



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

To,

The Deputy Executive Director
DALMIA CEMENT (BHARAT) LIMITED

Registered address: Dalmia Cement (Bharat) Ltd., Dalmiapuram, P.O. Kallakudi, Dist.-Tiruchirappalli (Tamil Nadu) - 621 651, Correspondence Address: 11th & 12th Floor, Hansalaya Building, 15, Barakhamba Road,,New Delhi,Delhi-110001

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

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/CG/MIN/72578/2018 dated 21 Jun 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC21A001CG117283 |
| 2. File No. | J-11015/13/2018-IA-II(M) |
| 3. Project Type | New |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Proposed Kesla-II Limestone Mine (Area 357.067 ha) with production capacity 4.0 Million TPA ROM with crusher capacity of 1000 TPH located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh |
| 7. Name of Company/Organization | DALMIA CEMENT (BHARAT) LIMITED |
| 8. Location of Project | Chhattisgarh |
| 9. TOR Date | 08 Jun 2018 |

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

Date: 04/10/2021

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

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

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PARIVESH

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F. No. J-11015/13/2018-IA.II (M)

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

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

Dated: 01st October, 2021

To,

M/s Dalmia Cement (Bharat) Ltd
11th & 12th Floor, Hansalaya Building,
15, Barakhamba Road, Connaught Place,
New Delhi -110001

Subject: Proposal for Environmental Clearance of M/s Dalmia Cement (Bharat) Ltd for Proposed Kesla-II Limestone Mine with total excavation 4.0 Million TPA (Limestone: 3.0 Million TPA, Top Soil: 0.15 Million TPA, Mineral Rejects & Waste: 0.85 Million TPA) with crusher capacity of 1000 TPH in the mine lease area of 357.067 ha located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh- Environmental Clearance (EC) reg.

Sir,

This has reference to the online proposal no. IA/CG/MIN/72578/2018 of M/s Dalmia Cement (Bharat) Ltd is for Proposed Kesla-II Limestone Mine with total excavation 4.0 Million TPA (Limestone: 3.0 Million TPA, Top Soil: 0.15 Million TPA, Mineral Rejects & Waste: 0.85 Million TPA) with crusher capacity of 1000 TPH in the mine lease area of 357.067 ha located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh. The mine lease area located between Latitude 21°24'47.752" N to 21°26'09.246" N and Longitude 81°55'45.216" E to 81°56'54.195" E. The mine lease area falls under the Survey of India Toposheet No F44P15, F44P14, F44Q2 & F44Q3 and falls in Seismic Zone-II. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/DSS.

2. M/s Dalmia Cement (Bharat) Ltd has made an online application vide proposal no: IA/CG/MIN/72578/2018 dated 04.09.2020 and submitted the Form-2 and EIA report under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals under Category "A" of the

EC-M/s Dalmia Cement (Bharat) Ltd -Chhattisgarh

schedule of the EIA Notification, 2006 as the mining lease area is greater than 100 ha and appraised at Central level. The proposal was earlier considered in the 32nd EAC meeting held during 28th June, 2021 to 1st July 2021. Based on the documents submitted and presentation made by the Project Proponent and the Consultant, the Committee deferred the proposal for want of additional information. PP submitted the information sought by the Committee during 32nd EAC meeting held during 28th June, 2021 to 1st July 2021 vide letter dated 09.08.2021 in PARIVESH.

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

Date of application	Proposal No	Consideration	Details	Date of accord
30.01.2018	IA/CG/MIN/72578/2018	27.02.2018 & 14.05.2018	4.0 million TPA (ROM) with crusher capacity of 1000 TPH in the mine lease area of 357.067ha	08.06.2018

4. Lease Detail

S.no	Grant of PI/mine lease/ Order	Date of the grant	Name of the Mineral	Period of Grant		Granted by	Mine lease area in Ha
				From	To		
1	Letter of Intent vide Lr F 3-21/2016/12, Naya Raipur	22.06.2017	Limestone	22.06.2017	21.06.2020	Govt of Chattisgarh	357.067
2	Extension of Letter of Intent vide Lr F 3-21/2016/12, Naya Raipur	03.03.2021	Limestone	Valid up to 21.06.2022		Govt of Chattisgarh	357.067

5. Details of Mine Plan

S.no	Mining Plan along with the Conceptual Plan Approved By	Letter no	Dated of Approval	For a period	Details
1	Mining Plan with Progressive Mine	Raipur/Chup/Khayo-1165/2008-Raipur	29.08.2018	5 years	Limestone, 357.067 Ha

	Closure Plan approved by Indian Bureau of Mines				
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6. The Project Proponent submitted that the method of mining will be carried out by Conventional Open cast fully mechanized mining. PP submitted that the Kesla-II Limestone Block was explored by the Directorate of Geology and Mining, Chhattisgarh (DGM) between 2013 and 2016, based on which this block was auctioned. The entire Mining lease area is potentially mineralized. After execution of ML, within the first year PP shall drill 15 nos of boreholes up to a depth of 50 m each to establish depth persistence of limestone. PP reported that the Total Geological reserves is 213.1292 Million Tonne and Mineable Reserve is 75.1680 Million Tonne. Life of the mine is 30 years. The proposed bench height will be 8m and working bench width will be 20m. Ultimate pit slope will be 50°. Top soil & OB loaded by excavator and top soil will be transported to the temporary stock yard which will be selected near the mine quarry whereas the OB will be transported to the dumping yards on safety barrier zone. Both the top soil & OB will be transported via dumpers. Excavated limestone will be transported from mine face to crusher via 35T dumper & then crushed limestone will be transported to proposed cement plant through covered conveyor belt located at a distance of ~500 m. Impact crusher of 1000 TPH capacity will be installed near the south western boundary of the lease area. The limestone will be stacked near the crusher and fed to crusher. The capacity of belt conveyor will be 1000 T / hour. The crushing of limestone will be done by impact crusher giving output of 50 - 75 mm sizes. At conceptual stage, about 1207050 Tonnes of topsoil will be generated and this will be stacked separately at the earmarked place and used for greenbelt/plantation development as per yearly proposals. At conceptual stage, about 3621150 Tonnes of OB, 3758500 Tonnes of Mineral Reject, 4138050 Tonnes of High MgO Limestone and 542825 Tonnes of Waste (Shaly Limestone etc.) is likely to be generated. OB/ waste/rejects will be used for backfilling after 10th year in the mined-out area where the entire mineable limestone will be exhausted. PP reported that the water table is found at a depth of 6-12m bgl and the depth of the mining will be 32m and there will be ground water intersection. PP also informed that the Prior permission for Ground water table intersection will be taken from the Concerned Authority. PP submitted that the proposed undisturbed area i.e., 212.012 Ha, comprises of the existing site features and its safety barrier viz. Nalla& its safety barrier, Canal & its safety barrier, Pvt. infra. & its safety barrier, Power line & its safety barrier and Road & its safety barrier. However, an area of about 45 ha which is on the eastern side of the road, adjoining the Pvt. Infrastructure is currently not proposed to be disturbed, so that agricultural and existing activities shall continue. PP undertake to permit/allow

agricultural/ongoing activities to continue in the said area 45 ha out of 212.012 ha. PP also submitted that at conceptual stage, total mined out/excavated area will be 120.705 ha which will be reclaimed by backfilling over 30.0ha and reclaimed by plantation/re-grassing. Remaining void/excavated area of 90.705 ha, which were earlier proposed to be reclaimed as water reservoir, is now proposed to be reclaimed by carrying out plantation on first 2 upper benches over an area of 9.66 ha. About 19,500 fruit bearing trees will be planted. Now, remaining excavated area of 81.045 ha, will be converted into water reservoir. The water reservoir created, shall be properly protected with bunds & fencing and will be developed for community use. PP will make arrangement for pumping out of stored water for villagers for agriculture.

7. Land Area Breakup

Private land	314.643 ha
Government land	42.424 ha
Total Mining lease area (MLA)	357.067 ha

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Distance	Direction
Nahardih Village	~300 m	NE
Kharora Town	~ 1.0 km	SW
National Highway 130 B	~ 2.8 km	SE
Baikunth Railway Station	~17.0 km	NW
Kumhari Tank	~3.5 km	NNW
Mahanadi Canal (Baloda Branch)	~1.5 km	E
Additional information	Two small nallahs in north and one small nallah in south and Minor canal in north corner are found within ML area	

9. Water requirement

Total water requirement	100.0 KLD		Dust suppression	50.0 KLD
	Fresh water	Treated water	Green belt	30.0 KLD
	86.0 KLD	14.0 KLD	Drinking & Sanitation	10.0 KLD
			Miscellaneous	10.0 KLD
Source	Ground Water and/or Mine Sump as & when developed			
Permission	Application for abstraction & dewatering of ground water has been submitted online for CGWA Clearance vide application no.-21-4/2897/CT/MIN/2019 dated 26.09.2019. PP has deposited the ground water abstraction/ restoration charges i.e., Rs. 1,76,040/-			

through Bharatkosh Portal on 8th July, 2021 based on demand raised vide email dated 2nd July, 2021 and communicated the same vide email dated 8th July, 2021. NOC is awaited.

10. The Project Proponent reported that there is no forest land involved in the mine lease area as per the tender document provided by the State Govt., Further; there is no National Park, Wildlife Sanctuary, Biosphere Reserves, Tiger Reserves and Wildlife Corridors etc. within 10 km radius of the mining lease area. PP submitted the letter regarding the same obtained from APCCF & CWW, Atal Nagar, Nava Raipur, vide letter no vide letter, dated 28.01.2020. PP reported that the following Protected Forest such as Khaulidabri PF ~100m, NW and Mohranga PF ~5.5km, WNW are found within the 10km radius. PP also submitted that the Forest Dept. has developed the Mohrenga Paryavan Darshan as a tourism.

11. The Project Proponent reported that 3 Schedule I species found in the study area such as Python (*Python molurus*), Monitor lizard (*Varanus bengalensis*) and Indian Peafowl (*Pavocristatus*). PP submitted that the Wildlife Conservation & Management Plan along with the list of flora and fauna prepared by Enviro Greens by Haresh Chandra Tiwari I.F.S. (RETD.) and approved by APCCF & CWW, Atal Nagar, Nava Raipur, vide letter no. V. Pra./Prabandh-475/467 dated 28.01.2020. Budget of Rs. 49.50 lakh has been allocated for 5 years for Wildlife Conservation & Management plan.

12. Green belt/plantation details

Proposed area for green belt/plantation	52.66 ha (13ha 7.5 m safety barrier and safety zone along nallah + 30 ha backfilled area + 9.66 ha on upper 2 benches)
7.5 m barrier & non-mineralized zone	7.0 ha
50 m safety zone of nallah, roads, electric lines	6.0 ha
Backfilled area	30.0 ha
Budget for green plant & plantation till the end of life of mine.	Rs. 2.58 crore
Additional information (if any)	Greenbelt development/Plantation plan has been prepared by Enviro Greens in consultation with DFO, Raipur Forest Division, Raipur, Chhattisgarh and approved by State Forest Department vide letter no. V.T.A./Ra/107/, Raipur, dated 17.03.2021.

13. Baseline detail

The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post-Monsoon Season. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of October-December, 2018 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Period					
AAQ parameters at 10 locations	Pollutant	Min, $\mu\text{g}/\text{m}^3$	Max, $\mu\text{g}/\text{m}^3$	98 %ile, $\mu\text{g}/\text{m}^3$	Standard, $\mu\text{g}/\text{m}^3$
	PM2.5	20.8	54.2	53.5	60
	PM10	36.7	86.3	85.3	100
	SO2	5.0	10.3	10.1	80
	NOx	6.2	26.1	25.7	80
AAQ modelling (Incremental GLC)	Pollutant	Baseline Concentration, $\mu\text{g}/\text{m}^3$	Incremental Concentration, $\mu\text{g}/\text{m}^3$	Total GLC, $\mu\text{g}/\text{m}^3$	Standard
	PM2.5	41.5	2.2	43.8	60
	PM10	58.5	4.8	63.3	100
	SO2	7.1	3.4	10.5	80
	NOx	15.8	4.1	19.9	80
Noise level at 10 locations	Day Time: 48.2 to 53.1 Leq dB (A) Night Time: 38.5 to 42.8 Leq dB (A)				
Ground water quality at 8 locations	pH ranged from 7.0-7.7, TDS ranged from 120 - 618 mg/l, Chlorides ranged from 10.0 – 112.4 mg/l, Fluorides ranged from 0.33-0.72 mg/l. The parameters thus analyzed were compared with IS: 10500:2012. All the samples were found to be well within the limits.				
Surface water quality at 4 locations	pH ranged from 7.1 - 7.6 indicating slightly alkaline in nature. The colour and turbidity were of permissible range and odour was found agreeable at all the locations. BOD ranged between 3.2-4.8 mg/l, COD ranged between 19.4-26.5 mg/l and DO ranged between 6.8-7.2 mg/l. The physical and chemical quality of surface water is good and safe for aquatic biodiversity.				
Soil quality at 8 locations	pH ranged between 7.0 -7.3 which is neutral. The organic matter present in the soil observed to be appropriate (1.61% to 0.82%) for the plant growth. The textures of the soil samples were sandy loam at all locations. All the essential nutrients were observed to be present in a higher amount than the other micro nutrient and macro nutrient such as Nitrogen (178.51 to 127.76 kg/ha), Phosphorous (38.22 to 26.26 kg/ha), Potassium (192.67 to 90.24kg/ha), Magnesium (383.01 to 95.05 mg/kg), Calcium (4465.78to 1452.83mg/kg).				

14. Public Hearing (PH) Details

Advertisement for PH with date	Local Level/National level: i. Dainik Bhaskar News Paper, Raipur, dated 23.12.2019 ii. The Times of India, New Delhi, dated 24.12.2019
Date of PH	24.01.2020
Venue	Sports Stadium, Sub Tehsil Office, near Kharora, Tehsil: Tilda, District Raipur, Chhattisgarh
Chaired by	ShriVineetNandanwar: ADM & Additional Collector, Raipur Dr. S. K. Upadhyay: Regional Officer, Regional Office (CECB) Raipur
Main issues raised during PH	Education upliftment, Health & Medical Facilities, Livelihood Skill Training for Employment, School construction for locals & development of Govt. schools, Rain Water Harvesting structures etc.
Budget proposed for addressing issues raised during PH	Rs. 4.0 crore

15. Public hearing action plan as per MoEF&CC O.M. dated 30/09/2020

S. No	Activities	Budget (Rs. In Lakh)	Physical Targets		
			1 st year	2 nd year	3 rd year
A	Social Infrastructure Development				
1	Improvement/refurbishment of Govt. schools like development of smart class rooms with wi-fi connectivity, Girls toilets in Schools, drinking water, sanitation, sports equipment, laboratory equipments etc)	50	Nahardih & Bardih	Kesla	Kharora
2	Upgradation of medical equipments such as providing extra beds, x – ray machines, ECG machines etc in existing health sub-centers	50	Nahardih, Bardih & Kesla		
3	Provision of Clean drinking water in schools and Gram Panchayat / villages of Nahardih, Kharora, Kesla and Bardih etc. (RO, UV, Water Tank, Hand pump etc) (5 nos)	25	Kharora	Kesla	Nahardih & Bardih
4	Provision of solar lights/Fans	25	Nahardih	Kesla	Kharora

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	(100 nos.) in the village streets, Anganwadi, schools and distribution of Solar lantern in villages Nahardih, Kharora, Kesla and Bardih Installation of Solar plates in Schools for Power back-up		&Bardih		
B	Soil & Water Conservation				
1	Rejuvenation of Ponds (10 nos)	50	Nahardih, Kharora, Kesla&Bardih		
2	Construction of check- dams (5 nos)	50	Nahardih, Kharora, Kesla&Bardih		
3	Ground Water Recharging through Bore wells (Bhungroo/similar system) (100 nos)	30	Nahardih, Kharora, Kesla&Bardih		
C	Skill Development				
1	Setting up of skill training center (1 nos.) under the banner of Dalmia Institute of Knowledge and Skill Harnessing (DIKSHa) for training of unemployed youth common for plant and captive mines proposed in the area. Affiliation: NSDC/Chhattisgarh State Skill Dev. Mission	90	Village Kesla		
D	COVID Center				
1	Establishment of a COVID center at Village Panchayat of project villages with necessary medical equipment providing Oxygen concentrators, beds, PPE Kits, support in vaccination, one Ambulance, Awareness for COVID etc	30	Nahardih, Kharora, Kesla		
	Total	400			

16. The Project Proponent submitted that total Mining lease area is 357.067 ha which falls in Kharora, Kesla, Nahardih and Bardih Villages of Tilda Tehsil. Out of total mining lease area 42.424 ha is Government land and remaining 314.643 ha is Private land. PP submitted that the household survey was conducted for PAFs using a well-structured questionnaire prepared in local language enabling PAFs to reply appropriately. PP submitted that the

acquisition of land will be done through provisions of LARR Act, 2013 and land purchase through mutual agreement with the land holders at mutually agreeable rates and terms & conditions. Land purchase shall be done in phases as per the requirement for mining purpose. In first phase land required for first 10 years of plan period shall be acquired and subsequently extended for next 10 years. As per khasra details, there are 299 PAFs involved in the lease area. Out of total 299 PAFs, 264 PAFs owns less than 2 ha land, 20 PAFs owns more than 2 ha land but less than 5 ha land and 15 PAFs own more than 5 ha land. There are 18 structures, falling within mine lease, which will not be proposed to displace due to the mining activity only 3 Structures will be disturbed. As the lease area does not cover any habitation, hence there will be no need of resettlement. Budget proposed for the R&R Action plan is Rs. 154 Crore.

17. Court case details

Court Case	PP submitted that there is no Court Cases pending against the project and/or land in which the project is proposed to be set up
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18. Affidavit/Undertaking details

Project Proponent submitted an Undertaking dated 31.08.2020	DCBL owns the contents (data & information) of the EIA report prepared and submitted by J.M. EnviroNet Pvt. Limited. Further, it is to state that, instructions as per MoEF&CC O.M. No. J-11013/41/2006-IA. II (I) dated 04.08.2009 has been followed during the preparation of this EIA/EMP Report.
Consultant submitted an Undertaking dated 31.08.2020	The conditions laid down in Terms of Reference prescribed by MoEF&CC, New Delhi vide letter no. J-11015/13/2018-IA.II (M) dated 08.06.2018 have been complied as per data/details provided by Project Proponent & as per Approved Mining Plan along with Progressive Mine Closure Plan approved by IBM and the data submitted are factually correct.
Plagiarism Certificate dated 30.08.2020	The Head of the Accredited Consultant Organization/ Authorized person certified that this EIA Report has been evaluated by using online in house software viz. small tools https://smalltools.com/plagiarism-checker/ . The report produced has been analyzed by the system and based on it, I certify that the EIA Report produce in accordance with good scientific practice.

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Affidavit in a non-judicial e stamp paper of Rs 100 bearing IN-DL88831282056679T dated 23.06.2021 as per Ministry's OM dated 30.05.2018	Company will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors.
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19. Details of the EMP

S. No.	Activities	Capital Cost (Rs. In Lakh)	Recurring Cost (Rs. In Lakh)	
I	EMP for Pollution Control & Monitoring			
A.	Air Quality Monitoring and Management			
Mitigative Measures				
1	Permanent water sprinkling arrangements for main haulage road (0.5 km to 1.5 km)	15.0	3.0	
2	One water tanker (16 KL) for water sprinkling in other roads and mining areas/activities.	28.0	4.0	
3	Pollution Control Device (Bag filter at Crusher) Equipment and its installation Cost, Operation & Maintenance		25.0	4.0
	Particular	Details		
	Pulse Jet Bag Filter	85,000 cum/hr		
	Bag filter fan	100000 cum/hr		
	Motor	1000 KW		
	Efficiency	99.99%		
4	Plantation in Safety barrier along Canal, Nallah etc. on 6 ha (No. of saplings: 12,000)	258.0	7.0	
5	Green belt around 7.5 m periphery covering an area of 7.0 ha (No. of saplings: 14,000)			
6	Plantation / Re-grassing in backfilled area of 30 ha with total 60,000 saplings from 11 th year onwards upto the life of mine			
7	Plantation/regressing on the first two benches of excavated area i.e. about 9.7 ha area with 19500 saplings	58		
8	Nursery development & maintenance	10	1	
Monitoring				
1	5 Ambient Air Quality Monitoring Stations at Mine Site (one online and 4 manual) at villages: Kharora, Kesla, Nahardih and Bardih and display board at Mines Main Gate	50.0	3.0	
2	Fugitive dust emission monitoring (6 locations * monthly)	-	2.0	

3	Personal Dust Monitoring	-	1.0
Sub Total A.		444	25.0
B.	Water Quality Monitoring and Management		
Mitigative Measures			
	<ul style="list-style-type: none"> ➤ Retaining Wall around soil dump (L*W*D = 3360 m x 1.5 m x 1.5 m) ➤ Garland Drain around soil dump (L*W*H = 6640 m x 1 m x 1 m) ➤ 1 nos. of Settling Tank / Sedimentation Pond (Length*Width*Depth = 20 m x 20 m x 3 m) ➤ Construction of Protective Bunds along the nallah and (width x height = 3 m x 3m) ➤ Construction of 1 nos. of Check Dams within mine boundary and its annual maintenance 	25	5
Monitoring			
1	Installation of 4 Piezometers along the periphery in the premises	10.00	1
2	Ground water quality analysis (4 locations * 4 times in a year)	1.5	2
3	Surface Water Quality Analysis (Upstream and downstream of Mahanadi Canal & Mine Sump) - 5 samples * half yearly	2.0	3
4	Installation of Modular STP & Workshop Waste Water Quality Analysis (monthly) as well as maintenance of oil-water separators	8.0	4
Sub Total B.		46.5	11.0
C.	Noise and Vibration Monitoring and Management		
Mitigative Measures			
1	Procurement of Blast Vibration Measuring Instrument	5.00	1.0
Monitoring			
1	Peak Particle Velocity Monitoring for nearby habitation i.e. Kharora, Kesla, Nahardih and Bardih (Minimate & Noise Level Meter)	3	1.8
2	Ambient Noise Monitoring in core & buffer zone (5 locations * monthly frequency)	2	1.0
3	Work Place Noise Level Monitoring in core zone (5 Locations * quarterly frequency)	2	0.20
4	Personal Noise Monitoring (5 Locations * quarterly)	-	1.50
5	Providing Ear muffs/plus to workers working in high noise area	-	1.50
Sub Total C.		12.0	7.0

D.	Miscellaneous		
1	Digital mapping of entire mine area once in three years (Rs. 3 Lacs once in 3 years)	-	1.0
2	Occupational Health Check-up of Mines Employees	20.0	12.0
3	Others, if any	-	2.0
Sub Total D.		20.0	15.0
TOTAL (A +B+C+D)		522.5	58.0
II	Budget for addressing the Public Hearing issues	400 (within 3 years)	
III	Budget earmarked for Wildlife Conservation & Management	49.50	
Grand Total (I + II)		972	58.0

20. Details of project cost and employment:

Particulars	Budget (Rs. In Crore)
Capital Cost for Environment Protection	5.225
Budget for addressing the Public Hearing issues	4.000
Total Cost for EMP	9.04
Recurring Cost for EMP	0.57
Project Cost	252
Employment	102 Persons

21. The Proposal of Environmental Clearance was considered in the 36th EAC (Non-Coal) meeting held on 31st August and 1st September, 2021. Based on the documents submitted and presentation made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Environmental Clearance of M/s Dalmia Cement (Bharat) Ltd for Proposed Kesla-II Limestone Mine with total excavation 4.0 Million TPA (Limestone: 3.0 Million TPA, Top Soil: 0.15 Million TPA, Mineral Rejects & Waste: 0.85 Million TPA) with crusher capacity of 1000 TPH in the mine lease area of 357.067 ha located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh subject to the specific conditions in addition to the standard EC conditions applicable for non-coal mining projects.

22. The Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the above mentioned Environmental Clearance as recommended by EAC during its 36th EAC meeting held on 31st August and 1st September, 2021 for grant of Environmental Clearance to M/s Dalmia Cement (Bharat) Ltd for Proposed Kesla-II Limestone Mine with total excavation 4.0 Million TPA (Limestone: 3.0 Million TPA,

Top Soil: 0.15 Million TPA, Mineral Rejects & Waste: 0.85 Million TPA) with crusher capacity of 1000 TPH in the mine lease area of 357.067 ha located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh subject to compliance of the terms & conditions and the environmental safeguards mentioned below:-

SPECIFIC CONDITIONS

- i. The total mine lease area is 357.067ha out of which, 120.705 ha will be the excavated area at the conceptual stage and 212.012 ha undisturbed area, in which PP shall ensure that an area of about 45 ha which is on the eastern side of the road also adjoining the Pvt. Infrastructure should not be disturbed, so that agricultural and existing activities shall continue even after obtaining the surface rights, and the area under nallah and its barrier i.e. 45.652 ha will remain undisturbed till the life of mine.
- ii. The budget of Rs 4.0 Crores to address the concerns raised by the public including in the public hearing to be completed within 3 years from the date of start of mining operations.
- iii. The Project Proponent shall implement the Rehabilitation of project affected families (PAFs) and payment of compensation to PAFs as per the policy and guidelines of the Central/State Government, as provided under the law.
- iv. A safety Zone of 500 m from any dwelling or habitation will be left out as no mining area and no blasting will be conducted in this zone.
- v. The natural streams (nalas) passing through the mining lease area shall not be disturbed. Further the streams shall be protected by creation of bunds on both sides. The Project Proponent should ensure that safety barrier to be left around Nallah, Canal, Roads, Electric line and dumps should not be less than 100m on both the side.
- vi. The Project Proponent shall carry out greenbelt/plantation on the area in various safety barrier along the nalla and 7.5 m safety zone along ML boundary during the initial years of mining by undertaking 3-tier plantation which includes the floral components viz. grasses, bushes and trees. Plantation in the remaining area of undisturbed area (212.012 Ha) shall also be done and should be completed within 3 years.



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- vii. Total 120.705 ha mined out/excavated area shall be reclaimed by backfilling over 30.0ha and reclaimed by plantation/re-grassing. Remaining void/excavated area of 90.705 ha shall be reclaimed by carrying out plantation with about 19,500 fruit bearing trees on first 2 upper benches over an area of 9.66 ha in order to increase the greenbelt area and to utilize the area into more productive use.
- viii. The Project Proponent should undertake the plantation with the survival of not less than 90% and casualties should be replaced with new saplings every year. Casualties replaced should be counted separately other than the total proposed saplings and the data for such saplings should be furnished during six monthly compliance report along with the progressive plantation.
- ix. Ecology Restoration Plan including green belt as submitted by Project Proponent shall be implemented.
- x. The skill development program as proposed by PP should be implemented and the trades to be selected should be such a way that it should meet the local employment demand. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program which should be analyzed periodically and improved accordingly.
- xi. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. Monitoring of surface water quality in nalah as well as canals should be undertaken regularly to detect any impact on the water quality due to mining operations and take immediate steps to prevent the same through the modified EMP accordingly.
- xii. The topsoil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.
- xiii. Regular surveillance on Silicosis shall be carried through regular occupational health checkup of 1/3 of the persons every year.
- xiv. DGMS Approved dust sampler should be used in mine site for monitoring of air pollutants.

xv. The Project Proponent should obtain the NOC from CGWA before commencing mining operation.

STANDARD CONDITIONS

I. Statutory compliance

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

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the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.

8) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

9) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

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

III. Water quality monitoring and preservation

11) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in

place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

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

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

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

15) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with

Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

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

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

IV. Noise and vibration monitoring and prevention

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

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

20) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

21) The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump

management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

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

VI. Land reclamation

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

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

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



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

VII. Transportation

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

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

VIII. Green Belt

29) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating

from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

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

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

IX. Public hearing and human health issues

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

X. Corporate Environment Responsibility (CER)

33) The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the

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project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

XI. Miscellaneous

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

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

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

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

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

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

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

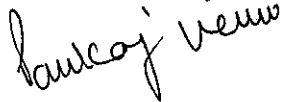


41) Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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

24. 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.


25. This issues with the approval of Competent Authority.

Yours faithfully,

(Pankaj Verma)
Scientist 'E'

Copy to:

1. **The Secretary**, Ministry of Mines, Government of India, ShastriBhawan, New Delhi-110 001.
2. **The Secretary**, Department of Environment, Government of Chhattisgarh,
3. **The Secretary**, Department of Mines and Geology, Government of Chhattisgarh, Chhattisgarh.
4. **The Chairman**, Central Pollution Control Board, PariveshBhawan, CBD-cumoffice complex, East Arjun Nagar, Delhi-110032
5. **The Chairman**, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh
6. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
7. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.

8. **Regional Officer**, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
9. **The Chairman**, Central Pollution Control Board, PariveshBhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
10. **The Member Secretary**, Chhattisgarh State Pollution Control Board, Commercial Complex, Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur, Chhattisgarh.
11. **The Member Secretary**, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.
12. **The Chief Wildlife Warden** , Govt. of Chattisgarh, AranyaBhavan, Jail Road, FafadihChowk, Raipur – 492001.
13. **The District Collector**, Raipur District, Chhattisgarh.
14. **Guard File**
15. **MoEF&CC website.**


(Pankaj Verma)
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