

# Proceedings of the State Environment Impact Assessment Authority Kerala

Present: Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini Member; Sri. V.S. Senthil, I.A.S Member Secretary.

Sub: - SEIAA- Environmental clearance for the quarry project in Sy. No. 229/1, 229/13, 229/9, 229/9-1, 234/10, 234/11, 234/3, 234/4, 234/5, 234/6, 234/8-2, 234/9-1, 238/12, 238/13-2, 238/16-2, 238/17-2, 240/7, 240/7-1, 240/7-2, 240/8, 240/9, 240/10, 240/11, 241/1-1, 241/1-2, 241/2, 241/4, 241/5, 241/6, 241/7, 241/8, 241/8-1, 241/9-1, 241/10, 241/12-16, 241/12-17, 241/12-2, 241/13-1, 241/18, 242/1, 242/2, 242/4-2, 242/4-3, 242/5, 242/6, 242/7, 242/8, 245/4, 245/5, 245/6, 245/6-1, 245/6-2, 245/6-3, 245/6-4, 231/1, 241/3, 245/7, 245/9, 245/11, 293/7, 294/1, 294/3, 294/18 (Total Area-12.0836 Ha) at Aruvikkara Village and Panchayath, Nedumangad Taluk, Thiruvananthapuram District by Sri.P.V.Suresh Kumar, M/s.Travancore Blue Metal Industries (P) Ltd - EC Granted - Orders issued.

#### STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

#### No. 152/SEIAA/KL/3072/2013

Dated, Thiruvananthapuram 31/03/2017

Read:-

- 1. Application dated on 08/11/2013 submitted by Sri.P.V.Suresh Kumar, for the proposed mining project of M/s.Travancore Blue Metal Industries (P) Ltd.
  - 2. Minutes of the meeting of 22<sup>nd</sup> SEAC held on 7-12-2013
  - 3. Minutes of the meeting of 26<sup>th</sup> SEAC held on 20/21-03/2014
  - 4. Minutes of the meeting of 30<sup>th</sup> SEAC held on 6/7-6/2014.
  - 5. Minutes of the meeting of 33<sup>rd</sup> SEIAA held on 24/9/2014
  - 6. Minutes of the meeting of 35th SEAC held on 17/18-10/2014
    - Minutes of the meeting of 46th SEAC held on 29/30-08/2015
  - 8. Minutes of the meeting of 49<sup>th</sup> SEAC held on 7/8-12/2015
  - 9. Minutes of the meeting of 52<sup>nd</sup> SEAC held on 8/9-02/2016
  - 10. Minutes of the meeting of 51<sup>st</sup> SEIAA held on 29/3/2016
  - 11. Minutes of the meeting of 56th SEAC held on 6/7-06/2016
  - 12. Minutes of the meeting of 60th SEAC held on 28/29-07/2016
  - 13. Minutes of the meeting of 62<sup>nd</sup> SEAC held on 06/07-9/2016
  - 14. Minutes of the meeting of 63<sup>rd</sup> SEAC held on 4/10/2016
  - 15. Minutes of the meeting of 64<sup>th</sup> SEAC held on 16/17-11/2016
  - 16. Minutes of the meeting of 62<sup>nd</sup> SEIAA held on 23/12/2016

## Environmental Clearance No 29 /2017

Sri. P. V. Suresh Kumar, Director of M/s Travancore Blue Metal Industries (P) Ltd., vide his application received on 08-11-2013, has sought Environmental Clearance under EIA Notification, 2006 for the proposed mining project in Sy. Nos. 229/1, 229/13, 229/9, 229/9-1, 234/10, 234/11, 234/3, 234/4, 234/5, 234/6, 234/8-2, 234/9-1, 238/12, 238/13-2, 238/16-2,

238/17-2, 240/7, 240/7-1, 240/7-2, 240/8, 240/9, 240/10, 240/11, 241/1-1, 241/1-2, 241/2, 241/4, 241/5, 241/6, 241/7, 241/8, 241/8-1, 241/9-1, 241/10, 241/12-16, 241/12-17, 241/12-2, 241/13-1, 241/18, 242/1, 242/2, 242/4-2, 242/4-3, 242/5, 242/6, 242/7, 242/8, 245/4, 245/5, 245/6, 245/6-1, 245/6-2, 245/6-3, 245/6-4. at Aruvikkara Village and Panchayath, Nedumangad Taluk, Thiruvananthapuram District, Kerala for an area of 9.2152 hectares. The project comes under Activity 1(a), (i) in the Schedule of EIA Notification 2006 and since it is below 50 hectares, it comes under B category. It is further categorized under Category B2, 1(a), (i) as per O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 and also decision taken vide Agenda item no. KLA/16.10 of 16th SEIAA meeting. The proposed project site falls within 8° 33' 31.14" N to 8° 33' 45.66" N and 77° 01' 06.97" E to 77° 01' 27.40" E. The land use classification as per revenue records is private land. Out of the total 26.2 hectares of land owned by the proponent, the lease area consists of 9.2152 hectares which is private land and the present land use is quarrying activities. The current proposal is for the new quarry and mineral specific and hence no alternate site was examined. The proposed quarry site is private owned land. Forest land is not involved in the project. Other details of the project are as follows:

### BASIC INFORMATION OF THE PROJECT

		I. Project details								
ļ	T'I AL	Z :: Y ::::: Z :::::: Z ::::::: Z ::::::::	:							
1.	File No.	152/SELAA/KL/3072/2013								
2.	Name /Title of the project	of the Quarry project of M/s Travancore Blue Metal Industries (P) Ltd.								
3.	Name and address of project	Mr. P.V. Suresh Kumar, Director, M/s Travancore Blue Metal Industries (P) Ltd.			:					
	proponent.		Building No. VI/67-12, Kamoor Nagar, Kizhakkumpattukara, East frot,							
		Sy. Nos.	Lease Area (ha.)	Status of land						
		231/1	0.5983 (Lease-1)	Govt.						
		241/3	0.3880 (Lease 2)	Govt.						
		245/7	0.4040 (Lease 3)	Govt.						
!	1999 11	245/9, 245/11, 293/7, 294/1, 294/3, 294/18	1.4781 (Lease-4)	PrivateLand						
4.	Owner of the land	229/1, 229/13, 229/9, 229/9-1, 234/10, 234/11, 234/3, 234/4, 234/5, 234/6, 234/8-2, 234/9-1, 238/12, 238/13-2, 238/16-2, 238/17-2,240/7, 240/7-1, 240/7-2, 240/8, 240/9, 240/10, 240/11, 241/1-1, 241/1-2, 241/2, 241/4, 241/5, 241/6, 241/7, 241/8,241/8-1,241/9-1, 241/10, 241/12-16, 241/12-17, 241/12-2, 241/13-1, 241/18, 242/1, 242/2, 242/4-2, 242/4-3, 242/5, 242/6, 242/7, 242/8, 245/4, 245/5, 245/6, 245/6-1, 245/6-2, 245/6-4	9.2152 (fresh area)	Private Land						
		TOTAL	12.0836							

丁			11 204/2 204/19	220/1			
5.		231/1, 241/3, 245/7, 245/9, 245/11, 293/7, 294 229/13, 229/9, 229/9-1, 234/10, 234/11, 234/3, 23- 234/9-1, 238/12, 238/13-2, 238/16-2, 238/17-2 240/8, 240/9, 240/10, 240/11, 241/1-1, 241/1-2, 2 241/7, 241/8,241/8-1,241/9-1, 241/10, 241/12- 241/13-1, 241/18, 242/1, 242/2, 242/4-2, 242/4 242/8, 245/4, 245/5, 245/6, 245/6-1, 245/6-2, 2 Panchayat - Aruvikara, Taluk - Ne Thiruvananthapuram, Kerala	,240/7, 240/7-1, 2- 241/2, 241/4, 241/5, 16, 241/12-17, 24 4-3, 242/5, 242/6,	40/7-2, 241/6, 1/12-2, 242/7, lage &			
6.	Nature of the proposal – lease or permit with evidence.	<ol> <li>Copy of Proceedings of the Director of No. 399/2010-2011/6885/M3/2010 dt. 2 0.3880 ha.</li> <li>Copy of the Proceedings of the Director (Order No. 400/2010-11/6886/M3/2010 upto 17-05-2020 for an area of .0.4040 hr</li> <li>Copy of Proceedings of the Director of No. 401/201-11/6884/M3/2010 Dt. 28 0.5983 ha.</li> <li>Copy of Proceedings of the Director of No. 237/2010-2011/4994/M3/2010 Dt. 27.07.2010 for an area of 1.4781 ha.</li> <li>30.10.2013 and submit the revised Form-1 and respectively.</li> </ol>	or of Mining and O Dt. 28.09.2010 and a. Mining and Geology -09-2010) for an Mining and Geology 07.07.2010 and Va	Geology od valid  y (Order area of  y (Order alid upto			
7.	Date of submission						
<del></del>	of Application Brief description of	of Droposed new (9 /1 ) / Na. 1 + CXISHING IMMIC					
8.	the project.	within cluster area (2.8684 ha) and production capacity of 3,33,000 and Mr. P.V. Suresh Kumar,					
	Details of						
	Authorized	Intector,					
9.	address for correspondence	M/s Travancore Blue Metal Industries (P) Ltd. Building No. VI/67-12, Kainoor Nagar, Kizhakk Thrissur, Kerala-680005  II. Land Details					
9.	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le					
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details	ase (4 Nos.) within				
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le area (2.8684 ha)  Sy. Nos.	ase (4 Nos.) within	cluster  Status			
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le area (2.8684 ha)	Lease Area (ha.)  0.5983 (Lease- 1)	cluster  Status of land Govt.			
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le area (2.8684 ha)  Sy. Nos.	Lease Area (ha.)  0.5983 (Lease-1)  0.3880 (Lease 2)	Status of land Govt.  Govt.			
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le area (2.8684 ha)  Sy. Nos.  231/1  241/3 245/7	ase (4 Nos.) within  Lease Area (ha.)  0.5983 (Lease- 1)  0.3880 (Lease 2)  0.4040 (Lease 3)	Status of land Govt. Govt. Govt.			
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kiznakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le area (2.8684 ha)  Sy. Nos.  231/1  241/3	Lease Area (ha.) 0.5983 (Lease-1) 0.3880 (Lease 2) 0.4040 (Lease 3) 1.4781 (Lease-	Cluster  Status of land Govt.  Govt. Govt. Private			
	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kizhakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new ( 9.2152 ha. ) + existing mine le area (2.8684 ha)  Sy. Nos.  231/1  241/3  245/7  245/9, 245/11, 293/7, 294/1, 294/3, 294/18	Lease Area (ha.) 0.5983 (Lease-1) 0.3880 (Lease 2) 0.4040 (Lease 3) 1.4781 (Lease-4)	Status of land Govt.  Govt. Govt. Private Land			
1(	address for correspondence  a) Extent of area in	Building No. VI/67-12, Kainoor Nagar, Kizhakk Thrissur, Kerala-680005  II. Land Details  12.0836 hectares Proposed new (9.2152 ha.) + existing mine le area (2.8684 ha)  Sy. Nos.  231/1  241/3  245/7  245/9, 245/11, 293/7, 294/1, 294/3, 294/18  229/1, 229/13, 229/9, 229/9-1, 234/10,	ase (4 Nos.) within  Lease Area (ha.)  0.5983 (Lease-1)  0.3880 (Lease 2)  0.4040 (Lease 3)  1.4781 (Lease-4)  9.2152 (fresh area)	Cluster  Status of land Govt.  Govt. Govt. Private			

12	c)	Quantity of top soil/over burden produced and managed		oil: 34,594 cu.m. ourden :69,187 cu.n	1.	
13	d)	Latitude and Longitude	· · · · · ·	Latitude (N) Longitude (E)	8 <sup>0</sup> 33' 46.76" to 8 <sup>0</sup> 33' 31.85" 77 <sup>0</sup> 01' 04.84" to 77 <sup>0</sup> 01' 30.64"	
14	(e)	Topography of land and elevation	vegeta 20 & shrubs mine a (near l	tion in that area. T second is near BP s, herbs, grass, clinarea is 150 m. MSI BP 112). As the pro-	, (combined with 4 lease + fresh area) and the wo pits are located in the lease, one is near BF 25 and other land is covered with native to mbers, bushes etc. The highest elevation of (western side, BP 63) and lowest is 80 m Noposed area is hilly, the drainage of the mine hill area to north, east, south and SW.	12- rees, the MSL
15	f)	Slope analysis	North	east, south and SW	7	
16.	g)	Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	No.	oust, south and 5 v		
17.	h)	Access road to the site width and condition	8m., ta	rred road, N		
18.	i)	Will there be any adverse impact on the aesthetics of the proposal site	project	site. The water sar	erse impacts envisaged on the aesthetics of the apples collected and analyzed from the different rovided along with the application	t
19.	a)	Minimum and Maximum height of excavation	150 M:	SL and 80 MSL	guctans	
20.	b)	Life of mine proposed.	- 1111	9 years		
21.	c)	Underground mining if any proposed	No			
22.	d)	Method of Mining	Open C	Cast		
23.	e)	Distance from the adjacent quarry	Metaro	ck, Moozhinada –	Km. S.	
24.	f)	Cluster condition if any			leta Rock Pvt. Ltd. with cumulative mine lease 00m radius from the proposed quarry site.	e
25	g)	Has "No cluster certificate" submitted?	No.			
26.	h)	Distance from nearby habitation	115 m.	S.		
27.	i) 	Distance from nearby forest, if applicable	None w	rithin the study area		

28.	j) k)	Distance from protected area, Wildlife Sanctuary, National Park etc. Distance from nearby	None within the study area
29.		streams/rivers/Na tional Highway and Roads	Karamanayar River is about 0.2 Km. N. Vattapara (Highway ) – 20 Km. W.
30.		Is ESA applicable? If so distance from ESA limit	Not falling in ESA
31		Has approved mining plan, prepared by RQP submitted?	Yes.
32	n)	Capacity of production in TPA	3,83,000 MTA
33	0)	Details of mining process	It is proposed to undertake Open Cast Semi-Mechanized Mining which includes blasting, loading, transport and dispatch.
_			IV. Details of Project cost
34	a)	Land cost	
35	b)	Plant and Machinery	3.75 Crores
36	(c)	Total Cost	3.75 Crores
	v.	Financial	
		Statement	Insurance: Insurance to the quarry workers would be provided through
37	-	including funding	insurance company   Source of Funding : Own source + Bank loan
		sourceand details	Source of Funding . Own source   Dank four
388	. Ma	of insurance etc.	Air Pollution  Mining activities will generate certain quantities of dust during drilling, blasting, loading and transportation operations. The following measures will be taken to mitigate the fugitive dust from different operations.  Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust.  To avoid the dust generation from the drilling operations, wet drilling method will be adopted.  Drill machines will be equipped with dust collectors.  Use of appropriate explosives for blasting and avoiding overcharging of blast holes.  Controlled blasting techniques will be adopted.  Watering of haul road and other road at regular intervals.  Provision of dust filters/ mask to workers

	<del></del>		
			working at highly dust prone and affected areas.
			> Provision of green belt all along the periphery of
			the lease area.
	İ		> Periodical monitoring of ambient air quality in
			and around the lease area.
			The extracted mineral will be transported from
			the quarry to the end user by adopting following
			measures so as to minimize dust emissions.
1			
			In case of long transportation the trucks after
1 1			loading will be covered with tarpaulin sheets.
	ļ		➤ Speed of the vehicles will be maintained within
			the prescribed limits.
			Trucks will not be over loaded and will be maintained
			to the body level
		Water	Provision of storm water collection pond of total
		Pollution	capacity about 5,000 KL. The water requirement for
			sprinkling on sources of dust emission, on roads,
			landscaping etc. Can be met from the stored rainwater
			in the pond.
	ľ	Noise	The major noise generating source from the proposed
			activity is working machinery, drilling, blasting and
		•	plying of vehicles. The following control measures are
	]		=
			to be undertaken to bring down the noise levels:-
	Ī		Proper maintenance of machinery, equipments and
1			improvement on design of machines.
1			Use of personal protective devices i.e., earmuffs and
		1 1111111111111111111111111111111111111	earplugs by workers, who are working in high noise
	Ĺ		generating areas.
1 .			Creation of wide green belt of dense foliage between
	.as - 17		
		#	mine areas and residential colonies.
1 1		ii.	related health problems
1 1			> Proper training to personnel to create awareness
!	- 1		about adverse noise level effects.
			Planned noise monitoring at suitable locations in the
			plant and outside location for proper effective
			remedial actions.
		Solid Waste	Topsoil Management
		Management	About 34594 cu.m. topsoil excavated from the
	"	i	quarry will be dumped separately at pre-determined
			place and subsequently will be utilized in spreading
	4		
			over reclaimed areas for plantation. Precautions will
	i di ili		be taken to limit the height of the topsoil dump to 5 to
	1		6 meters in order to preserve its fertility and shelf life.
1			It will be suitably protected from soil erosion and
			infertility by planting fodder grass and leguminous
			plants during temporary storage.
			plants during temporary storage.
			Overburden Management
			About 69187cu. m of overburden will be generated
			throughout the mine life. This waste will be utilized
			within the pit for lying of haul roads. At the end use,
			OB can be reutilized as soil base for plantation.
		Eco-	
		i I	The year wise programme of eco-restoration for the
		restoration	life of mine, about 11000 trees will be planted in an
			area of 11.3958 ha.
	<del></del>		

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	VI. Whether Environment	
39		Yes. Mentioned as item No. 38
	Eco restoration Plan	1 cs. Mentioned as item 100, 58
	satisfactory?	
	VII. Does it	
1	magnet mitigation	
40	measures for	Yes
	each activity	
	VIII. If Pre-	
41	J	Yes.
<u> </u>	(PFR) satisfactory	
42	IX. Does it need	No Public Hearing required because of the project comes under below 25
	public hearing	ha. (Category B2)
1/2	X. Details of	NI- 12:
4.3	litigation and Court verdict if any	No litigation is pending against the lease area/applicant of this lease area
-	XI. Details of	in any court of law to the best of knowledge.
44	public complaint, if	Nil
]	any	
		a. Mine Lease
15	XII. Details of	b. NOC from Pollution Control Board
43	statutory sanction required	c. Environment Clearance from SEIAA / MoEF
	<u> </u>	NOC from Explosive Dept.
	XIII.If CRZ	N.A.
46		
	applicable?	
	E'maria.	PART B
		onment Impact Assessment and Mitigation Measures Impact on water
	a) Details of water	The daily water demand will be only 17 KLD.
47.		Well water to meet the drinking water and other domestic water
	day in KLD	requirement about 2 KLD of the workers and the staff.
	b) Water	Open Well & A sform water collection pond for meeting the water
48.	source/sources.	requirements of ancillary units and other dust separation systems will be
	diaj	developed
	c) Expected water	
49.	use per day in	17 KLD
	d) Details of water	
	d) Details of water requirements met	It is proposed to construct a storm water collection pond and de-siltation
50.	from water	unit in the lowest contour of the plot. The water requirement for sprinkling on sources of dust emission, roads and for landscaping purposes can be met
	harvesting.	from the stored rain water pond and thereby conserve the fresh water.
	e) What are the	The source of water for the project are: Stored Rain water (Tanks), Wells.
ر ۔	impact of the	The use of ground water (standby arrangement) only based on the
51.	proposal on the	permissible yield from the large open wells. Thereby no impact to the
	ground water?	ground water.
	f) How much of the	
	water	
	requirement can	
52.	be met from the	Not applicable as the project is quarry Project
İ	recycling of	TI AMERICAN TANAL AND AND AND AND AND AND AND AND AND AND
	treated waste	
	water? (Facilities	
	water? (Facilities for liquid waste	

·-		treatment)	
	g)	What is the	
	6)	incremental	
		pollution load	
53.		from waste water	Not applicable as the project is quarry Project
33			Not applicable as the project is quarry rioject
		generated from	
		the proposed	·
	4.	activities?	
	h)	How is the storm	- A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
54.		water from	It is proposed to construct a storm water collection pond and de-siltation
` '		within the site	unit in the lowest contour of the plot.
		managed?	
<u> </u>			ct on Biodiversity and Eco restoration Programmes
	a)	Will the project	This is a mine for mining, (combined with 4 lease + fresh area) and there is
		involve extensive	vegetation in that area. Two pits are located in the lease, one is near BP 12-
55.		clearing or	20 & second is near BP 25 and other land is covered with native trees,
		modification of	shrubs, herbs, grass, climbers, bushes etc
		vegetation	
		(Provide details)	
	<b>b</b> )	What ate the	It is proposed to develop green belt to 100 % which includes areas like
	0)	measures	along mine lease boundary (7.5 m width), all along the periphery and
		proposed to	reclaimed area.
		minimize the	Grass and bushes will be planted in areas prone to erosion especially at the
		likely impact on	foot of the hill. Other areas will be fertilized and planted with local species.
56.		vegetation	The characteristics of this vegetation will resemble that of the natural
		(details of	environment except for the early growth, which may be a protective cover
		proposal for tree	crop of non-seeding annuals
		plantation/	
		landscaping)	The year wise programme of eco-restoration for the life of mine, about
		randscaping)	11000 trees will be planted in an area of 11.3958 ha.
	c)	Is there any	
		displacement of	
		fauna – both	
		terrestrial and	
		aquatic If so	No
	:	what are the	
57.		mitigation	
		measures?	
	d)	Presence of any	No
		endangered	
		species or red	
1 1		listed category	
		(in detail)	
			Impact on Air Environment
	a)	What are the	
		mitigation	The prime objective of the baseline air monitoring was to evaluate the
50		measures on	existing air quality of the area. This will also be useful for assessing the
58.		generation of	conformity to standards of the ambient air quality during the operation of
		dust, smoke and	the proposed mine.
		air quality	
	b)	Details of	
	,	internal traffic	NTA.
59.		management of	NA ·
		the site.	
60.	c)	Details of noise	Yes, noise level monitoring carried out from an approved laboratory at site
			/

	1	from two PC	
		from traffic,	and report of the same is already submitted.
	1	machines and	
		vibrator and	
		mitigation	
		measures	
	(d)	<u> </u>	
		sets and other	
		equipments on	
		noise and	Drilling, blasting, compressors, plying of vehicles are the main sources of
21		vibration and	noise.
61.		ambient air	Noise level monitoring carried out from an approved laboratory at site and
		quality around	report of the same is already submitted.
		the project site	1
		and mitigation	
		measures	Ĉinga.
	e)	Air quality	1
62.	•/	monitoring in	Yes, ambient air quality monitoring carried out from an approved
] "-		detail	laboratory at site and report of the same is already submitted
	L	dottant	Energy Conservation
<u> </u>	۵۱	Details of power	Energy Conservation  The total power requirement will be 75 kW 6 recompressed which will be
63.	a)		The total power requirement will be 75 kW for compressors which will be
03		requirement and	operated by Diesel Engine.
	1- 3	source of supply.	
	b)	Details of	
		renewable	The project proponent proposed to have a solar power plant to meet the
64.		energy (non –	energy requirements of the site office & labour quarters.
		conventional)	
		used.	
<u></u>			Risk Management
	a)	'	
		sufficient	Proper barricading and monitoring of the water stored area would be
. !		measures	taken up to prevent accidents.
65.		proposed for risk	Well equipped medical / hospital facilities would be available round
03.		hazards in case	the clock for attending emergency arising out of accidents.
		of emergency	All working personnel would be medically examined at least once in
		such as accident	every year and at the end of his term of employment.
		at the site?	
		b) Are proposals	
		for fencing	
		around the	Yes
		quarry	
		satisfactory?	
		a) Storage of	
		explosives/ha	
		zardous	Considering low consumption, a 150 kg magazine is for storing the
66.		substance in	explosive. The magazines are exists within the complex.
		detail	
		avill1	A total quantity of 34594 cu. m. of topsoil and 69187 cu. m of over burden
			will be removed during the mining operations. The topsoil excavated from
		b) Facility for	the quarry will be dumped separately at pre-determined place and
		solid waste	subsequently will be utilized in spreading over reclaimed areas for
		management	
		_	plantation. OB will be utilized for laying internal haul road and will form
ļL			base in reclamation / plantation.
<del>  ,</del>		337:11 .1	Socio Economic Impacts
67.	a)	Will the project	
1 1		cause adverse	No

	effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed? b) Will the proposal			
68.	result in any changes to the demographic structure of local population. If so, provide details.	I	t of proposed land is covered w limbers, bushes etc. it should be Proposed comm	e removed.
69.	c) Are the CSR proposals satisfactory. Give details	3 3	Particulars Promotion of education Environment sustainability  Development of Infrastructure facilities Help the hapless	Amount Rs. In lakhs Recurring: Rs. 4.00 Lakhs Non Recurring: Rs. 6.00 Lakhs Recurring: Rs. 6.00 Lakhs Non Recurring: Rs. 3.0 Lakhs Recurring: Rs. 4.35 Lakhs Non Recurring: Rs. 3.0 Lakhs Recurring: Rs. 3.65 Lakhs Non Recurring: Nil
70.	d) What are the projects benefits in terms of employment	study o	Is study on social status of the period of t	project site surroundings & need base carried out. The summary of the

- 2. The proposal was considered in the 22<sup>nd</sup> SEAC meeting held on 7<sup>th</sup> December 2013 and was deferred for site inspection directing the proponent to produce certain clarifications/documents before SEAC for further consideration of the proposal.
- 3. On 10.12.2013, a subcommittee of SEAC inspected the site, but due to time constraints detailed visit could not be taken up and decided to visit the area again on 3<sup>rd</sup> week of December. In the meantime the proponent has submitted the additional clarifications/documents and in view of this, the matter was placed before SEAC in its 26<sup>th</sup> meeting held on 20<sup>th</sup> and 21<sup>st</sup> March 2014 as agenda item No. 26.16 for verification of the documents. The Committee verified the additional clarifications/documents submitted by the proponent. The proponent was directed to provide consent given to him by owners of concerned survey numbers mentioned in the proposal for conducting quarrying activities. But the proponent has provided consent(s) which states that the land is leased to the proponent for starting crusher and quarrying business, which the Committee found as not acceptable since the statement does not imply that the proponent is permitted to conduct quarrying activities in the concerned land owned by other persons. Hence the proponent was directed to provide consent from owners of concerned survey numbers mentioned in the proposal

specifically stating that they are giving permission to the project proponent to conduct quarrying activities in the land owned by them. As directed, the proponent has provided possession certificate of Sy. Nos. 234/8-2 and 241/13-1 in the name of K.B. Anesse, one of the directors of M/s Travancore Blue Metal Industries (P) Ltd. Even though the proponent was directed to provide the topo sheet of 58 H/2, the proponent has not provided it stating that they are unable to submit the same since it is learnt from the Geological Survey of India that the said topo sheet is a restricted map. Further the Committee noted that a brief visit was made to the quarry of Travancore Blue Metals, Aruvikkara on 10th December 2013 by a subcommittee of SEAC consisting of Sri. John Mathai and Dr. C.N. Mohanan, Members of SEAC when the general set up and other details were taken from the proponent but detailed site visit could not be made due to time constraints and was decided to visit the site again at a later date. Considering the same, the Committee decided to revisit the site and to further consider the proposal subject to satisfactory submission of the following by the proponent: ie, consent from owners of concerned survey numbers mentioned in the proposal specifically stating that they are giving permission to the project proponent to conduct quarrying activities in the land owned by them.

- 4. On submission of the clarifications by the proponent, the item was placed in 30<sup>th</sup> SEAC meeting held on 6<sup>th</sup> and 7<sup>th</sup> June 2014 considered the proposal under agenda item no. 30.56. The Committee verified the additional clarifications/documents submitted by the proponent, which were found to be satisfactory. Hence the proposal was recommended for environmental clearance stipulating usual conditions for mining projects.
- The application and recommendations of SEAC were examined by SEIAA in its 33<sup>rd</sup> meeting held on 24-09-2014. The Authority noticed that the project is for quarrying in 9.2152 ha. Project implementation period is 17 years. It is reported that though the expert team of SEAC visited the site on 10-12-2013, due to time constraints, it has been decided to visit the site at a later date. Report of the second site inspection is lacking without which the full impact assessment cannot be made. SEIAA decided to call for the report of the second visit, for which the case is referred to SEAC, to resubmit with all required documents.
- 6. Further to the decision of SEIAA in its 33<sup>rd</sup> meeting, the proposal was again considered by SEAC in its 35<sup>th</sup> meeting held on 17<sup>th</sup> and 18<sup>th</sup> October 2014 and the committee deferred the item for field visit to assess the ground reality. In the meantime the tenure of SEIAA ended and so the site inspection was not carried out. Meanwhile a complaint was received in the office against the said quarry by Sri Biju B.S Nair, that the proponent is doing illegal quarrying activity by violating the stipulated rules of MoEF.

Then the proponent filed W.P (C) No. 8403/2015, that the denial of EC to the petitioner infringes their fundamental right vested as per Arts. 14 & 19 of the Constitution of India. The Hon. High Court has passed the judgement dated 25th June 2015, that "....the petitioner shall approach the first respondent on 09-07-2015 and the first respondent shall

give a date of hearing within one month from the date of appearance and dispose the same at any rate within one month from the date of hearing afforded".

7. The proposal was considered by SEAC in its 46<sup>th</sup> meeting held on 29<sup>th</sup> to 30<sup>th</sup> September 2015. The Committee found that the proponent has yet to submit the mining plan in accordance with the KMMC Rule, 2015 and the appraisal including field visit cannot be carried out since the proponent informed that the mining plan was not approved. Hence it was decided to intimate the facts to SEIAA to take a decision in accordance with the order of the Hon'ble High Court. On submission of the approved mining plan as per KMMC Rules 2015, the proposal was considered by SEAC in its 49<sup>th</sup> meeting held on 7/8-12-2015. Since the quarry is working in the neighbourhood of other quarries and Karamana river is flowing near the said quarries, the committee felt that field inspection is necessary to look into the cluster situation. Hence the item is deferred for field inspection.

Field visit to the Quarry was carried out on 13.01.2016 by the sub-committee of SEAC, Kerala, comprising Dr. K. Harikrishnan and Sri. John Mathai. The representatives of the Proponent were present at the site at the time of site visit.

"The project is located at about 1.5 km south of Aruvikkara dam. This quarry lease area of 9.2152 ha falling in own land occupy the crestal and upper N & S slopes of a prominent hill ridge exposing hard rock. It is demarcated with pillars with distinctive numbers along with GPS coordinates. The lease area is yet to be developed. Adjacent to this lease area quarries are in operation on the eastern side and are owned by the proponent. In addition, Govt 'puramboke land' (reported as 0.4 ha and 1.47 ha) exposing hard rock, for which quarry lease has been taken by the same proponent, are seen with common boundary to this lease area. Another major quarry of Metarock Pvt Ltd is seen within 500 m of this unit for which EC has been recommended by SEAC Kerala. A crusher unit is functioning in the summit region. The rock type is a mixture of leucocratic gneiss and charnockite. Pockets of weathered rock with about 1 m thick over burden (OB) and top soil is seen interspersed with rock out crops. The entire drainage from the elevated land flows as sheet flow without any channelisation. Karamana river is within 500 m. RWH is not practised for the existing quarries. Rubber is the dominant land use while other trees like coconut, Jack and cashew are also seen. Floral biodiversity is not observed as there is considerable disturbance on plantation. Dwelling units are not seen in the immediate vicinity of 100 m.

Based on an overall evaluation of the site, the quarry operations may be recommended with following conditions:

- 1. The proponent must submit the total lease area i.e., the present lease area, the area presently quarried and Govt. Poramboke proposed to be quarried. The total area along with that of Metarock ltd should be below 25 ha.
- 2. The working quarries with very steep cliff like feature may be demarcated and fenced as danger zones with sign boards.

- 3. Storm water drainage from the upper part must be channelised properly and let out through well-defined channels. Considering the topography catch water drain should also be provided. Water must be clarified such that silt does not reach the river. The present system of letting out water by the side of the main approach road appears inadequate.
- 4. The RWH structure should be provided.
- 5. The CSR need redrafting with inclusion of felt needs of the locality. Maintenance of the road on the northern side (in very bad condition and mostly used by the vehicle from this unit) should be included in CSR".
- 8. The proposal was considered by SEAC in its 52<sup>nd</sup> meeting held on 8/8-02-2016. The proposal was appraised by SEAC by considering Form-1, Prefeasibility Report, and Mining Plan, Field Inspection Report and other documents and details pertaining to the application. The subcommittee has reported illegal mining by the proponent from areas adjoining to the proposed area. Hence the proponent has committed a violation. Also two adjoining Purambokku bits for which the proponent has lease, are not seen included in the proposal. Hence the Committee recommended to take action against violation and also to direct the proponent to resubmit revised mining plan including the above Govt. Purambokku bits.

The proponent has submitted the following explanations on the findings of SEAC.

- 1. No mining has been done in the area under consideration.
- 2. The site where quarrying is going on and which is pointed out as the case of violation has lease from 2010 .Operation of this quarry is not illegal as per the interim order dated 30-9-2015 of the Hon. Supreme Court in SLP No. 30103 /15 filed by Sri.T.K.Thomas.
- 3. They do not propose to mine in the government Poramboke adjacent to their property, except where they have lease and for which mining plan is not necessary.
- 4. The committee has not found any adverse impact on environment which is the consideration of the committee as per the EIA notification.
- 5. No illegality in respect of the land involved in the application has been reported.
  - Requirement of E.C for quarries having area less than 5ha was introduced only in 2012 consequent to the order dated 27-2-2012 of the Hon. Supreme Court in Deepak Kumar case. Thereafter the state Government granted time till 2/2015 to function without E.C in respect of quarries having permit. On the question of need of E.C for the existing quarries the Hon. High Court of Kerala issued the following orders on 23-3-2015 in W.P no 31148/14 filed by Kerala River Protection Council:
- 1. The requirement of prior E.C is not applicable to leases of minor minerals which were in existence as on 14-9-2006, the date of EIA notification.
- 2. No E.C is necessary in the case of lease in less than 5 ha for mining leases existed on 14-9-2006. EIA notification dated 14-9-2006 is applicable only to new projects.

- 3. Lease for minor minerals and renewal in areas less than 5ha shall be granted by state Government only after getting E.C.
- 4. As far as quarrying by private individuals are concerned, the District Collectors have to examine the right of such persons to carry out such mining operations. District collector has to issue necessary clarification/ clearance only after being satisfied that such mining operations are in accordance with the MMCR 2015 as well as observations made by the Court.

In the judgment dated 15-7-2015 in W/A No. 1514/15 filed by Sri.M.K. Najeeb, a Division Bench of the Hon. High Court has held that the provison to Rule 12 in respect of quarries which has valid permit as on January, 2015 have to be read in accordance with the law as has been noticed and laid down in the judgment. When it has been held by the Division Bench that no mining operation can be undertaken without obtaining environmental clearance subsequent to the dates as mentioned above, no mining operation can be carried out by any permit holder without obtaining environmental clearance. The word 'valid permit' used in the proviso to Rule 12 has to be read accordingly. The word 'valid permit' means permit which may entail a permit holder to carry on mining operation and mining operation can only be carried out along with environmental clearance. Those permit holders who does not have environmental clearance cannot be said to have valid permit on the relevant date. It is challenging the above Judgment that SLP No. 30103 /15 have been filed by Sri. T. K. Thomas in which the Hon. Supreme Court has issued interim order to maintain status quo as on 30-10-2015. The proponent is entitled to the benefit of the interim order.

- 9. The matter was relooked by SEIAA in its 51<sup>st</sup> meeting held on 29-3-2016 and found that, in view of the Court orders the proponent is now eligible to apply for E.C for the new areas though he has lease in the adjoining area and mining carried out elsewhere under existing lease. As SEAC has not made any clear recommendations otherwise on consideration of the findings made in the 52<sup>nd</sup> meeting (52.01) the case may be referred to SEAC for appraisal of the application with reference to the extent and Mining Plan as now applied for and subject to the result of SLP. No.30103/15 of the Hon. Supreme Court in the event of the proponent submitting a notarised affidavit to the effect that no mining will be done in the government poromboke adjacent to their property where they do not have lease and where they have lease and quarrying is going on, the matter will be subject to the decision of the Hon. Supreme Court in the SLP No. 30103/2015.
- 10. 56<sup>th</sup> meeting of SEAC held on 6-7 June, 2016 has considered the matter for hearing the proponent. The Proponent appeared before the Committee and submitted to reconsider the decision of the Committee taken in its 52<sup>nd</sup> meeting. After examining the details, the Committee members explained the proponent that from the environmental point of view, it is better to formulate a mining plan for all areas including lease areas. Therefore Committee informed the proponent that there was no reason to change its earlier decision.

The proponent had submitted the approved mining plan as per KMMC Rules-2015 for all his individual lease areas (4nos.) and a comprehensive form-1 application. In view of this the

proposal was placed in the 60<sup>th</sup> meeting of SEAC held on 28<sup>th</sup> and 29<sup>th</sup> July, 2016 for appropriate decision. But due to time constrain the case was deferred to next meeting. In the meantime proponent has again submitted a single comprehensive mining plan and a revised form-1 seeking EC for a total area of 12.0836 ha. Nine Sy. Nos. are now newly added to the earlier proposal for 9.2152ha.

- 11. 62<sup>nd</sup> meeting of SEAC, Kerala, held on 06<sup>th</sup> & 07<sup>th</sup> September, 2016 decided to defer the item to consider in next meeting as the details provided in the agenda note are not adequate enough to take a decision. 63<sup>rd</sup> meeting of SEAC held on 04<sup>th</sup> October, 2016 has considered the matter and directed the proponent for a detailed Power Point presentation to get more clarity about the land.
- 12. The proposal was considered in the 64<sup>th</sup>Meeting of SEAC held on 16<sup>th</sup> and 17<sup>th</sup> November 2016. Further to the intimation the Proponent and the RQP attended the meeting and RQP made a power point presentation about the project. The committee appraised the proposal based on the Mining Plan, Pre-feasibility Report and all other documents submitted along with Form.1.

The total area is 12.0836 ha out of which, 4 lease area (all having validity up to 2020) are there. Out of this quarrying is being done in two lease areas. Other two are undistributed. A crusher is associated with the quarry. Another quarry, Meta Rock, with Environment Clearance is working near to the quarry. The CSR is an amount of 18 lakhs per annum for recurring activities & 12 lakhs for non-recurring activities.

The committee decided to recommend the item with the following specific conditions in addition to the general conditions.

- 1. Steep cliff like feature may be demarcated and fenced as danger zones with sign boards.
- 2. Storm water drainage from the upper part must be channelized properly and let out through well-defined channels. Catch water drains should be provided and water must be clarified to avoid silt to reach the river. Avoid letting out water by the side of the main approach road.
- 3. The Rain Water Harvest structure should be provided.
- 13. The Authority in its 62<sup>nd</sup> meeting held on 23<sup>rd</sup> December 2016 accept the recommendation of SEAC and to issue EC on the submission of an affidavit that the above specific conditions shall be fulfilled before continuing with mining. 'No Cluster Certificate' should also be produced and CSR activity fully undertaken.

The proponent submitted the affidavit stating that that the above specific conditions shall be fulfilled and CSR activity shall be fully undertaken. The proponent also produced 'No Cluster Certificate'.

14. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed Quarry project of Sri. P. V. Suresh Kumar, Director of M/s Travancore Blue Metal Industries (P) Ltd in survey No. 229/1, 229/13, 229/9, 229/9-1, 234/10, 234/11,

234/3, 234/4, 234/5, 234/6, 234/8-2, 234/9-1, 238/12, 238/13-2, 238/16-2, 238/17-2, 240/7, 240/7-1, 240/7-2, 240/8, 240/9, 240/10, 240/11, 241/1-1, 241/1-2, 241/2, 241/4, 241/5, 241/6, 241/7, 241/8, 241/8-1, 241/9-1, 241/10, 241/12-16, 241/12-17, 241/12-2, 241/13-1, 241/18, 242/1, 242/2, 242/4-2, 242/4-3, 242/5, 242/6, 242/7, 242/8, 245/4, 245/5, 245/6, 245/6-1, 245/6-2, 245/6-3, 245/6-4, 231/1, 241/3, 245/7, 245/9, 245/11, 293/7, 294/1, 294/3, 294/18 at Aruvikkara Village and Panchayath, Nedumangad Taluk, Thiruvananthapuram District for an area of 12.0836 Ha, subject to the specific conditions stipulated in para 12 all the environmental impact mitigation and management measures undertaken by the project proponent in the Form I and other documents submitted to SEIAA, the mitigation measures proposed in the table in para 1 above. The assurances and clarifications given by the proponent will be deemed to be a part of these proceedings as if incorporated herein. Also the general conditions for projects stipulated for mining, appended hereto will be applicable and have to be strictly adhered to.

- 15. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and undertakings subject to all the mining features, Environmental Management Plan and the entire Progressive Mine Closure Plan as submitted will be deemed to be part of these proceedings as conditions as undertaken by the proponent, as if incorporated herein.
- 16. Validity shall be five years subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.
- 17. Compliance of the conditions herein will be monitored by the Authority or its agencies and also by the regional office of the Ministry of environment & forests, Govt. of India, Bangalore.
  - i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
  - ii. Instances of violation if any shall be reported to the District collector, Thiruvananthapuram to take legal action under the Environment (Protection) Act 1986.
  - iii. The given address for correspondence with the authorised signatory of the project is Sri.P.V.Suresh Kumar, Director, M/s Travancore Blue Metal Industries (P) Ltd, Building No. VI/67-12, Kainoor Nagar, Kizhakkumpattukara, East Frot, Thrissur District, Kerala.

Sd/-V.S. SENTHIL, I.A.S., Member Secretary (SEIAA) Mr. P.V. Suresh Kumar,
Director,
M/s Travancore Blue Metal Industries (P) Ltd.
Building No. VI/67-12,
Kainoor Nagar,
Kizhakkumpattukara, East frot,
Thrissur, Kerala-680005

#### Copy to :-

- 1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E& F Wing, II block, Koramangala, Bangalore-560034.
- 2. Additional Chief Secretary to Government, Environment Department
- 3. The District Collector, Thiruvananthapuram
- 4. The Director, Mining and Geology Department, Kesavadasapuram, Thiruvananthapuram-4
- 5. The Secretary, Aruvikkara Panchayat, Nedumangad Taluk, Thiruvananthapuram
- 6. Chairman, SEIAA
- 7. E.C File

8. Stock File

9. O/c

10 Web Site

Forwarded /By Order

Administrator (SEIAA)

			:
	-		

## STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

## GENERAL CONDITIONS (for mining projects)

- 1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
- 2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- 3. Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads.
- 4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
- 5. Sprinklers shall be installed and used in the project site to contain dust emissions.
- 6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
- 7. At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly, if no other specific condition on reclamation of pit is stipulated in the E.C.
- 8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented
- 9. The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc) shall be protected at all times and shall be conspicuous.
- Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
- 11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
- 12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
- Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
- 14. A licensed person should supervise/ control the blasting operations.
- 15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
- 16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
- 17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention is the mining plan/specific condition.
- 18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
- 19. Maximum depth of mining from general ground level at site shall not exceed 10m
- 20. No mining operations should be carried out at places having a slope greater than 45°.
- 21. Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB.
- 22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
- 23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
- 24. The transportation of minerals should be done in covered trucks to contain dust emissions.
- 25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
- 26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
- 27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
- 28. A minimum buffer distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.
- 29. 100 m buffer distance should be maintained from forest boundaries.

- 30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.
- 31. All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
- 32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponentshall apply and get the approval of this Authority.
- The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- 34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- 35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
- A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.
- The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office.
- 38. The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40. Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public
- 39. The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.
- 40. No change in mining technology and scope of working should be made without prior approval of the SEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, as applicable.
- 41. The Project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.
- 42. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.
- 43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.

- 44. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- 45. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM<sub>10</sub> and PM<sub>2.5</sub> such as haul Road, loading and unloading points and transfer points it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- 46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- 47. Measures should be taken for control of noise levels below 85 dBA in the work environment.
- 48. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- The funds earmarked for environmental protection measures and CSR activate should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.
- The Regional Office of MOEF & CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data/information/monitoring reports.
- 51. 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.
- 52. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- The SEIAA may revoke or suspend the order, for non implementation of any of the specific or thisimplementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- 54. The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license on consent given by any other authority for the same project.
- 55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.
- 56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.
- 57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.
- 58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area'
- 59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
- Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.
- 61. Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.



For Member Secretary, SEIAA Kerala

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