--	--

xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	26.03.2023 in Sandesh Newspaper & Indian Express
Date of PH	28.04.2023
Venue	At the premises of Nirma Cement Plant Area, NH 8E/51, Survey No. 80, Village: Padhiyarkha, Taluka: Mahuva, Dist. Bhavnagar
Chaired by	District Collector & District Magistrate, Bhavnagar District & Regional Officer, GPCB Bhavnagar
Main issues raised during PH	Air pollution, salinity ingress, wildlife protection, acquisition of agriculture land
Budget proposed for addressing issues raised during PH over 3 years	34 Lakhs

xiii. Details of CTE/CTO, Certified Compliance Report, Certified Production Details from the inception of the mine

Particulars	Details of Letter along with date of grant and validity
Consent to Establish	GPCB CTE granted vide dated 25/01/2021 & valid up to 24/01/2028.
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	Fresh mine

xiv. Rehabilitation & Resettlement (R&R):

R & R details	For private land, company has obtained surface rights for mining by purchasing land/consent in some of
---------------	--

	the land & for remaining land, company is in process to procure ownership or surface right for mining on mutually agreed commercial terms. Rs. 2466.88 lakhs cost envisaged for land (189.76 ha) and Rs. 48 lakhs approx. for homestead.
--	--

## xv. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking vide letter dated 07.10.2023 stating that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters in which the project proponent is a respondent.
Undertaking by Project Proponent w.r.t court case	

## xvi. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an undertaking by way of notarized Affidavit dated 09.10.2023 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking vide letter dated 04.01.2023 stating that the contents (information and data) as given by the Consultant in the EIA/EMP report are factually correct with full knowledge of the project proponent.
Undertaking by Consultant in EIA/EMP report	The Director of the EIA Consultant (M/s Centre for Envotech & Management Consultancy Pvt. Ltd) has informed that the baseline data was generated by MoEF&NABL Accredited Laboratory M/s Min Mec R&D Laboratory, a division of Min Mec Consultancy Pvt. Ltd., New Delhi and the same has been verified and also confirmed that he shall be fully accountable for any misleading information mentioned in this statement.

xvii. The Proposal was considered in the 21st EAC meeting held during 18-20th October, 2023 wherein the Committee has deferred the proposal for the submission of requisite information. The Project Proponent has submitted the relevant information on Parivesh, accordingly the proposal was considered in the 28th EAC (NCM) during 14-15th March, 2024 wherein the Committee deferred the proposal for the submission of requisite information. The Project Proponent vide letter dated 10.05.2024 submitted the reply against the observation of 28th EAC meeting are as follows:

S. No	Observation of EAC in the 28 <sup>th</sup> meeting held during 14-15 <sup>th</sup> March, 2024	Reply by Project Proponent
1.	The Proponent shall submit	As far as NOC for Vangar & Madhiya Limestone Mine is concerned, the PP has submitted thr

	<p>to No Objection Certificate from Ministry of Defence for consideration of the instant project.</p>	<p>see separate mines wise application to Ministry of Defence, New Delhi vide letter dated: 10.11.2023 and document verification &amp; site visit has been done for three mines. But, two mines i.e. Padhiarka&amp;Doliya and Gujarada, Dudhala&amp;Dudheri Mine mentioned in said security clearance / NOC letter dated: 22.04.2024. As Padhiarka&amp;Doliya Mine and Gujarada, Dudhala&amp;Dudheri Mine are located near sea coast (0.5 km) whereas Vangar&amp;Madhiya mines is located 1.3 km far from the sea coast, so it may be presumed that security clearance of Ministry of Defense for said Vangar&amp;Madhiya Mines may not be necessary. However, to get clarification / NOC, PP have submitted request letter dated 01.05.2024 to Ministry of Defence, New Delhi.</p>
2.	<p>PP needs to undertake a study to showcase the probable impact of mining on migratory bird species and their fly-way passage (Central Asian Flyway). Accordingly, PP shall submit the revised conservation plan for the migratory bird species.</p>	<ul style="list-style-type: none"> <li>· The PP has engaged Dr. Bharat Kumar Jethva, NABET Accredited Ecology &amp; Biodiversity Expert, Ahmedabad to undertake study on the probable impact of mining of three i.e. 1) Padhiarka&amp;Doliya, 2) Vangar&amp;Madhiya and 3) Gujarada, Dudheri&amp;Dudhala limestone mines on migratory bird species and their fly-way passage (Central Asian Flyway) due to mining activity and conservation plan for migratory bird species. Dr. Bharat Kumar Jethva&amp; his team has conducted the study during month of April &amp; May 2024 and prepared report with mitigation measures for conservation of migratory bird species.</li> </ul>
3.	<p>The Project Proponent needs to undertake a study and submit the action for laying common Over Land Belt Conveyor(OLBC) for transportation of mineral from mine lease area to the proposed Cement Plant.</p>	<ul style="list-style-type: none"> <li>· The PP has submitted and represented during the 28<sup>th</sup> EAC meeting about the establishment of cement plant which may take 3-4 years' time.</li> <li>· So till the commencement of proposed cement plant, maximum 5% i.e. 270 TPD chemical grade limestone will be transported through @ 11 trips of dumper per day via existing village tar road of 7m (out of which 4 m is tar road) to National Highway and ultimately Soda Ash plant at Bhavnagar and presently no need of Over Land Belt Conveyor for conveying limestone from mine to Soda ash plant.</li> </ul>

		<ul style="list-style-type: none"> <li>· For conveying limestone from mines to cement plant, the PP will explore the possibility of Over L and Belt Conveyor (OLBC) either side of the highway based on the technical possibility &amp; feasibility by reputed consultant M/s. Holtec Consultants and ensure for action to lay OLBC for conveying limestone on establishment of Cement Plant as per its possibility.</li> <li>· Land availability for laying OLBC in private land falling in alignment is prime concern at the time of planning. Land purchase/ obtaining consent for mining activity will be taken place as soon as starting construction work for establishment of cement plant so OLBC laying alignment can be planned properly on basis of land availability.</li> </ul>
4.	<p>The project proponent needs to submit a letter from the Commissioner of Geology &amp; Mining, Govt. of Gujarat, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s Nirma Limited or not?</p>	<ul style="list-style-type: none"> <li>· The District Geologist, Geology &amp; Mining Department, Govt. of Gujarat, Bhavnagar has submitted his report to the Commissioner of Geology &amp; Mining, Govt. of Gujarat, Gandhinagar stating that there is no any case registered against the Nirma Limited or any other for illegal mining in the lease area.</li> <li>· The Commissioner of Geology &amp; Mining (CGM), Govt. of Gujarat, Gandhinagar vide his letter dated 07.03.2024 authorized the District Geologist, Geology &amp; Mining Department, Govt. of Gujarat, Bhavnagar to issue such letter. Copy of letter CGM, Gandhinagar vide letter dated 07.03.2024 in English version has been submitted.</li> <li>· The PP has highlighted that the District Geologist, Bhavnagar is the District authority of Dep't of Geology &amp; Mining, Govt. of Gujarat working under Commissioner of Geology &amp; Mining, Gandhinagar.</li> </ul>
5.	<p>PP submitted that National Highway is under construction, and they have submitted letter to National Highway Authorities of India (NHAI) regarding grant of permission to provide Under</p>	<ul style="list-style-type: none"> <li>· At present the construction of National Highway near cement plant area has been completed and two UNDERPASSES have been provided by NHAI to cross over the National Highway i.e. 1) near Village Madhiya &amp; 2) another near Samdhiya a village road for all public use which are located at around 450 m &amp; 3.0 km from plant area entry respectively which shall be used for crossover</li> </ul>

	<p>pass near their proposed cement plant entry. Accordingly, PP needs to submit the permission letter for the underpass.</p>	<p>the National Highway during transportation of limestone for Cement Plant as well as Soda ash plant. As per NHAI, these Underpasses are constructed for all public use and no need to provide separate permission for its use to crossover.</p> <ul style="list-style-type: none"> <li>· However, on request the Project Director, NHAI, Bhavnagar has provided permission to use said Underpasses for transportation of limestone raw material from limestone mines to cement plant vide its letter no. NHAI/2024/PIU-Bhavnagar/Pkg-III/Vol-11/D-82, dated: 13.04.2024.</li> </ul>
6.	<p>The Project Proponent needs to carry out study by reputed institute to ascertain hardness of strata for deployment of surface miners for mining.</p>	<ul style="list-style-type: none"> <li>· Limestone sample of Vangar&amp;Madhiya mine has been collected and tested in the laboratory of Reputed Institute i.e. LD Collage of Engineering, Govt. of Gujarat, Ahmedabad and as per test report, Hardness of the limestone is 2.80 on Mohs scale of Hardness &amp; Uniaxial Compressive Strength (UCS) of limestone is 23.80 MPa which is suitable for deployment of Surface miners for mining. Copy of Hardness &amp; UCS test report of limestone provided by LD Collage of Engineering, Govt. of Gujarat, Ahmedabad vide letter no. LDCE/AM D/SOIL/559, dated: 02.05.2024 has been submitted.</li> <li>· The PP reported that Milliolic limestone of coastal belt of Saurashtra from Bhavnagar to Okha, Gujarat state is sedimentary deposit of recent age which is soft and brittle in nature and number of cement plants located on this coastal belt which are near mining lease area and are using Surface Miners for limestone mining. The mining leases are located in the coastal belt of milliolic limestone, so there is no any doubt in deployment of Surface Miners for mining for cement plant.</li> </ul>
7	<p>The Project Proponent needs to submit time line for acquiring land from the villagers.</p>	<p>The timeline for land acquisition submitted vide letter no. NL/ENV-152/2262/2023-24 dated 05/02/2024.</p>

## xviii. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Pollution Control	0.241	9.54
Pollution monitoring	0.016	3.88
Occupational health	0.011	0.64
Environmental Studies, etc.	0.10	–
Green belt	–	5.10
Reclamation	–	11.39
Others (Environmental studies, Rehabilitation, Realignment, Expert advice, fencing etc.)	–	5.28
Overheads	–	0.30
<b>Total</b>	<b>0.3680</b>	<b>36.12</b>

## xix. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	0.70
Project Cost	25
Employment (No.s)	58

## 3.1.3. Deliberations by the committee in previous meetings

**Date of EAC 1 :14/03/2024**

**Deliberations of EAC 1 :**

The EAC deliberated the instant proposal along with Padhiarka & Doliya Limestone Mine and Gujarda, Dudheri & Dudhala Limestone Mine. The Project Proponent presented its reply to the ADS points raised vide minutes of the 21<sup>st</sup> EAC as well as the recommendation of the sub-committee. After detailed deliberations , EAC **deferred** the proposal for the want of following information:-

I. The Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.

II. PP needs to undertake a study to showcase the probable impact of mining on migratory bird species and their fly-way passage (Central Asian Flyway). Accordingly, PP shall submit the revised conservation plan for the migratory bird species.

III. The Project Proponent needs to undertake a study and submit the action for laying common Over Land Belt Conveyor(OLBC) for transportation of mineral from mine lease area to the proposed Cement Plant.

IV. The project proponent needs to submit a letter from the Commissioner of Geology & Mining, Govt. of Gujarat, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s Nirma Limited or not?

V. PP submitted that National Highway is under construction, and they have submitted letter to National Highway Authorities of India(NHAI) regarding grant of permission to provide Underpass near their proposed cement plant entry. Accordingly, PP needs to submit the permission letter for the underpass.

VI. The Project Proponent needs to carry out study by reputed institute to ascertain hardness of strata for deployment of surface miners for mining.

VII. The Project Proponent needs to submit time line for acquiring land from the villegers.

**Date of EAC 2 :**19/10/2023

**Deliberations of EAC 2 :**

The EAC deliberated the instant proposal along with Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka & Doliya Limestone mine. The Project Proponent has informed the EAC that the proposed method of mining is same in all three mines such as Vangar & Madhiya Limestone Mine, Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka and Doliya Limestone mine. NH-51 (Una-Mahuva highway) is passing within the mine lease area. A safety distance of 45m will be maintained. The underpass road has been proposed below Highway by NHAI for the safe passage of the villagers. The EAC asked the Project Proponent to explore the possibility of laying overbridge over the Highway. In the proposed 3<sup>rd</sup> pit, displacement will be taking place. Discrete houses are located within the mine lease area. The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. In this project, Pvt land is more than the previous project. There are 5 mine pits are proposed. Project Affected Families will be 494 no.s. In this project, a budget of Rs 34.0 Lakhs has been earmarked to address the concerns of the public hearing. The geological conditions, method of mining, environmental sensitivity and implications, impact on socio economic are similar in all these three mines.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC noted that the project is part of three contiguous projects namely Padhiarka and Doliya Limestone mine (332.24 ha), Vangar & Madhiya Limestone Mine (612.336 ha) and Gujarda, Dudheri & Dudhala Limestone Mine (681.62 ha) and together it extends over an area of 1626.196 ha. The mine lease area comprises of partly Private Agriculture land and partly Govt. land. NH-51 (Una-Mahuva highway) is passing within the mine lease area. Also, Vangar (0.25 km, NW) and Madhiya villages (0.25 km, SE) are located close to the proximity of the mine lease area. The EAC was not convinced with the proposed backfilling plan and the activities proposed under the Wildlife Conservation Plan. The EAC observed that the pits are isolated and the mine lease area is partly Private and Govt. land. The EAC also observed that there will be direct purchase or leasing of private land with the willing consent of the private land owners. The EAC was of the view that what if the land owners are not willing to give their land. There are likely chances that mining will not take place sequentially if the land acquisition does not happen. There will be failure of scientific mining. Large no. of Project Affected Families is involved in all these projects. The EAC opined that the Saltwater intrusion through surface or ground water sources may diminish the availability or quality of source waters for drinking water utilities. Some salt pans i.e., salt manufacturing industries and few wind mills exists in the study area. Old mine pits also exist within the mine lease area. The EAC noted that the Bhavnagar is categorized as a Severely Polluted Areas. The EAC reiterated the Ministry of Defence letter dated 08.05.2023 regarding security considerations for construction activities/other activities in Border areas/other areas wherein it has been mentioned that *“all activities connected with mining within 20kms from all the borders including seaboard frontier should be planned in consultation with Ministry of Defence”*. Accordingly, EAC opined that PP should obtain NOC from Ministry of Defence.

Thus the EAC opined that there is a need to ascertain the ground reality w.r.t natural low lying areas, water logging areas, old mine pits, sequence of mining, feasibility for backfilling, impact on socio economic, agriculture land, transportation route, traffic congestion, salt pans, effectiveness of salinity ingress control bund, proximity of habitations, schools, water bodies, roads etc., The EAC was of the view that a site visit needs to be conducted by a sub-committee comprising of EAC Members and officers from MoEF&CC. The EAC opined that the Ministry may constitute a sub-committee and submit its report to enable the committee to take a decision on the proposal. Therefore, the EAC **deferred** the proposal for want of following additional information: -

- i. The site visit report of the subcommittee.
- ii. Since the mine site is located within 20 km from seaboard frontier, the Project Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.
- iii. The Project Proponent needs to submit the action for laying common Over Land Belt Conveyor (OLBC) for transportation of mineral from mine lease area to the Cement Plant. The Project Proponent also needs to submit the action plan for expansion of road with a width of 7m and by passing the village road till the commission of the Over Land Belt Conveyor (OLBC).
- iv. The Project Proponent needs to explore the possibility of laying overbridge over the Highway

and shall submit the permission from the National Highways Authority of India (NHAI).

- v. The Project Proponent needs to submit the protection measures to be taken for salt water intrusion and the effectiveness of the salinity ingress control bund.
- vi. The Project Proponent needs to submit the site specific mitigation measures for backwaters from Arabian Sea coming into the mine lease area.
- vii. The Project Proponent needs to revisit the plan for backfilling with clearly indicating the voids area and the capacity available/required for backfilling.
- viii. The Project Proponent needs to revise the activities proposed under the Wildlife Conservation Plan. The Project Proponent also needs to ensure that the Schedule-I species as per the latest Wildlife Protection Amendment Act, 2022 shall also be included in the Wildlife Conservation Plan for their conservation.
- ix. The EAC was of the view that the compensation rate is very less and asked the Project proponent to revisit and justify the budget proposed for Resettlement & Rehabilitation (R&R). The Project Proponent also needs to submit the action plan for land acquisition and timeline.
- x. The Project Proponent needs to submit the action plan for year wise exploration program.
- xi. The Project Proponent needs to submit the copy of the permission letter obtained from the State Govt. for utilization of Chemical Grade of Limestone for non-cement purposes.
- xii. The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Gujarat clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s. Nirma Limited or not?

#### 3.1.4. Deliberations by the EAC in current meetings

The Project Proponent and the Consultant presented the reply with regard to the ADS raised vide minutes of the 28<sup>th</sup> EAC (NCM) during 14-15<sup>th</sup> March, 2024 . The EAC noted that PP has not yet obtained the NoC from Ministry of Defence for the instant project. Accordingly, EAC stated that they cannot proceed further without the submission of NoC and asked the PP to submit the same for consideration of the project.

Based on above, the EAC deferred the proposal for want of the following information:

- i. The PP needs to submit the NoC from the Ministry of Defence for consideration of the instant project.
- ii. The PP needs to get their report entitled “Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage” vetted by institute of National repute having specialization on conservation and protection of migratory birds. The engaged institute shall also submit site specific tangible mitigative measures to ensure the protection of these migratory birds.
- iii. PP needs to submit the timeline for completing the installation of OLBC upon the setting up of cement plant in the form of an undertaking.

## 3.1.5. Recommendation of EAC

Deferred for ADS

## 3.2. Agenda Item No 2:

## 3.2.1. Details of the proposal

Gujarda, Dudheri & Dudhala Limestone Mine by Nirma Limited located at BHAVNAGAR,GUJARAT			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
<a href="#">IA/GJ/MIN/443968/2023</a>	J-11015/153/2016-IA-II(NCM)	13/09/2023	Mining of minerals (1(a))

## 3.2.2. Project Salient Features

The proposal is for mining of Gujarda, Dudheri&Dudhala Limestone Mine for production capacity of 2.7 MTPA in the mine lease area of 681.62 ha by M/s Nirma Limited located at Villages Gujarda, Dudheri&Dudhala, Tehsil Mahuva, District Bhavnagar (Gujarat).

3.2.2 The details of the project as ascertained from the document submitted by the Project Proponent are given as under: i. The mine lease area is located between Latitude 21°01'1.31"N to 21°03' 44.86" N and Longitude 71°41'15.21"E to 71°43'38.54"E. The mine lease area falls under the Survey of India Toposheet No: F42R12and falls in Seismic Zone-III. ii. 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. iii. The Project Proponent has obtained the ToR for mining of Limestone in Gujarda, Dudheri&Dudhala Limestone Mine of M/s Nirma Limited vide letter no. J-11015/153/2016-IA. II(M) dated 06.02.2023.

iv. Details of Mine Lease in chronological manner:

S.no	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/Minor)	Period of Grant	Granted by	Mine lease area in Ha
1	MCR-102004-1943-CHH	15.02.2008	Limestone	30 years	IMD, Government of Gujarat	1497.4701
2	MCR-10200	02.02.2011	Limestone	30 year	IMD, Gover	1489.4701

**ANNEXURE A-20**

सत्यमेव जयते

**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**(Non-Coal Mining)**

\*\*\*



**Minutes of AGENDA FOR 32nd MEETING OF THE EXPERT APPRAISAL COMMITTEE (NON-COAL MINING SECTOR), SCHEDULED TO BE HELD DURING 12th & 13th AUGUST, 2024 THROUGH VIDEO CONFERENCING (VC) meeting Non-Coal Mining held from 12/08/2024 to 13/08/2024**

Date: 02/09/2024

**MoM ID:** EC/MOM/EAC/924217/7/2024

**Agenda ID:** EC/AGENDA/EAC/924217/7/2024

**Meeting Venue:** N/A

**Meeting Mode:** Virtual

**Date & Time:**

12/08/2024	10:30 AM	05:30 PM
13/08/2024	10:30 AM	05:30 PM

**1. Opening remarks**

The 32<sup>nd</sup> meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 12-13<sup>th</sup> August 2024 through video conference. The list of participants is annexed here with. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

**2. Confirmation of the minutes of previous meeting**

(1.0) Deliberation & Circulation on the Minutes of 31<sup>st</sup> EAC (Non-Coal Mining) meeting held during 4-5<sup>th</sup> July 2024.

**3. Details of proposals considered by the committee**

Day 1 -12/08/2024

**3.1. Agenda Item No 1:****3.1.1. Details of the proposal**

**Jaisinghpura North Iron Ore Block (298.59 ha) of M/s JSW Steel Limited. by JSW STEEL LTD BELLARY located at BALLARI,KARNATAKA**

	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.
7.	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
8.	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.
9.	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.
10.	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.

### 3.5. Agenda Item No 5:

#### 3.5.1. Details of the proposal

<b>Vangar &amp; Madhiya Limestone Mine by Nirma Limited located at BHAVNAGAR, GUJARAT</b>			
<b>Proposal For</b>		Fresh EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/GJ/MIN/443498/2023</a>	J-11015/152/2016-IA-II(NCM)	13/09/2023	Mining of minerals (1(a))

#### 3.5.2. Project Salient Features

The proposal is for mining of Limestone in Vangar&Madhiya Limestone Mine of M/s Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar&Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 21°01'44.54" to 21° 03' 40.04" N and Longitude 71°39'18.3"E to 71°41'05"E. The mine lease area falls under the Survey of India Toposheet No. 41 O/12 (restricted) and falls in Seismic Zone-III.
- ii. 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.
- iii. Details of Terms of Reference (ToR):

Date of application	Proposal No/ File No	Consideration by EAC	Details of ToR	Date of accord
18.11.2022	IA/GJ/MIN/ 403568/2022  J-11015/152/ 2016-IA.II( M)	5-6 Dec., 2022	Terms of Reference (To R) for mining of Limestone in Vangar&Madhiya a Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar&Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat for undertaking detailed EIA/EMP study	23.12.2022

iv. Details of Mine Lease: -

- The Project Proponent has submitted that initially the State Govt has granted the Letter of Intent for grant of mining lease vide letter no. MCR-102004-1827-CHH dated 15.02.2008 for mineral Limestone and Marl over an area of 1225.8553 ha for a period of 30 years.
- Then, the Govt. of Gujarat, Industries and Mines Department, vide Order no: MCR102004-1827-CHH dated 08.01.2017 granted the mining lease for Limestone and Marl to M/s Nirma Limited over an area of 612.1336 ha for a period of 50 years for its captive consumption.
- The mining lease deed was executed on 11.01.2017 between Dist. Collector, Bhavnagar, State Govt. and the Project Proponent, M/s Nirma Ltd. for a period of 50 years and also registered the executed mining lease deed with Sub, Registrar, Mahuva on 11.01.2017 under the provision of MMDR Amendment Act, 2015.

v. Land Use/Land Cover of the Mine Lease Area: -

Private land	586.4789 ha
Government land	25.6547 ha
Forest land	-

Total Mining lease area (MLA), ha	612.1336 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No any facilities outside the ML area. However crusher will be installed at company's Cement Plant.

## vi. Mining plan details:

Review of Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines	Letter No.	File No. 684(4)(1)/MP-347(196)/2021-22GNR/1125
	Date	05.08.2021
	Mineral & (Major/Minor)	Limestone, Major mineral
	Mine Lease Area, Ha	612.1336
	Validity	2021-22 to 2025-26
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized	
Drilling/Blasting	Multi-row drilling and V-pattern drill holes for deep hole drilling and blasting. Slurry explosive -cap sensitive and non-cap sensitive.	
Geological Reserves	35.539 Million tonnes	
Mineable Reserves	14.913 million tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	Top soil- 0.99 mi.cum OB/SB/IB/Mineral Rejects- Nil	

	Waste- Nil
Life of mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category into category of reserves 111)
Mine Bench Height & Bench Width	6.0 m, for working bench 12-15 m for closing (conceptual) bench Optimum
No. of Mine Benches	2
Existing Depth, m bgl	New mine
Ultimate Depth of Mining, m bgl	10 m
Ground Water Table, m bgl	15 m (Post monsoon)
Details of ground water intersection	No ground water will be encountered during planning stage i.e. in 5 years of working plan in neither pre monsoon nor post monsoon season in any of the pits. However, the ground water table may get touched in post monsoon in pit no. 4 & 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 & 5.
Individual bench slope	80-85°
Overall pit slope	~ 45°
Details of existing/ proposed Crusher	Proposed crusher will be installed at Cement Plant.
Mineral Beneficiation	-

RoM output size	-
Transportation details including capacity of dumper/tipper, mode of transport and distance	<p>Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease.</p> <p>For the Soda Ash Plant located at approx.100 km at Kalatalav, Bhavnagar limestone will be transported in dumpers/ trucks through National Highway 51.</p> <p>Internal haul road from mine face to crusher means of dumper/tippers of 25 tonnes capacity.</p>
Generation of Topsoil/OB & its Management during plan period & conceptual period	<p>Top soil at 1<sup>st</sup> plan period - 150000 cu.m, temporary stacking at one location</p> <p>Top soil at 2<sup>nd</sup> plan period- 840000 cu.m, temporary stacking at one location</p> <p>Top soil at conceptual period-380000 cu.m, simultaneously backfilling</p>
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Nil
Additional information(if any)	Surface miner as well as ripper/dozer & rock breaker will be used for mining to minimize drilling & blasting.

## vii. Water requirement:

Total water requirement	42 KLD	Fresh water	3 KLD
		Treated water	39 KLD

Source	<p>i. Fresh water source Narmada water pipeline/Water tanker.</p> <p>ii. Water harvested within mine lease during rainy season.</p> <p>iii. Treated water source- Reject water of RO /DM plant &amp;Reject water of RO /DM plant (proposed at Cement plant)</p>
Permission for withdrawal/ intersection along with details of grant and its validity	Permission for water withdrawal from Narmada water pipeline has been taken vide letter No. GWIL/ Bhavnagar/ Ind.conn./1257 dated 4.06.2008.

viii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/forest:

Particulars	Particular's Name	Distance & Directions
Village	Vangar	0.25 km, NW
	Madhiya	0.25 km, SE
Town	Mahuva	6.2km, ENE
Highway	NH-51 (Una-Mahuva highway)	Within
Interstate Boundary	Rajasthan	Approx.500 KM,N
Railway Station/Railway line	Amrutvel	2.0 km, N
Water Bodies	Arabian Sea Coast	3.4 km S to the HTL
	Samdiyala Salinity ingress control bund	2.3 km, SSW
	Bhambhali River	0.9 Km, W
	Garasawo River	2.5 Km,NE

Forest	RF near Patwa	2.1 KM,S
	RF near Doliya	3.3 KM,SSE
	RF near Dudheri	3.9 KM,SE
	RF near Gujarda	4.3 KM,SE

ix. Presence of Environmentally Sensitive areas in the study area:

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/ No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks									
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests vide Lr.No: WL P/32/C826-827/2021-22 dated 13.01.2022 regarding the map showing the location of protected areas within 10km of the Limestone mining project and the distance of protected areas and proposed Limestone mine.									
National Park	No										
Wildlife Sanctuary	No										
Elephant/Tiger Reserve	No										
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area (ESA)	No	<table border="1"> <thead> <tr> <th>Protected areas</th> <th>Distance between Limestone mines and Protected areas</th> </tr> </thead> <tbody> <tr> <td>Gir National Park</td> <td>76.0 km</td> </tr> <tr> <td>Gir Wildlife Sanctuary</td> <td>44.2 km</td> </tr> <tr> <td>Mitiyala Wildlife Sanctuary</td> <td>43.5 km</td> </tr> </tbody> </table>	Protected areas	Distance between Limestone mines and Protected areas	Gir National Park	76.0 km	Gir Wildlife Sanctuary	44.2 km	Mitiyala Wildlife Sanctuary	43.5 km	<p>The Project Proponent has submitted the letter from the Office of the Deputy Chief Conservator of Forest, Bhavnagar vide letter no. A/GMN/T11/2075/22-23 dated 27.01.2023 certifying that the nearest turtle rearing/breeding site is located at a distance of about 70km away from the mines.</p>
Protected areas	Distance between Limestone mines and Protected areas										
Gir National Park	76.0 km										
Gir Wildlife Sanctuary	44.2 km										
Mitiyala Wildlife Sanctuary	43.5 km										

Coastal Regulation Zone (CRZ)	No	<p>Arabian Sea Coast 3.4 km S to the HTL</p> <p>The proposed project lies beyond distance of 0.5 km from High Tide Line of Arabian Sea Coast. The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai.</p>
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Yes	<p>The Project Proponent has submitted the authenticated list of flora and fauna from the Office of the Deputy Forest Conservator vide Lr.No. A/Jaman/Te.11/233/17-18 dated 08.02.2018 stating that there are three Schedule-I species such as Peafowl, Chin kara and Asiatic lion in the study area.</p> <p>After the amendment of the Wild Life (Protection) Amendment Act, 2022, No 18 of 2022, a number of additional species have been added into Schedule-I such as Leopard, Striped hyaena, Jackal, Bengal fox, Indian porcupine, Jungle cat, Grey wolf, Dog faced water snake, Russell viper, Checker ed Keelback, Indian Rat snake, Red sand boa and Naag/cobra.</p>
Wildlife Conservation Plan	Yes	<p>On the basis of the fauna study findings &amp; list of fauna authenticated by Forest Department, Wildlife Conservation Plan was prepared and submitted for approval.</p> <p>The Wildlife Conservation Plan was approved by the Chief Wildlife Warden vide Lr.No: WLP/32/C670-672 dated 20.12.2021 with a budget of Rs. 19.9 Lakhs for the conservation of wildlife in the study area.</p>

x. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings pr	26.50 Ha.
--	-----------

oposed	
Budget for green plant & plantation till the end of life of mine.	Rs 80.35 Lakhs
Budget for nursery	-
Details of existing plantation and its survival rate	-
No. of tree cuts in the mine lease area and compensatory afforestation	As per actual during mining
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	16.50
50 m safety zone of nallah, roads, electric lines	10.00

## xi. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	01.03.2021 to 02.06.2021
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer
Predominant Wind direction (From)	South
Ambient Air Quality (no. of locations) and results – 16 locations	PM10: 27.6 – 71.1 $\mu\text{g}/\text{m}^3$ PM2.5: 11.2 – 40.0 $\mu\text{g}/\text{m}^3$ SO2: 2.7 – 10.2 $\mu\text{g}/\text{m}^3$ NO2: 3.6 – 14.5 $\mu\text{g}/\text{m}^3$

Noise level (no. of locations) and results – 16 locations	Day Time: 47.57 dB(A) – 52.46 dB(A) Night Time: 39.42 dB(A) - 42.89 dB(A)
Water Quality (no. of locations) and results - 12 Ground water and 3 Surface water	All the parameters of ground water were well within the permissible limits as per IS 10500: 2012. The surface water quality in all samples was found B to below E class. The result indicates that the maximum and minimum values of DO ranges between 5.8 to 6.3 mg/l, hardness ranged between 360 - 8300 mg/l in surface water.
Soil Quality (no. of locations) and results – 12 locations	Soil quality was monitored at 12 no. of stations. The result indicates that the maximum and minimum values of pH ranges between 7.7 - 8.2, Potassium ranges from 157.0 - 845.0 kg/ha and Nitrogen ranges from 0.01 - 12.57mg/kg.
Hydro geological study and results	As per Hydrogeological & Hydrological Studies of core and buffer zone of Vangar&Madhiya Limestone Mine, the qualitative aspects of ground water show that salinity ingress from sea has taken place up to over 3 km from Arabian sea reaching center of buffer zone including mines falling in core zone. The ground water flow direction is towards south in general. As the mining (ultimate pit limit) is proposed up to (+) 1/ (+) 2m amsl, the mining pit will not have mine seepage till 13th year except direct rainfall as water level will not be intersected.
Traffic study (no. of locations) and results	The traffic volume survey was conducted on Bhavnagar to Una Road (NH8E/51) Near Vangar Village. Total numbers of vehicles were found as 6793 per day and equivalent PCUs is 9382 per day. There will be daily movement of 512 numbers of dumpers (to & fro) per day or 1536 PCU/ day on the road. V/C = 31.27.

xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	26.03.2023 in Sandesh Newspaper (Gujarati) & Indian Express (English)
---	---

Date of PH	28.04.2023 @ 9:30 AM
Venue	At the premises of Nirma Cement Plant Area, NH 8E/51, Survey No. 80, Village: Paddiyarka, Taluka: Mahuva, Dist. Bhavnagar
Chaired by	Shri R.K Mehta (IAS), District Collector & District Magistrate, Bhavnagar District & Regional Officer, GPCB Bhavnagar
Main issues raised during PH	Air pollution, salinity ingression, wildlife protection, acquisition of agriculture land
Budget proposed for addressing issues raised during PH over 3 years	Rs. 34 Lakhs

xiii. Resettlement & Rehabilitation (R&R):

R & R details	The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. Land will be required for quarrying an area of 197.0 ha of Private land and Government land including houses/hutment in Vangar village (17 No.s) & houses/hutments Madhiya village (7 Nos). The houses/hutment fall in the conceptual pits of the mine lease. There will be total of 494 land losers. There will be direct purchase or leasing of private land, with the willing consent of the private land owners. Approx. total compensation will be Rs. 24.0 Lakhs. In addition to above, the registration cost of sale of the land and homesteads shall be borne by the Company.
---------------	--

xiv. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking vide letter dated 07.10.2023 stating that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters in which the project proponent is a respondent.
Undertaking by Project Proponent w.r.t court case	

xv. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an undertaking by way of notarized Affidavit dated 09.10.2023 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking vide letter dated 04.01.2023 stating that the contents (information and data) as given by the Consultant in the EIA/EMP report are factually correct with full knowledge of the undersigned (Shri Ashish Desai).
Undertaking by Consultant in EIA/EMP report	The Director of the EIA Consultant (M/s Centre for Envotech&Management Consultancy Pvt. Ltd) has informed that the baseline data was generated by MoE F&NABL Accredited Laboratory M/s Min Mec R&D Laboratory, a division of Min Mec Consultancy Pvt. Ltd., New Delhi and the same has been verified and also confirmed that he shall be fully accountable for any misleading information mentioned in this statement.

xvi. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Pollution Control	0.241	9.54
Pollution monitoring	0.016	3.88
Occupational health	0.011	0.65
Environmental Studies, etc.	0.10	-
Green belt	-	5.10
Reclamation	-	11.39

Others (Environmental studies, Rehabilitation, Realignment, Expert advice, fencing etc.	-	5.28
Overheads	-	0.30
Total	0.3680	36.12

xvii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	0.70
Project Cost	25
Employment (No.s)	58

xviii. The Proposal was considered in the 21<sup>st</sup> EAC meeting held during 18-20<sup>th</sup> October, 2023 wherein the Committee deferred the proposal for the submission of requisite information. The Project Proponent has submitted the relevant information on Parivesh, accordingly the proposal was considered in the 28<sup>th</sup> EAC (NCM) during 14-15<sup>th</sup> March 2024 wherein the Committee deferred the proposal for the submission of requisite information. The Project Proponent vide letter dated 10.05.2024 submitted the reply against the observation of 28<sup>th</sup> EAC meeting. As per the submission of Project Proponent, the Committee considered the proposal again during the 30<sup>th</sup> EAC meeting held during 12-14<sup>th</sup> June 2024 wherein EAC deferred the proposal for want of certain information. The Committee raised ADS and the PP submitted its reply on Parivesh Portal vide letter dated 11.07.2022. The ADS and reply is given as under:

S.No	ADS	Reply by PP
1	The PP needs to submit the NoC from the Ministry of Defence for consideration of the instant project.	PP have submitted the Security clearance / NOC for Vangar and Madhiya Limestone Mine from the Ministry of Defence, Govt. of India, New Delhi vide letter no. 23(06)2022-D (G &GS-III)-

		pt, dated 05.07.2024.
2	<p>The PP needs to get their report entitled “Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage” vetted by institute of National repute having specialization on conservation and protection of migratory birds. The engaged institute shall also submit site specific tangible mitigative measures to ensure the protection of these migratory birds.</p>	<p>PP have submitted the vetting of report entitled “Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage” to Salim Ali Center for Ornithology and Natural History (SACON), Coimbatore, South India Centre of Wildlife Institute of India &amp; an initiative of MoEF&amp;CC, GoI.</p> <p>The Project Proponent informed that the SACON would submit the site-specific mitigative measure, if any, other than mentioned in the vetted report, after their site visit in the winter season.</p> <p>Nirma Ltd. has reported that they will comply the recommendations of SACON.</p>
3	<p>PP needs to submit the timeline for completing the installation of OLBC upon the setting up of cement plant in the form of an undertaking.</p>	<p>PP have submitted an undertaking dated 11.07.2024 stating the following:</p> <ul style="list-style-type: none"> <li>· PP will establish OLBC either side of the highway based on the technical possibility &amp; feasibility for conveying limestone from mines to cement plant on setting up of cement plant.</li> <li>· The OLBC is proposed in northern side of the National Highway from Pit No. 1 of Gujarda, Dudhala&amp;Dudheri mine and Pit no. 1 of Vangar&amp;Madhiya Mine to National Highway for conveying limestone.</li> <li>· The exact length and alignment of OLBC shall be based on technical possibility &amp; feasibility report and will be installed within two years upon setting up of ce</li> </ul>

		ment plant.
--	--	-------------

As per the submission of above ADS reply, the Committee considered the proposal in this 32<sup>nd</sup> EAC meeting.

### 3.5.3. Deliberations by the committee in previous meetings

**Date of EAC 1 :**14/06/2024

**Deliberations of EAC 1 :**

The Project Proponent and the Consultant presented the reply with regard to the ADS raised vide minutes of the 28<sup>th</sup> EAC (NCM) during 14-15<sup>th</sup> March, 2024 . The EAC noted that PP has not yet obtained the NoC from Ministry of Defence for the instant project. Accordingly, EAC stated that they cannot proceed further without the submission of NoC and asked the PP to submit the same for consideration of the project.

Based on above, the EAC deferred the proposal for want of the following information:

- i. The PP needs to submit the NoC from the Ministry of Defence for consideration of the instant project.
- ii. The PP needs to get their report entitled “Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage” vetted by institute of National repute having specialization on conservation and protection of migratory birds. The engaged institute shall also submit site specific tangible mitigative measures to ensure the protection of these migratory birds.
- iii. PP needs to submit the timeline for completing the installation of OLBC upon the setting up of cement plant in the form of an undertaking.

**Date of EAC 2 :**14/03/2024

**Deliberations of EAC 2 :**

The EAC deliberated the instant proposal along with Padhiarka & Doliya Limestone Mine and Gujarda, Dudheri & Dudhala Limestone Mine. The Project Proponent presented its reply to the ADS points raised vide minutes of the 21<sup>st</sup> EAC as well as the recommendation of the sub-committee. After detailed deliberations , EAC **deferred** the proposal for the want of following information:-

I. The Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.

II. PP needs to undertake a study to showcase the probable impact of mining on migratory bird species and their fly-way passage (Central Asian Flyway). Accordingly, PP shall submit the revised conservation plan for the migratory bird species.

III. The Project Proponent needs to undertake a study and submit the action for laying common Over Land Belt Conveyor(OLBC) for transportation of mineral from mine lease area to the proposed Cement Plant.

IV. The project proponent needs to submit a letter from the Commissioner of Geology & Mining, Govt. of Gujarat, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s Nirma Limited or not?

V. PP submitted that National Highway is under construction, and they have submitted letter to National Highway Authorities of India(NHAI) regarding grant of permission to provide Underpass near their proposed cement plant entry. Accordingly, PP needs to submit the permission letter for the underpass.

VI. The Project Proponent needs to carry out study by reputed institute to ascertain hardness of strata for deployment of surface miners for mining.

VII. The Project Proponent needs to submit time line for acquiring land from the villegers.

**Date of EAC 3 :19/10/2023**

**Deliberations of EAC 3 :**

The EAC deliberated the instant proposal along with Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka & Doliya Limestone mine. The Project Proponent has informed the EAC that the proposed method of mining is same in all three mines such as Vangar & Madhiya Limestone Mine, Gujarda, Dudheri & Dudhala Limestone Mine and Padhiarka and Doliya Limestone mine. NH-51 (Una-Mahuva highway) is passing within the mine lease area. A safety distance of 45m will be maintained. The underpass road has been proposed below Highway by NHAI for the safe passage of the villagers. The EAC asked the Project Proponent to explore the possibility of laying overbridge over the Highway. In the proposed 3<sup>rd</sup> pit, displacement will be taking place. Discrete houses are located within the mine lease area. The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. In this project, Pvt land is more than the previous project. There are 5 mine pits are proposed. Project Affected Families will be 494 no.s. In this project, a budget of Rs 34.0 Lakhs has been earmarked to address the concerns of the public hearing. The geological conditions, method of mining, environmental sensitivity and implications, impact on socio economic are similar in all these three mines.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC noted that the project is part of three contiguous projects namely Padhiarka and Doliya Limestone mine (332.24 ha), Vangar & Madhiya Limestone Mine (612.336 ha) and Gujarda, Dudheri & Dudhala Limestone Mine (681.62 ha) and together it extends over an area of 1626.196 ha. The mine lease area comprises of partly Private Agriculture land and partly Govt. land. NH-51 (Una-Mahuva highway) is passing within the mine lease area. Also, Vangar (0.25 km, NW) and Madhiya villages (0.25 km, SE) are located close to the proximity of the mine lease area. The EAC was not convinced with the proposed backfilling plan and the activities proposed under the Wildlife Conservation Plan. The EAC observed that the pits are isolated and the mine lease area is partly Private and Govt. land. The EAC also observed that there will be direct purchase or leasing of private land with the willing consent of the private land owners. The EAC was of the view that what if the land owners are not willing to give their land. There are likely chances that mining will not take place sequentially if the land acquisition does not happen. There will be failure of scientific mining. Large no. of Project Affected Families is involved in all these projects. The EAC opined that the Saltwater intrusion through surface or ground water sources may diminish the availability or quality of source waters for drinking water utilities. Some salt pans i.e., salt manufacturing industries and few wind mills exists in the study area. Old mine pits also exist within the mine lease area. The EAC noted that the Bhavnagar is categorized as a Severely Polluted Areas. The EAC reiterated the Ministry of Defence letter dated 08.05.2023 regarding security considerations for construction activities/other activities in Border areas/other areas wherein it has been mentioned that "*all activities connected with mining within 20kms from all the borders including seaboard frontier should be planned in consultation with Ministry of Defence*". Accordingly, EAC opined that PP should obtain NOC from Ministry of Defence.

Thus the EAC opined that there is a need to ascertain the ground reality w.r.t natural low lying areas, water logging areas, old mine pits, sequence of mining, feasibility for backfilling, impact on socio economic, agriculture land, transportation route, traffic congestion, salt pans, effectiveness of salinity ingress control bund, proximity of habitations, schools, water bodies, roads etc., The EAC was of the view that a site visit needs to be conducted by a sub-committee comprising of EAC Members and officers from MoEF&CC. The EAC opined that the Ministry may constitute a sub-committee and submit its report to enable the committee to take a decision on the proposal. Therefore, the EAC **deferred** the proposal for want of following additional information: -

- i. The site visit report of the subcommittee.
- ii. Since the mine site is located within 20 km from seaboard frontier, the Project Proponent shall submit No Objection Certificate from Ministry of Defence for consideration of the instant project.
- iii. The Project Proponent needs to submit the action for laying common Over Land Belt Conveyor (OLBC) for transportation of mineral from mine lease area to the Cement Plant. The Project Proponent also needs to submit the action plan for expansion of road with a width of 7m and by passing the village road till the commission of the Over Land Belt Conveyor (OLBC).
- iv. The Project Proponent needs to explore the possibility of laying overbridge over the Highway

and shall submit the permission from the National Highways Authority of India (NHAI).

- v. The Project Proponent needs to submit the protection measures to be taken for salt water intrusion and the effectiveness of the salinity ingress control bund.
- vi. The Project Proponent needs to submit the site specific mitigation measures for backwaters from Arabian Sea coming into the mine lease area.
- vii. The Project Proponent needs to revisit the plan for backfilling with clearly indicating the voids area and the capacity available/required for backfilling.
- viii. The Project Proponent needs to revise the activities proposed under the Wildlife Conservation Plan. The Project Proponent also needs to ensure that the Schedule-I species as per the latest Wildlife Protection Amendment Act, 2022 shall also be included in the Wildlife Conservation Plan for their conservation.
- ix. The EAC was of the view that the compensation rate is very less and asked the Project proponent to revisit and justify the budget proposed for Resettlement & Rehabilitation (R&R). The Project Proponent also needs to submit the action plan for land acquisition and timeline.
- x. The Project Proponent needs to submit the action plan for year wise exploration program.
- xi. The Project Proponent needs to submit the copy of the permission letter obtained from the State Govt. for utilization of Chemical Grade of Limestone for non-cement purposes.
- xii. The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Gujarat clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s. Nirma Limited or not?

#### 3.5.4. Deliberations by the EAC in current meetings

The instant proposal was considered along with Padhiarka and Doliya Limestone Mine Limestone Mine and Gujarda, Dudheri & Dudhala Limestone Mine proposal of M/s Nirma Limited. The Project Proponent and the Consultant presented the ADS reply to the EAC. PP informed the committee that they have obtained NoC from Ministry of Defence vide letterletter no. 23(06)2022-D (G &GS-III)-pt, dated 05.07.2024. The EAC noted that the PP has obtained the vetting of the report entitled “Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage (Central Asian Flyway)” from Salim Ali Center for Ornithology and Natural History (SACON) Coimbatore. The Project Proponent also submitted the conclusion of the vetting report wherein SACON has stated the following:-

*“ (g) Though the report provides an overview of management requirements for mitigation of potential impacts of mining on migratory birds, a systematic field survey covering the main winter migratory season would enable us to develop a site-specific action plan for the conservation of migratory birds and other avifauna of conservation significance in the landscape.*

*h) A detailed field survey on abundance, distribution, and habitat use of the migratory birds in and around the mining blocks (esp. the IBA covering the Nikol-Samadhiyala-*

*Malan bandharas) during the peak migratory season (December-January) needs to be conducted for understanding any site- and species-specific impacts arising from mining and associated activities. In particular migratory taxa like cranes, waders, ducks & geese, and migrant passerines should be studied.*

*To address the shortcomings of the study as discussed above, SACON has just initiated a study to cover the upcoming winter migratory season of birds. The SACON study will update the migratory season data and would bring out detailed site-specific recommendations, which shall be implemented by the Project Proponent to minimize and mitigate the impacts of the proposed limestone mines by Nirma Ltd. on the migratory birds and their habitats in Mahuva tehsil of Bhavnagar district in Gujarat.”*

In view of the above conclusion of the study, the EAC was of the opinion that PP should implement the site specific recommendations under the supervision of SACON to mitigate the effects of mining on migratory species and should submit an action taken report to the Ministry on yearly basis. In this regard PP submitted an undertaking dated 11.07.2024 stating that they will implement all the mitigative measures mentioned in the aforesaid study report and it will comply with all the additional specific mitigative measures suggested by SACON.

Further EAC enquired about the timeline for installation of OLBC. PP informed that they will be completing the installation of OLBC within two years upon the setting up of cement plant and also submitted an undertaking dated 11.07.2024. As per the undertaking the OLBC is proposed in the northern side of the National Highway (NH) from Pit no. 1 of Gujarda, Dudhala & Duheri mine and Pit no. 1 of Vangar & Madhiya Mine to National Highway for conveying the limestone. Project Proponent during the EAC meeting presented that they will not use drilling blasting operations and they will use only the surface miner-dumper and ripper dozer for mining purposes and implementation report will be submitted to Ministry's Regional Office within six months.

Based on the above discussion, EAC **recommended** the proposal in the 32<sup>nd</sup> EAC meeting held during 12-13<sup>th</sup> August 2024 for Environmental Clearance for Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar & Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat under provisions of EIA Notification, 2006 and its amendments therein with following specific conditions in addition to standard conditions applicable to the non-coal mining projects:-

### 3.5.5. Recommendation of EAC

Recommended

### 3.5.6. Details of Environment Conditions

#### 3.5.6.1. Specific

##### Specific Conditions

1.	PP should implement the site specific recommendations as advised by SACON to mitigate the
----	---

	effects of mining on migratory species and should submit an action taken report to the Ministry on yearly basis.
2.	PP needs to complete the installation of OLBC (Over Land Belt Conveyor) in the northern side of the National highway from pit no. 1 of Gujarda, Dudhala and Dudheri mine and pit no. 1 of Vangar & Madhiya mine to national highway for conveying limestone within 2 years upon the setting up of Cement plant.
3.	PP shall use only the surface miner- and ripper dozer for mining purposes and an implementation report to be submitted to Ministry's Regional Office within six months. As committed by the Project Proponent during the Presentation drilling/blasting methods will not be followed.
4.	The PP needs to execute the progressive backfilling plan in order to restore the land for the Agriculture or Pisciculture activity.
5.	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. The preference shall be given to the local people for the purpose of employment. PP shall undertake skill development programme for the local population as per Apprenticeship Act 1961. An implementation report in this regard shall be submitted to Ministry's Regional Office on an annual basis.
6.	The Project Proponent needs to submit the proof of submission of funds for Wildlife Conservation plan and its initiation/commencement by Forest Department to Regional Office of the Ministry. The Project Proponent should follow-up the status of implementation on Wildlife Conservation Plan from the Forest Officials and the same shall be submitted to the Ministry's Regional Office in the six monthly compliance reports.
7.	The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, school and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Regional Office.

8.	<p>The Project Proponent needs to install the permanent water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.</p>
9.	<p>The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher shall be carried out at periodic intervals.</p>
10.	<p>The Project Proponent shall ensure that the transportation shall not occur through village road or any other public road.</p>
11.	<p>The Project Proponent needs to explore the possibility to reduce the water consumption by using non-toxic chemicals.</p>
12.	<p>The Project Proponent needs to complete the entire 7.5 m peripheral plantation, safety barrier plantation and gap plantation within three years. The Project Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings), the seedlings should have proper-trained rootstock with root biomass commensurate with seedling height to ensure good growth after out planting. Plantation shall be undertaken in consultation with the State Forest Department. The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Regional Office.</p>
13.	<p>The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&amp;CC.</p>
14.	<p>The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&amp;CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.</p>
15.	<p>The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years. PP shall explore possibility of generation of electricity through Solar Power Plant.</p>

1 6.	The Project Proponent shall provide the rainwater harvesting structure at mine office and other infrastructures to recharge the ground water.
1 7.	The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to the nearby villages at free of cost.
1 8.	The Project Proponent needs to obtain the permission from CGWA before intersection of ground water.
1 9.	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.
2 0.	The mining lease holders shall, after ceasing mining operations, undertake regrassing 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.
2 1.	The Project Proponent should install the 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.
2 2.	The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.
2 3.	The Project Proponent should adopt the proper mitigation measures as proposed under EMP with the budget of Rs. 0.3680 Crores (Capital cost) and 36.12 Lakhs/Annum (Recurring cost). The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Regional Office.
2 4.	The budget on Public Hearing for Vangar&Madhiya Limestone Mine of Rs. 34 Lakhs (for 3 years, as per the EIA_EMP chapter no. 7.6) to address the concerns raised by the public in the public hearing is 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. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
2 5.	PP needs to comply the OM dated 27.07.2024, where it is categorically stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign .

### 3.5.6.2. Standard

1( a)	<b>Mining of minerals</b>
<b>Statutory compliance</b>	
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 ( <a href="http://www.parivesh.nic.in">www.parivesh.nic.in</a> ). 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.
<b>Air quality monitoring and preservation</b>	
1.	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/I, 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.
2.	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.
<b>Water quality monitoring and preservation</b>	
1.	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.
2.	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.
3.	The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nullahs 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.
4.	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.
5.	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.
6.	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.
7.	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.
<b>Noise and vibration monitoring and prevention</b>	
1.	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
2.	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.
3.	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.
<b>Mining plan</b>	
1.	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.).
2.	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.
<b>Land reclamation</b>	
1.	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.
2.	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.
3.	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.
4.	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.
<b>Transportation</b>	
1.	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].
2.	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.
<b>Green Belt</b>	
1.	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.
<b>null</b>	
1.	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.
2.	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.
<b>Public hearing and human health issues</b>	
1.	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.
<b>Corporate Environment Responsibility (CER)</b>	

1.	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.
<b>Miscellaneous</b>	
1.	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.
2.	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.
3.	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.
4.	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.
5.	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.
6.	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.
7.	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
8.	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.
9.	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.
10.	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.

### 3.6. Agenda Item No 6:

#### 3.6.1. Details of the proposal

<b>Gujarda, Dudheri &amp; Dudhala Limestone Mine by Nirma Limited located at BHAVNAGAR,GUJARAT</b>	
<b>Proposal For</b>	Fresh EC

ANNEXURE A-21

**GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(IMPACT ASSESSMENT DIVISION)  
NON-COAL MINING SECTOR**

\*\*\*

**SUMMARY RECORD OF 32<sup>nd</sup> MEETING OF THE COMMITTEE OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.**

The 32<sup>nd</sup> meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 12-13<sup>th</sup> August 2024 through video conference. The list of participants is annexed here with. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

(1.0) Deliberation & Circulation on the Minutes of 31<sup>st</sup> EAC (Non-Coal Mining) meeting held during 4-5<sup>th</sup> July 2024.

**1.1 Expansion of Thandiberi Limestone Mine with the increase in Production Capacity from 1.065 Million TPA to 6.00 Million TPA, Waste (OB/IB) 1.14 million TPA and Mineral reject 0.46 Million TPA (Total Excavation 7.60 Million TPA) With proposed Crusher Capacity of 1700 TPH & Screening With Wobbler in the ML area 256 ha by M/s UltraTech Nathdwara Cement Limited located at Villages Thandiberi and Sabela Tehsil Pindwara, District Sirohi, Rajasthan. [Online Proposal No. IA/RJ/MIN/482635/2024; File No. J-11015/22/2006-IA II (M), EIA Consultant - J. M. EnvironetPvt. Ltd.] – For Environmental Clearance reg.**

<b>Minutes of the meeting and agenda number</b>	<b>Corrigendum in the minutes of the 31<sup>st</sup> EAC meeting held during 4-5 July 2024</b>	<b>Recommendation of EAC</b>
31 <sup>st</sup> EAC meeting held during 4-5 July 2024 & Agenda number 2.2, Paragraph no. 3, 1 <sup>st</sup> sentence.	The instant proposal was appraised along with expansion proposal of <b>Thandiberi</b> Limestone Mines	The instant proposal was appraised along with expansion proposal of <b>Amlī</b> Limestone Mines

- xix. The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to the nearby villages at free of cost.
- xx. The Project Proponent needs to obtain the permission from CGWA before intersection of ground water.
- 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 regrassing 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.
- xxiii. The Project Proponent should install the 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.
- xxiv. The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.
- xxv. PP needs to comply the OM dated 27.07.2024, where it is categorically stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign एकपेड़माँकेनाम.

**1.5 Vangar&Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar&Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat.**

**[Online Proposal No: IA/GJ/MIN/443498/2023; F.No: J-11015/152/2016-IA.II(M), EIA Consultant: M/s Centre for Envotech and Management Consultancy Pvt. Ltd] - Environmental Clearance reg.**

The proposal is for mining of Limestone in Vangar&Madhiya Limestone Mine of M/s Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar&Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 21°01'44.54" to 21° 03' 40.04" N and Longitude 71°39'18.3"E to 71°41'05"E. The mine lease area falls under the Survey of India Toposheet No. 41 O/12 (restricted) and falls in Seismic Zone-III.
- ii. 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.

iii. Details of Terms of Reference (ToR):

Date of application	Proposal No/ File No	Consideration by EAC	Details of ToR	Date of accord
18.11.2022	IA/GJ/MIN/ 403568/2022  J-11015/152/ 2016-IA.II(M)	5-6 Dec., 2022	Terms of Reference (ToR) for mining of Limestone in Vangar&Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar&Madhiya, Tehsil Mahuva, District Bhavnagar, Gujarat for undertaking detailed EIA/EMP study	23.12.2022

iv. Details of Mine Lease: -

- d) The Project Proponent has submitted that initially the State Govt has granted the Letter of Intent for grant of mining lease vide letter no. MCR-102004-1827-

CHH dated 15.02.2008 for mineral Limestone and Marl over an area of 1225.8553 ha for a period of 30 years.

- e) Then, the Govt. of Gujarat, Industries and Mines Department, vide Order no: MCR102004-1827-CHH dated 08.01.2017 granted the mining lease for Limestone and Marl to M/s Nirma Limited over an area of 612.1336 ha for a period of 50 years for its captive consumption.
- f) The mining lease deed was executed on 11.01.2017 between Dist. Collector, Bhavnagar, State Govt. and the Project Proponent, M/s Nirma Ltd. for a period of 50 years and also registered the executed mining lease deed with Sub, Registrar, Mahuva on 11.01.2017 under the provision of MMDR Amendment Act, 2015.

v. Land Use/Land Cover of the Mine Lease Area: -

Private land	586.4789 ha
Government land	25.6547 ha
Forest land	-
Total Mining lease area (MLA), ha	612.1336 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No any facilities outside the ML area. However crusher will be installed at company's Cement Plant.

vi. Mining plan details:

Review of Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines	Letter No.	File No. 684(4)(1)/MP-347(196)/2021-22GNR/1125
	Date	05.08.2021
	Mineral & (Major/Minor)	Limestone, Major mineral
	Mine Lease Area, Ha	612.1336
	Validity	2021-22 to 2025-26
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized	
Drilling/Blasting	Multi-row drilling and V-pattern drill holes for deep hole drilling and blasting. Slurry explosive -cap sensitive and non-cap sensitive.	
Geological Reserves	35.539 Million tonnes	
Mineable Reserves	14.913 million tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Top soil- 0.99 mi.cum OB/SB/IB/Mineral Rejects- Nil Waste-Nil	
Life of mine	13 years (Life of mine may be increased subject to conversions of resources under 333 category into category of reserves 111)	

Mine Bench Height & Bench Width	6.0 m, for working bench 12-15 m for closing (conceptual) bench Optimum
No. of Mine Benches	2
Existing Depth, m bgl	New mine
Ultimate Depth of Mining, m bgl	10 m
Ground Water Table, m bgl	15 m (Post monsoon)
Details of ground water intersection	No ground water will be encountered during planning stage i.e. in 5 years of working plan in neither pre monsoon nor post monsoon season in any of the pits. However, the ground water table may get touched in post monsoon in pit no. 4 & 5 when the proposed conceptual pit bottom level of +1.0 m AMSL is achieved. To avoid any accidental intersection of ground water table, the Company has now decided to restrict mining depth to +2.0 m AMSL in pit no. 4 & 5.
Individual bench slope	80-85°
Overall pit slope	~ 45°
Details of existing/ proposed Crusher	Proposed crusher will be installed at Cement Plant.
Mineral Beneficiation	-
RoM output size	-
Transportation details including capacity of dumper/tipper, mode of transport and distance	Internal haul road from mine face to crusher and by conveyor from crusher to the Cement plant adjacent to the mine lease.  For the Soda Ash Plant located at approx.100 km at Kalatalav, Bhavnagar limestone will be transported in dumpers/ trucks through National Highway 51.  Internal haul road from mine face to crusher means of dumper/tippers of 25 tonnes capacity.
Generation of Topsoil/OB & its Management during plan period & conceptual period	Top soil at 1 <sup>st</sup> plan period - 150000 cu.m, temporary stacking at one location Top soil at 2 <sup>nd</sup> plan period- 840000 cu.m, temporary stacking at one location Top soil at conceptual period-380000 cu.m, simultaneously backfilling
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Nil
Additional information(if any)	Surface miner as well as ripper/dozer & rock

	breaker will be used for mining to minimize drilling & blasting.
--	--

## vii. Water requirement:

Total water requirement	42 KLD	Fresh water	3 KLD
		Treated water	39 KLD
Source	i. Fresh water source Narmada water pipeline/Water tanker. ii. Water harvested within mine lease during rainy season. iii. Treated water source- Reject water of RO /DM plant &Reject water of RO /DM plant (proposed at Cement plant)		
Permission for withdrawal/ intersection along with details of grant and its validity	Permission for water withdrawal from Narmada water pipeline has been taken vide letter No. GWIL/ Bhavnagar/Ind.conn./1257 dated 4.06.2008.		

## viii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest:

Particulars	Particular's Name	Distance & Directions
Village	Vangar Madhiya	0.25 km, NW 0.25 km, SE
Town	Mahuva	6.2km, ENE
Highway	NH-51 (Una-Mahuva highway)	Within
Interstate Boundary	Rajasthan	Approx.500 KM,N
Railway Station/Railway line	Amrutvel	2.0 km, N
Water Bodies	Arabian Sea Coast	3.4 km S to the HTL
	Samdiyala Salinity ingress control bund	2.3 km, SSW
	Bhambhali River	0.9 Km, W
	Garasawo River	2.5 Km,NE
Forest	RF near Patwa	2.1 KM,S
	RF near Doliya	3.3 KM,SSE
	RF near Dudheri	3.9 KM,SE
	RF near Gujarda	4.3 KM,SE

## ix. Presence of Environmentally Sensitive areas in the study area:

Forest Land/ Protected Area/	Yes/	Details of Certificate/letter issued by the
------------------------------	------	---

Environmental Sensitivity Zone	No	concerned Department mentioning the Lr no, date of grant and remarks								
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	<p>The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests vide Lr.No: WLP/32/C826-827/2021-22 dated 13.01.2022 regarding the map showing the location of protected areas within 10km of the Limestone mining project and the and distance of protected areas and proposed Limestone mine.</p> <table border="1"> <thead> <tr> <th>Protected areas</th> <th>Distance between Limestone mines and Protected areas</th> </tr> </thead> <tbody> <tr> <td>Gir National Park</td> <td>76.0 km</td> </tr> <tr> <td>Gir Wildlife Sanctuary</td> <td>44.2 km</td> </tr> <tr> <td>Mitiyala Wildlife Sanctuary</td> <td>43.5 km</td> </tr> </tbody> </table> <p>The Project Proponent has submitted the letter from the Office of the Deputy Chief Conservator of Forest, Bhavnagar vide letter no. A/GMN/T11/2075/22-23 dated 27.01.2023 certifying that the nearest turtle rearing/breeding site is located at a distance of about 70km away from the mines.</p>	Protected areas	Distance between Limestone mines and Protected areas	Gir National Park	76.0 km	Gir Wildlife Sanctuary	44.2 km	Mitiyala Wildlife Sanctuary	43.5 km
Protected areas	Distance between Limestone mines and Protected areas									
Gir National Park	76.0 km									
Gir Wildlife Sanctuary	44.2 km									
Mitiyala Wildlife Sanctuary	43.5 km									
National Park	No									
Wildlife Sanctuary	No									
Elephant/Tiger Reserve	No									
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area (ESA)	No									
Coastal Regulation Zone (CRZ)	No	Arabian Sea Coast 3.4 km S to the HTL The proposed project lies beyond distance of 0.5 km from High Tide Line of Arabian Sea Coast. The CRZ map has been prepared by Institute of Remote Sensing, Anna University, Chennai.								
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Yes	The Project Proponent has submitted the authenticated list of flora and fauna from the Office of the Deputy Forest Conservator vide Lr.No. A/Jaman/Te.11/233/17-18 dated 08.02.2018 stating that there are three Schedule-I species such as Peafowl,								

		Chinkara and Asiatic lion in the study area.  After the amendment of the Wild Life (Protection) Amendment Act, 2022, No 18 of 2022, a number of additional species have been added into Schedule-I such as Leopard, Striped hyaena, Jackal, Bengal fox, Indian porcupine, Jungle cat, Grey wolf, Dog faced water snake, Russell viper, Checkered Keelback, Indian Rat snake, Red sand boa and Naag/cobra.
Wildlife Conservation Plan	Yes	On the basis of the fauna study findings & list of fauna authenticated by Forest Department, Wildlife Conservation Plan was prepared and submitted for approval.  The Wildlife Conservation Plan was approved by the Chief Wildlife Warden vide Lr.No: WLP/32/C670-672 dated 20.12.2021 with a budget of Rs. 19.9 Lakhs for the conservation of wildlife in the study area.

x. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	26.50 Ha.
Budget for green plant & plantation till the end of life of mine.	Rs 80.35 Lakhs
Budget for nursery	-
Details of existing plantation and its survival rate	-
No. of tree cuts in the mine lease area and compensatory afforestation	As per actual during mining
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	16.50
50 m safety zone of nallah, roads, electric lines	10.00

xi. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data	01.03.2021 to 02.06.2021

collection	
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer
Predominant Wind direction (From)	South
Ambient Air Quality (no. of locations) and results – 16 locations	PM10: 27.6 –71.1 µg/m <sup>3</sup> PM2.5: 11.2 – 40.0 µg/m <sup>3</sup> SO <sub>2</sub> : 2.7 – 10.2 µg/m <sup>3</sup> NO <sub>2</sub> : 3.6 – 14.5 µg/m <sup>3</sup>
Noise level (no. of locations) and results – 16 locations	Day Time: 47.57 dB(A) – 52.46 dB(A) Night Time: 39.42 dB(A) - 42.89 dB(A)
Water Quality (no. of locations) and results - 12Ground water and 3 Surface water	All the parameters of ground water were well within the permissible limits as per IS 10500: 2012. The surface water quality in all samples was found B to below E class. The result indicates that the maximum and minimum values of DO ranges between 5.8 to 6.3 mg/l, hardness ranged between 360 - 8300 mg/l in surface water.
Soil Quality (no. of locations) and results – 12 locations	Soil quality was monitored at 12 no. of stations. The result indicates that the maximum and minimum values of pH ranges between 7.7 - 8.2, Potassium ranges from 157.0 - 845.0 kg/ha and Nitrogen ranges from 0.01 - 12.57mg/kg.
Hydro geological study and results	As per Hydrogeological & Hydrological Studies of core and buffer zone of Vangar&Madhiya Limestone Mine, the qualitative aspects of ground water show that salinity ingress from sea has taken place up to over 3 km from Arabian sea reaching center of buffer zone including mines falling in core zone.The ground water flow direction is towards south in general. As the mining (ultimate pit limit) is proposed up to (+) 1/ (+) 2m amsl, the mining pit will not have mine seepage till 13th year except direct rainfall as water level will not be intersected.
Traffic study (no. of locations) and results	The traffic volume survey was conducted on Bhavnagar to Una Road (NH8E/51) Near Vangar Village. Total numbers of vehicles were found as 6793 per day and equivalent PCUs is 9382 per day. There will be daily movement of 512 numbers of dumpers (to & fro) per day or 1536 PCU/ day on the road. V/C = 31.27.

xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional	26.03.2023 in Sandesh Newspaper (Gujarati) & Indian Express (English)
---	---

vernacular daily newspaper)	
Date of PH	28.04.2023 @ 9:30 AM
Venue	At the premises of Nirma Cement Plant Area, NH 8E/51, Survey No. 80, Village: Padhiyarka, Taluka: Mahuva, Dist. Bhavnagar
Chaired by	Shri R.K Mehta (IAS), District Collector & District Magistrate, Bhavnagar District & Regional Officer, GPCB Bhavnagar
Main issues raised during PH	Air pollution, salinity ingression, wildlife protection, acquisition of agriculture land
Budget proposed for addressing issues raised during PH over 3 years	Rs. 34 Lakhs

xiii. Resettlement & Rehabilitation (R&R):

R & R details	The total mine lease area is 612.1336 ha, out of which Govt. land is 25.6547 ha and Private land is 586.4789 ha. Land will be required for quarrying an area of 197.0 ha of Private land and Government land including houses/hutment in Vangar village (17 No.s) & houses/hutments Madhiya village (7 Nos). The houses/hutment fall in the conceptual pits of the mine lease. There will be total of 494 land losers. There will be direct purchase or leasing of private land, with the willing consent of the private land owners. Approx. total compensation will be Rs. 24.0 Lakhs. In addition to above, the registration cost of sale of the land and homesteads shall be borne by the Company.
---------------	--

xiv. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking vide letter dated 07.10.2023 stating that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters in which the project proponent is a respondent.
Undertaking by Project Proponent w.r.t court case	

xv. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an undertaking by way of notarized Affidavit dated 09.10.2023 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking vide letter dated 04.01.2023 stating that the contents (information and data) as given by

	the Consultant in the EIA/EMP report are factually correct with full knowledge of the undersigned (Shri Ashish Desai).
Undertaking by Consultant in EIA/EMP report	The Director of the EIA Consultant (M/s Centre for Envotech&Management Consultancy Pvt. Ltd) has informed that the baseline data was generated by MoEF&NABL Accredited Laboratory M/s Min Mec R&D Laboratory, a division of Min Mec Consultancy Pvt. Ltd., New Delhi and the same has been verified and also confirmed that he shall be fully accountable for any misleading information mentioned in this statement.

xvi. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Pollution Control	0.241	9.54
Pollution monitoring	0.016	3.88
Occupational health	0.011	0.65
Environmental Studies, etc.	0.10	—
Green belt	—	5.10
Reclamation	—	11.39
Others (Environmental studies, Rehabilitation, Realignment, Expert advice, fencing etc.	—	5.28
Overheads	—	0.30
Total	0.3680	36.12

xvii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	0.70
Project Cost	25
Employment (No.s)	58

- xviii. The Proposal was considered in the 21<sup>st</sup> EAC meeting held during 18-20<sup>th</sup> October, 2023 wherein the Committee deferred the proposal for the submission of requisite information. The Project Proponent has submitted the relevant information on Parivesh, accordingly the proposal was considered in the 28<sup>th</sup> EAC (NCM) during 14-15<sup>th</sup> March 2024 wherein the Committee deferred the proposal for the submission of requisite information. The Project Proponent vide letter dated 10.05.2024 submitted the reply against the observation of 28<sup>th</sup> EAC meeting. As per the submission of Project Proponent, the Committee considered

the proposal again during the 30<sup>th</sup> EAC meeting held during 12-14<sup>th</sup> June 2024 wherein EAC deferred the proposal for want of certain information. The Committee raised ADS and the PP submitted its reply on Parivesh Portal vide letter dated 11.07.2022. The ADS and reply is given as under:

S.No	ADS	Reply by PP
1	The PP needs to submit the NoC from the Ministry of Defence for consideration of the instant project.	PP have submitted the Security clearance / NOC for Vangar and Madhiya Limestone Mine from the Ministry of Defence, Govt. of India, New Delhi vide letter no. 23(06)2022-D (G &GS-III)-pt, dated 05.07.2024.
2	The PP needs to get their report entitled "Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage" vetted by institute of National repute having specialization on conservation and protection of migratory birds. The engaged institute shall also submit site specific tangible mitigative measures to ensure the protection of these migratory birds.	<p>PP have submitted the vetting of report entitled "Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage" to Salim Ali Center for Ornithology and Natural History (SACON), Coimbatore, South India Centre of Wildlife Institute of India &amp; an initiative of MoEF&amp;CC, Gol.</p> <p>The Project Proponent informed that the SACON would submit the site-specific mitigative measure, if any, other than mentioned in the vetted report, after their site visit in the winter season.</p> <p>Nirma Ltd. has reported that they will comply the recommendations of SACON.</p>
3	PP needs to submit the timeline for completing the installation of OLBC upon the setting up of cement plant in the form of an undertaking.	<p>PP have submitted an undertaking dated 11.07.2024 stating the following:</p> <ul style="list-style-type: none"> <li>• PP will establish OLBC either side of the highway based on the technical possibility &amp; feasibility for conveying limestone from mines to cement plant on setting up of cement plant.</li> <li>• The OLBC is proposed in northern side of the National Highway from Pit No. 1 of Gujarda,</li> </ul>

		<p>Dudhala&amp;Dudheri mine and Pit no. 1 of Vangar&amp;Madhiya Mine to National Highway for conveying limestone.</p> <ul style="list-style-type: none"> <li>• The exact length and alignment of OLBC shall be based on technical possibility &amp; feasibility report and will be installed within two years upon setting up of cement plant.</li> </ul>
--	--	---

As per the submission of above ADS reply, the Committee considered the proposal in this 32<sup>nd</sup> EAC meeting.

### 3. Observation and Recommendation of the Committee:

The instant proposal was considered along with Padhiarka and Doliya Limestone Mine Limestone Mine and Gujarda, Dudheri & Dudhala Limestone Mine proposal of M/s Nirma Limited. The Project Proponent and the Consultant presented the ADS reply to the EAC. PP informed the committee that they have obtained NoC from Ministry of Defence vide letter no. 23(06)2022-D (G &GS-III)-pt, dated 05.07.2024. The EAC noted that the PP has obtained the vetting of the report entitled "Study of Probable Impact of Mining on Migratory Bird Species and Their flyway passage (Central Asian Flyway)" from Salim Ali Center for Ornithology and Natural History (SACON) Coimbatore. The Project Proponent also submitted the conclusion of the vetting report wherein SACON has stated the following:-

*" (g) Though the report provides an overview of management requirements for mitigation of potential impacts of mining on migratory birds, a systematic field survey covering the main winter migratory season would enable us to develop a site-specific action plan for the conservation of migratory birds and other avifauna of conservation significance in the landscape.*

*h) A detailed field survey on abundance, distribution, and habitat use of the migratory birds in and around the mining blocks (esp. the IBA covering the Nikol-Samadhiyala-Malan bandharas) during the peak migratory season (December-January) needs to be conducted for understanding any site- and species-specific impacts arising from mining and associated activities. In particular migratory taxa like cranes, waders, ducks & geese, and migrant passerines should be studied.*

*To address the shortcomings of the study as discussed above, SACON has just initiated a study to cover the upcoming winter migratory season of birds. The SACON study will update the migratory season data and would bring out detailed site-specific recommendations, which shall be implemented by the Project Proponent*

*to minimize and mitigate the impacts of the proposed limestone mines by Nirma Ltd. on the migratory birds and their habitats in Mahuva tehsil of Bhavnagar district in Gujarat.”*

In view of the above conclusion of the study, the EAC was of the opinion that PP should implement the site specific recommendations under the supervision of SACON to mitigate the effects of mining on migratory species and should submit an action taken report to the Ministry on yearly basis. In this regard PP submitted an undertaking dated 11.07.2024 stating that they will implement all the mitigative measures mentioned in the aforesaid study report and it will comply with all the additional specific mitigative measures suggested by SACON.

Further EAC enquired about the timeline for installation of OLBC. PP informed that they will be completing the installation of OLBC within two years upon the setting up of cement plant and also submitted an undertaking dated 11.07.2024. As per the undertaking the OLBC is proposed in the northern side of the National Highway (NH) from Pit no. 1 of Gujarda, Dudhala & Duheri mine and Pit no. 1 of Vangar & Madhiya Mine to National Highway for conveying the limestone. Project Proponent during the EAC meeting presented that they will not use drilling blasting operations and they will use only the surface miner-dumper and ripper dozer for mining purposes and implementation report will be submitted to Ministry's Regional Office within six months.

Based on the above discussion, EAC **recommended** the proposal in the 32<sup>nd</sup> EAC meeting held during 12-13<sup>th</sup> August 2024 for Environmental Clearance for Vangar & Madhiya Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 1.6 MTPA in the mine lease area of 612.1336 ha, located at Villages Vangar&Madhiya, Tehsil: Mahuva, District: Bhavnagar, Gujarat under provisions of EIA Notification, 2006 and its amendments therein with following specific conditions in addition to standard conditions applicable to the non-coal mining projects:-

- i. PP should implement the site specific recommendations as advised by SACON to mitigate the effects of mining on migratory species and should submit an action taken report to the Ministry on yearly basis.
- ii. PP needs to complete the installation of OLBC (Over Land Belt Conveyor) in the northern side of the National highway from pit no. 1 of Gujarda, Dudhala and Dudheri mine and pit no. 1 of Vangar & Madhiya mine to national highway for conveying limestone within 2 years upon the setting up of Cement plant.
- iii. PP shall use only the surface miner- and ripper dozer for mining purposes and an implementation report to be submitted to Ministry's Regional Office within six months. As committed by the Project Proponent during the Presentation drilling/blasting methods will not be followed.

- iv. The PP needs to execute the progressive backfilling plan in order to restore the land for the Agriculture or Pisciculture activity.
- v. 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. The preference shall be given to the local people for the purpose of employment. PP shall undertake skill development programme for the local population as per Apprenticeship Act 1961. An implementation report in this regard shall be submitted to Ministry's Regional Office on an annual basis.
- vi. The Project Proponent needs to submit the proof of submission of funds for Wildlife Conservation plan and its initiation/commencement by Forest Department to Regional Office of the Ministry. The Project Proponent should follow-up the status of implementation on Wildlife Conservation Plan from the Forest Officials and the same shall be submitted to the Ministry's Regional Office in the six monthly compliance reports.
- vii. The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, school and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Regional Office.
- viii. The Project Proponent needs to install the permanent water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.
- ix. The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher shall be carried out at periodic intervals.
- x. The Project Proponent shall ensure that the transportation shall not occur through village road or any other public road.
- xi. The Project Proponent needs to explore the possibility to reduce the water consumption by using non-toxic chemicals.

- xii. The Project Proponent needs to complete the entire 7.5 m peripheral plantation, safety barrier plantation and gap plantation within three years. The Project Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings), the seedlings should have proper-trained rootstock with root biomass commensurate with seedling height to ensure good growth after out planting. Plantation shall be undertaken in consultation with the State Forest Department. The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Regional Office.
- xiii. The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.
- xiv. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- xv. The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years. PP shall explore possibility of generation of electricity through Solar Power Plant.
- xvi. The Project Proponent shall provide the rainwater harvesting structure at mine office and other infrastructures to recharge the ground water.
- xvii. The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to the nearby villages at free of cost.
- xviii. The Project Proponent needs to obtain the permission from CGWA before intersection of ground water.
- xix. 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.

- xx. The mining lease holders shall, after ceasing mining operations, undertake regrassing 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.
- xxi. The Project Proponent should install the 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.
- xxii. The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.
- xxiii. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with the budget of Rs. 0.3680 Crores (Capital cost) and 36.12 Lakhs/Annum (Recurring cost). The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Regional Office.
- xxiv. The budget on Public Hearing for Vangar&Madhiya Limestone Mine of Rs. 34 Lakhs (for 3 years, as per the EIA\_EMP chapter no. 7.6) to address the concerns raised by the public in the public hearing is 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. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
- xxv. PP needs to comply the OM dated 27.07.2024, where it is categorically stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign एकपेड़माँकेनाम.

## **1.6 Gujarda, Dudheri&Dudhala Limestone Mine of M/s Nirma Limited for mining of Limestone with production capacity of 2.7 MTPA in the mine lease**

**NIRMA LIMITED**

WORKS : Chemical Complex, Village : Kalatalav, Taluka & Dist. : Bhavnagar - 364313  
 Phone : (0278) 2413800, 2885301 to 3 Fax : 2413818, 2413826 E-mail : nirma\_kalatalav@nirma.co.in

Ref: NL/ENV-152/VM/EC/130<sup>to</sup><sub>143</sub> /2024

17<sup>th</sup> September, 2024

To,

1. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Vangar Gam Panchayat Village: Vangar, Ta. Mahuva Dist. Bhavnagar	2. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Madhiya Gam Panchayat Kacheri Village: Madhiya, Ta. Mahuva Dist. Bhavnagar	
3. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Padhiraka Gam Panchayat Kacheri Village: Padhiraka, Ta. Mahuva Dist. Bhavnagar	4. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Doliya Gam Panchayat Village: Doliya, Ta. Mahuva Dist. Bhavnagar	
5. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Gujarda Gam Panchayat Village: Gujarda, Ta. Mahuva Dist. Bhavnagar	6. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Dudheri Gam Panchayat Kacheri Village: Dudheri, Ta. Mahuva Dist. Bhavnagar	7. The Sarpanch Shri / The Talati Cum Mantri Shri Shri Dudhala no. 1 Gam Panchayat Kacheri Village: Dudhala, Ta. Mahuva Dist. Bhavnagar

Sub.: Environmental Clearance for production of 16,00,000 TPA (ROM) of limestone with the Mining lease area of 612.1336 ha located at Village – Vangar & Madhiya, Taluka – Mahuva, District Bhavnagar, Gujarat of Nirma Ltd. - Regarding

Ref.: EC letter no. J-11015/152/2016-IA-II (NCM) dated 16/09/2024.

Dear Sir,

This has reference to the above referred letter received from MoEF&CC, New Delhi accorded Environmental Clearance for production of 16,00,000 TPA(ROM) of limestone with the Mining lease area 612.1336 ha located at Village – Vangar & Madhiya, Taluka – Mahuva, District Bhavnagar, Gujarat of Nirma Ltd. vide letter no. J-11015/152/2016-IA-II (NCM) dated 16/09/2024.

In this connection, as mentioned in point no. 1.5 under statutory compliance of standard conditions and condition no. b of general instruction issued in Environmental Clearance, find enclosed here with copy of Environment Clearance for your information and record please as Annexure - I.

Thanking you,

Your faithfully,

For Nirma Ltd.

Authorized Signatory

Encl: As Above

**NIRMA**

*Better Products. Better Value. Better Living.*