

Ref. No. ENV/ Nagpur/June-2021-26

Date:26th June 2021

To.

Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Sceretariat Building Civil Lines, Nagpur-440001

Sub : Environmental Clearance for 25 MW Lean Gas Based Power Plant as well as EC for Carbon Black Plant (1,20,000 TPA) at Patalganga, Dist: Raigad, Maharashtra.

Ref : 1) Environmental Clearance Letter No. J-13011/35/2007-1A.JI (T) dated September 28, 2007,

 Environmental Clearance Letter No. J-11011/35/2007 IA II (I) dated 22<sup>nd</sup> March 2013

Respected Sir.

In reference to the above referred letter of your highly revered office we would like to clarify submit the Current Status of our construction work and Point wise compliance status to various stipulations laid down by the Ministry in its clearance letter No. J- 13011/35/2007-IA.II(T) & J-11011/35/2007 IA.II(T) along with the necessary enclosure and annexore.

This is for your kind consideration and records. Kindly acknowledge the same.

Thanking you,

Yours Sincerely,

For, Birla Carbon India Private Limited (Unit – Patalganga)

Authorised Signatory

CC: 1) MoEF Delhi

2) MPCB, Sion

3) CPCB, Delhi

Encl:

Part A: Current Status of Construction Work.

Part B: Point wise compliance status.

Part C: Enclosures.

Birla Carbon India Private Limited

Part D: Annexure. [Formerly known as SKI Carbon Black (India) Private Limited]

Unit: Patalganga, Village: Lohop-Talvali,

Taluka: Khalapur, District: Raigad – 410207, Maharashtra, India Telephone: +91 9702436333, 9702245353, Email: info@adityabirla.com

### LIST OF ENCLOSED DOCUMENTS;

SR. NO.	PARTICULARS ENCLOSURE	
PART A	CURRENT STATUS OF WORK	
PART B	POINT WISE COMPLIANCE STATUS	
PART C	ENCLOSURE	
1	Data Sheet in Format	Enclosure-1 with Part-1, Part-II & Part- 11)
2	Environmental Clearance Copy for Electricity	Enclosure-2
3	Environmental Clearance Copy for Carbon Black	Enclosure-3
4	Consent to Operate from Maharashtra Enclosure-4 Pollution Control Board	
PART D	ANNEXURE	
1	Air Pollution Control Details	Amexure -1
2	RWH Details	Amenure -2
3	Facilities provided for the workers / Contractors/ Drivers	Annexure -3
4	Green belt development plan	Annexure -4
5	Monitoring report Annexure -5	
6	Advertisement copy	Annexure-6
7	EMP and DMP	Annesure -7
8	Funds spent on Environmental Protection measures	Acmexure -8
9	MWML certificate of registration	Amexice - 9

# PART A Current Status of Construction Work

### CURRENT STATUS OF WORK

Status of construction : Construction is completed

Date of commencement : Not Applicable

( Actual and/or planned )

Date of completion : Not Applicable

( Actual and/of planned )

# PART B Point Wise Compliance Status

### : PART B:

### POINT-WISE COMPLIANCE STATUS

## Point-Wise Compliance Status to Various Stipulations Laid Down by the Ministry of Environment and Forests in its Clearance Letter No. J-13011/35/2007-[A,II (T) dated 28.09.2007 as follows.

Sr. No	Condition	Status
1	The environmental clearance for the main carbon black plant, as applicable shall be obtained separately.	Carbon Black Environment Clearance received with J-11011/35/2007-IA-8 (I) dated 22.03.2013
2	Lean gases generated from existing process plant. Lean gases generated from existing process plant is only utilized for the power plant.  Lean gases generated from existing process plant is only utilized for the power plant.	
3	Effective safeguard measures shall be taken to ensure that the SPM levels do not exceed the prescribed standards.	Air Pollution Control Equipment are provided. Details given in Annexure – 1
4	A stack of 103 Meter height with exit velocity of at least 13.85m/s shall be provided with continuous online monitoring system for disposal of waste gases.	Stack of 108 meter is constructed and in operation.
5	Closed circuit cooling system with cooling towers shall be provided. COC of at least 8 shall be adopted.	Complied,
6	Rain water harvesting shall be practiced. A detailed scheme for Rain Water Harvesting shall be prepared in consultation with Central Ground Water Authority / State Ground water Board and a copy of the same shall be submitted within three months to Ministry.	Collection from reservoirs and clarifier already implemented. For RWH please refer Annexure – 2.
7	First-aid and sanitation arrangements shall be made for the drivers and other contractors during construction phase.	Complied, Facilities provided for the workers / Contractors / Drivers Annexure ~ 3.
8	Leq of noise level should be limited to 75 dB (A) and regular maintenance of equipment be undertaken.	Maintenance of equipment's is carried out at regular intervals to maintain their performance. New initiatives are being taken to further reduce the noise levels.

9	Greenbelt shall be developed all around the plant boundary covering 1/3 of the project area.	We have already planted 10000 trees and approximately 20 acre is covered under green belt. Additionally we are going to plant 3000 more trees and cover rest of available open area under Green Belt development plan. Refer Annexure- 4
10	Regular monitoring of the ambient air quality shall be carried out in and around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry.  Regular monitoring of the ambient air quality shall air quality, Noise and Water is being carried out. And the of the same submitted to IV monthly basis Please refer Annexure- 5.	
11		
12	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.  Environmental Management and Disaster management made. Details Given in Annexus	
13	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards should be submitted to this Ministry, its Regional Office at Nagpur, CPCB and SPCB.	
14	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of tie stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan shall be forwarded to the Regional Office for their use during monitoring.	Noted.

15	Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. This cost should be included as part of tine project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Earmarked funds have been spent on environmental protection measures towards capital cost for bags filters, RO plant, Triple effect evaporators, vent scrubbers, stacks. Refer Annexure 8
16	Full cooperation should be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bhopal/the CPCB/the SPCB who would be monitoring the compliance of environmental status.  Full cooperation shall be extended to the Scientists/Officers from the Ministry/Regional the all statutory bodies which would be monitoring the compliance of environmental status.	
17	The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.	
18	The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.	
19	In case of any deviation or alteration in the proposed project from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.	
20	The above stipulations shall be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, The	Noted.
	Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, the Public Liability Insurance Act, 1991 and rules there under.	

(4)

### : PART B:

### POINT-WISE COMPLIANCE STATUS

## Point-Wise Compliance Status to Various Stipulations Laid Down by the Ministry of Environment and Forests in its Clearance Letter No. J-11011/35/2007-1A.H (T) dated 22.03.2013 as follows.

Sr. No	Condition	Status
	Specific Conditions-	
1	Permission and recommendations of the State Forest Department regarding impact of the proposed plant on the reserve forests located near to 4 nos, of reserve forests shall be obtained and recommendations shall be implemented satisfactorily. Copy of permission shall be submitted to the respective Regional Office.	Permission obtained. Copy submitted to regional office
2	As proposed, vent scrubber in the reactor area, main bag filter in the product separation area, process bag filter in the pelletizing area, purge gas fifter in the product drying area, dryer combustor in the dryer area and packing exhaust filter in the packing area shall be provided to control air emissions	All proposed equipment's in respective area provided
3	The gaseous emissions (SO <sub>2</sub> , NOx, CO and HC) and particulate matter from existing and proposed boiler, dryer, purge gas filter, packing exhaust litter units shall conform to the norms prescribed by the Central Pollution Control Board (CPCB)/Maharashtra Pollution Control Board (MPCB) from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of tailure of any pollution control system adopted by the unit, the respective unit shall not be restorted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly	Noted, Regular monitoring is done by MoEF Approved laboratory Annexure - 5
4	Continuous stack monitoring of stacks for SO2. NOx and CO and recording facilities shall be installed along with interlocking facilities. As proposed, particulate matter shall be monitored in the stack manually. Data for particulate matter, SO <sub>2</sub> , NO and CO shall be displayed on web as well as outside the premises at prominent place for public viewing.	Noted. Online monitoring of SO <sub>2</sub> and NO <sub>3</sub> are installed. Online CO monitoring and Environment data display on website started from October 2013

5	As proposed, this being an existing plant Sulphur	Same is ensured
 	content in the feed stock i.e. Carbon Black Feed	ļ
	Stock (CBFS) shall not exceed 2.5% at any time	
- 6	Ambient air quality data shall be collected as per	Complied. Reports attached - for
	NAAQES standards notified by the Ministry vide	reference Amnexure -5
<u> </u>	G.S.R. No. 826(E) dated 16th September, 2009,	
7	Poly-Aromatic Hydrocarbon (PAH) shall be	PAH monitored from the packing
İ	monitored in fugitive dust emission area	plant and reports attached vide
	particularly in Packaging Plant. Data shall be	Annexure -5
	properly monitored, recorded, and submitted to the	
	Ministry's Regional Office at Bhopal.	
8	Industrial exhaust and proper ventilation shall be	Provided
	provided in packaging plant area	
()	The levels of PM <sub>10</sub> , SO <sub>2</sub> , NOx, CO and HC (Non-	Noted. Online monitoring of SO <sub>2</sub>
	methane) shall be monitored in the ambient air,	and NO <sub>5</sub> CO installed, and
	Data of stack monitoring and ambient air shall be	Environment data display on website
	displayed on web as well as outside the premises at	started from October 2013.
	prominent place for public viewing. The company	Annexure: for data monitoring of
	shall upload the results of monitored data on its	fevels of PM10, SO2, NO8, CO and
	website and shall update the same periodically. It	HC (Non-methane) in the ambient air
	shall simultaneously be sent to the Regional office	is enclosed vide Annexure -5
	of MOEF, the respective Zonal office of CPCB and	THE CONTROL OF THE CAME OF THE
	MPCB.	
10	In plant control measures for checking fugitive	All processes are in closed handling
	emissions from all the vuinerable sources shall be	and DCS controlled. To control dust
	provided. Fugitive emissions shall be controlled by	emissions. Dust collection system in
	providing closed storage, closed handling &	Product Packing area is being further
	conveyance of chemicals/materials, multi cyclone	strengthened Regular monitoring of
	separator and water sprinkling system. Dust	the ambient air quality, Soil. Noise
	suppression system including water sprinkling	and Water Samples is being earlied
	system shall be provided at loading and unloading	out. And the report of the xame
	areas to control dust emissions. Fugitive emissions	
	I <del></del>	Submitted to SPCB on monthly basis
	in the work zone environment, product, raw	Please refer Annexure -5
	materials storage area etc, shall be regularly monitored. The emissions shall conform to the	Unloading area handles Liquid raw
		Material. The area is fully concreted.
	limits stipulated by the MPCB.	There is an oil skimmer to collect
		Liquid spillages, if any,
		The product area has got cleaning
		Reilities.
1 1	The second of th	MPCB limits are complied.
11	The gaseous emissions from DG set shall be	Acoustic enclosure provided for the
	dispersed through adequate stack height as per	DG. As per CPCB standard, its stack
	CPCB standards. Acoustic enclosure shall be	height is 43 mar.
	provided to the DG sets to mitigate the noise	
	pollution.	

12	Total fresh water requirement from Patalganga River shall not exceed 4000 m³/day. No ground water shall be used. Steps should also be identified to conserve water and measures adopted for minimizing the same.	No water extracted from the ground and also we complied the rain water harvesting project to conserve the rain water please refer Annexure - 02. Studies are underway to assess the feasibility of collecting Hill side water.
13	Effluent generated shall be treated in the ETP comprising RO and rejects shall be concentrated in MEE. Permeate from RO and condensate shall be recycled / reused in the cooling tower make up water. Oil water stream shall be treated in Oil water separator. Sewage shall be treated in sewage treatment plant (STP) and treated wastewater shall be used for cooling water make up. Treated effluent shall be recycled / reused within the factory premises. Treated effluent quality shall be monitored regularly and conform to the norms prescribed by the CPCB/MPCB from time to time.	Treated effluent quality is enecked on regular basis reports attached vide Annexure -5
14	No treated process effluent shall be discharged outside the premises and Zero discharge shall be ensured.	No effluent discharged outside our premises. Zero discharge ensured.
15	Process effluent/any wastewater shall not be allowed to mix with the storm water. Storm water drain shall be passed through guard pond	Guard pond provided
16	All the solid/hazardous waste including ETP sludge and waste oil shall properly stored at the site as per CPCB guideline. Fine carbon particles generated as solid waste shall be sold to industries for manufacturing low grade rubber goods. MEE sludge shall be sent to TSDF, Oily waste from oil removal tank shall be mixed along with carbon black feed stock and burnt in the furnace.	Separate covered Hazardous waste storage facility is provided within the factory premises
17	Proper and valid authorization and membership shall be obtained from the concerned authorities for the management of solid/hazardous waste and a copy submitted to the Ministry's Regional Office at Bhopal	Authorization and membership obtained (MWML) Annexure-9
18	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Flazardous Chemicals (MSIFIC) Rules.  1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA). 1989.	Noted.

12.1	T	
19	Proper housekeeping shall be maintained and no spillage of Carbon Black shall be permitted. Preventive measures shall be taken to avoid and prevent any accidental release of Carbon Black to the environment.	
20	The company shall undertake following waste minimization measures :-  a. Metering and control of quantities of active ingredients to minimize waste  b. Reuse of by products from the process as raw materials or as raw material substitutes in other processes  c. Use of automatic filling to minimize spillage  d. Use of Close feed system into batch reactor	a. Followed b. By products are used a raw materials for other process c. Automatic filling is used in for finished product Packing d. Close Feed system is used for feeding raw material and other materials into the process c. High pressure boses are used for
İ	<ul> <li>e. Use of high pressure hoses for equipment cleaning to reduce waste water generation</li> </ul>	cleaning.
21	A proper occupational health monitoring system should be implemented for all personnel / workers in the plant / laboratory and other areas which may have an impact on their health.	Pre-employment medical examination as well as routine periodic medical examination is in practice
22	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the OISD 117 norms.	Noted. Firefighting system is in place as applicable to our industry. A pressurized network and also a set of Dry fire extinguishers are in place.
23	All the workers involved in packing of Carbon Black in Packaging Plant area shall use (PPE) and masks to avoid direct exposure to Carbon Black dust.	Good quality PPE'S provided in packing area
24	All the workers shall be regularly monitored for occupational health for relevant parameters pertaining to industry specific and records maintained.	Periodically medical checkup for workers is in practice and records are maintained.
25	Proper energy conservation measures shall be adopted and a report submitted to the Ministry and its Regional Office at Bhopal.	Energy conservation measures adopted in year 2012-2013 send to Regional office MoEP Bhopai on 19,04,2013
26	As proposed, green belt shall be developed in 21.5 acres out of 65 acres of total land Selection of plant species shall be as per the CPCB guidelines.	We are having the green belt development programme. Find the attachment as per Annexure – 4 We shall further extend our green belt on available open area.
27	All the recommendations/standards mentioned in the CPCB guidelines for the Carbon Black manufacturers shall be implemented.	Noted and Complied

28	Company shall prepare Corporate Environment Policy as per the Ministry's G.M. No. J-11013/41/2006-1A1I(1) dated 26th April, 2011 within one month from date of issue of letter and submitted to the Ministry's Regional Office.	Corporate Environment Policy prepared and send to Regional office MoEF Bhopal on 19.04.2013
29	Provision shalf be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as facilities on each as facilities are mobile sewage treatment plant, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Noted & Compfied during project stage
]	General Conditions-	
30	The project authorities shall strictly adhere to the stipulations made by the Maharashtra Pollution Control Board.	Same is adhered
31	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any	Noted
32		
33	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, sifencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	DG Sets are provided with acoustic enclosure us well as steam vents of power plant is having provision of silencers to reduce the noise. Noise levels are continuously monitored, Monitoring reports attached vide Annexure ;5

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34	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Complied. We have installed rain water harvesting system for warehouse. TG. Admin building roof. We are collecting it and sending in our raw water pond for reuse. Ground water recharging is not possible because of rocky surface.
35	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	UHS Trainings are regular practice in the plant
36	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Noted
37	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	CSR activities are going or in near by villages.
38	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Eco-developmental and community welfare measures are taken under CSR Programme
39	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Noted, In-house, we have partial capacity for monitoring environment data such as pH, PMm.  TDS, Conductivity, Temperature, Chlorides, Silica, Free chlorine, Oil & grease, phosphate, Other environmental data are taken through an MoEF approved Lab.
40	The company shall carmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Find the Euclosure 1,-Part 3

41	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat. ZilaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	
42	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental. Clearance conditions incleding results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and MPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Status reports being submitted regularly and Report display on website is made available.
43	The environmental statement for each financial year ending 31st March in Form V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment Protection, Rules, 1986 as amended subsequently shall also be put on the website of the company along with the status of compliance of environment clearance conditions and shall also be sent to the respective Regional Offices of MOEF by email.	Complied and Form V displayed on Website
44	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://envfor.nic.in This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied. Public notice has been published in Marathi in Krushival and Sakal daily on 30/03/2015 intimating about the Environmental Clearance issued for the project by MoEF. For this please refer Annexure- 6.
45	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Construction phase of the Project is completed

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### PART C Enclosures

### PART - I

### PROJECT DETAILS

### ABOUT THE PROJECT:

LOCATION	Village; Talvali and Lohop, Tal : Khalapus,
	Dist : Reigad
TECHNOLOGY	In house
PROÆCT COST.	Rs. 490 Crores
COST OF POLLUTION CONTROL	Rs. 22.47 Crores
MEASURES	
SOURCE OF WATER	Available from Pataiganga River

### PRODUCT & ITS END USES:

Name of Product	End uses
:	Rubber processing and chemicals industry. Its largest use is in the manufacture of tyres, and it is also used to produce painty, dyes, inks and conveyor belts.
Electricity	Utilized in house and remaining sold to open access.

### PRODUCT & 1TS CAPACITY:

Products	Production capacity
Carbon Black	7,000 MT / Mouth 4/3
Electricity	23 MW/H (%)

### AREA REQUIREMENT:

Sr. No.	Purpose	Carbon Black Area (Sq. Mt.)	Power Plant Area (Sq. Mt.)	Common Area ( Sq. Mt)	TOTAL Area (Sq. Mt.)
1,	Production area Including future expansion	46,690,00	21.000.00		67.690,00
2.	Material storage area Finished product	7,200,00		70	7.200.00
3.	Hazardons chemical storage	5950.00	1490.00		7.440,00

Sr. No.	Purpose	Carbon Black Area (Sq. Mt.)	Power Plant Area (Sq. Mt.)	Common Area (Sq. Mt)	TOTAL Area (Sq. Mt.)
4.	Approach road area - All inside roads	25,000.00	5,000.00		30,000,00
5.	ETP, STP & Solid waste area	600,00	1,500.00		2,100.00
6.	Utilities, water tank, etc	4,500.00	3,000,00		7,500,00
7.	Open space area	13,520.00	13.350.00	,	26,870,00
8.	Green belt area			1.33.200.00	1,33,200.00
9,	Office buildings (admin, stores, workshop, etc)			8,000,00	8,000,00
	TOTAL PLOT AREA	1,03,460,00	45.340.00	1.41.200.00	1,90,000,00

### WATER REQUIREMENT:

Daily water requirement of the proposed plants in m3/day will be as follows:

Sr. No.	Detail	M³/day
1.	Process	4610
2.	Gardening	350
3.	Domestic	80 (3)
.,.,.,	TOTAL	5040

### POWER REQUIREMENT:

The proposed plants will require a power as follows:

Sr. No.	Requirement	KW
1.	Process (Production)	5000
2,	Utility	2000
3.	Administration Block	400
4.	Lighting	600
	TOTAL	8000

## MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS MINISTRY OF ENVIRONMENT & FOREST WESTERN REGION, REGIONAL OFFICE, NAGPUR DATA SHEET

Date: 26th June 2021

<u>.                                    </u>	Project type: River - valley/ Mining /	<del>;</del> ,	Carbon Black manufacturing
! ''	industry / Thermal / Nuclear / Other (specify)		Thermal - cogeneration
2.	Name of the project	ļ	Birla Carbon India Private Limited
3,	Clearance fetter ( s ) / OM No. and Date	; ;	1) EC for power plant: I- 13011/35/2007-(A.b(1) dt. September 28,2007 2) EC for Carbon Black (Bant:- I- 11011/35/2007-(A-II (I) dt. 22 <sup>nd</sup> March 2013.
4.	Location:	.i	
	a. District (S)	1 :	Raigad
	b. State ( s )	1	Maharoshtra
ļ	c. Latitude/ Longitude	į :	Latitude + 18 deg. 51 N
			Longitude - 73 deg 12 18
5,	Address for correspondence	•	
	a. Address of Concerned	:	Mr. Sambii Rath
	Project Chief Engineer ( with		Sr. Manager - Project
	pin code & Telephone / telex		M/s. Birla Carbon India Pvt. Ltd.
į	/ lax numbers		VILLAGE: LOHOP, FAUVALL
			PATALGANGA.
-			TALUKA: KHALAPUR.
			DIST, RAIGAD - 440 207
į			MAHARASHTRA, INDIA,
ļ		ļ	Phone 021922202950
	b. Address of Executive	1:	Same As Above
-	Project: Engineer/Manager (	}	
	with pincode/ Fax numbers )		
	Enland Communication		
6.	Salient features		DADE I Daylor Brown
ļ	a. ] of the project     b.   of the environmental management plans		PART - 1 - Project Details
		نينا	PARTII - EMP
7	Break up of the project area:	· · · · ·	Nist modiankla
İ	submergence area forest &     non-forest		Not applicable
	b. Others		PARTI Project Details
   8,	Break up of the project affected Population	-:-	Not Applicable.
",	with enumeration of Those losing houses /	-	востуривание.
İ	dwelling units Only agricultural land only,		
	both Dwelling units & agricultural Land &		
	landless lobourers/artisan		
<b>:</b>	THE PARTY OF THE P	٠	

	а.	SC, ST/Adivasis	Ϊ,	Not Applicable
	b.	Others	· ··:·	Not Applicable
	``	(Please indicate whether these Figures	Ϊ,	i wa Appresience
	į	are based on any scientific And		
		systematic survey carried out Or only		•
	İ	provisional figures, it a Survey is carried		
		out give details And years of survey)		:
Ģ	17.15	ancial details:	,i	Per server com est conserver com conserver conserver conserver conserver conserver conserver conserver conserve
·	!	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.··	ويوانان ويستناهم والمناس بوليناه والموارد ويواويون
	il.	Project cost as originally planned and sub	seq	uent revised estimates and the year of
		price reference :	-:	13 2241 - 12 2
	.	Total Cost of the Project	ļi	Rs. 490.00 Crores
:	h.	Allocation made for environ-mental	:	Rs. 22.47 Crores
		management plans with item wise and		PART All - Allocation made for
		year wise Break-up.		environ-mental management plan
	c.	Benefit cost ratio / Internal rate of	:	
		Return and the year of assessment	.j	
	ď.	Whether ( c ) includes the	:	Yes
		Cost of environmental management as	-	
		shown in the above.		
	e.	Actual expenditure incurred on the	1:	Rs 333 Croies Only,
		project so far		•
1/1/	ſ.	Actual expenditure incurred on the	<del>.</del>	Rs. 22.47 Crores Only.
		environmental management plans so far.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
0.	For	est land requirement	ļ.,	Not Applicable
	٤١.	The status of approval for diversion of	·	Not Applicable
1	٠	forest land for non-forestry use.	Ϊ.	1800 reppression
	<b>б.</b>	The status of clearing felling	ŀ- <u>-</u>	Not Applicable
	٠ <u>٠٠</u>	The status of compensatory	ļ-: <u>:</u>	
	٠. ا	afforestation, it any.	,	Not Applicable
			¦	10 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A
	d.	Comments on the viability &	1	Not Applicable
	į	sustainability of compensatory	1	
		afforestation program in the light of		
	j	actual field experience so far.	ļ	
۱. إ		status of clear felling in Non-forest areas	1:	Not Applicable
į		th as submergence area of reservoir.	Ϊ,	
ĺ		roach roads), it any with quantitative	'	
		ormation.	j	
2.	Stat	us of construction:	.,	
	a.	Date of commencement	:	Construction completed
		( Actual and/or planned )		
	ь.	Date of coinpletion	:	Construction completed
j		( Actual and/or planned )	1	' '
3.	Rea	sons for the delay if the Project is yet to	17	Not Applicable
	star	•		
4		es of site visits :	·	en en en en en en en en en en en en en e

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	The dates on which the project was monitored by the Regional Office on previous Occasions, if any		No	
	b. Date of site visit for this monitoring report.	;	Not Applicable	···········
15.	Details of correspondence with Project authorities for obtaining Action plans/information on Status of compliance to safeguards Other than the routine letters for Logistic support for site visits.		Not Applicable	
	(The first monitoring report may contain the details of all the Letters issued so far, but the Later reports may cover only the Letters issued subsequently.)		Not Applicable	

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## F. No. J-11011/35/2007- IA II (I) Government of India Ministry of Environment and Forests (I.A. Division)

ParyavaranBhawan CGO Complex, Lodhi Road New Delhi - 110 003

E-mail: aditya.narayan@nic.in

Telefax: 011: 2436 0549 Dated 22nd March, 2013

To.

M/s Hi-Tech Carbon (A Unit of Aditya Birla Nuvo Ltd.) Ahura Centre, 2<sup>nd</sup> Floor, Near MIDC Office Mahakali Caves Road, Andheri (E) Mumbai-400 093, Maharashtra

E-mail: htcmum@adityabirla.com

Subject: Carbon Black Plant (1,20,000 TPA) at Patalganga, District Raigad, Maharashtra by M/s
Hi-Tech Carbon – Environmental Clearance reg.

Ref. : Your letter no. HTC/PTG/UH/MPCB/EC/001 dated 18th March, 2011

Sir.

Kindly refer to your letter dated 18<sup>th</sup> March, 2011 alongwith project documents including Form I. Terms of References, Pre-feasibility Report, EIA/EMP Report and subsequent clarification/additional information submitted vide letter dated 21<sup>st</sup>July, 2011 regarding above mentioned project.

- 2.0 The Ministry of Environment and Forests has examined the application. It is noted that the proposal is for an integrated Carbon Black Manufacturing Unit alongwith CPP (25 MW) at Patalganga, District Raigad, Maharashtra. This is an operational unit. Environmental clearance for CPP (25 MW) was accorded by the Ministry vide letter no. J-13011/35/2007-IA-II(T) dated 28th September, 2007. Total plot area is 65 acres. Total project cost is Rs. 470 Crores. Patalganga and Balganga rivers are flowing in the study area. 4 nos. of reserve forests are located within 10 km.
- 3.0 Ventury scrubber (4 Nos.) are provided in the reactor area. Bagfilter (2 Nos.) are provided in the product separation area. Process bagfilter (3 Nos.) are installed in the pelletising area. Purge gas filter, Dryer combustor, packing exhaust filter and boiler combustor are installed in the product drying area, dryer area, packing area and boiler area respectively. Total fresh water requirement from Patalganga River will 4000 m³/day. Industrial effluent generation will be756 m³/day and treated in the effluent treatment plant (ETP) comprising reverse osmosis (RO) and rejects will be concentrated in multiple effect evaporators (MEE). Permeate from RO and condensate will be recycled/reused in the cooling tower make up water. Oil water stream will be treated in oil water separator. Sewage will be treated in sewage treatment plant (STP). Treated effluent will be recycled/reused within the factory premises. No effluent will be discharged outside the premises and 'Zero' discharge concept will be adopted. ETP sludge and MEE sludge will be sent to the treatment storage disposal facility for hazardous waste (TSDF). Oil sludge will be mixed with carbon feed stock and burnt in the furnace.
- 4.0 Public hearing was exempted as per Section 7 (ii) of EIA Notification, 2006.
- 5.0 All the carbon black manufacturing units are covered under petrochemical based processing units and listed at S.N. 5(e) under Category 'A' due to location outside notified industrial area and appraised at the central level.

- 6.9 The proposal was considered by the Expert Appraisal Committee (industry-2) in in-92° god 33" meetings field during 22° 23° June, 2011 and 21°-22° March, 2012 respectively. The Committee recommended the proposal for environmental clearance. Mis Hi-Tech Carbon process in tesofation in a meeting of the Board of Circolors tech on 13.07.2012 that violation is Appreciately Environmental (Protection) Act, 1986 will not be repeated A copy of Board Resolution is Appreciated Maharashtra Pollution Control Board has filed a regular criminal complaint (No. 33'2015) appears to Company for commencing construction activities without environmental clearance.
- 7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental plearance to above project under the provisions of the Notification dated 14<sup>th</sup> September 2006, subject to the compliance of the following Specific sed General Conditions:

### A. SPECIFIC CONDITIONS:

- i) Pennssion and recommendations of the State Forest Department regarding impact of the proposed plant on the reserve forests located near to 4 nost of reserve forests shall be obtained and recommendations shall be impremented satisfactority. Copy of penns shall shall be submitted to the respective Regional Office.
- in As proposed, vent scrubber in the reactor area, main bug filter in the product segmental area, process beg filter in the pelietising area, purge gas filter in the product drying area dryer combustor in the dryer area and packing exhaust filter in the packing cree east to provided to control air emissions.
- iii) The gaseous emissions (SO<sub>2</sub>, NOx, CO and rfC) and particulate matter from existing and proposed boiler, dryor, purge gas filter, packing exhaust filter units shall conform to the norms prescribed by the Central Pollution Control Board (CPCB)/Maharashtra Pollution Control Board (MPCS) from time to time. At no time, the emission levets shall go beyond the prescribed standards. In the event of follower of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.
- W) Continuous stack receitoring of stacks for SO<sub>2</sub>, NO<sub>3</sub> and CO and recording facilities shad be installed alongwith interlocking facilities. As proposed, particulate matter shall be monitored in the stack manually. Data for particulate matter, SO<sub>2</sub>, NO<sub>3</sub>, and CO shall be displayed on web as well as cutside the premises at prominent place for public viewing.
- As proposed, this being an existing plant Sulphin' content in the feed stock i.e. Carbon Black Feed Stock (CBFS) shall not exceed 2.5% at any time.
- Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> September, 2009.
- vii) Poly-Aromatic Hydrocarbon (PAH) shall be monitored in fugitive dust consists as particularly in Packaging Plant. Data shall be properly monitored recorded, and submitted to the Ministry's Regional Office at Shopal.
- viii) Industrial exhaust and proper vertilation shall be provided in packaging plant area.
- ix) The levels of PM<sub>in</sub> SO<sub>2</sub>, NOx, CO and RC (Non-nothand) shall be displayed on vehicus and an the authential. Data of stack mornlang and ambient as shall be displayed on vehicus and as outside the premises at prominent place for public viewing. The company shall uplead the results of monitored data on its website and shall update the associationally in VRH simultaneously be sent to the Regional office of MORE, the respective Zodai office of CPCB and MPCB.

- x) In plant control measures for checking fugidue and science from all the valuerable sciences shall be provided. Eugitive emissions shall be controlled by previding esqued etorage, closed handling & conveyance of chemical-Amelianas, multi-cyclonic separatorisms water sprinkling system shall be provided at leading and imbading preas to central cost emissions. Engitive emissions in the work zone environment, product that materials storage and etc. shall be requiring monitored. The emissions shall conform to the limits stipulated by the MPCB.
- xi) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic encasure shall be provided to the DG sets to mitigate the noise pollution.
- Xii) Total fresh water requirement from Pataiganga River shall not exceed 4000 m<sup>2</sup>/day. No ground water shall be used. Steps should also be identified to conserve water and measures adopted for minimizing the same.
- ziii) Effluent generated shalf be sealed in the ETP comprising RO and rejects shall be concentrated in MEE. Permaste from RO and condensate shall be recycled/reused in the cooling tower make up water. Oil water stream shall be treated in Oil water separator. Sewage shall be treated in sewage treatment plant (STP) and treated wastowater shall be recycled/reused within the factory premises. Treated effluent quality shall be monitored regularly and conform to the norms prescribed by the OPOB/MPC8 from time to time.
- No treated process effluent shall be discharged outside the premixes and Zero discrurge shall be ensured.
- 27) Process efficient/any wastewater shall not be allowed to mix with the storm water. Storm water drain shall be passed through guard pood.
- All the solid/hazardous waste including ETP studge and waste oit shall properly stored at the site as per CPCB guidaline. Fine carbon particles generated as solid waste shall be sold to industries for manufacturing low grade rubber goods. MEE sludge shall be sent to TSDF. Oily waste from oil removal tank shall be mixed along with carbon black feed stock and burnt in the furnace.
- evil) Proper and valid authorization and membership shall be obtained from the concerned authorities for the management of solid/hazardous waste and a copy submitted to the Ministry's Regional Office at Bhopal.
- XViii) The Company shall strictly comply with the rules and guidelines under Manufacture. Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xix) Proper house keeping shall be maintained and no spillage of Carbon Black shall be permitted. Preventive measures shall be taken to avoid and prevent any accidental release of Carbon Black to the environment.
- xx) The company shall undertake following, waste minimization measures (s.
  - Metering and control of quantities of active ingredients to minimize waste.
  - Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - Use of automated filling to minimize spillage.

- d. Use of Close Feed system into batch reactors.
- e. Use of high pressure hoses for equipment clearing to reduce wastewater generation
- A proper occupational health monitoring system should be implemented for all personnel/ workers in the plant / laboratory and other areas which may have an impact on their health.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the OISD 117 norms.
- xxiii) All the workers involved in packing of Carbon Black in Packaging Plant area shall use (PPE) and masks to avoid direct exposure to Carbon Black dust.
- xxiv) All the workers shall be regularly monitored for occupational health for relevant parameters pertaining to industry specific and records maintained.
- xxv) Proper energy conservation measures shall be adopted and a report submitted to the Ministry and its Regional Office at Bhopal.
- As proposed, green belt shall be developed in 21.5 acres out of 65 acres of total land. Selection of plant species shall be as per the CPCB guidelines.
- xxvii) All the recommendations/standards mentioned in the CPCB guidelines for the Carbon Black manufacturers shall be implemented.
- xxviii) Company shall prepare Corporate Environment Policy as per the Ministry's Q.M. No. J. 11013/41/2006-IA.II(I) dated 26<sup>th</sup> April, 2011 within one month from date of issue of letter and submitted to the Ministry's Regional Office.
- Provision shall be made for the housing for the construction labour within the sile with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.

### B. GENERAL CONDITIONS:

- The project authorities shall strictly adhere to the stipulations made by the Maharashtra Pollution Control Board.
- No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers,

enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 76 dBA (day time) and 70 dBA (night time).

- v. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
- vi. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- vii. The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- viii. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving iccal villages and administration.
- ix. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- X. A separate Environmental Management Cell equipped with full fledged laboratory fecilities shall be set up to carry out the Environmental Management and Monitoring functions.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- xiii. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and MPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xiv. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
- xv. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at

http://envfor.nic in. This shall be advertised within seven days from the date of issue or disclearance letter, at least in two local newspapers that are videly circulated in the ingress of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Mitistry

- xvi. The project authorales shall inform the Regional Office as well as the femiliary, the dose of financial closure and final approval of the project by the conscience authorities and the date of start of the project.
- 8.0 The Ministry may revoke or suspend the clearance, it insplementation of any of the above conditions is not satisfactory.
- 9.0 The Ministry reserves the right to stipulate additional conditions, if found recessary the company is a time bound manner will implement these conditions.
- 10.0 The above conditions shall be exforced, inter-atta under the previsions of the Variety (Provention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1985, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trace-Boundary Movement) Rules, 2008 and the Public (insurance) Liability Act, 1991 along with their amendments and rules.

(A.S. Sings)
Dy. Director (S)

### Copy to :-

- The Principal Secretary, Environment Department, Government of Maharasintra, 45th Progr. Res. Administrative Building, Mantralaya, Mumbai - 400 032
- Bire Chief Conservator of Forests (Central), Keretriya Paryavecan Bhaver, Eink Read No.3, Bhopal-462016.
- 3 The Chairman, Central Potation Control Board Pararesh Bhaven, GBD-cura-Office Complex is ast Arjun Nagar, New Delhi - £10 032.
- The Cheirman, Maharashtra Poliulion Control Board, Kalpataru Point, 3" and 4" Sport Opp. Cinc. Planet, Sign Circle, Murabai-400 022.
- The Jobt Secretary, IA II(I), Ministry of Environment and Forests, Paryavanan Bhavon, CGO Complex, New Delbi.
- Monitoring Cell, Ministry of Environment and Perests. Paryavaran Bhavan. CGO Camplex. Story Delhi.
- Guard File/Monitoring File/Record File.

(A.M. Single) Dy. Director (S)

## No.J-13011/35/2007-IA.H(T) Government of India Ministry of Environment & Forests

Paryavasan Bhawan CGO Complex, Lord Road, New Defin-11003.

Datied: 28th Reptember, 2007.

Τ¢

M/s Hi-Tech Carbon (A Unit of Adilya Birla Nove Ltd) Ahura Centre, 2<sup>nd</sup> Hoor, Near MIDC Office Mahakali Caves Road, Andheri (E) Mumbai- 400 093, Maharashtra

Sub: 25 MW Lean Gas based Power Project at Patalganga, District Raigad, Maharashtra by M/s Hi-Tech Carbon Environmental Clearance regarding.

Shr,

The undersigned is directed to refer to your communication no. or dated 28% May, 2007 on the above mentioned subject.

- 2. The proposal is for setting up of a 25 MW Lean Gas based Cogeneration Power Project at Patalganga, District Raigad, Maharashina. The land requirement for the power plant is estimated as 11 acres. The water requirement including the carbon black plant is estimated as 7200 m3/day, which will be obtained from Patalganga river. No National Park/Sanctuary is reported within 10 km of the project area. Public hearing was held on 22.05.2007.
- 3. The proposal has been considered in accordance with para 12 of the CIA Notification dated 14th September, 2006 read with para 2.2.1 (i) (a) of the Circular No. J-11013/41/2006-IA.N(I) dated 13.10.2006. Based on the recommendations of the Expert Appraisal Committee for Thomas Power and Coal Mine Projects, the Ministry of Environment & Forests hereby accords environmental clearance to the

said 25 My cogeneration power project under the provisions of \$1A Motification 2006, subject to implementation of the following terms and conditions:

- (i) The environmental disarance for the main carbon black plant, as applicable, shall be obtained separately.
- (ii) Lean gases generated from the existing process plant shall only be unless. No other fuel shall be used for the power plant.
- (iii) Effective safeguard measures shall be taken to ensure that the SPM ravels do not exceed the prescribed standards.
- (iv) A stack of 103 or height with exit velocity of at least (3.85 m/s shall be provided with continuous online monitoring system for disposal of wester gases.
- (v) Closed circuit cooling system with cooling towers shall be provided. COC or at least 8 shall be adopted.
- (vi) Rain water harvesting shall be practiced. A detailed scheme for rain water harvesting shall be prepared in consultation with Central Ground Water Authority / State Ground Water Board and a copy of the same shall be submitted within three months to the Ministry.
- (vii) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (Vill) Leg of noise level should be limited to 75 dBA and regular maintainance of equipment be undertaken. For people working in the high noise areas, personal protection devices should be provided.
- (ix) Greenbelt shall be developed all around the plant boundary covering 1/3 of the project area.
- (x) Regular monitoring of the ambient air quality shall be carried out in ano around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be depoted in consultation with SPCB, Periodic reports shall be submitted to the Regional Office of this Ministry.
- (xi) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days of

- (viii) A separate environment monitoring cell with suitable qualified start should be set up for implementation of the stipulated environmental saleguards.
- (XIII) Half yearly report on the status of implementation of the subjusted conditions and environmental safeguards should be submitted to this Ministry, its Regional Office at Bhopai, CPCS and SPCB.
- (xiv) Regional Office of the Ministry of Environment & Forests located at Phopat will monitor the implementation of the supulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan shall be forwarded to the Regional Office for their use during monitoring.
- (XV) Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. This cost should be included as part of the project cost. The funds earmanked for the environment protection measures should not be diverted for other purposes and year-wise expanditure should be reported to the Ministry.
- (XVI) Full cooperation should be extended to the Scientists/Officers from the Plinistry/Regional Office of the Ministry at Bhapai/the CPCB/the SPCB who would be monitoring the compliance of environmental status.
- The Ministry reserves the right to revoke the dearance if conditions suppliated are not implemented to the satisfaction of the Ministry.
  - 5. The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.
- 6. In case of any deviation or alteration in the proposed project from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and co-incorporate additional environmental protection measures required, if any.
- The above stipulations shall be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, The

Menufacture, Storage and Import of Hazardous Chamicals Rules, 1969, the Public Dablity Insurance Ad, 1995 and rules there under.

(Dr. S.K. Aggarwai) Director

### Copy to:

- The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
- The Secretary, Department of Energy and Environment, Govt. of Maharashira, Mantralaya, Mumbai-400032, Maharashira.
- The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
- 4. The Chairman, Maharashtra Pollution Control Board, Kalptano point 3° 8 4° Floor Sion Matunga Scheme Road No. 8,Opp. One Placet Cinerca, new Sion Circle, Sion(East), Mumbar-400022 with request to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.
- The Chairman, Central Pollution Control Board, Parivesti Shawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- The Chief Conservator of Forests, Western Regional Office, Ministry of Environment & Forests, E-3/240, Arera Colony, Bhopal 462016.
- Director (E1), MOEF
- Guard file.
- 9. Monitoring file.

(Dr. S.K. Aggerwar)
Director



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### MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437 Fax: 24023516 Website: http://mpcb.gov.in

Email: cac-cell@mpcb.gov.in



Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema. Near Sion Circle, Sion (E), Mumbai-400022

RED/L.S.I (R2)

Date: 01 0752020

No:- Format1.0/CAC/UAN No.0000087763/CR-200 7000014

To,

Birla Carbon India Private Limited, Unit-Patalganga, Village Lohop, Patalganga, Tal Khalapur, Dist. Raigad 410207

ub: Renewal of consent to operate with increase in Cl under RED

Ref:

- Earlier consent granted by Board vide No.Formate I.O/ BO/CAC-Cell/ EIC -No RD-3003-15, RD-3078-15/6thCAC-11662 datd 03.09 2015 valid up to 30.03.2020
- Amendment in consent for change in name granted by Board vide No.MPCB/UAN No.0000000100, 0000052106 & 0000054804 /CAC-Cell/Amend-1901001326 dated 18.01.2019.
  - Amendment in consent for change in name granted by Board Vide No.MPCB/UAN No.000002273 & 2318/CAC-Cell/Amend-1903000029 dated 11.03.2019.
  - 4. Minutes of Consent Appraisal Committee Meeting held on 15.05.2020

Your application No.MPCB-CONSENT-0000087763 Dated 28.01.2020

For: grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

- The consent to renewal is granted for a period up to 31/03/2021.
- The capital investment of the project is Rs.331.1487 Crs. (As per C.A. Certificate submitted by industry Existing-Rs. 318.34 Cr + Increase in C.I. -Rs. 12.8087 Cr.≈Total CI-Rs.331.1487 Cr.)
- 3. Consent is valid for the manufacture of:

ro	ducts		
1	Carbon Black	84000	MT/A
2	Electricity generation through waste heat recovery (Co-generation))	23	MW

Birla Carbon India Private Limited, Unit-Patalganga/CR/UAN No.MPC8-CONSENT-0000087763

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4. Conditions under Water (P&CP), 1974 Act for discharge of effluent:

Sr No	Description	Permitted (ii) CMD)	Standards to	Disposal Fath
1.	Trade effluent	396.2	As per Schedule-I	Recycle 100% to achieve ZLD
2.	Domestic effluent			On land for gardening

5. Conditions under Air (P& CP) Act, 1981 for air emissions:

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	Stack No. 1		01	As per Schedule -II
2	Stack No. 2	Dryer	01	As per Schedule -II
3	Stack No. 3	DG 1825 KVA	01	As per Schedule -II
4	Stack No. 4	Fire Hydrant pump	01	As per Schedule -II
5	Stack No. 5	Flare system	01	As per Schedule -II
6	Stack No. 6	DG 250 KVA	01	As per Schedule -II

6. Non-Hazardous Wastes:

g; No	Type of Waste	Quantity	r VoM	Treatment	Disposal
1	Food waste	300	Kg/M	OWC Followed by composting	Used as manure in premises
2	Refractory	50	MT/A	Recycle	Sale to authorised scrap dealer/Vendor
3	HDPE Bags	14	MT/A	Recycle	Sale to authorised scrap dealer/Vendor
4	Empty Jute bags	0.3	MT/A	Recycle	Sale to authorised scrap dealer/Vendor
5	Wooden Scrap	21	MT/A	Recycle	Sale to authorised scrap dealer/Vendor
6	Metal Scrap	35	MT/A	Recycle	Sale to authorised scrap dealer/Vendor
7	DM Plant Resin	0.05	MT/A	Recycle	Sale to authorised party or at CHWTSDF

 Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:

No	Category No./ Type	Quantity	UoM	Treatment	Disposa
1	35.3 Chemical sludge from waste water treatment	10	MT/M	Landfill	CHWTSDE
2	33.1 Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	150	Nos./Y	Incineration	CHWISDE
3	1.3 Oily sludge emulsion	0.72	MT/Day	Landfill	CHWTSDE

Birla Carbor India Private Limited. Unit-Patalganga/CR/UAN No.MPCB-CONSENT-0000087763

Page 2 of 11



		and the	Jour.	<i>H</i> echnical	
4	Contaminated filter bag	5000	Kg/Annum	Langfel	CHWTSD <sup>e</sup> +
5	Used PPE contaminated cotton rags	9.3	MT/A	Landbil	CHWTSDF
6	insulating materials	30	MT/A	Eandfill	CHWESDE
7	Discarded Asbestos	1.0	MT)A	Land(ili	CRANTSON
8	5.1 Used /spent oil	1.0	KL/A	Rerycle	Send to Authorised Retycle/Re-processor or CHWTSDF
9	3.3 Sludge and filters contaminated with oil	25	Nos.'Y	Incinetation	CRIVESDE .

- 8 The Board reserves the right to review, amend, suspend, revoke this convert and the same shall be binding on the industry.
- 3 This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
- The applicant shall comply with the conditions of the Environmental Community grantest vide tetter No. F.No.J-11011/35/2007-IA.B(3) dtd. 22.03.2013.
- 11 Industry shall install online continuous monitoring system as per CFC8 guidelines & data to be transmitted directly from Data Logger to Board server.
- 12 The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent.

For and on Beliation the Maharaphira Pollution Control Board

> (E. Raveddiran (AS). Member Secretary

### Received Consent fee of -

	Amqunt(As )	Transaction/DRailba	Date	Transaction (rps
1 -				Online Paymes!
2	100000.00	TXN2005000220	15/05/2020	Online Payment

Bolonce amount of Rs. 2649189 will be considered at the time of next renewal of consent.

Blife Carbon India Private Limited, Unit-Patalganga/CR/VAN No.MPCB-CONSENT-00000047163

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### Copy to:

- 1. Regional Officer, MPCB, Raigad and Sub-Regional Officer, MPCB, Raigad I
- They are directed to ensure the compilance of the consent conditions.
- They are directed to obtain the extended existing bank guarantee from the industry.
- 2. Chief Accounts Officer, MPCB, Sion, Mumbai
- 3. CAC desk- for record and website updation purpose.



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### SCHEDULE-! Terms & conditions for compliance of Water Pollution Control:

- 2. A) ETP having design capacity 720 CMD provided which comprises of Equilisation tank-Clarifiler-Multigrade Filter-Ottra Fittration-Reverse Osmosis System and Studge Pit.
  - B) The Applicant shall operate the efficient treatment plant (ETP) to treat the trade efficient and recycle the entire treated efficient into the process for various purposes such as for cooling, process & Scrubbing so as to achieve Zero Lupid Discharge. There shall be no discharge on land or outside factory promises generated from this unit.
  - C) The Industry shall ensure connectivity online monitoring system to the MPCB server including separate energy meter for pollution control system.
  - D) The treated offrluent shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise in no case, effluent shall find its way to outside factory premises.
- A) As per your application, you have provided Sewage Treatment Plant of designed capacity 70 CMD for the treatment of 70 CMD of sewage.
  - B) The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

1	BOD (3 days 27oC )	Not to exceed	30 mg/l
2	COD	Not to exceed	100 mg/i
3	Suspended Solids	Not to exceed	50 mg/s

- C) The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise to no case, sewage shall find its way to outside factory premises:
- 3. The Soard reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
- 4. The industry shall ensure replacement of pollution control system or its parts after explry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
- The Applicant shall comply with the provisions of the Water (Prevention & Control of Pallution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act;

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
3.,	Industrial Cooling, spraying in mine pils or boiler feed	4610.00
2.	Domestic purpose	80.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	00.0

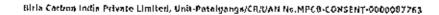
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		Purace for Value Euroupies	Water Consumption duantity Colo
ĺ	4,	Processing whereby water gets polluted & pollutants are not easily biodegradable and are loxic	9.00
;	5.	Gardening	850

The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time? Environmental Clearance/ CREP guidelines.



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# SCHEDULE-II Terms & conditions for compliance of Air Pollution Control:

 As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	5%	SO, (kg/day)
Stack No. 1	Boiler	Stack	108	Flue Gas	88000 Kg/Hr	-	and the Control of States
Stack No. 2	Dryer	Stack	72	Flue Gas	20550 Kg/Hr	-	
Stack No. 3	DG 1825 KVA	Stack	32	HSD	450 Kg/Hr	1.00	216.00
Stack No. 4	Fire Hydrant pump	Stack	3.0 above roof top	HSD	2.22 Kg/Hr	1.00	1.00
Stack No. 5	Flare system	Gas flare system	52	LPG	15 Kg/Hr	**	
Stack No. 6	DG 250 KVA	Stack	3.0 above roof top	HSD	332.45 Kg/Hr	1.00	160.00

- The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.
- The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Parameters	Stan	dards
Total Particulate Matter	Not to exceed	150 mg/Nm3

- The Applicant shall obtain necessary prior permission for providing additional control
  equipment with necessary specifications and operation thereof or alteration or
  replacement/alteration well before its life come to an end or erection of new pollution
  control equipment.
- The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).



Birla Carbon India Private Limited, Unit-Patalganga/CR/UAN No.MPCB-CONSENT-0000087763

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# SCREDULT-III Details of Bank Guarantees;

		Annual de Indoese	Submission Paried	Furpose of BG	Compliance Perips	Validity Data
]	C28	Rs 5.0 Lekh	within 15 days	Operation and Maintenance of Poliution Control system	Continuous	33.03.2322

The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days from the date of Issue of Consent.

# **BG** Forfelture Ristory

Consent Anicunt of Submission Purpose Africant of Assess of Sine (CZE/C20/CZR) BG Sign Ported of BG Fortefitine Forseltung
{

**BG** Return details

rid: Tenjem (C2E/C2C/G2A) BC Imposed Burgosc of BG: Amount of BC Necurred

Birla Carbon todia Private Limited, Unit-Patalganga/CR/UAN NO.MPC6-CONSENT-0009087763

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## SCHEDULE-IV General Conditions:

- 1. The Energy source for lighting purpose shall preferably be LED based
- The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
- 3. Conditions for D.G. Set
  - Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
  - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
  - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.
  - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
  - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
  - f) D.G. Set shall be operated only in case of power failure.
  - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
  - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
- The applicant shall maintain good housekeeping.
- The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
- The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
- The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
- The Industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated, 18.11.2009 as amended.



Birla Carbon India Private Limited, Unit-Patalganga/CR/UAN No.MPCB-CONSENT-0000087763

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- 11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
- The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
- 13. The PP shall provide personal protection equipment as per norms of Factory Act
- Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
- 15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
- 16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 17. The Industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
- 20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
- Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 22. The industry should not cause any nuisance in surrounding area.
- 23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- 24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.



Birla Carbon India Private Limited, Unit-Patalganga/CR/UAN No.MPCB-CONSENT-0000087763

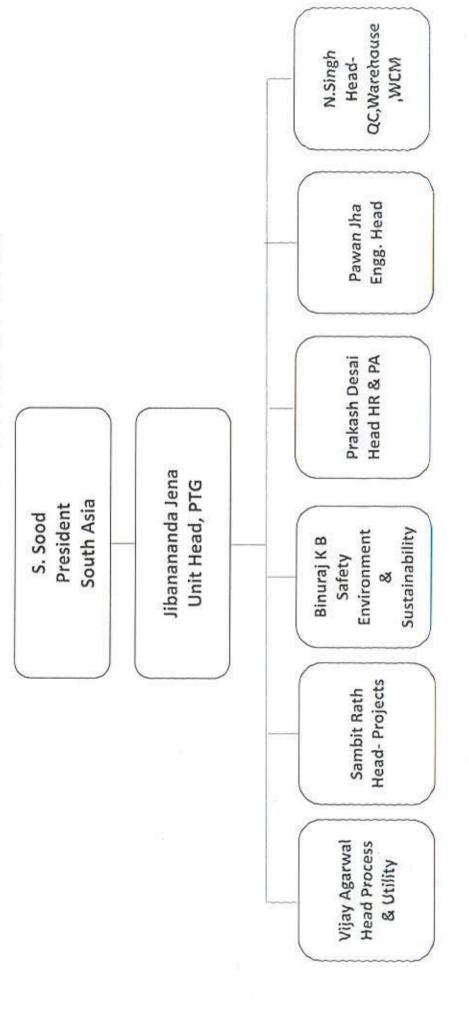
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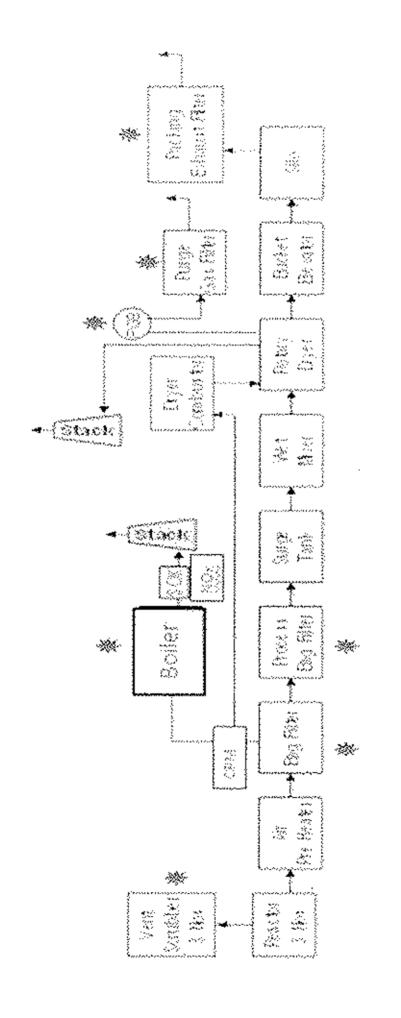
- 25. The applicant shall provide ports in the chiercey/(s) and facilities such as ladger, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney/s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- 26. The industry should comply with the Hazardous and Other Wastes (M.S. TM) Rules. 2016 and submit the Annual Returns as per Rule 6(5) 6-20(2) of Hazardous and Other Wastes (M.&.TM) Rules. 2016 for the proceeding year April to March in Form 4V by 30th June of every year.
- 27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution centrol system. A register showing consumption of chemicals used for treatment shall be maintained.
- 28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
- 29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
- 30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
- 33. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or crection of new postution control equipment.
- 32. The Board reserves its rights to vary all or any of the condition in the consent, it due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
- 33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated/points and shall pay to the Board for the services rendered in this behalf.



# ORGANIZATIONAL STRUCTURE



# Part D Annexure



CONTROOM ACARDING AMANGES

PASSING PORCINENTED

200

# Scheme for Rain Water Harvesting in Warehouse, Birla Carbon India Private Limited.

Date: 26.06,2021

# Introduction:

Rainwater harvesting (RVVH) is the ancient practice of collecting rainwater and storing it for later use. RVVH systems are comprised of a roof catchment, conveyance network, rainwater storage tank, pump, and fixtures where rainwater is utilized. Most systems also incorporate treatment technologies to improve the quality of rainwater before and/or after storage, and include provisions for periods of insufficient rainfall (a water make-up supply) and times of excessive rainfall (overflow provisions).

In our case we have considered case:

1) Roof top of Warehouse

Water from this source will be utilized in makeup of Reservoir pond.

# Components of a rooftop rainwater harvesting system:

Rainwater harvesting systems generally consist of four basic elements:

- (1) a collection (catchment) area
- (2) a conveyance system consisting of pipes and gutters
- (3) a storage facility
- (4) a delivery system consisting of a tap or pump.
- (1) A collection or catchment: system is generally a simple structure such as roofs and/or gutters that direct rainwater into the storage facility. Roofs are ideal as catchment areas as they easily collect large volumes of rainwater.

The amount and quality of rainwater collected from a catchment area depends upon the rain intensity, roof surface area, type of roofing material and the surrounding environment.

In our case warehouse roof is collection or catchment.

(2) A conveyance system; is required to transfer the rainwater from the roof catchment area to the storage system by connecting roof drains (drain pipes) and piping from the roof top to one or more downspouts that transport the rainwater through a filter system to the storage tanks.

In our case existing drain pipes & proposed modified pipe routes is conveyance system.

(3) Storage tank: to store harvested rainwater for use when needed. Depending on the space available these tanks can be constructed above grade, partly underground, or below grade.

In our case underground water sump is storage tank

(4) Delivery system; which delivers rainwater and it usually includes pump, a pressure tank and a tap.

In our case transfer water pumps are delivery system.

### First flush and filter screen:

The first rain drains the dust, bird droppings, leaves, etc. which are found on the roof surface. To prevent these pollutants from entering the storage tank, the first rainwater containing the debris should be diverted or flushed before entering in cooling tower.

Screens to retain larger debris such as leaves can be installed in the down-pipe or at the sump inlet.

# Design:

For design purpose we consider the peak rainfall in month of July in this region. Patalganga.

Water collection in July from warehouse building Roof;

Total roof area: 84m x 47.4m= 3981.6m2

Run off Coefficient = 0.75(Roof is made of concrete & sheet)

Average July Rainfall in HTC =1500mm.

Water collection:  $3981.6\text{m}^2 \times 1.5\text{m} \times 0.75 = 4480\text{m}^2/\text{month of July}$ 

 $4480\text{m}^3/31 \text{ days of July} = 144.5^3/\text{day} = 6\text{m}^3/\text{hr}$ .

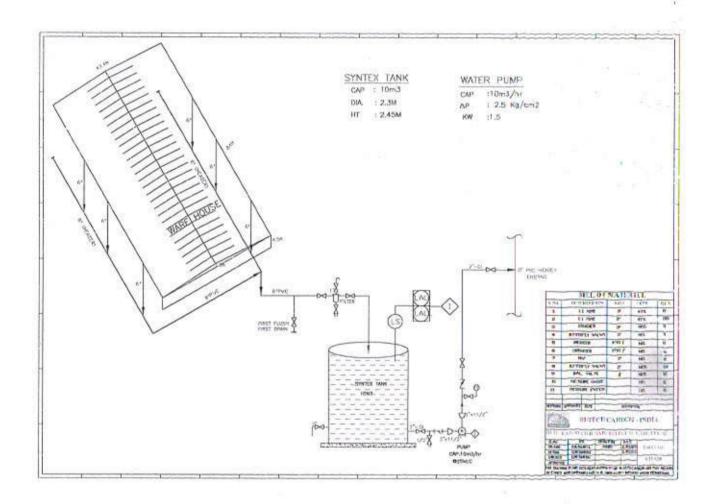
Considering two separate header of 8" PVC for collecting water from all sources of both side & line routed through a filter & isolation valve & one first rain drain connection towards water sump with slope 1:50.

Please refer details of line routing in P & ID.

# Benefits of rainwater harvesting:

- Rainwater is a relatively clean and free source of water.
- Rainwater harvesting provides a source of water at the point where it is needed.
- It is owner-operated and managed
- If promotes self-sufficiency and conserves water resources.
- Offers potential cost savings especially with rising water costs.
- Provides safe water for human consumption after proper treatment.
- Low running costs
- Construction, operation and maintenance are not labor-intensive.

Enclosure: P & ID & BOM.



# ANNEXURE - 3

# FACILITIES PROVIDED TO LABOUR

Project Name: Birla Carbon India Private Limited, (Unit- Patalganga)

Site Address: Village - Lohop and Talavali, Tal. - Khalapur, Dist. - Raigad, Maharashtra

Total Labour hutments = NIL

Total Labour approximate = 317

# Facilities provided:

- 1. No of Toilets provided = 32
- 2. Drinking water = 13
- 3. Water tank for domestic and flushing -- Provided
- 4. Electricity is provided
- 5. Rest room -- provided
- Isolation of Labour hutments from construction activity area for safety purpose
   Not Applicable
- 7. Cooking aids + Not Applicable

Sr.No	Plant Area	Qty	Area Sqft	Area Samti
1	Pallet Yard	210	42246	3929
2	H.R. Front hill site	168	26340	2450
3	Dandwadi Hill site	90	96920	9015
4	CBFS	570	7400	688
5	Control Room front side	8	1120	104
6	Boiler area	41	2880	267
7	CBFS	89	10720	997
8	D.G Area	32	1050	97
9	Bath house	34	1316	122
10	Gate no 1	145	24400	2269
11	Fuel oil area	34	1332	123
12	Settling pond area	84	1018	94
13	Pipe rack Garden area	40	800	74
14	T.G. Road site	20	1180	109
1.5	Warehouse	18	561	52
1.6	West side security tower no 1 & 2	300	80216.5	7462
17	Wall compound (East-west-North side)	1000	21500	2000
18	Area between bath house & settling pond	850	107500	10000
19	Switch yard side	125	28358.5	2638
20	Dandwadi (East - North side)	276	31175	2900
21	Pipe rack road side	20	800	74
22	Reactor road site	40	750	69
23	Labour shed area	90	3000	279
24	Switch yard back site slop area	200	15000	1395
25	Gate no.1	300	87000	8093
	Total Area	4790	594583	55300