# MINUTES OF THE 288<sup>th</sup> MEETING OF THE STATE LEVEL EXPERT APPRAISAL COMMITTEE HELD ON 30/04/2016 AT COMMITTEE ROOM, GUJARAT POLLUTION CONTROL BOARD, GANDHINAGAR.

The 288<sup>th</sup> meeting of the State Level Expert Appraisal Committee (SEAC) was held on 30<sup>th</sup> April 2016 at Committee Room, Gujarat Pollution Control Board, Gandhinagar. Following members attended the meeting:

- 1. Shri T.P. Singh, Chairman, SEAC.
- 2.Shri V.C.Soni, Vice Chairman, SEAC
- 3. Shri V. N. Patel, Member, SEAC
- 4.Shri R.I.Shah, Member, SEAC.
- 5.Shri R.J.Shah, Member, SEAC

Following officers from the Geology and Mining Department attended the meeting:

- 1. Shri Mehul Shah, Royalty Inspector, Dist:Chotaudepur
- 2. Shri D.K.Patel,Geologist,Surat

Sr.No.	District	Sand	Silica sand	ordinary clay	Black Trap	Chalk	Bentonite	White Clay	China Clay	Total
1	Botad	9	-	-	-	-	-	-	-	9
2	Bharuch	1	1	-	-	-	-	-	1	1
3	Bhavnagar	-	-	-	-	1	-	-	-	1
4	Chotaudepur	4	-	-	-	-	-	-	-	4
5	Kutch	1	-	-	2	-	1	2	3	9
6	Surat	3		2	-	-	-	-	•	5
	Total	17	1	2	2	1	1	2	3	29

#### 1. SAND MINING PROPOSALS, DIST: BOTAD

Sr. No.	Proposal No.	Project Name	Sr. No. Village/Ta luka/Dist.	Project Proponent Name	Area in Hecta re /Type	Rate of Minin g	Name of River	Distance of Nearest habitatio n	Use of Mineral
1	SIA/GJ/MIN/ 2192/2015	Greval Mining Project	Patana RanpurBo tad	KETAN CONSTR UCTION PVT.LTD	9.90. 00	8000 0 MT	Bhad ar	Patana 2km	Construct
2	SIA/GJ/MIN/ 2191/2015	Greval Mining Project	Patana RanpurBo tad	KETAN CONSTR UCTION PVT.LTD	8.00. 00		Bhad ar	Patana 2km	Construct

3	SIA/GJ/MIN/ 2190/2015	Greval Mining Project	KinaraRa npurBotad	KETAN CONSTR UCTION PVT.LTD	9.90. 00	5000 0 MTP A	Bhad ar	Kinara 1.5km	Construct
4	SIA/GJ/MIN/ 2186/2015	Greval Mining Project	KinaraRa npurBotad	KETAN CONSTR UCTION PVT.LTD	8.00. 00	8000 0 MT	Bhad ar	Kinara 1.5km	Construct
5	SIA/GJ/MIN/ 2183/2015	Ordinary Sand Mining Project	Patana RanpurBo tad	KETAN CONSTR UCTION PVT.LTD	9.90. 00	8000 0 MTP A	Bhad ar	Patana 2km	Construct
6	SIA/GJ/MIN/ 2181/2015	Ordinary Sand Mining Project	Patana RanpurBo tad	KETAN CONSTR UCTION PVT.LTD	8.00. 00	8000 0 MTP A	Bhad ar	Patana 2km	Construct
7	SIA/GJ/MIN/ 2180/2015	Ordinary Sand Mining Project	KanaraRa npurBotad	KETAN CONSTR UCTION PVT.LTD	9.90. 00	5000 0 MTP A	Bhad ar	Kanara 1.5km	Construct
8	SIA/GJ/MIN/ 2179/2015	Ordinary Sand Mining Project	KanaraRa npurBotad	KETAN CONSTR UCTION PVT.LTD	8.00. 00	8000 0 MTP A	Bhad ar	Kanara 1.5km	Construct
9	SIA/GJ/MIN/ 2092/2015	Ordinary Sand Mining Project	Rampura Gadhada Botad	GOHIL KULDIPSI NH P	5.06. 08	800 MT/M	Ghelo	Rampura 0.8km	Construct

Asst. Geologist, Dist: Botad / Project proponent with RQP remained absent and hence committee decided to defer the above proposals in one of the upcoming SEAC meeting.

#### SILICA SAND MINING PROPOSA, DIST:BHARUCH.

Sr. no.	Proposal No.	Project Name	S NO	Vill,Taluka	Hectare	Rate of mining	Nearest Habitation	Proposal use
1	SIA/GJ/MIN/4609/2015	NEW INDIA MINERALS INDUSTRIES	168 P	Amod/ Jhagadiya	20-00-00 Existing	57516 MTPA	Jhagadia:11 km	Glass industry

Project proponent vide letter no Nil dated 27<sup>th</sup> April 2016 informed committee that for mining of Silica Sand in lease area of 20 Ha at S NO: 168/P at village: Amod, Jhagadia, Ta and Dist: Bharuch, they are withdrawing EC application as they have applied for obtaining TOR. Project proponent further stated that they will apply under EC head. After deliberation committee agreed to the letter of the project proponent

and decided to close the proposal and delist it from the pending application list of EC.

#### 2. CHALK MINING PROPOSAL, DIST: BHAVNAGAR

Sr.	Proposal No.	Project Name	S NO	Hectare	Rate of	Nearest	Proposal
no			Vill,Taluka		mining	Habitation	use
1	SIA/GJ/MIN/523 92/2016	M/s. Saurashtra Minerals & Chemical Industries ( Unific Enterprise)	S.No.182,Panvi,Valbhipur, Bhavnagar	12-00-00 Existing	6695 TPA	Panvi 3km	Chalk Mine

Asst. Geologist, Dist: Bhavnagar / Project proponent with RQP remained absent and hence committee decided to defer the above proposals in one of the upcoming SEAC meeting.

#### 3. SAND MINING PROJECT, DIST: CHHOTAUDEPUR

Sr. no.	Proposal No.	Project Name	S NO	Vill,Taluka	Hectare	Rate of mining	Name of River	Nearest Habitatio n	Proposal use
1	SIA/GJ/MIN/ 33123/2015	Pravin Sakharam Patel	836 & 869	Bahadarp ur/Sankhed a	06-55-00 Existing	80000 MTPA	Orsang river	Bahadar pur 0.505 km	Construction
2	SIA/GJ/MIN/ 35660/2015	Sanjaybhai Buddhisagarb hai Solanki	23,24,2 5 ne lagu	Kadila/ Sankheda	6-63-68 Existing	40,000 MTPM	Orsang	Kadila 1.00 km	Construction
3	SIA/GJ/MIN/ 1426/2015	Rupalben Mukeshbhai Oad	88	Govindpur a/Sankhed a	05-45-42 New	60000 MTPA	Orsang	Govindpu ra- 1.70km	Construction
4	SIA/GJ/MIN/ 47961/2016	Umeshbhai K. Odedara Riverbed Sand Mining	164,239 ,376	Baravad, Jetpurpavi	10-00-00 Existing	6500 MTPM	10-00-00 Existing	Barvada 1 km	Construction
5	SIA/GJ/MIN/ 38019/2016	Revaben Bhikhubhai Koli	11/1,31/ 1,46 orsand nadi pat	Pipalsat/ Sankheda	10-00-00 Existing	52000 MT/M	Orsnag	Pipalsat 0.63 km	Construction

Shri Mehul Shah, Royalty Inspector, Dist: Chotaudepur informed that hard copy of proposal No: SIA/GJ/MIN/33123/2015 is not ready and hence requested to defer the proposal. Committee agreed to the request and decided to defer the proposal in one of the upcoming SEAC meeting. For the rest of the proposals, he represented that no any bridge piers / water intake wells / irrigation structures exist within 500 m distance from boundary of any of above lease area. He explained that sand excavation will be done up to maximum 3 m depth or water level, whichever is less. Water sprinkling will be done during loading of material. All the transportation vehicles are proposed to be covered to avoid fugitive emission of fine particles. Minimum setback distance of 15 meter shall be maintained from the river bank to prevent bank erosion.

During meeting, committee noticed that all the above proposals are above 5 hectare however approved mining plan and details regarding formation of cluster for homogeneous minerals within 500 meter radius from the outer periphery of the lease area are not submitted. During meeting committee asked royalty inspector to submit approved mining plan, environment management plan (EMP) and details regarding formation of cluster for homogeneous minerals within 500 meter radius from the outer periphery of the lease area. Upon submission of the said details, committee unanimously decided to take up all the above proposals (Except Proposal No: SIA/GJ/MIN/33123/2015) for further consideration in one of the upcoming SEAC meeting.

#### 4. BLACK TRAP MINING PROJECT, DIST: KUTCH

Sr.	Proposal No.	Project Name	Minerals	S	Vill,Taluka	District	Hectare	Rate	Nearest	Proposal
no.				NO				of	Habitation	use
								mining		
1	SIA/GJ/MIN3	chhaganlal	Black	892	Sai/	kutch	8-00-00	8000	Sai 3 km	Construction
	4067/2015	ravji solanki	Trap		Rapar		Existing	MT/M		
2	SIA/GJ/MIN/3	M.G.Bhavnani	Black	182,	Moti	kutch	05-40-	4000	Nagalpar	Construction
	4837/2015		Trap	Govt	Nagalpar/		00	MT/M	1.2 km	
				Land	Anjar		New			

Asst. Geologist, Dist: Kutch / Project proponent with RQP remained absent and hence committee decided to defer the above proposals in one of the upcoming SEAC meeting.

#### 5. SAND MINING PROJECT, DIST:KUTCH

Sr.	Proposal No.	Project	S	Vill,Taluka	District	Hectare	Rate of	Nearest	Proposal
no.		Name	NO				mining	Habitation	use
1	SIA/GJ/MIN/3 6794/2015	Kesavji Manji	468	Luni/ Bhuj	kutch	05-07- 84	5000 MT/M	Luni 2 km	Construction
		Sorathiya				Existing			

Asst. Geologist, Dist: Kutch / Project proponent with RQP remained absent and hence committee decided to defer the above proposal in one of the upcoming SEAC meeting.

#### 6. WHITE CLAY MINING PROJECT: DIST:KUTCH

Sr. no.	Propos al No.	Project Name	Mineral s	S NO	Vill,Taluka	Distri ct	Hectare	Rate of minin g	Nearest Habitation
1	SIA/GJ/ MIN/35 600/20 15	Bhavana Minerals	White Clay/ China Clay	279 P, Gov t Lan d	Modasar/ Anjar	kutch	5.4 Existing	2500 Mt/M	Modasar 3.13 km

2	SIA/GJ/ MIN/37	ASIFRAYMA Haresh	White Clay	483 P	Mamuara/Bh uj	kutch	10-00-00	5000 MT/M	Mamuara 0.33 km
	815/20	Construction							
	16								

Asst. Geologist, Dist: Kutch / Project proponent with RQP remained absent and hence committee decided to defer the above proposals in one of the upcoming SEAC meeting.

#### 7. BENTONITE MINING PROJECT, DIST: KUTCH

Sr.	Proposal No.	Project Name	S	Vill,Taluka	District	Hectare	Rate	Nearest	Proposal
no.			NO				of	Habitation	use
							mining		
1	SIA/GJ/MIN/38776/2016	SHIV	182	Sherdi/	kutch	5-56-45	2000	Sherdi 2	Drilling
		ENTERPRISE	Ρ,	Mandvi			MT/M	km	Mud
		(Govindbhai	pvt.						
		ShivjiBhai	land						
		Pindariya)							

Asst. Geologist, Dist: Kutch / Project proponent with RQP remained absent and hence committee decided to defer the above proposal in one of the upcoming SEAC meeting.

#### 8. CHINA CLAY MINING PROJECT, DIST:KUTCH

Sr.	Proposal No.	Project	Mineral	S NO	Vill,Taluka	Distric	Hectar	Rate of	Nearest
no		Name	S			t	е	mining	Habitatio
									n
1	SIA/GJ/MIN/35769/2015	Jitendrakum	China	156	Jatavada/	kutch	10-70-	1500	Balasar
		ar	Clay	3 P	Rapar		80	Mt/M	4.36 km
		Shankarlal					Existin		
		Jobanputra					g		
2	SIA/GJ/MIN/50239/2016	M/S	China		Padhar,T	kutch	15-00-	-	Padhar
		Shreeram	Clay		a : Bhuj		00		3.04 km
		Minchem					Existin		
		International					g		
3	SIA/GJ/MIN/50237/2016	Manoj P.	White	409	Zura, Bhuj	kutch	10-00-	1,53,00	Zura
		Solanki	Clay	Р			00	0 MTPA	0.80km
		(Zura)	and				Existin		
			China				g		
			clay						
4	SIA/GJ/MIN/50235/2016	Manoj P	China	682	,Nadapa,	kutch	6-50-00	6-50-00	Nadapa
		Solanki	Clay	Р	Bhuj,		Existin	Existing	1.30 km
		(Nadapa)					g	1	

For the proposal Nos: SIA/GJ/MIN/35769/2015, SIA/GJ/MIN/50239/2015 and SIA/GJ/MIN/50235/2015, Asst. Geologist, Dist: Kutch / Project proponent with RQP remained absent and hence committee decided to defer the above proposals in one of the upcoming SEAC meeting.

For proposal No: SIA/GJ/MIN/50237/2015, Project proponent along with consultant remained present and made presentation before the committee for the said proposal. During presentation, it was mentioned that there is no applicability of CRZ Notification 2011 for the said lease area and there is no wild life sanctuary and

reserved forest within 10 km from the radius of the proposed lease. Lease area is govt waste land. Proposed mining method is an open cast mining. Top soil will be stacked separately in this area for development of green belt. There is no blasting involved in the mining. Water will be brought from nearby villages. There will be no intersection of ground water table during mining. Water sprinkling will be done to curb fugitive emission due to movement of vehicles in the lease area. Water sprinkling is proposed on haul roads. Mined out material will be transported through covered trucks/vehicles. Mined out pit will be converted into water reservoir for storing rain water. All mitigation measures will be taken to curb noise due to mining activities. Approved mining plan is submitted by the project proponent.

After presentation, committee asked project proponent and consultant to submit details regarding formation of cluster for homogeneous minerals within 500 meter radius from the outer periphery of the lease area duly validated by the district geologist. Upon submission of the said details, committee unanimously decided to take up the above proposal no: SIA/GJ/MIN/50237/2015 for further consideration in one of the upcoming SEAC meeting.

#### 9. ORDINARY CLAY MINING PROJECT, DIST: SURAT

Sr.	Proposal No.	Project Name	S NO	Vill,	Hectare	Rate	Nearest	Proposal
no.				Taluka		of 	Habitation	use
						mining		
1	SIA/GJ/MIN/33829/2015	Ajaysinh	Block	Saras/	11-90-	1667	Sarsa 1	Construction
		Bhupatsinh	No.907	Olpad	79	MT/M	km	
		Suratioa. Moje:-			Existing			
		Saras, Tal:-						
		Olpad, Dis:- Surat						
2	SIA/GJ/MIN/33903/2015	Shree Sai	Block	Kamroli/	5-42-40	833	Kanroli 1	Construction
		Enterprise. Prop:	No 463	Olpad	New	Mt/M	km	
		Subhash Patel.						
		Block No:- 463,						
		Moje Kamroli,						
		Tal:- Olpad, Dist:-						
		Surat.						

Shri D.K.Patel, Geologist, Dist: Surat informed the committee that above proposals are for the quarry permit for ordinary clay and are area of lake. He further informed that both the applications are pertaining to the deepening of the lake and according to the amendment in EIA Notification on 15/01/2016, such activities are exempted for applicability of EC. He further requested committee to close the proposals as he is withdrawing both the applications. Committee referred the submission of the geologist and unanimously decided to close the above proposals and delist from the pending EC applications list of SEAC.

#### 10. SAND MINING PROJECT, DIST:SURAT

Sr no	Proposal No.	Project Name	S NO	Vill,Tal uka	Hectare	Rate of mining	Name of River	Nearest Habitati on	Proposal use
1	SIA/GJ/MIN/38942/ 2016	Arvindbhai Vallabhbhai Solanki	107/A,109 ,121,87	Vankla / Mandvi	07-49-50 Existing	5000 MT/M	Тарі	Vankla 0.70 km	Constructi
2	SIA/GJ/MIN/49871/ 2016	Arvindbhai Ravjibhai Rathod	381,383, 387,396 P	Vill:Un, Mandvi	6-77-45 Existing	1,20,00 0 MTPA	Tapi	Mandvi 7.69 km	Constructi on

Shri D.K.Patel, Geologist, Dist: Surat informed that hard copy of proposal No: SIA/GJ/MIN/49871/2016 is not ready and hence requested to defer the proposal. Committee agreed to the request and decided to defer the proposal in one of the upcoming SEAC meeting.

For the proposal No: SIA/GJ/MIN/38942/2016, a written confirmation is submitted by the geologist stating that proposal is located in the river bed of Tapi comprising black trap. During period of monsoon, deposition of sand occurs on the black trap and it is not an in-stream mining. He further clarified that the proposal No: SIA/GJ/MIN/38942/2016 is not falling under the cluster and lease holder has submitted mining plan.Referring to the application, Committee noted that application comprises of EMP and project details of the proposal duly acknowledged by the PP and geologist, Dist; Surat however it does not include Form I, Prefeasibility report and approved mining plan. After deliberation, committee unanimously decided to defer the proposal No: SIA/GJ/MIN/38942/2016 to one of the upcoming SEAC meeting and decided to consider the proposal only after submission of Form I, Prefeasibility report and approved mining plan.

#### 11. BLACK TRAP MINING PROJECTS - DISTRICT SURAT

Sr. No	Name of Applicant	Lease Area in Hectare	Location Address	Village	Taluka	Human Habitatio n	Rate of Minin g	Propose d Use
1	Shri Jayantibhai Durlabhbhai Patel (Jalaram Stone Quarry)	09-00-00 Existing	S.No.120	Khanjroli	Mandvi	Khanjroli 1 km	75000 TPA	Construc tion

Aforesaid proposal was scheduled for appraisal in the SEAC meeting held on 14/07/2015. During presentation, Shri D.K.Patel, Geologist, Dist: Surat mentioned that lease area is located in the Tapi river bed. After presentation, Committee decided that proposal cannot be appraised unless a detailed study is conducted by recognized institution of National repute to assess impact of mining in river bed on physical characteristics like river stability, flood risk, environmental degradation, loss of habitat, decline in bio diversity, change/ alteration in river morphology and other associated environmental aspects. It was decided by the committee during SEAC meeting on 14/07/2015 to close the above proposal and decided that after

submission of aforesaid detailed study report to the committee, above proposal shall be considered for appraisal.

Project proponent has submitted aforesaid report on 04/04/2016 prepared by Kadam Environmental Consultant (NABET Accreditation Certificate No: NABET/EIA/1316/SA 2001 having validity September 16, 2016). According to the study report, site is located in Khanjroli village. It is mentioned that existing flow of water is 10 meter far from the lease boundary. Depth of flowing river is 2 meter. Two dams are located namely Ukai dam: 44 km and Kakrapar: 21 km. The ultimate depth of mining is 40 meter. Major part of Tapi's channel is deccan traps which makes it rough and at places the adjacent banks are even at different levels. Elevation profile from northern bank to southern bank was identified and the northern bank is at 27 m and southern bank is 25 m elevation with reference to MSL.

According to the report, mining activity will not have an impact on existing Tapi river physical characteristics like river stability, river morphology and there is no risk of flooding of river water except monsoon due to release of water from upstream dam. Further it is reported that lease areas have been reported with common floral and faunal species and does not possess critical or important habitat structure which supports and important/threatened species of flora and fauna accordingly there is no threat of loss of habitat and decline in biodiversity.

Proposed mine working is semi mechanized open cast method with controlled blasting under supervision. Water sprinkling is proposed to curb fugitive emission. Ground vibration due to movement of vehicles, drilling will be less and will not have adverse impact in and around the surrounding areas and workers health. No mining activity is proposed during monsoon season.

Further, Shri D.K.Patel, Geologist, Dist: Surat submitted written confirmation that (1) The aforesaid proposal is not an instream mining (2). The nearest human habitation is more than 500 meter away from the proposed lease.(3).Proposed lease area as per the amended EIA Notification 2005 dtd 15/01/2016 does not fall under the cluster.(4) Copy of mining plan submitted to Gujarat Mineral Development and Research society for approval.

After discussion and detailed scrutiny of the proposal, considering the study report, and mitigation measures proposed by the lease holder, the committee unanimously decided to recommend the above proposal for grant of environmental clearance to SEIAA with stipulation of standard conditions for Non Sand mining as approved in 232<sup>nd</sup> SEAC meeting held on 15<sup>th</sup> April 2015 and compliance of undertaking submitted by the project proponent in a letter and spirit.

#### 12. RECONSIDERATION PROPOSAL

Sr.	Project Name	S NO	Vill	Lease	Ta &	Rate of	Nearest
No.				area	District	mining	human
							Habitation
1.	Vijay Stone	Block	Zab	01-00-00	Ta:Mandvi	45,000	Zab:1.45 km
	Quarry	NO: 289		Ha	Dist: Surat	MTPA	

Letter of Member Secretary, State level Environment Impact Assessment Authority(SEIAA) bearing no: SEIAA/GUJ/GEN/211/2016 regarding noncompliance of EC conditions by Vijay Stone Quarry Works, Vill:Zab, Ta: Mandvi, Dist: Surat is received by MS,SEAC on 16/04/2016.Vide letter of Member Secretary, SEIAA, Gujarat dated 16 March 2016 along with letter of directorate General of Mines Safety, Surat region vide NO: SR/DGMS/Complaint(Stone) 2015-16/139 dated 28/01/2016 received by the SEAC on 19/03/2016. Referring to the letter of Directorate general of Mines Safety, it is mentioned that complaint was received from the villagers of Zab, Ta: Mandvi, Dist: Surat regarding damage occurred to their house hold properties due to illegal blasting at Vijay Stone Quarry. It is further mentioned that an official of the directorate general of mine safety enquired into the complaint and during enquiry following observation were made.

Flying fragment emanating from blasting of basalt stone conducted by unqualitified blaster causing imminent danger to the life and safety of the villagers residing in the Zab village within the blasting danger zone (300m) in contravention of regulation 164 (1-A) and 164 (1-B) of metaliferous mines regulation, 1961 framed under the Mines Act, 1952 requiring immediate action to stop blasting and stone dust generated during crushing, blasting, loading and unloading operations in the crusher situated in the vicinity of Zab village in contravention of regulation 124 of Metaliferous Mines Regulation, 1961 framed under the Mines Act 1952 causing serious helath hazards to the villagers as well as mine workers and damaging the environment requiring immediate stoppage of crushing, blasting, loading and unloading operation in Crusher in the stone guarry. It is further mentioned that vide EC accorded to the Vijay Stone Quarry, conditions 26 and 28 are not complied with as "illegal blasting was carried out in the guarry in connivance with the help of explosives dealer licensed by department of explosive. It is further mentioned that blasting was done by a person not holding Blaster's Certificate granted under regulation 160(1) of the Metaliferous Mines regulation, 1961 framed under the Mines Act, 1952 as all quarries have to operate under the statutes framed under the Mines Act, 1952.

During enquiry by the officer of the Directorate General of Mines Safety, Surat it is mentioned that owner of the Vijay Stone Quarry has stated that he was not aware of the Condition No: 26 and 28 of the EC.

Accordingly, aforementioned lease holders were invited for explanation from their side in the SEAC meeting on 30/04/2016 for giving an opportunity of being heard

before taking decision regarding cancellation of EC already accorded. Committee also noticed that order under section 22(3) of the Mines Act 1952 at Vijay Stone Quarry Works has been imposed by the Directorate general of Mines Safety prohibiting the employment of persons in the mine till rectification of the serious contraventions of regulation 34,124, 160(1),164(1-A) and 164(1-B) of Metalliferous Mines Regulations, 1961.

Before taking decision of recommendation for cancellation of EC to SEIAA and allowing project proponent for giving an opportunity of being heard, project proponent was invited to clarify regarding content of letter of Directorate General of Mine Safety. Shri Piyushbhai Kansagra and Shri Kanubhai G. Patel, Partners of Vijay Stone quarry remained present. Committee asked PP to clarify regarding content of the letter received from the MS,SEIAA and noncompliance of condition no 26 and 28 as per the enquiry made by the officer of the Directorate general of mines and Safety, Surat after reading it before the project proponent to which PP mentioned that they have resolved the shortcoming regarding blasting protocol for their quarry and also requested committee to grant them 15 days to submit reply from their side to which committee agreed and asked PP to submit detailed reply. Committee further decided to take up this proposal in one of the upcoming SEAC meeting after submission of the reply by PP.

#### MAJOR MINERAL PROPOSALS

#### **Appraisal Cases:**

### [1] Aro Chem Industries (Mining Lease Area: 40-00-00 Ha), Khasra No. 295/P, Vill. Patana, Tal. Vallabhipur, Dist. Bhavnagar (Proposal NO: SIA/GJ/MIN/10421/2014).

Project proponent applied in Form I along with on 21/07/2014. The above proposal was considered in the SEAC meeting held on 03/12/2014. TOR issued vide letter no: EIA-10-2014-6684-E-60 dated 21/01/2014. Public hearing was conducted on 08/01/2014. Final EIA was submitted on 21/03/2016.

#### **Project Details:**

The environmental settings of the projects are as under.

FEATURES	DETAILS
Village (Nearest)	Panvi 1.6 Km (W)
River / Creek / Nallah / Lake / Pond / Reservoir / Canal	Ootawali R 2.5 km (E),Various 1 <sup>st</sup> order streams/ no reservoir
Reserved or Protected Forest	None
National Highway/State Highway	No NH Vallabhipur-Dhandhule SH 1.7 km W

Mines	Yes Adjacent
Railway Line	Yes 7 km
Archeological Monument/Heritage site	None
National Park	None
Wildlife Sanctuary	None
Interstate Boundary	None

The entire mining lease area 40.00 Ha is a Government waste land. Preoperational area was a Government Waste Land. The present and Post operational land use is as under

Sr. No.	Description	Area (Ha)			
		Present	End of 5 years	Post Operational	
1	Area under Pits	10.92	13.82	8.6168	
2	Infrastructure (Workshop, administrative building etc.)	0.0020	0.0020	0.0020	
3	Area under Roads	0.0060	0.0060	0.0060	
4	Green Belt	0.0250	2.5000	9.000	
5	Rehabilitated Area	-	-	5.2032	
6	Water Reservoir	-	-	2.42	
7	Undisturbed area*	29.047	23.672	14.752	
	Total	40.00	40.00	40.00	

<sup>\*=</sup>Temple premises is a part of undisturbed area

Land use pattern of the study area is as under:

Landuse-Landcover	Area (Ha)	% to Total
Agriculture	2.08	66
Builtup	0.11	4
Canal	0.019	1
Industry	0.013	0
Marshy land	0.104	3
Mining	0.0012	0

River	0.088	3
River Flood Plain	0.042	1
Wasteland	0.59	19
Waterbody	0.08	3
Total Area	3.14	100

There is no stream or nala passing through the mining lease area. There is no river nearby mining lease area and the area is almost flat terrain, hence runoff from the mining lease area is unlikely to disturb natural drainage. Provision of Garland Drain and Sedimentation Tank isprovided in order to arrest silt during monsoon.

Meteorological data (On-site hourly meteorological data like temperature, relative humidity, wind speed, wind direction, humidity and cloud cover), details of mining operation and transportation factors were used as an input to the Model. The major source of emissions is from excavation (open pit source), and transportation (line) operations with quantity of 38250 tones/annum.

Predicted 24 hourly Ground Level Incremental Concentrations of particulate matter are  $1.256 \,\mu\text{g/m}^3$  as given in the Table below.

Season	Pollutant	Maximum Incremental Levels (µg/m <sup>3</sup> )	Distance (km)	Direction
December2014– February2015	PM10	1.256	1	North-East, East & South-East

Station Code	Locations / Villages	Baseline values (µg/m³)	Incremental value (µg/m³)	Predicted Values * (μg/m³)
A1	Project site	86	0.84	86.84
A2	Shiv temple	78	0.83	78.83
А3	Panvi	79	0.140	79.14
A4	Patana	87	0.140	87.14
A5	Keria	78	Less than 0.140	78.12
A6	Chakamapur	69	0.140	69.14
A7	Rajdadh	75	0.140	75.14

NAAQ permissible level for PM10 is 100ug/m<sup>3</sup>

The dust fall measurement is carried out in order to estimate the quantum of fugitive emissions from mining industry having different sources of dust emissions. This includes excavation, handling of mineral/waste and its transport to various places. The dust emitted during these operations disperses in the direction of prevailing wind

pattern. To curb fugitive emission, haulage roads will be frequently sprinkled with water for which truck mounted water tankers with sprinkler arrangement have been provided. Ore will be covered by tarpaulins to prevent spread of dust from it during transportation. Road surfaces will be maintained to prevent generation of dust by truck movement. Green belt development would be taken up at various places.

Mitigation measures to curb fugitive emissions on ambient air quality and mineral transport include water spraying will be carried out at working face and all the workers carrying out development work like excavation, loading and unloading, vehicle operators will be provided with dust mask ,ear muffs, gum shoos and safety helmets.(1)Haulage roads will be frequently sprinkled with water for which truck mounted water tankers with sprinkler arrangement have been provided(2)Ore will be covered by tarpaulins to prevent spread of dust from it during transportation. Road surfaces will be maintained to prevent generation of dust by truck movement (3)Regular maintenance of vehicles and machineries will be carried out in order to control emissions(4)Green belt development would be taken up at various places. There will be to & fro movement of 13 tippers for mineral transport at the peak capacity. The present road network is capable of handling the transportation of proposed production of Dolomite (White chalk). Mineral transport using tarpaulin cover, proper maintenance of the vehicles will help in controlling fugitive emissions during mineral transport. Regarding health and safety of the workers, all the mine workers will be sent to nearest hospital which have the facilities for chest X-ray, pulmonary function test & audiometry, TB, Maleria, HIV etc. Services of Occupational Health Specialist will be arranged regularly. Individual health record of every worker will be maintained till the end of service or the end of mining operations. Proper drinking water facility will be provided to mine workers. Appropriate PPE will be provided to the worker. Services of Occupational Health Specialist will be arranged regularly.

As per the Scheme of Mining, backfilling of overburden will be done side by side at the time of generation itself hence question of its height and spread does not arise. The volume of void is much more than material available for backfilling. Thus, the backfilling of the entire mined out land up to original ground level will not possible. Therefore part of mined out area will be backfilled up to original ground level and part of the mined out area will be used as water reservoir. The water stored in this void will not only serve as natural ground water recharge structure but the stored water can fulfill the needs of irrigation and water required for plantation /framing. The water reservoir (2.42 Ha) with proper fencing and plantation is shown in Mine Closure Plan.

As per the mining scheme, it is proposed that the, waste and soil generated during scheme period will be backfilled in pit No. 1. The volume of available void is much more than the material available for backfilling. The problem for disposal of OB will not be there. The waste generated in next five years will be refilled into the matured voids. First of all waste will be backfilled in to the voids and soil will be spread on backfilled area.

The mining method is an opencast mining.Backfilling of overburden and waste will be done side by side at the time of generation itself hence question of its height and spread does not arise. The volume of voids is much more than material available for backfilling hence backfilling of the entire mined out land up to original ground level will not be possible. Therefore part of the entire mined out area will be backfilled up to original ground level and part of the mined out area will be used as water reservoir. The rehabilitated area after stabilization will be biologically reclaimed. Further, it is proposed to carryout plantation in the non mineralized area on regular basis.

The water requirement of the project is estimated to be 10.0 KLD. Out of which 6.00 KLD of the water is required for dust suppression, plantation. 4.00 KLD is required for domestic purposes. The water requirement is met from Panvi village with prior consent. The water requirement break-up is given in Table given below.

Sr. No.	Purpose	Avg. demand (m <sup>3</sup> /day)
1.	Dust suppression, plantation	6.0
2.	Domestic	4.0
	Total	10.0

There will not be drawl of groundwater for this project.

Water conservation plan includes development of water reservoir in an area of 2.42 Ha. at the end of mining activity. Precipitation received on the reclaimed area and other adjoining area will be diverted to this reservoir. It is estimated that about 48400 m³ water can be collected in this water reservoir. The reclaimed area by the way of backfilling covering an area of 5.203 Ha. will also act as recharging site for the ground water table. The water collected in the garland drain after adequate, settling of solids will be reused for sprinkling of water and plantation. The garland drain will be regularly cleaned to remove the sediments. Provision of Garland Drain and Sedimentation Tank is provided in order to arrest silt during monsoon. These garland drain and the proposed reservoir will act as rainwater harvesting structures to augment the ground water table of the area.

Site elevation of the project site is 7.5 to 11.6 m. Ground water table is 18 to 20m bgl. Mine working depth is 2.0 m. Mine working is limited to 2.0 m depth it will not intersect water table.

A safety committee will be constituted to implement the proposed OSHA management plan and environment management programme and take proper mitigative measures as per EIA/EMP. Services of Occupational Health Specialist will be arranged regularly. The proponent will bear all the expenditure related to health check up and treatment of the mine workers. Individual health record of every worker will be maintained till the end of service or the end of mining operations. Budget has been allocated under Recurring Annual Cost for Environmental protection.

All preventive measures will be taken for non occurrence of any fatal or non fatal accidents. All statutory facilities given under Mines Act will be made available at the mine site. This includes drinking water, toilets, rest shed, canteen, first aid box and reserved vehicle for emergency incidences. All the workers carrying out development work like excavation, loading and unloading ,vehicle operators will be provided with dust mask, ear muffs, gum shoes and safety helmets. Details of mine is as under:

(i) Land area indicating the	= -			
area likely to be degraded		138200 sqm		
due to quarrying / pitting ,		Nil		
dumping, roads workshop,		60 sqm		
processing plan, township	Storage of ore :	Nil		
etc.	Processing plant:	Nil		
	Town ship:	Nil		
	Workshop:	20 sqm		
(ii) Air Quality	(a) Due to formatio	n of dust: -		
	Some amount	of dust will be getting air borne due to		
	movement of	trucks/tippers, loading and unloading of		
	materials to be	e produced during mining.		
	(b) Due to emission	of noxious gases: - As there is no drilling &		
	blasting thus	only transportation will generate some		
	amount of nox	ious gases.		
(iii) Water Quality	The area has no pe	rennial nalas, hence there will be no impact		
C y con Con S	=	ue to mining operation. The water quality		
	_	erations is unlikely to be changed. The		
		te lease area is towards east. As the lease		
	area lies on the slopes the rainwater falling from the ridge is			
		as surface runoff beside water incident on		
	-	ing monsoon season. In order to arrest the		
		s proposed to build a retaining wall inside		
	-	y along with garland drain on the lease		
	boundary on the slope of adequate dimension. The water			
	collected in the garland drain after adequate, settling of solids			
	will be reused for sprinkling of water and plantation. The			
	sediments.	ll be regularly cleaned to remove the		
C> VAIt- M		al/minute researched to the court		
(iv) Waste Management		al/rejects generated in the second year		
		imped as backfilling material for excavated		
		retaining wall will be constructed for the		
		dump in future when dumping area gets		
		The dumps will be reclaimed by biological		
		d after the completion of waste dumping.		
	= =	cal tree species of grasses, shrubs and trees		
	will be adopted.			

(iv) Noise levels	<ul> <li>Mitigation measures for noise are of following types:</li> <li>Prevention at source;</li> <li>Attenuation in transmission path; and</li> <li>Protective measures in work environment.</li> </ul>	
(v) Vibration level (due to blasting)	No blasting activities.	
(vi) Water regime	There will be no accumulation of surface run off and /or seepage water in the quarry floor causing problem of dewatering and drainage problem. Due to slice mining method there will be no accumulations of the water at working area, since no pit formation will take place	
(vii) Socio-Economics	There will be no adverse impact on socio economics and demography. On the other hand mining activities will give the employment to about 83 persons.	
(viii) Historical Monuments	No monuments exist in the area	
Sanctuary, Biosphere Reserve,	There is no National Park, Wildlife Sanctuary, Biosphere Reserve, Archeological Monuments or sites of historical importance in the 10 Km Buffer zone.	

Greenbelt development programme is as under:

Period	Gr	Greenbelt on Safety Area and ML Boundary			
	ha	Amount (Lakhs)			
At the end of 5th year	2.50	5000	0.50		
At the end of 10th year	5.00	10000	1.25		
At the end of 15th year	9.00	20000	3.00		

There is no litigation pending against this project.

#### **Observation and discussion:**

Technical presentation was made before the committee. On 21/03/2016, PP has submitted final EIA report prepared by SRUSHTI SEWA (NABET Accredited Consultant, Certificate No: NABET/EIA/127/SA02/0613 dated 26/06/2013). Public hearing was conducted on 08/01/2016. Committee noted that during public hearing issued raised were satisfactorily replied by the project proponent. Baseline data is collected for a period December 2014 to February 2015. Seven ambient air monitoring stations were decided (2 in core zone,3 in upwind direction and 2- in down wind direction). During study period, concentration of parameters PM10, PM2.5, SO2, NOx and CO are found within NAAQ standards. For CO2 emission rate, during transport of mineral/day is estimated considering transport of mineral from mine to Bhavnagar covering distance of 60 km and it is estimated that during consumption of every litre of diesel, 2.58 kg CO2 eq. will be generated into atmosphere. Thus 10 litres of diesel consumption, 335.40 kg CO2 eq. will be released which is within

norms. Noise measurement for seven locations ( 2 core,5 buffer) have been made and recorded noise levels in the proposed lease buffer zone are found in the range of 46.3 to 63.7 dB(A) at all seven monitoring stations. Ground water and surface water samples for 7 stations have been monitored and after analysis, as per EIA report, it is mentioned that overall quality of water samples is indicating its characteristics within limit as per relevant Indian standards. Soil samples from four locations have been collected and it is mentioned that characteristics of waste land soil near mine lease area is found little deficient in nutrient concentration whereas three agricultural land soils are found moderately suitable for cultivation of climatic crops and having good fertility. Notarized undertaking for not carrying out blasting is submitted by the project proponent.

While reviewing the EIA report and documents submitted the project proponent, Committee noticed that closure direction has been issued to the unit by GPCB vide letter No: GPCB/CCA/BHV-879/id-25726/145768 dated 03/05/2013 for running the unit without obtaining EC/CTE/CCA. Considering above, Committee found that the project proponent has violated the provisions of EIA Notification-2006 by carrying out mining activity/ starting the production activity without obtaining prior EC and hence decided not to consider the project at this stage. Further it was decided to inform Gujarat Pollution Control Board to initiate credible action on the violation by invoking powers under Section 19 of the Environment (Protection) Act, 1986 for taking necessary legal action under Section 15 of the Act.

## 2. <u>Gopal Glass Works Ltd.,( Lease area: 9.71 Ha), S NO: 1644(P), Village: Ilol, Ta:Himatnagar, Dist: Sabarkantha.</u>

Project proponent applied in Form I on 26/12/2014. The proposal was considered in the SEAC meeting held on 27/05/2015. The technical presentation of the project included introduction & background of the company, site location, google image of site & surrounding, site photographs, details of lease, land use of lease area, reserve, production & life of mine with no blasting, quantity of OB & waste, year wise backfilling and plantation, mining method, electricity & fuel, working depth and ground water, water requirement, important features surrounding the mine along with proposed TOR.

After detailed deliberation, considering the scale of project, it was categorized as B2 and additional information was sought for appraisal of the project immediately after the meeting. A letter asking for additional information was also intimated to the PP vide letter no: EIA-10-2014-6890-E-2160 dated 01 July 2015. PP submitted the details on 12/04/2016 and details are as under.

Shri Mahendra Kumar K Shah was issued a mining lease of Glass sand (Silica sand) 9.71 ha S. No. 1644 P, Village IIol of Taluka Himantnagar, District Sabarkantha for 20 years by the Govt. of Gujarat state vide letter no. MCR-1572 (S-156) 2373- CHH dated 7.04.1973. The lease was executed on 13.10.1975 vesting with the lessee mining rights over the area for 20 years i.e. up to 19.10.1995. M/s Gopal Glass

Works Pvt. Ltd (Now Gopal Glass Works Limited) was sanctioned transfer of lease from Shri Mahendra Kumar K Shah by Government order no. MCR-1581 (G - 105)/3766 CHH dated 17.07.1982 for remaining period (i.e. up to 19.10.1995). M/s Gopal Glass work Ltd has submitted an application for lease renewal for another 20 years and Government renewed the lease deed from 12-10-1995 up to 20 years vide order no MCR-1099-4170-CHH, further an application for 2<sup>nd</sup> lease renewal was again submitted on 20/3/2014 for another 20 years and is under process. The Commissioner of Geology and Mining has approved the Mining plan on 17/06/2014 by their ref No: CGM/MC/412/5171 Dated 17/06/2015.

#### Environmental settings are as under:

S. No	Important Features	Name	Aerial Distance in km
1	Forest Land	-	-
2	National Park	No	-
3	Wild life Sanctuary	No	-
4	Eco sensitive Zone	No	-
5	Water bodies	Sabarmati River	5.03
6	CRZ zone	No	-
7	Nearest Railway Station	Himatnagar	9.9
8	Nearest Habitation	IIol Village	1.0
9	Airport	Ahmedabad	69
10	Highway	NH-76 A	6.44
		SH 55	5.0

#### Detail of the projects is as under:

Name; Area	Ilol Silica Sand Mining in 9.71 Ha Area
Survey No; Taluka; District	Survey No 1644 (P), at Ilol village, Taluka Himatnagar, District Sabarkantha, Gujarat
Type of Land	Government Waste Land

Total Mineral Reserve	1714000 Tonnes
Proposed Production	37342 TPA
Life of Mine	34 years
Mineral Processing	Crushing of Sand stone will be carried out at site
Power requirement	100 HP power connection available at site
Water Requirement	18.655 KLD
Mining Method	Semi mechanized open cast method
Plantation	50 saplings are proposed to be planted and area requirement 375 m2.
Transportation	Via Truck (from Himatnagar – Vijapur- Kalol bypass – Kadi) to Plant at Kadi
Employment Potential	1 full time mining engineer, 10 unskilled labor (average)

The overburden dump will be done on the corner of the lease area, and the stone will be paved on the surface of the dump; so the river flow or rain water cannot be washed away. The adjoining area will not be harmed and will be protected. The mining will be done by JCB and there is no need of any blasting. Water sprinkling shall be carried out roads to control dust emissions. Close Transportation of material shall be carried out. Green belt development surrounding the site. Gopal Glass Works Limited will be installing heavy capacity blower to collect the dust and the silos will be installed to collect the fine dust particle. The conveyors will be covered on top to control the dust. In addition, the sprinklers will be used during mining and transport activity. The overburden and mine reject will be dump on the corner of the lease area, and the stone will be paved on the surface of the dump. The overburden dump will be done on the corner of the lease area, and the stone will be paved on the surface of the dump; so the river flow or rain water cannot be washed away. The adjoining area will not be harmed and will be protected. Total Water requirement is 18.555 KLD, which will be sourced from existing Bore well located at site. Himatnagar is classified as safe taluka for ground water perspective, hence permission for drawl for ground water is not required. Rainwater from major part of lease area will be collected in mine out pits. As per the IBM approved mining plan, at the end of five year plan period, out of total 9.71 ha of area, mining will be carried out only in 1.22 ha of area, will be used as an water reservoir having depth 3.5 m. Thus volume available for storing of rainwater will be 12234 m2 (area of water reservoir) \*3.5 m (depth) = 42819 (m3). Total area of mine lease area is 9.71 Ha. Average annual rainfall intensity 0.250 m. Considering only rainwater that falls within reservoir then total annual rain water collected in pits will be (1).3058.5 m3 (precipitation) (2) 42819 m3 (volume of pit). The quantity available through rainwater

will cater the need of green belt. Total 32 nos of trees, 20 nos. of shrubs, 18 nos of herbs and 3 nos. of grass species were observed in the study area. 40 Nos. of Bird species, 3 nos. of Reptiles and 5 nos. of Mammals were observed in the study area. There is no schedule I, rare or endangered species recorded in the study area. EMP is proposed by the PP for Preparation of the site, movement of vehicles at site and for mining. Details of green belt development programme for the five years from 2013-14 is submitted and accordingly 250 saplings will be planted till 2017-18. Working depth in mine lease is about 5m whereas the water table in this area is observed generally at a 10 meter so it will not intersect with ground water so impact on ground water due to mining activity will not be there. Local workers will be employed for mining; hence there is no need to provide housing facilities. Other facilities like Mine Office, Rest Shelter, drinking water, safety shoes, ear plugs, mask will be provided to workers. No Litigation pending against the project

After deliberation, committee found that details of production from the year 2006, current status of mine lease in terms of its renewal could not be produced and hence decided to ask PP to submit following information.

- (i) Status of operation of mining up to the year 2016 since 2006 with year wise production detail.
- (ii) Current lease renewal status from department of Industries and Mine, Government and Gujarat.

### 3. <u>Rajnikant D.Trivedi (Lease area: 12.3530 Ha), Village:Hasnavadar, Ta:VeravalDist:Girsomnath.</u>

Sr.	Proposal No.	Project Name	S NO	Vill,Taluka	Hectare	Rate of	Nearest
no.	_					mining	Habitation
1	SIA/GJ/MIN	RAJNIKANT	5 P	Hasnavadar/	12-35-	50,000	Hasnavadar
	/34482/2015	D. TRIVEDI		Veraval	30	MTPA	0.670 km
					New		

The above proposal was considered in the SEAC meeting held on 09/03/2016. The technical presentation of the project included introduction, location details, environmental setting, details of mineral reserve, water requirement, method of mining without drilling and blasting, details of employment, green belt development, proposed expenditure for environmental pollution control etc. After detailed deliberation, considering the scale of project and as mining is proposed to be carried out by semi mechanized means and does not include blasting, it was categorized as B2 and additional information was sought for appraisal of the project. Project proponent has submitted the said information on 19/04/2016. Referring to the reply, Committee noticed that PP does not have submitted approved mining plan, details of production for the last five years and also during SEAC meeting, project proponent

remained absent and hence it was decided by the committee to defer the proposal NO: SIA/GJ/MIN/34482/2015 in one of the upcoming SEAC meeting.

#### FIRST HEARING

Sr.No.	Proposal No.	Project Name	District	Hectare
4	SIA/GJ/MIN/11015/2016	SHRI ASHOK BABULAL	Porbandar	16.18
		SINDHAV		

Project proponent remained absent and hence presentation for the above proposal could not be made before the committee. After deliberation, committee decided to defer the proposal NO: SIA/GJ/MIN/11015/2016 in one of the upcoming SEAC meeting.

Sr.No.	Proposal No.	Project Name	District	Hectare
5	SIA/GJ/MIN/11013/2016	SHRI ASHOK BABULAL	Porbandar	23.88
		SINDHAV		

Project proponent remained absent and hence presentation for the above proposal could not be made before the committee. After deliberation, committee decided to defer the proposal NO: SIA/GJ/MIN/11013/2016 in one of the upcoming SEAC meeting

Sr.	Proposal No.	Project Name	Lease Area	Rate of
No.				Mining
6	SIA/GJ/MIN/50609/2016	VASAI LIMESTONE AND MARL	4.2467 Ha	Limestone:
		MINES OF RAJESH SHARDULBHA	Existing	30,000
		KER, S NO: 129,VILL:VASAI,TA:		MTPA and
		OKHAMANDAL,DIST:DEVBHUMID		Marl: 73780
		WARKA		MTPA

The project proponent has applied for mining of Lime Stone and Marl (Lease Area: 04-2467 Ha) located at S NO: 129,Vill:Vasai,Ta: Okhamandal, Dist:Devbhumidwarka The mine lease area is 04-2467 Ha. Proposed rate of mining for Limestone is 30,000 MTPA and for Marl, it is 73780 MTPA

The proposal falls in project / activity no. 1(a) of the Schedule of the EIA Notification, 2006 and as the lease area is less than 50 Hectares project falls under category B.

The technical presentation of the project included introduction, expenditure to be incurred for environmental matters, environmental settings, lease location map, longitude and latitudes of lease area, grant order of lease etc.

After detailed deliberation, considering the scale of project, it was categorized as B2 and following additional information was sought for appraisal of the project.

- 1. Project site specific details such as distance of the project site from the nearest (1) Village (2)Water Body: River / Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway(4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary /Reserve Forest / Protected Forest. A map indicating the aerial distance of the lease area from these entities.
- 2. Copies of all requisite permissions including permissions from District Collector, Commissioner, Geology & Mining, Indian Bureau of Mines, GPCB ,lease renewal status from department of Industries and Mine, Government and Gujarat etc.
- 3. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases.
- 4. Approved mining plan including progressive mine closure plan including details of month wise production.
- 5. Details of peripheral drains to arrest the inflow of surface runoff in the quarry area and garland drains for arresting run off from the overburden / reject dumps. Specific measures to ensure that contaminated runoff from mine terrain will not lead to the rivers / natural drains / adjoining farms, in any case.
- 6. Technical justification for no requirement of blasting. Notarized undertaking stating that no blasting shall be carried out for entire period of mining.
- 7. Impact due to fugitive emissions including that because of transportation activities and the mitigation measures thereof need to be elaborated.
- 8. Dust suppression measures & control measures at worker level & proposed PPE to workers.
- 9. Detailed overburden and mine rejects management plan.
- 10. Detailed write up and drawing of mine closure plan. Water reservoirs to be constructed afterclosure of mine should be in proper shape and having proper fencing.
- 11. Details on back filling system of the exhausted mine. Details on compaction of back filling layer.
- 12. The reclamation plan, post mine land use and progressive green belt development plan along with year wise financial outlay shall be included.
- 13. The water requirement for the project along with the source and availability as well as necessary permissions from the competent authority for drawl of groundwater, if any.
- 14. Details of the water conservation measures proposed to be adopted in the project should be highlighted.
- 15. Information on site elevation, working depth, ground water table should be provided. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater.

- 16. Check list of flora and fauna in the study area and impacts of the project on the same along with mitigation measures.
- 17. Occupational health impact of the project especially during manual operations in the work area and the mitigation measures proposed along with the commitment of the project proponent for implementation of the mitigation measures.
- 18. Plan for periodic medical examination of the mine workers.
- 19. Details of the basic amenities, infrastructure facilities, PPEs etc. to be provided to the mine workers.
- 20. Detailed Mitigation Plan and the Environmental Management Plan with respect to all likely impacts of the project activities. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
- 21. An action plan showing list of the activities along with the fund allocation shall be submitted based on the socio-economic profile of the surrounding villages and need base field assessment.
- 22. Details regarding existing green belt development activity carried out during past years. A detailed future greenbelt development plan including type of species, number of trees, budgetary allocation, etc.
- 23. Details of fencing, tree plantation done in the existing mined area.
- 24. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.
- 25. (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed. (b). Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions ? If so, it may be detailed.
- 26. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
- 27. Does the company have a 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? This reporting mechanism should be detailed.

The project shall be appraised after submission of above cited additional details.

Sr.	Proposal	Project Name	Lease	Rate of Mining
No.	No.		Area	
7	SIA/GJ/MI	M/s Saurashtra Calcine Bauxite & Allied	12-95-	3,74,326 MTPA
	N/51515/	Industries.,S.NO:121/P,Vill:Hadmatiya,Ta:	00 Ha.	
	2016	Kalyanpur, Dist: Devbhumidwarka	Existing	

The project proponent has applied for their bauxite mine located at SNO:121/P, Vill:Hadmatiya, Ta:Kalyanpur, Dist: Devbhumi Dwarka. The mine lease area is

12.9500 Ha and proposed rate of mining is 3,74,326 MTPA.. There is no blasting. Method of mining is an open cast mining. The proposal falls in project / activity no. 1(a) of the Schedule of the EIA Notification, 2006 and as the lease area is less than 50 Hectares, it falls under category B.

The technical presentation of the project included introduction & background of the company, Environment setting of project, details of renewal of lease, location map of the project, google image of 5 km buffer zone, nearest village and distance with reference to the sanctuary, pindarda biosphere reserve, NOC from the forest department, mining details, water requirement and source of water, mining method, environment management plan with mitigation measures etc.

After detailed deliberation, considering the scale of project, it was categorized as B2 and following additional information was sought for appriasal of the project.

- 1. Project site specific details such as distance of the project site from the nearest (1) Village (2) Water Body: River / Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway(4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary /Reserve Forest / Protected Forest. A map indicating the aerial distance of the lease area from these entities.
- 2. Copies of all requisite permissions including permissions from District Collector, Commissioner, Geology & Mining, Indian Bureau of Mines, GPCB, lease renewal status from department of Industries and Mine, Government and Gujarat etc.
- 3. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases.
- 4. Approved mining plan including progressive mine closure plan including details of month wise production.
- 5. Details of peripheral drains to arrest the inflow of surface runoff in the quarry area and garland drains for arresting run off from the overburden / reject dumps. Specific measures to ensurethat contaminated runoff from mine terrain will not lead to the rivers / natural drains / adjoining farms, in any case.
- 6. Technical justification for no requirement of blasting. Notarized undertaking stating that no blasting shall be carried out for entire period of mining.
- 7. Impact due to fugitive emissions including that because of transportation activities and the mitigation measures thereof need to be elaborated.
- 8. Dust suppression measures & control measures at worker level & proposed PPE to workers.
- 9. Detailed overburden and mine rejects management plan.
- 10. Detailed write up and drawing of mine closure plan. Water reservoirs to be constructed after closure of mine should be in proper shape and having proper fencing.

- 11. Details on back filling system of the exhausted mine. Details on compaction of back filling layer.
- 12. The reclamation plan, post mine land use and progressive green belt development plan along with year wise financial outlay shall be included.
- 13. The water requirement for the project along with the source and availability as well as necessary permissions from the competent authority for drawl of groundwater, if any.
- 14. Details of the water conservation measures proposed to be adopted in the project should be highlighted.
- 15. Information on site elevation, working depth, ground water table should be provided. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater.
- 16. Check list of flora and fauna in the study area and impacts of the project on the same along with mitigation measures.
- 17. Occupational health impact of the project especially during manual operations in the work area and the mitigation measures proposed along with the commitment of the project proponent for implementation of the mitigation measures.
- 18. Plan for periodic medical examination of the mine workers.
- 19. Details of the basic amenities, infrastructure facilities, PPEs etc. to be provided to the mine workers.
- 20. Detailed Mitigation Plan and the Environmental Management Plan with respect to all likely impacts of the project activities. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
- 21. An action plan showing list of the activities along with the fund allocation shall be submitted based on the socio-economic profile of the surrounding villages and need base field assessment.
- 22. Details regarding existing green belt development activity carried out during past years. A detailed future greenbelt development plan including type of species, number of trees, budgetary allocation, etc.
- 23. Details of fencing, tree plantation done in the existing mined area.
- 24. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.
- 25. (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed. (b). Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions ? If so, it may be detailed.

- 26. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
- 27. Does the company have a 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? This reporting mechanism should be detailed.

The project shall be appraised after submission of above cited additional details.

Sr.No.	Proposal No.	Project Name	District	Hectare
8	SIA/GJ/MIN/48072/2016	M/s. Somnath Hydrated Lime	Gir Somnath	15.1352
		and Chemical Industries Pvt.		
		Ltd		

Project proponent remained absent and hence presentation for the above proposal could not be made before the committee. After deliberation, committee decided to defer the proposal NO: SIA/GJ/MIN/48072/2016 in one of the upcoming SEAC meeting.

Sr.No.	Proposal No.	Project Name	District	Hectare
9	SIA/GJ/MIN/4891/2015	Mokhana White Clay & Silica	kutch	12-00-00
		Sand Mine		

Project proponent remained absent and hence presentation for the above proposal could not be made before the committee. After deliberation, committee decided to defer the proposal NO: SIA/GJ/MIN/4891/2015 in one of the upcoming SEAC meeting.

Sr.No.	Proposal No.	Project Name	District	Hectare
10	SIA/GJ/MIN/9605/2016	White Clay Mining along with	Kutch	20-00-00
		Major Mineral (Bhupendra		
		Kumar Rewa Shankar Gaur)		

Project proponent remained absent and hence presentation for the above proposal could not be made before the committee. After deliberation, committee decided to defer the proposal NO: SIA/GJ/MIN/9605/2016 in one of the upcoming SEAC meeting.

Sr.No.	Proposal No.	Project Name	District	Hectare
11	SIA/GJ/MIN/34453/2015	bauxite mines (mining lease)	Devbhumi	5-00-00
		of giriraj calcine bauxite and	Dwarka	
		refractories private ltd.		

Project proponent remained absent and hence presentation for the above proposal could not be made before the committee. After deliberation, committee decided to

defer the proposal NO: SIA/GJ/MIN/34453/2015 in one of the upcoming SEAC meeting.

Sr.	Proposal	Project Name	Lease Area	Rate of Mining
No.	No.			
12	SIA/GJ/M	Navdra Limestone	5.00 Ha	20,400 MTPA
	IN/30482/	Mine,(Applicant:Hardasbhai	New	
	2015	Karshanbhai Ambaliya), S NO: 80(P),		
		Vill:		
		Navdra,Ta:Kalyanpur,Dist:Devbhumi		
		Dwarka,Gujarat		

The project proponent has applied for mining of Lime Stone (Lease Area: 05-00 Ha) located at S NO: S NO: 80(P),, Vill: Navdra,Ta:Kalyanpur,Dist:Devbhumi Dwarka,Gujarat. The proposed rate of mining for Limestone is 20,400 MTPA.

The proposal falls in project / activity no. 1(a) of the Schedule of the EIA Notification, 2006 and as the lease area is less than 50 Hectares project falls under category B.

The technical presentation of the project included introduction, details of mining lease, proposed production, stagewise land use and reclamation plan, water requirement and source, use of mineral, green belt development, health and safety aspects of the proposal, water conservation measures, impacts of blasting and mitigations measures, environmental management plan and mitigation measures, mine closure plan, occupational health impact etc.

After detailed deliberation, considering the scale of project, it was categorized as B2 and following additional information was sought for appraisal of the project.

- 1. Project site specific details such as distance of the project site from the nearest (1) Village (2)Water Body: River / Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway(4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary /Reserve Forest / Protected Forest. A map indicating the aerial distance of the lease area from these entities.
- 2. Copies of all requisite permissions including permissions from District Collector, Commissioner, Geology & Mining, Indian Bureau of Mines, GPCB ,lease renewal status from department of Industries and Mine, Government and Gujarat etc.
- 3. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases.
- 4. Approved mining plan including progressive mine closure plan including details of month wise production.
- 5. Details of peripheral drains to arrest the inflow of surface runoff in the quarry area and garland drains for arresting run off from the overburden / reject dumps. Specific measures to ensure that contaminated runoff from mine terrain will not lead to the rivers / natural drains / adjoining farms, in any case.

- 6. Technical justification for no requirement of blasting. Notarized undertaking stating that no blasting shall be carried out for entire period of mining.
- 7. Impact due to fugitive emissions including that because of transportation activities and the mitigation measures thereof need to be elaborated.
- 8. Dust suppression measures & control measures at worker level & proposed PPE to workers.
- 9. Detailed overburden and mine rejects management plan.
- 10. Detailed write up and drawing of mine closure plan. Water reservoirs to be constructed after closure of mine should be in proper shape and having proper fencing.
- 11. Details on back filling system of the exhausted mine. Details on compaction of back filling layer.
- 12. The reclamation plan, post mine land use and progressive green belt development plan along with year wise financial outlay shall be included.
- 13. The water requirement for the project along with the source and availability as well as necessary permissions from the competent authority for drawl of groundwater, if any.
- 14. Details of the water conservation measures proposed to be adopted in the project should be highlighted.
- 15. Information on site elevation, working depth, ground water table should be provided. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater.
- 16. Check list of flora and fauna in the study area and impacts of the project on the same along with mitigation measures.
- 17. Occupational health impact of the project especially during manual operations in the work area and the mitigation measures proposed along with the commitment of the project proponent for implementation of the mitigation measures.
- 18. Plan for periodic medical examination of the mine workers.
- 19. Details of the basic amenities, infrastructure facilities, PPEs etc. to be provided to the mine workers.
- 20. Detailed Mitigation Plan and the Environmental Management Plan with respect to all likely impacts of the project activities. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
- 21. An action plan showing list of the activities along with the fund allocation shall be submitted based on the socio-economic profile of the surrounding villages and need base field assessment.

- 22. Details regarding existing green belt development activity carried out during past years. A detailed future greenbelt development plan including type of species, number of trees, budgetary allocation, etc.
- 23. Details of fencing, tree plantation done in the existing mined area.
- 24. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.
- 25. (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed. (b). Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed.
- 26. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
- 27. Does the company have a 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? This reporting mechanism should be detailed.

The project shall be appraised after submission of above cited additional details.

#### **ADDITIONAL AGENDA**

#### **EC AMENDMENT PROPOSALS**

#### (1) River bed sand Mining Project, Dist.: Gandhinagar

Sr No.	Name of applicant	Lease Area and type	Locati on	Survey No:	Village	Taluka	Dist:	Rate of mining
1	Meruji	13.44.00	Sabarm	450,270	Dolara	Gandhi	Gandhin	12,000
	Vallaji	Ha	ati river		na	nagar	agar	MTPM
	Vanzara	New	bed					

Environmental Clearance for the above proposal was issued on 02/11/2015 vide letter No. SEIAA/GUJ/EC/1(a)/3973/2015. Project proponent has submitted an application on 06/04/2016 for correction of lease area mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that lease area of the proposal "03-44-00 Ha" whereas in EC, it is mentioned as "13-44-00 Ha".

Referring the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 02/11/2015 vide letter No. SEIAA/GUJ/EC/1(a)/3973/2015. for correction in lease area as " 03-44-00 Ha" and shall be read as below to SEIAA.

Sr No.	Name of applicant	Lease Area and type	Location	Survey No:	Village	Taluka	Dist:	Rate of mining
1	Meruji	03.44.	Sabarma	450,270	Dolara	Gandhi	Gandhin	12,000
	Vallaji	00Ha	ti river		na	nagar	agar	MTPM
	Vanzara	New	bed			_		

#### (2). Black trap Mining Proposal, Dist.: Valsad

Sr. No.	Name of applicant	Lease Area and type	Survey NO	Village	Taluka	Rate of mining
1	Shree Krishna Stone	01-00-00 Ha Existing	S.NO: 68 / 2 P4	Sarigam	Umbergam	2600 MTPM
	Quarry					

Environmental Clearance for the above proposal was issued on 30/01/2016 vide letter No. SEIAA/GUJ/EC/1(a)/34/2016. Project proponent has submitted an application on 19/03/2016 for correction in address, lease area and rate of mining of the project mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that location of the proposal is at S NO: 154,155,156, Block NO: 218, Vill: Wadi, Ta:Umarpada, Dist Surat having actual lease area: 3.39 Ha and rate of mining 20,000 MTPA whereas in EC, it is mentioned as "S NO:68/2P4,Vill: Sarigam, Ta: Umbergam, lease area:01-0000 Ha, Rate of mining: 2600 MTPM".

Referring the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 30/01/2016 vide letter No. SEIAA/GUJ/EC/1(a)/34/2016 for correction in address, lease area and rate of mining and shall be read as below to SEIAA.

Sr. No.	Name of applicant	Lease Area and type	Survey NO	Village	Taluka,	Dist	Rate of mining
1	Shree Krishna Stone Quarry	03-39-00 Ha New	Bloc NO: 218,S NO: 154,155,156	Wadi	Ta: Umarpada ,	Dist: Surat	20,000 MTPA

#### (3). Black trap Mining Proposal, Dist.: Valsad

Sr. No.	Name of applicant	Lease Area and type	Survey NO	Village	Taluka	Rate of mining
1	Janaksinh U. Chauhan	01-10-20 Ha Existing	S.NO: 112/2	Maroli	Umbergaun	10,000 MTPA

Environmental Clearance for the above proposal was issued on 06/06/2015 vide letter No. SEIAA/GUJ/EC/1(a)/2196/2015. Project proponent has submitted an application on 19/03/2016 for correction in Name,address and rate of mining of the project mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that name of the proposal is "Shree Shiv Shakti Stone Quarry",at S NO: 111/2 paiki 1 (pvt. land) with rate of mining is 10,000 MTPM whereas in EC name of the proposal mentioned is Janaksinh U. Chauhan at S NO: 112/2 and rae of mining is 10,000 MTPA.

Referring the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 06/06/2015 vide letter No. SEIAA/GUJ/EC/1(a)/2196/2016 for correction in name, address and rate of mining and shall be read as below to SEIAA.

Sr. No.	Name of applicant	Lease Area and type	Survey NO	Village	Taluka,Dist	Rate of mining
1	Shree Shiv Shakti Stone Quarry	01-10-20 Ha Existing	S.NO: 111 / 2 Paikee 1 (Pvt. Land)	Maroli	Ta:Umbergaun Dist: Valsad	10,000 MTPM

#### (4). Black trap Mining Proposal, Dist.: Surendranagar

Sr. No.	Name of applicant	Lease Area and type	Location	S NO	Village	Taluka	Rate of mining
1	Malubhai	02-0000 Ha	Bhogavo	Bhogavo	Samadhiyala	Chuda	18,000
	Naranbhai	New	river bed	river patt			MTPA
	Palaniya			paiky			

Environmental Clearance for the above proposal was issued on 02/11/2015 vide letter No. SEIAA/GUJ/EC/1(a)/3969/2015. Project proponent has submitted an application on 19/03/2016 for correction in lease area and rate of mining of the project mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that lease area mentioned is 3.0000 Ha and rate of mining is 1,80,000 MTPA whereas in EC lease area mentioned is 2.0000 Ha and rate of mining mentioned is 18000 MTPA.

Referring the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 02/11/2015 vide letter No. SEIAA/GUJ/EC/1(a)/3969/2015 for correction in lease area and rate of mining and shall be read as below to SEIAA.

Sr. No.	Name of applicant	Lease Area and type	Location	S NO	Village	Taluka	Rate of mining
1	Malubhai Naranbhai	03-0000 Ha Existing	Bhogavo river bed	Bhogavo river patt	Samadhiyala	Chuda	1,80,000 MTPA
	Palaniya	Exioting	iivoi boa	paiky			141117

#### (5). River bed sand Mining Project, Dist.: Gandhinagar

Sr No.	Name of applicant	Lease Area and type	Location	Surve y No:	Village	Taluka	Rate of mining
1	Palsinh B	02-00-	Sabarmati	942	Pethapur	Gandhinagar	834 MTPM
	Nayak	00 New	river bed				

Environmental Clearance for the above proposal was issued on 21/12/2015 vide letter No. SEIAA/GUJ/EC/1(a)/4345/2015. Project proponent has submitted an application on 26/04/2016 for correction of Applicant Name, Village and Taluka mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that name of applicant is Shree Palsinh B Nayak,At: Anodiya,Ta: Mansa,Dist: Gandhnagar whereas in EC, it is mentioned " Palsinh B Nayak, Village: Pethapur, Ta and Dist: Gandhinagar

Referring to the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 21/12/2015 vide letter No. SEIAA/GUJ/EC/1(a)/4345/2015 for correction in the name of applicant, taluka and village and shall be read as below to SEIAA.

Sr	Name of	Lease	Location	Survey	Village	Taluka	District	Rate of
No.	applicant	Area and		No:				mining
		type						
1	Shree	02-00-00	Sabarmati	942	Anodiya	Mansa	Gandhinagar	834
	Palsinh B	New	river bed		-			MTPM
	Nayak							

#### (6). Building lime stonemining Project, Dist.: Porbandar

Sr No.	Name of applicant	Lease Area and type	Surve y No:	Village	Taluka	Rate of mining
1	Sureshbhai Polabhai Khunti	00- 97-13 New	21	Pata	Porbandar	1666 MTPM

Environmental Clearance for the above proposal was issued on 21/12/2015 vide letter No. SEIAA/GUJ/EC/1(a)/4273/2015. Project proponent has submitted an application on 27/04/2016 for correction of survey number mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that survey number is 221 Paiki-3 whereas in EC, it is mentioned as "21"

Referring to the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 21/12/2015 vide letter No. SEIAA/GUJ/EC/1(a)/4273/2015 for correction in the survey number and shall be read as below to SEIAA.

Sr No.	Name of applicant	Lease Area and type	Survey No:	Village	Taluka	District	Rate of mining
1	Sureshbhai	00-97-13	221	Pata	Porbandar	Porbandar	1666 MTPM
	Polabhai Khunti	New					

#### (7). Building lime stone mining Project, Dist.: Gir Somnath

Sr No.	Name of applicant	Lease Area	Survey No:	Village	Taluka	Rate of mining
1	Nanubhai Kanabhai	01-0000	31/1/P4	Faluka	Una	500 MTPM
	Vaja	На				

Environmental Clearance for the above proposal was issued on 02/06/2015 vide letter No. SEIAA/GUJ/EC/1(a)/1954/2015. Project proponent has submitted an application on 05/01/2016 for correction of survey number mentioned in the EC.

Project proponent has mentioned that in an application comprising Form 1,it is mentioned that survey number is 46/Paiki1/Paiki2 whereas in EC, it is mentioned as "31/1/P4"

Referring to the application made in Form I by the applicant, committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 02/06/2015 vide letter No. SEIAA/GUJ/EC/1(a)/1954/2015 for correction in the survey number and shall be read as below to SEIAA.

Sr No.	Name of applicant	Lease Area	Survey No:	Village	Taluka	Rate of mining
1	Nanubhai Kanabhai	01-0000	46 /	Faluka	Una	500 MTPM
	Vaja	Ha	Paiki1 /			
			Paiki 2			

### The meeting was concluded with thanks to the chair.

- 1. Shri T.P. Singh, Chairman, SEAC.
- 2. Shri V.C.Soni, Vice Chairman, SEAC
- 3. Shri V. N. Patel, Member, SEAC
- 4. Shri R.J.Shah, Member, SEAC.
- 5. Shri R.I.Shah, Member, SEAC