

Ref. No. ENV/ Nagpur/June-2021-22

Date:29th June 2022

To,

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

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-IA.II (T) dated September 28, 2007,
- 2) Environmental Clearance Letter No. J-11011/35/2007 IA II (I) dated 22nd 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 (I) along with the necessary enclosure and annexure.

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. Part D: Annexure.

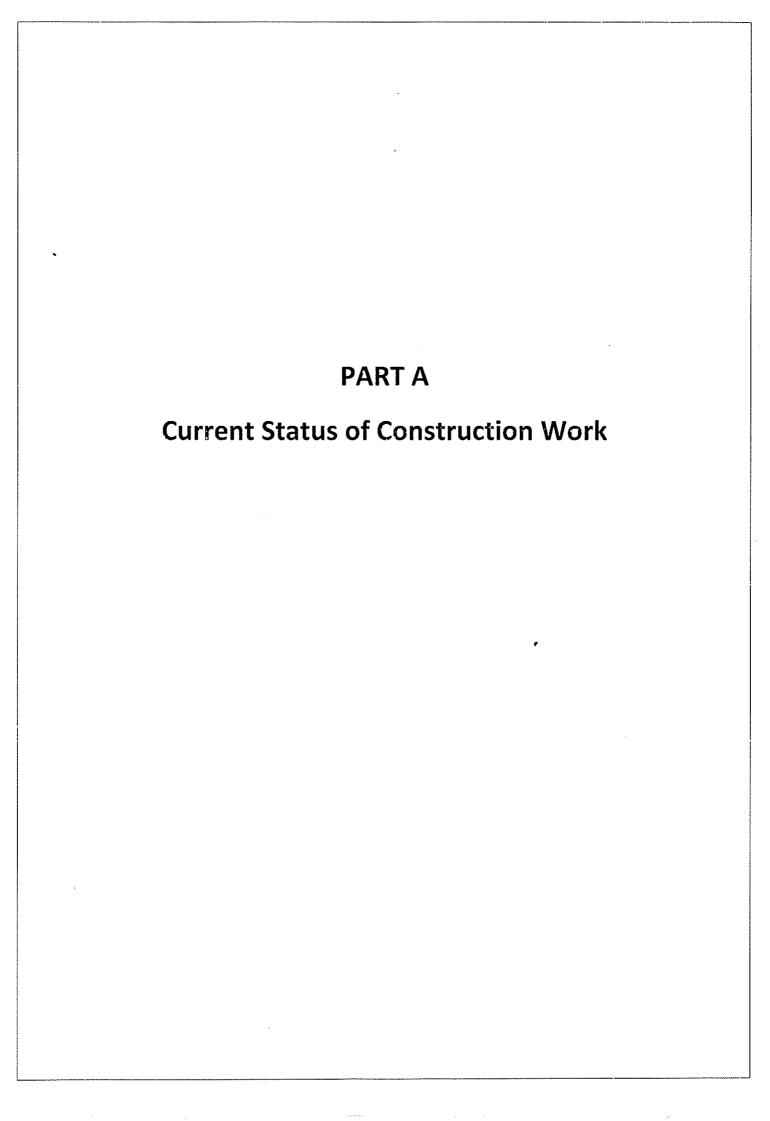
Birla Carbon India Private Limited

[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-I, Part-II & Part- III
2	Environmental Clearance Copy for Electricity	Enclosure-2
3	Environmental Clearance Copy for Carbon Black	Enclosure-3
4	Consent to Operate from Maharashtra Pollution Control Board	Enclosure-4
PART D	ANNEXURE	
1	Air Pollution Control Details	Annexure -1
2	RWH Details	Annexure -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	Annexure -7
8	Funds spent on Environmental Protection measures	Annexure -8
9	MWML certificate of registration	Annexure - 9



CURRENT STATUS OF WORK

Status of construction

: Construction is completed for 84000 MT/A of Carbon Black production out of 1200000 MT/A

Date of commencement

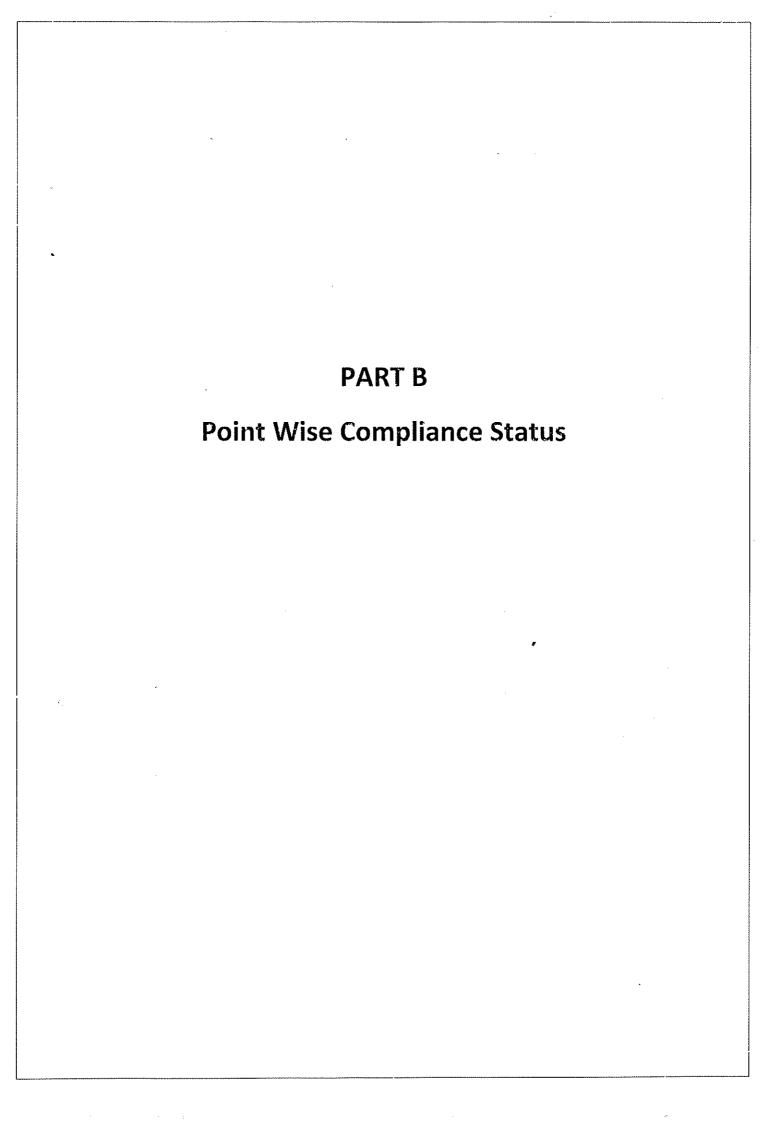
: Not Applicable

(Actual and/or planned)

Date of completion

: Planned 25.08.2025

(Actual and/of planned)



: 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-IA.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-II (I) dated 22.03.2013
2	Lean gases generated from existing process plant shall only be utilized. No other fuel shall be used for the power plant.	Lean gases generated from existing process plant is only utilized for cogeneration. No other fuel is used.
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, Noise and Water Samples is being carried out. And the reports of the same submitted to MPCB on monthly basis Please refer Annexure- 5.
1.1	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 issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in .	Public notice has been published in English in Indian Express and in Marathi in Sakal daily on 13/10/2007 intimating about the Environmental Clearance issued for the project by MoEF. For this please refer Annexure- 6.
12	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.	Environmental Management Plan and Disaster management plan is made. Details Given in Annexure –7.
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.	Noted and complied.
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.

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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 all statutory bodies which will 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.	Noted
18	The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.	Noted.
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.	Noted.
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 Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, the Public Liability Insurance Act, 1991 and rules there under.	Noted.

: 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-IA.II (I) 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 filter 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 ₂ , NOx, CO and HC) and particulate matter from existing and proposed boiler, dryer, purge gas filter, packing exhaust filter 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 failure 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	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 ₂ , 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 ₂ and NO _x are installed. Online CO monitoring and Environment data display on website started from October 2013

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

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 checked 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 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.	Noted.

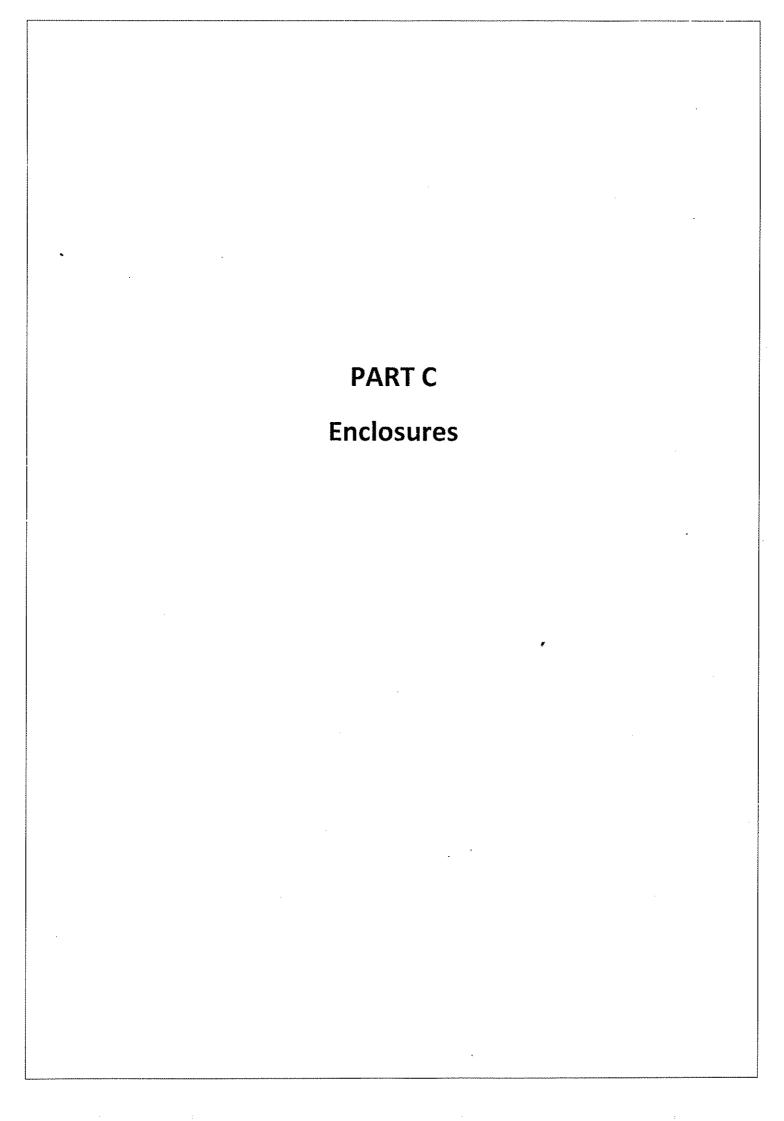
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19	Proper housekeeping shall be maintained and no spillage of Carbon Black shall be permitted. Preventive measures shall be taken to avoid and prevent any accidental release of Carbon Black to the environment.	Good Housekeeping Practices within our factory premises are followed. Preventive measures to avoid Carbon spillage are implemented
20	The company shall undertake following waste minimization measures:- a. Metering and control of quantities of active ingredients to minimize waste b. Pause of by products from the process as	a. Followed b. By products are used a raw materials for other process
	b. Reuse of by products from the process as raw materials or as raw material substitutes in other processes	c. Automatic filling is used in for finished product Packing d. Close Feed system is used for
	c. Use of automatic filling to minimize spillage	feeding raw material and other materials into the process
	 d. Use of Close feed system into batch reactor e. Use of high pressure hoses for equipment cleaning to reduce waste water generation 	e. High pressure hoses are used for 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.
	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 MoEF Bhopal 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-IAII(I) dated 26 th April, 2011 within one month from date of issue of letter and submitted to the Ministry's Regional Office.	prepared and send to Regional office MoEF Bhopal on 19.04.2013	
29	Provision shall be made for the housing for the construction labour within the site 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.	Noted & Complied during project stage	
	General Conditions-		
·30	The project authorities shall strictly adhere to the stipulations made by the Maharashtra Pollution Control Poard.	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	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.	Four Ambient Air Quality monitoring stations are installed	
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, 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. 75 dBA (day time) and 70 dBA (night time).	DG Sets are provided with acoustic enclosure as 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		Complied. We have installed rain
		water harvesting system for
	The Company shall harvest rainwater from the roof	warehouse, TG, Admin building roof.
	tops of the buildings and storm water drains to	We are collecting it and sending in
	recharge the ground water and use the same water	our raw water pond for reuse. Ground
	for the process activities of the project to conserve	water recharging is not possible
	fresh water.	because of rocky surface.
35	Training shall be imparted to all employees on	EHS Trainings are regular practice in
•	safety and heaith aspects of chemicals handling.	the plant
	Pre-employment and routine periodical medical	
	examinations for all employees shall be undertaken	, in the second
	on regular basis. Training to all employees on	
	handling of chemicals shall be imparted.	
36	The company shall also comply with all the	Noted
	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.	·
37	The company shall undertake all relevant measures	CSR activities are going on in near
] "	for improving the secio-economic conditions of the	by villages,
	surrounding area. CSR activities shall be	by vinages,
	l	
	undertaken by involving local villages and administration.	
38		Eco-developmental and community
36	The company shall undertake eco-developmental	welfare measures are taken under
	measures including community welfare measures in	CSR Programme
	the project area for the overall improvement of the	CSK Hogramme
	environment.	
39	A separate Environmental Management Cell	Noted. In-house, we have partial
	equipped with full-fledged laboratory facilities shall	capacity for monitoring environment
	be set up to carry out the Environmental	data such as pH, PM ₁₀ ,
	Management and Monitoring functions.	TDS, Conductivity, Temperature,
		Chlorides, Silica, Free chlorine, Oil
-	,	& grease, phosphate. Other
	•	environmental data are taken through
		an MoEF approved Lab.
40	The company shall earmark sufficient funds	Find the Enclosure 1,-Part 3
	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.	
	of diversity of the purpose,	

project propone ZilaParishad/Mun Body and the lo	icipal Corporation, Urban loca scal NGO, if any, from whom sentations, if any, were received	submitted
reports on the state Environmental C results of monitor well as by e-mail) of MoEF, the resp MPCB. A copy of	nent shall also submit six monthly us of compliance of the stipulated clearance conditions including red data (both in hard copies as to the respective Regional Office ective Zonal Office of CPCB and Environmental Clearance and six ce status report shall be posted on company.	regularly and Report display on website is made available.
The environmenta ending 31 st March be submitted to Control Board as perotection Rules, shall also be put along with the state clearance conditions.	I statement for each financial year in Form V as is mandated shall the concerned State Pollution prescribed under the Environment 1986 as amended subsequently on the website of the companyous of compliance of environment and shall also be sent to the offices of MOEF by email.	Website
The project propo the project has clearance by the clearance letter SPCB/Committee of the Ministry at advertised within of the clearance newspapers that ar of which one shall the locality concer be forwarded to the the Ministry.	nent shall inform the public that been accorded environmental Ministry and copies of the are available with the and may also be seen at Website http://envfor.nic.in This shall be seven days from the date of issue letter, at least in two local re widely circulated in the region be in the vernacular language of med and a copy of the same shall he concerned Regional Office of	published in Marathi in Krushival and Sakal daily on 30/03/2013 intimating about the Environmental Clearance issued for the project by MoEF. For this please refer Annexure-6.
The project autho Office as well as t closure and final	rities shall inform the Regional he Ministry, the date of financial approval of the project by the ties and the date of start of the	completed



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

DATA SHEET

Date: 26th Dec 2022

1.		ject type: River - valley/ Mining /	:	Carbon Black manufacturing
		ustry / Thermal / Nuclear / Other (specify)	_	Thermal – cogeneration
2.	Name of the project		<u> </u> :	Birla Carbon India Private Limited
3.	Cle	earance letter (s) / OM No. and Date	•	 EC for power plant:- J- 13011/35/2007-IA.II(T) dt. September 28,2007 EC for Carbon Black plant:- J- 11011/35/2007-IA-II (I) dt. 22nd March 2013.
4.	Lo	cation:		`
	а.	District (S)	<u> </u> :	Raigad
	b.	State (s)	:	Maharashtra
	c.	Latitude/ Longitude	:	Latitude – 18 deg. 51 ' N
	<u> </u>			Longitude – 73 deg 12 'E
5	Ad	dress for correspondence		
	a. b.	Address of Concerned Project Chief Engineer (with pin code & Telephone / telex / fax numbers Address of Executive Project: Engineer/Manager (with pincode/ Fax numbers)	•	Mr. Sambit Rath Sr. Manager - Project M/s. Birla Carbon India Pvt. Ltd. VILLAGE: LOHOP, TALVALI, PATALGANGA, TALUKA: KHALAPUR, DIST. RAIGAD - 410 207 MAHARASHTRA, INDIA. Phone 021922202050 Same As Above
6.	Sal	ient features		
	a.	of the project		PART –I –Project Details
************	b.	of the environmental management plans	<u>:</u>	PART –II - EMP
7.	<u> </u>	Break up of the project area:	,	
	a.	submergence area forest & non-forest	:	Not applicable
	b.	Others	:	PART –I – Project Details
8.	wit dwo	ak up of the project affected Population he enumeration of Those losing houses / elling units Only agricultural land only, h Dwelling units & agricultural Land & dless labourers/artisan	•	Not Applicable.

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······································	a.	SC, ST/Adivasis	Τ.	Not Applicable							
	b.	Others	╁	Not Applicable Not Applicable							
	υ.	(Please indicate whether these Figures	.	Not Applicable							
		are based on any scientific And									
		systematic survey carried out Or only									
		provisional figures, it a Survey is carried									
9.	out give details And years of survey) Financial details:										
<i>7</i> .	· · · · · · · · · · · · · · · · · · ·										
	a. Project cost as originally planned and subsequent revised estimates and the year of price reference:										
	-	<u> </u>	Τ.	Do 400.00 Com							
	<u> [.</u>	Total Cost of the Project	 	Rs. 490.00 Crores							
	b.	Allocation made for environ-mental	:	Rs. 22.47 Crores							
		management plans with item wise and		PART –III - Allocation made for							
	<u> </u>	year wise Break-up.	.	environ-mental management plan							
	c.	Benefit cost ratio / Internal rate of	:								
	-	Return and the year of assessment	 								
	d.	Whether (c) includes the	:	Yes							
		Cost of environmental management as									
+w .	ļ	shown in the above.	-								
~~~	e.	Actual expenditure incurred on the	:	Rs 341 Crores Only.							
	<u></u>	project so far	ļ								
	f.	Actual expenditure incurred on the	:	Rs. 22.47 Crores Only.							
	environmental management plans so far.										
10.	For	Forest land requirement		Not Applicable							
	a.	The status of approval for diversion of	:	Not Applicable							
:		forest land for non-forestry use.	<u> </u>								
·	<u>b.</u>	The status of clearing felling	:	Not Applicable							
	c.	The status of compensatory	:	Not Applicable							
		afforestation, it any.	<u> </u>								
	d.	Comments on the viability &	:	Not Applicable							
		sustainability of compensatory									
		afforestation program in the light of									
		actual field experience so far.	<u> </u>								
1.		e status of clear felling in Non-forest areas	:	Not Applicable							
	, .	ch as submergence area of reservoir,									
		roach roads), it any with quantitative		·							
		ormation.	L								
2.	Sta	tus of construction :	·								
	a.	Date of commencement	:	Construction completed							
		( Actual and/or planned )		1							
	b.	Date of completion	:	Construction completed							
		( Actual and/or planned )									
13.	Rea	asons for the delay if the Project is yet to	:	Not Applicable							
	star	·t ·									
4	Dat	es of site visits :									

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	a.	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.	aut pla saf	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
	det Lat	ne first monitoring report may contain the ails of all the Letters issued so far, but the ter reports may cover only the Letters ued subsequently.)	•	Not Applicable

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

Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi-11003.

Dated: 28th September, 2007

To

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

The Holder of the Co

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

Sir,

The undersigned is directed to refer to your communication no. nil dated 28th 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, Maharashtra. 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 EIA Notification dated 14th September, 2006 read with para 2.2.1 (i) (a) of the Circular No. J-11013/41/2006-IA.II(I) dated 13.10.2006. Based on the recommendations of the Expert Appraisal Committee for Thermal Power and Coal Mine Projects, the Ministry of Environment & Forests hereby accords environmental clearance to the

said 25 MW cogeneration power project under the provisions of EIA Notification 2006, subject to implementation of the following terms and conditions:-

- (i) The environmental clearance for the main carbon black plant, as applicable, shall be obtained separately.
- (ii) Lean gases generated from the existing process plant shall only be utilized. No other fuel shall be used for the power plant.
- (iii) Effective safeguard measures shall be taken to ensure that the SPM levels do not exceed the prescribed standards.
- (iv) A stack of 103 m height with exit velocity of at least 13.85 m/s shall be provided with continuous online monitoring system for disposal of waste gases.
- (v) Closed circuit cooling system with cooling towers shall be provided. COC of 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.
- (viii) Leq of noise level should be limited to 75 dBA and regular maintenance 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 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.
- (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

Issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in.">http://envfor.nic.in.</a>

- (xii) A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.
- (xiii) 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 Bhopal, CPCB and SPCB.
- (XIV) Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the 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.
- (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 earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.
- (xvi) 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.
- 4. The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.
- 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 to incorporate additional environmental protection measures required, if any.
- 7. 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

Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, the Public Liability Insurance Act, 1991 and rules there under.

> (Dr. S.K. Aggarwal) Director

# Copy to:

- The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New 1. Delhi-110001.
- The Secretary, Department of Energy and Environment, Govt. of Maharashtra, 2. Mantralaya, Mumbai-400032, Maharashtra.
- The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New 3. Delhi-110066.
- The Chairman, Maharashtra Pollution Control Board, Kalptaru point 3rd & 4th Floor Sion Matunga Scheme Road No. 8,Opp. Cine Planet Cinema, near Sion Circle, Sion(East), Mumbai-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, Parivesh Bhawan, CBD-cum-5. Office Complex, East Arjun Nagar, Delhi-110032.
- The Chief Conservator of Forests, Western Regional Office, Ministry of 6. Environment & Forests, E-3/240, Arera Colony, Bhopal-462016.

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7, Director (EI), MOEF

- 8. Guard file.
- 9. Monitoring file.

(Dr. S.K. Aggarwal) Director 

# F. No. J-1101 I/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, 2nd 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 18th 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 21stJuly, 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.

- 6.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 24th and 33rd meetings held during 22nd-23rd June, 2011 and 21st-22nd March, 2012 respectively. The Committee recommended the proposal for environmental clearance. **M/s Hi-Tech Carbon** passed a resolution in a meeting of the Board of Directors held on 13.07.2012 that violation of the Environmental (Protection) Act, 1986 will not be repeated. A copy of Board Resolution is Annexed. Maharashtra Pollution Control Board has filed a regular criminal complaint (No. 33/2013) against the 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 clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

### A. SPECIFIC CONDITIONS:

- i) 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.
- ii) As proposed, vent scrubber in the reactor area, main bag filter in the product separation area, process bag filter in the pelletising area, purge gas filter 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.
- The gaseous emissions (SO₂, NOx, CO and HC) and particulate matter from existing and proposed boiler, dryer, purge gas filter, packing exhaust filter 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 failure 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.
- iv) Continuous stack monitoring of stacks for SO₂, NO_X and CO and recording facilities shall be installed alongwith interlocking facilities. As proposed, particulate matter shall be monitored in the stack manually. Data for particulate matter, SO₂, NO_X and CO shall be displayed on web as well as outside the premises at prominent place for public viewing.
- As proposed, this being an existing plant Sulphur' content in the feed stock i.e. Carbon Black Feed Stock (CBFS) shall not exceed 2.5% at any time.
- vi) Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009.
- vii) Poly-Aromatic Hydrocarbon (PAH) shall be monitored in fugitive dust emission area particularly in Packaging Plant. Data shall be properly monitored, recorded, and submitted to the Ministry's Regional Office at Bhopal.
- viii) Industrial exhaust and proper ventilation shall be provided in packaging plant area.
- ix) The levels of PM₁₀, SO₂, NOx, CO and HC (Non-methane) shall be monitored in the ambient air. Data of stack monitoring and ambient air shall be displayed on web as well as outside the premises at prominent place for public viewing. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and MPCB.

- x) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly 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 enclosure shall be provided to the DG sets to mitigate the noise pollution.
- xii) 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.
- xiii) 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.
- xiv) No treated process effluent shall be discharged outside the premises and Zero discharge shall be ensured.
- xv) Process effluent/any wastewater shall not be allowed to mix with the storm water. Storm water drain shall be passed through guard pond.
- xvi) 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.
- xvii) 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 :
  - 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 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.
- xxii) 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 O.M. No. J-11013/41/2006-IA.II(I) dated 26th 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 site 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.
- ii. 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.
- 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. 75 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.
- 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 local 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 facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xi. 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.
- xii. 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 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.

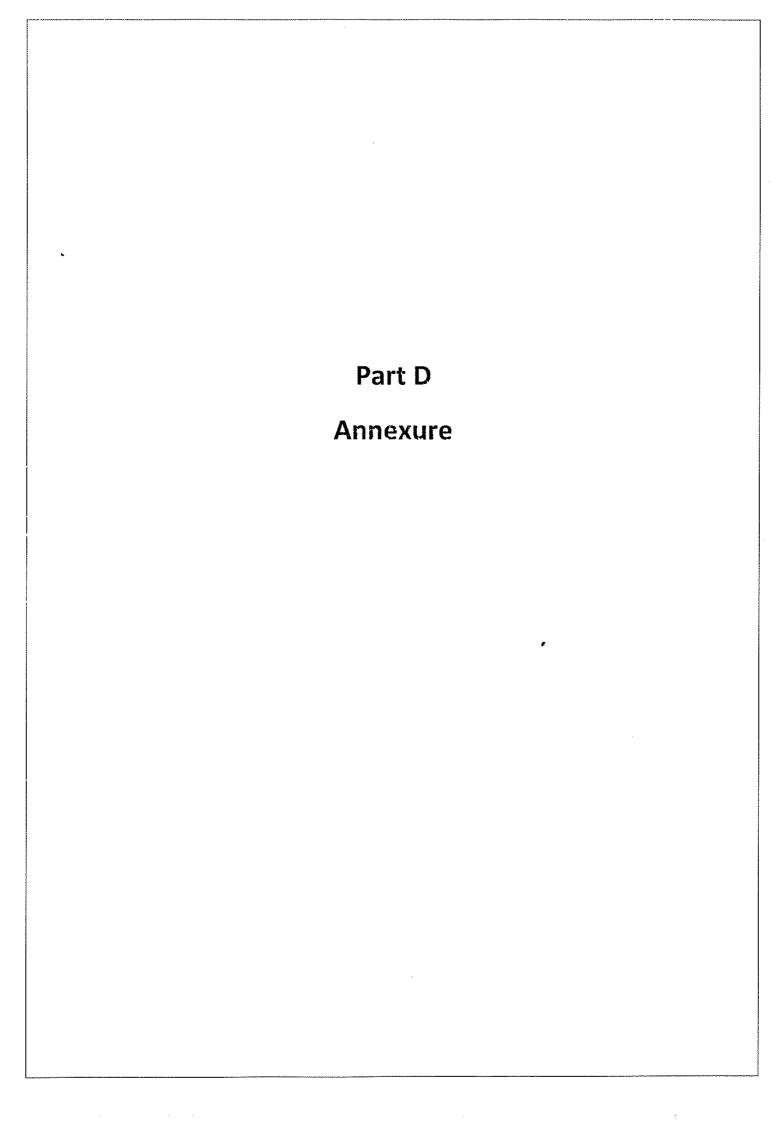
- xvi. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- 8.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 9.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
- The above conditions shall 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, Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

(A.N. Singh) Dy. Director (S)

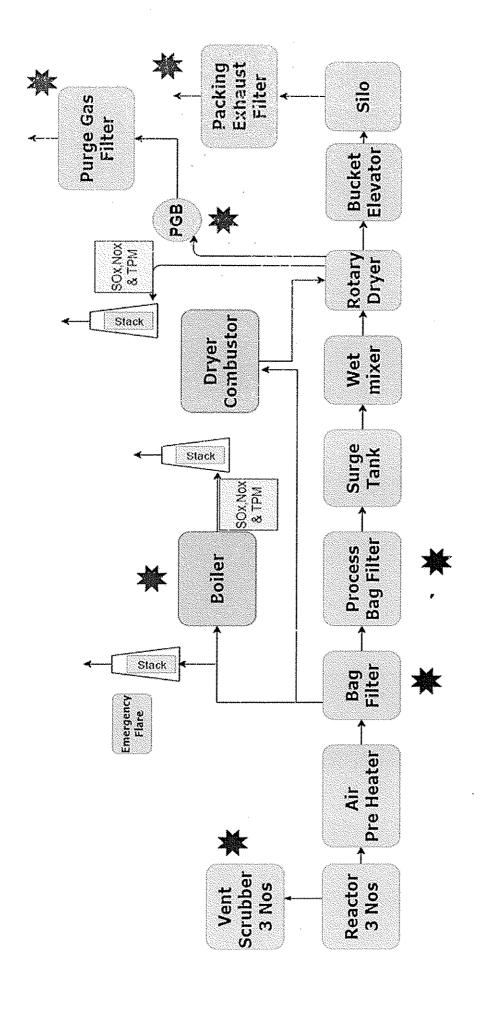
### Copy to :-

- 1. The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai 400 032
- 2. The Chief Conservator of Forests (Central), Kendriya Paryavaran Bhavan, Link Road No.3, Bhopal-462016.
- 3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi 110 032.
- 4. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
- 5. The Joint Secretary, IA II(I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
- 6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi
- Guard File/Monitoring File/Record File.

(A.N. Singh)
Dy. Director (S)



# AIR POLLUTION CONTROL EQUIPMENT & MONITORING



Continuous monitoring anlysers

* Environment Protection Equipment

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

Date: 26.12.2021

### Introduction:

Rainwater harvesting (RWH) is the ancient practice of collecting rainwater and storing it for later use. RWH 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.

1) 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: 3981.6m² x 1.5m x 0.75 = 4480m³/month of July

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

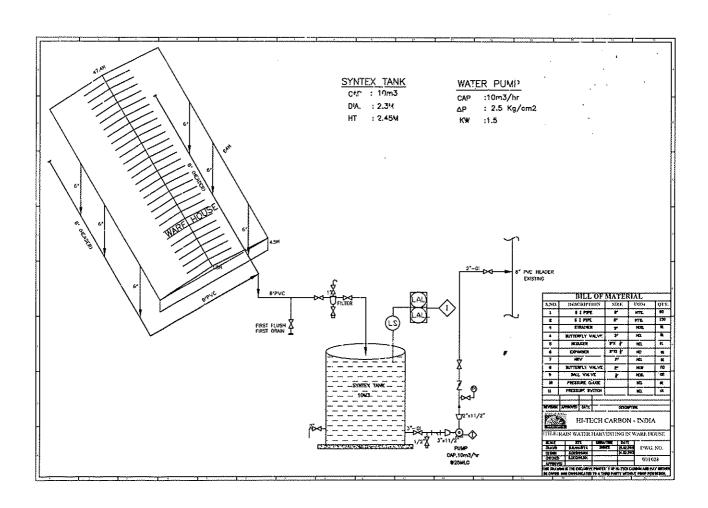
Considering two separate header of 8" PVC for collecting water from all sources of both side & line routed through a filter & isolation valve & one first rain drain connection towards water sump with slpoe 1:50.

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
- It 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
- 6. 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 42246	Area Sqmtr 3929
1	Pallet Yard	210		
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
15	Warehouse	18	561	52
16	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



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

• Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

#### **TEST CERTIFICATE**

Page 1 of 2 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02743
	REPORT DATE	15/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/132
Limited.	SAMPLING DATE	07&08/06/2022
(Formerly known as SKI Carbon Black	SAMPLE RECEIPT DATE	10/06/2022
(India) Private Limited.)	START DATE OF ANALYSIS	10/06/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	14/06/2022
Troduction of the Fundings Ings	SAMPLING REF. / SOP NO.	HS/NABL/Air/14

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Ambient Air	Horizon Services	Plastic Bottles and Bags		Near Tank Farm Area

SR. NO.	DESCRIPTION	UNIT	RESULTS	NAAQS LIMITS	TEST METHOD REFERENCE
01	Date of Sampling	DD/MM/YY	07&08/06/2022		
02	Test Location		Near Tank Farm Area		
03	Time of Sampling	Hrs.	11:30	٠	
04	Temperature (Max./Min)	Deg C	34/25	F	
05	Relative Humidity	% R.H	60		
03	Sampling Duration	Hrs	24		
07 ·	Particulate Matter (Size less than 10μm) PM ₁₀ (24 Hrs)	μg/m³ ·	58.76	100	IS 5182(part 23),2006
08	Particulate Matter (Size less than 2.5µm) PM₂₅ (24 Hrs)	hg/m ₃	28.21	60	CPCB Guidelines Volume - I Pg. No.15
09	Sulphur Djoxide (SO ₂₎ (24 Hrs)	μg/m³	9.56	80	IS 5182(part 2),2001, RA 2006
.10	Nitrogen Dioxide (NO ₂ ) (24 Hrs)	μg/m³	23.10	80	IS 5182(part 6),2006
11	Carbon Monoxide (CO) (8 Hrs)	mg/m³	0.098	2.0	IS 5182 (part 10): 1999 (Reaffirmed 2003)
12	Lead (Pb) (24 Hrs)	μg/m²	BDL	1.0	IS 5182 (Part 22) :2004
13	Ammonia (NH ₃ ) (24 Hrs)	,mg/m³	. BDL	0.4	CPCB Guidelines Volume - I Pg. No. 35
14	Ozone (O ₃ ) (8 Hrs)	μg/m³	BDL	100	IS 5182(part 9),1974, RA 2009

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"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in
 www.hespl.co.in

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15	Benzene (C6H6) (24 Hrs)	μg/m³	BDL	05	IS 5182 (part 11): 2006
16	Benzo(a)Pyrene (BaP) Particulate phase only (24 Hrs)	ng/m³	BDL	01	CPCB Guidelines Volume - I Pg. No. 39
17	Arsenic (As) (24 Hrs)	ng/m³	BDL	06	CPCB Guidelines Volume – I Pg. No. 47
18	Nickel (Ni) (24 Hrs)	ng/m³	BDL	20	CPCB Guidelines Volume - I Pg. No. 47

Equipment Used: - Fine Dust Sampler, Sr.No.21814 (Polltech Make) Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

#### **REMARKS/OBSERVATIONS:**

NAAQS: - National Ambient Air Quality Standards Limits as per NAAQS Monitoring & Analysis Guidelines Volume-I (2009) BDL-Below Detectable Level (<0.01 ppm)

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

End of Test Report

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• Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

### **TEST CERTIFICATE**

Page 1 of 2 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02744
	REPORT DATE	15/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/132
Limited.	SAMPLING DATE	07&08/06/2022
(Formerly known as SKI Carbon Black	SAMPLE RECEIPT DATE	10/06/2022
(India) Private Limited.) Production Unit- Patalganga	START DATE OF ANALYSIS	10/06/2022
	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/Air/14

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Ambient Air	Horizon Services	Plastic Bottles and Bags		Near Dhandwadi

### **RESULTS OF ANALYSIS**

SR. NO.	DESCRIPTION	UNIT	RESULTS	NAAQS LIMITS	TEST METHOD REFERENCE
01	Date of Sampling	DD/MM/YY	07&08/06/2022		
02	Test Location		Near Dhandwadi		
03	Time of Sampling	Hrs.	12:00		
04	Temperature (Max./Min)	Deg C	34/25		
05	Relative Humidity	% RH	60		
06	Sampling Duration	Hrs	24	,	
07	Particulate Matter (Size less than 10µm) PM ₄₀ (24 Hrs)	μg/n1 ³	40.56	100	IS 5182(part 23),2006
08	Particulate Matter (Size less than 2.5μm) PM2.5 (24 Hrs)	μg/m³	19.68	60	CPCB Guidelines Volume - I Pg. No.15
09	Sulphur Dioxide (SO ₂₎ (24 Hrs)	μg/m³	6.25	80	IS 5182(part 2),2001, RA 2006
10	Nitrogen Dioxide (NO ₂ ) (24 Hrs)	μg/m³	14.83	80	IS 5182(part 6),2006
11	Carbon Monoxide (CO) (8 Hrs)	mg/m³	0.071	2.0	IS 5182 (part 10): 1999 (Reaffirmed 2003)
12	Lead (Pb) (24 Hrs)	μg/m³	BDL	1.0	IS 5182 (Part 22) :2004
13	Ammonia (NHs) (24 Hrs)	mg/m³	BDL	0.4	CPCB Guidelines Volume - I Pg. No. 35
14	Ozone (O ₃ ) (8 Hrs)	μg/m³	BDL	100	IS 5182(part 9),1974, RA 2009

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Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in / www.hespl.co.in

Page 2 of 2

15	Benzene (C ₆ H ₆ ) (24 Hrs)	μg/m³	BDL	05	IS 5182 (part 11): 2006
16	Benzo(a)Pyrene (BaP) Particulate phase only (24 Hrs)	ng/m³	BDL	01	CPCB Guidelines Volume - I Pg. No. 39
17	Arsenic (As) (24 Hrs)	ng/m³	BDL	06	CPCB Guidelines Volume - I Pg. No. 47
18	Nickel (Ni) (24 Hrs)	ng/m³	BDL	20	CPCB Guidelines Volume - I Pg. No. 47

Equipment Used: - Fine Dust Sampler, Sr.No.0918 (Polltech Make) Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

REMARKS/OBSERVATIONS: -

NAAQS: - National Ambient Air Quality Standards

Limits as per NAAQS Monitoring & Analysis Guidelines Volume-I (2009)

BDL-Below Detectable Level (<0.01 ppm)

For HORIZON SERVICES

MANISHA NARGOLKAR

(Lab Incharge)

'End of Test Report'

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"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

• Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

#### **TEST CERTIFICATE**

Page 1 of 2 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02745
	REPORT DATE	15/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/132
Limited.	SAMPLING DATE	08&09/06/2022
(Formerly known as SKI Carbon Black	SAMPLE RECEIPT DATE	10/06/2022
(India) Private Limited.)	START DATE OF ANALYSIS	10/06/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	14/06/2022
, to the state of	SAMPLING REF. / SOP NO.	HS/NABL/Air/14

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Ambient Air	Horizon Services	Plastic Bottles and Bags	4 C -	Near Switch Yard

### **RESULTS OF ANALYSIS**

SR. NO.	DESCRIPTION	UNIT	RESULTS	NAAQS LIMITS	TEST METHOD REFERENCE
01	Date of Sampling	DD/MM/YY	08&09/06/2022		
02	Test Location		Near Switch Yard		
03	Time of Sampling	Hrs.	12:00		***************************************
04	Temperature (Max./Min)	Deg C	36/26		
.05	Relative Humidity	% RH	56		
06	Sampling Duration	Hrs	24		
07	Perticulate Matter (Size less than 10µm\PMio (24 Hrs)	μg/m³	43.69	100	IS 5182(part 23),2006
08	Particulate Matter (Size less than 2.5μm) PM _{2.5} (24 Hrs)	μg/m³	21.27	60	CPCB Guidelines Volume - I Pg. No.15
09	Sulphur Lioxide (SO ₂₎ (24 Hrs)	μg/m³	6.90	80	IS 5182(part 2),2001, RA 2006
10	Nitrogen Dioxide (NO₂) (24 Hrs)	µg/m³	15.17	80	IS 5182(part 6),2006
11	Carbon Monoxide (CO) (8 Hrs)	mg/m³	0.070	2.0	IS 5182 (part 10): 1999 (Reaffirmed 2003)
12	Lead (Fb) (24 Hrs)	μg/nາ ^ຈ ີ	BDL.	1.0	IS 5182 (Part 22):2004
13	Ammonia (NH ₃ ) (24 Hrs)	mg/m³	BDL	0.4	CPCB Guidelines Volume - I Pg. No. 35
14	Ozone (Oa) (8 Hrs)	μg/m³	BDL	100	IS 5182(part 9),1974, RA 2009

- Sample will be retained only for 15 days.
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• Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

Page 2 of 2

15	Benzene (C ₆ H ₆ ) (24 Hrs)	μg/m³	BDL	05	IS 5182 (part 11): 2006
16	Benzo(a)Pyrene (BaP) Particulate phase only (24 Hrs)	ng/m³	BDL	01	CPCB Guidelines Volume - I Pg. No. 39
17	Arsenic (As) (24 Hrs)	ng/m³	BDI.	06	CPCB Guidelines Volume - I Pg. No. 47
18	Nickel (Ni) (24 Hrs)	ng/m³	BDL	20	CPCB Guidelines Volume - I Pg. No. 47

Equipment Used: - Fine Dust Sampler, Sr.No.21814 (Polltech Make) Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

#### **REMARKS/OBSERVATIONS: -**

NAAQS: - National Ambient Air Quality Standards Limits as per NAAQS Monitoring & Analysis Guidelines Volume-I (2009) BDL-Below Detectable Level (<0.01 ppm)

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

*End of Test Report

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#### **TEST CERTIFICATE**

Page 1 of 2 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02746
	REPORT DATE	15/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/132
Limited.	SAMPLING DATE	08&09/06/2022
(Formerly known as SKI Carbon Black	SAMPLE RECEIPT DATE	10/06/2022
(India) Private Limited.)	START DATE OF ANALYSIS	10/06/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/Air/14

DETAILS OF SAMPLE	SAMPLING DONE BY		SAMPLE CONTAINER & QUANTITY		NATURE	LOCATION
Ambient Air	Horizon Services	,	Plastic Bottles and Bags	4.	<b></b>	Near Main Gate

SR. NO.	DESCRIPTION	UNIT	RESULTS	NAAQS LIMITS	TEST METHOD REFERENCE
01	Date of Sampling	DD/MM/YY	08&09/06/2022		
02	Test Location		Near Main Gate		
03	Time of Sampling	Hrs.	15:00		
04	Temperature (Max /Min)	Deg C	36/26		
05	Relative Humidity	% RH	. 56		
06	Sampling Duration	Hrs	24	,	
07	Particulate Matter (Size less than 10μm) PM ₁₀ (24 Hrs)	μg/m³	65.39	100	IS 5182(part 23),2006
08	Particulate Matter (Size less than 2.5µm) PM _{2.5} (24 Hrs)	μg/m³	33.12	60	CPCB Guidelines Volume - I Pg. No.15
09	Sulphur Dioxide (SO ₂ ) (24 Hrs)	μg/m³	7.49	80	IS 5182(part 2),2001, RA 2006
10	Nitrogen Dioxide (NO ₂ ) (24 Hrs)	r μg/m³	15.80	80	IS 5182(part 6),2006
11	Carbon Monoxide (CO) (8 Hrs)	mg/m³	0.291	2.0	IS 5182 (part 10): 1999 (Reaffirmed 2003)
12	Lead (Pb) (24 Hrs)	μg/m³	BDL	1.0	IS 5182 (Part 22) :2004
13	Ammonia (NH ₃ ) (24 Hrs)	mg/m³ ·	BDL	0.4	CPCB Guidelines Volume - I Pg. No. 35
14	Ozone (O2) (8 Hrs)	յւց/m ⁵	BDL	100	IS 5182(part 9),1974, RA 2009

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Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

#### Page 2 of 2

15	Benzene (C ₆ H ₆ ) (24 Hrs)	μg/m³	BDL	05	IS 5182 (part 11): 2006
16	Benzo(a)Pyrene (BaP) Particulate phase only (24 Hrs)	ng/m³	BDL	01	CPCB Guidelines Volume - I Pg. No. 39
17	Arsenic (As) (24 Hrs)	ng/m³	BDL	06	CPCB Guidelines Volume - I Pg. No. 47
18	Nickel (Ni) (24 Hrs)	ng/m³	BDL	20	CPCB Guidelines Volume - I Pg. No. 47

Equipment Used: - Fine Dust Sampler, Sr.No.0918 (Polltech Make) Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

# REMARKS/OBSERVATIONS: -

NAAQS: - National Ambient Air Quality Standards Limits as per NAAQS Monitoring & Analysis Guidelines Volume-1 (2009) BDL-Below Detectable Level (<0.01 ppm)

For HORIZON SERVICES

MANISHA NARGOLKAR

(Lab Incharge)

End of Test Report

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Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in / www.hespl.co.in

#### **TEST CERTIFICATE**

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02752
	REPORT DATE	15/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/132
Limited.	SAMPLING DATE	08/06/2022
(Formerly known as SKI Carbon Black	SAMPLE RECEIPT DATE	10/06/2022
(India) Private Limited.)	START DATE OF ANALYSIS	10/06/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/Air/15

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Stack Emission	Horizon Services	Plastic Bottles and Bags	<b></b>	D.G. Set (1825 KVA)

#### **RESULTS**

			,	- 444	
SR.	DESCRIPTION	' UNIT	RESULT	LIMITS	TEST METHOD
NO.			. 40. 20	_	REFERENCE
01	DATE OF SAMPLING	DD/MM/YY	08/06/2022		
02	TEST LOCATION		D.G. Set (1825 KVA)		
- 03	TIME OF SAMPLING	Hrs	15:30		
04	MATERIAL OF STACK		MS		
ე5	STACK HEIGHT	Mtr	43	•	
06	SHAPE OF STACK	n).	Round		
07	FLUE GAS TEMPERATURE	Deg K	383	•	
08	DIFFERENTIAL PRESSURE	mm WG	2.2		
09	VELOCITY	M/Sec	5.94		
10	DIAMETER OF STACK	M	0.254		1
11	STACK AREA	M ²	0.0506		
12	GAS VOLUME	NM ³ /Hr	842.10		
13	PARTICULATE MATTER	mg/NM³	35.10	150	IS 11255 (Part 1):1985
14	SO₂	mg/NM ³	40.92		IS 11255 (Part2):1985
15	NOx	ppm	45.0		Flue Gas Analyser-
16	CO	ppm	58.0		based on
17	HC	r ppm	51.0	***	manufacturer's Manual
16	ACID MIST	mg/Nm³	Not Detected		USPEA METHOD 08
17	Lead	mg/m ³	Not Detected	***	USPEA METHOD 12

Equipment Used: -1) Stack Monitoring Kit, Sr.No. 08/2018 (ETCL model)

Date of Calibration: -20/09/2021 Next Calibration due: - 19/09/2022

2)ACE Gas Analyser - Sr. No. 9000 180(ACE-9000 Make)

Date of Calibration: -27/07/2021 Next Calibration due: -26/07/2022



For HORIZON SERVICES (Lab Incharge)

****End of Test Report****

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Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in
 www.hespl.co.in

#### **TEST CERTIFICATE**

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02753
	REPORT DATE	15/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/132
Limited.	SAMPLING DATE	09/06/2022
(Formerly known as SKI Carbon Black	SAMPLE RECEIPT DATE	10/06/2022
(India) Private Limited.)	START DATE OF ANALYSIS	10/06/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	14/06/2022
,	SAMPLING REF. / SOP NO.	HS/NABL/Air/15

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Stack Emission	Horizon Services	Plastic Bottles and Bags		Packing Exhaust Blower

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SR. NO.	DESCRIPTION	UNIT	RESULT	LIMITS	TEST METHOD REFERENCE
01	DATE OF SAMPLING	DD/MM/YY	09/06/2022		
02	TEST LOCATION		Packing Exhaust Blower		·
03	TIME OF SAMPLING	Hrs	. 11:30		
04	MATERIAL OF STACK		MS		
05	STACK HEIGHT	Mtr	30		
06	SHAPE OF STACK	. %	Round	•	
0.3	FLUE GAS TEMPERATURE	Deg K	315		
08	DIFFERENTIAL PRESSURE	mm WG	2.8		-
09	VELOCITY	M/Sec	6.07		·
10	DIAMETER OF STACK	M	0.2		
11	STACK AREA	M ²	0.0314		
12	GAS VOLUME	NM3/Hr	649.48		
13	PARTICULATE MATTER	mg/NM³	40.71	As Per Consent	IS 11255 (Part 1):1985
14	SO ₂	mg/NM³	NIL		IS 11255 (Part2):1985
15	NOx	ppm	Below Detectable Level	4114	Flue Gas Analyser- based on
16	CO a gradia	ppm	23		manufacturer's Manual
17	HC HC	ppm	19		
16	ACID MIST	mg/Nm³	.Not Detected		USPEA METHOD 08
17 -	Lead	mg/Nrn³	0.67		USPEA METHOD 12

Equipment Used: -1) Stack Monitoring Kit, Sr.No. 08/2018 (ETCL model)

Date of Calibration: -20/09/2021 Next Calibration due: -19/09/2022

2)ACE Gas Analyser - Sr. No. 9000 180(ACE-2000 Make)

Date of Calibration: -27/07/2021 Next Calibration due: -26/07/2022

For HORIZON SERVICES

Menalgolkai

MANISHA NARGOLKAR (Lab Incharge)

****End of Test Report*

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
- . The effect of results relate only to the item tested.



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# **AMBIENT NOISE MONITORING REPORT (Day Time)**

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02754	· · · · · · · · · · · · · · · · · · ·
M/s Birla Carbon India Private	DATED	15/06/2022	
Limited.			
(Formerly known as SKI Carbon Black			
(India) Private Limited.)			
Production Unit- Patalganga			

Description Near Tank P				Date: 0	7&08/06/2	022			
				Noise Lev	vel Meter				
Make	:	Lutron	Lutron					166	···
Model	1:	SL 4023SD		***************************************		····			···········
Serial No.	•	Q666936				A.	**************************************	·····	
Calibration Details:		Calibration Da	Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023						
			alibration	Result o	f Noise Le	vel Mete	r		
Calibration					1000 Hz		114	dB at 100	0 Hz
Initial			<u> </u>	93.		\$ ⁵	113.4		
Final				93.	8			113.6	
Sampling Ra			l șec.						
Sr.no.	Tir	ne Duration	File no.		Sc	ound Par	ameters (	dBA)	
				Leq	L10	L ₅₀	L90 ,	Lmin	Lmax
1		:53-12:53	÷	68.80	59.1	58.3	57.6	55.4	97.0
2		53-13:53	i.	61.53	59.7	58.3	57.9	57.4	88.9
3	13:	53-14:53		60.80	57.9	57.0	56.3	55.7	93.7
4	14:	53-15:53		57.20	57:6	56.6	56.2	55.6	73.6
5	15:	53-16:53 ,		57.28	57.8	56.9	56.4	55.6	67.1
6	<u> 16:</u>	53-17:53		57.16	57.5	57.1	56.8	56.2	62.8
. 7		53-18:53	*	57.67	58.0	57.6	57.2	56.7	65.1
8	<del></del> ,	53-19:53		58.47	59.1	58.3	57.9	57.3	63.6
9	-	53-20:53	***************************************	59.86	60.3	60.1	59.1	58.6	63.7
10		53-21:53		59.01	′ 59.2	59.0	58.7	58.1	62.0
11		53-22:53		58.87	59.2	58.8	58.6	58,2.	60.0
12		53-07:53		78.43	84.3	58.8	58.4	57.9	96.0
13		53,08:53	<u> </u>	75.63	69.3	59.2	58.9	58.4	94.1
14	····	53-09:53		59.83	60.0	59.1	58.8	58.3	75.5
15		53-10:53		68.85	60.8	59.3	58.9	57.9	95.7
16		53-11:53	.9	59.55	59.9	59.0	58.5	57.8	75.5
Average L ed	<u>viur</u>	alent dB(A)		62.43	61.23	58.34	57.89	57.19	77.14

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
- The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

• Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

Instrument Used: Sound Level Meter-Data Logging Type (Q666936)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method-Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

### **REMARK/OBSERVATIONS:**

Note: Day time shall mean from 6.00 Hrs. to 22.00 Hrs.

Limits: Leq dB (A)

≤75 dB (A) For Day Time

For HORIZON SERVICES

merangolka MANISHA NARGOLKAR (Lab Incharge)

"End of Test Report

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab. The effect of results relate only to the item tested.



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# **AMBIENT NOISE MONITORING REPORT (Night Time)**

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02755	
M/s Birla Carbon India Private	DATED	15/06/2022	
Limited.			•
(Formerly known as SKI Carbon Black			
(India) Private Limited.)			
Production Unit- Patalganga			The w

								4 748 W		
Description Near Tank P				Date: 07	&08/06/20	22	75			
			ħ	loise Lev	ei Meter	`	- V.	%		
Make	:	Lutron	.utron					¥		
Model	:	SL 4023SD								
Serial No.	:	Q666936			······	. 4. \$				
Calibration Details:			bration Date: 20/01/2022 Next Calibration Due: 19/01/2023							
	***************************************	С	alibration	Result of	Noise Le	vel Meter				
Calibration				94 dB at :	1000 Hz		114 dB at 1000 Hz			
Initial				93.	6			113.4		
Fina!				93,	93,8 113.6					
Sampling R	ato		1 sec		2.0		*****			
Sr.no.		me Duration	File no.	N.	So	und Para	meters (	dBA)	<del></del>	
			,	Leq	l-10	L50	L.90 ,	Lmin	Lmax	
1	22	:00-23:00		58.64	59.0	58.6	58.3	58.0	60.5	
2	23	:00-00:00	100	58.55	58.8	58:5	58.3	57.8	62.8	
3	00	:00-01:00		58.49	58.7	58.5	58.2	57.9	59.8	
4	01	:00-02:00		58.62	58.8	58.6	58.4	58.0	59.9	
5	02	:00-03.00		58.79	59.0	58.8	58.6	58.1	62.2	
6	03	:00-04:00		58.66	58.9	58.6	58.4	58.0	61.7	
7	04	:00-05:00		58.70	58.9	58.7	58.5	58.1	60.9	
8	05	:00-06:00		58.75	59.0	58.7	58.4	58.0	65.6	
Average L e	aui	valent dB(A)		58.65	58.89	58.63	58.39	57.99	61.68	

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab. The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004. 

Instrument Used: Sound Level Meter-Data Logging Type (Q666936)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method- Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

### **REMARK/OBSERVATIONS:**

Note: Night time shall mean from 22.00 Hrs. to 6.00 Hrs.

Limits: Leq dB (A)

≤70 dB (A) For Night Time

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

End of Test Report***

- Sample will be retained only for 15 days.
   Above results indicate to the parameters mentioned only.
   Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab. The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

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# **AMBIENT NOISE MONITORING REPORT (Day Time)**

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02756	
M/s Birla Carbon India Private	DATED	15/06/2022	
Limited.			
(Formerly known as SKI Carbon Black		÷	
(India) Private Limited.)			
Production Unit- Patalganga			

Description Near Dhandy				<b>Date:</b> 07&0	8/06/2022					
				Noise Leve	l Meter			V.		
Make	:	Lutron					4			
Model		SL 4023SD	L 4023SD							
Serial No.		Q666935								
Calibration Details:	•	I	Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023							
		,	Calibratio	n Result of i	Noise Lev	el Meter				
Calibration	~~~			94 dB at 10	000 Hz		114	dB at 100	0 Hz	
Initial	******			93.4				113.4		
Final				93.6				113.7		
Sampling Ra	ate		1 sec.	N. 17 A. 18 A.						
Sr.no.		ne Duration	File		Sou	nd Paran	neters (di	BA)		
			no.	<u> </u>		1	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
				Leq	L10	L50	L-90	Lmin	Lmax	
1	12	:15-13:15	197.0	74.56	65.8	57.6	50.6	44.8	106.9	
2	13	:15-14:15	- A - A - A - A - A - A - A - A - A - A	60.73	63.8	55.7	50.3	44.0	78.7	
3	14	:15-15:15		57 î1	58.1	54.1	52.9	51.5	75.6	
4	15	:15-16:15		56.54	58.0	54.9	53.4	52.3	74.4	
5	16	:15-17:15 🧬	à 7	56.01	57.8	54.3	53.3	52.1	71.9	
6		:15-18:15	·	58.64	60.7	55.1	53.8	52.4	75.4	
7		:15-19:15		59.10	60.8	55.5	54.3	53.2	79.0	
8		:15-20:15		57.94	57.3	55.2	54.4	53.1	79.1	
9		:15-21:15		55.83	57.3	55.1	54.2	53.0	65.1	
10		:15-22:15		55.30	55.9	54.5	53.9	52.9	67.2	
11		:15-07:15		57.C5.	57.9	54.9	54.3	53.6	68.8	
12		:15-08:15		77.87	62.0	54.8	54.0	53.4	105.4	
13		:15-09:15		55.05	55.7	54.4	53.9	53.3	66.7	
14		:15-10:15		54.42	55.1	54.1	53.6	52.7	61.9	
15		:15-11:15		55 22	57.2	53.7	53.1	52.2	68.8	
16		:15-12:15		53.92	54.7	53.4	52.6	51.8	61.6	
Average L.e	qui	valent dB(A)		59.08	58.63	54.83	53.29	51.64	75.41	

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
   The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004,

Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in / www.hespl.co.in

Instrument Used: Sound Level Meter-Data Logging Type (Q666935)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method-Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

### **REMARK/OBSERVATIONS:**

Note: Day time shall mean from 6.00 Hrs. to 22.00 Hrs.

Limits: Leq dB (A)

≤75 dB (A) For Day Time

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

'End of Test Report****

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab. The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

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# **AMBIENT NOISE MONITORING REPORT (Night Time)**

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02757	
M/s Birla Carbon India Private	DATED	15/06/2022	
Limited.		+	
(Formerly known as SKI Carbon Black		•	
(India) Private Limited.)			3
Production Unit- Patalganga	·		A. O

								4, 792, 79	<u> </u>	
Description Near Dhandy				Date: 07	&08/06/20	)22	.55			
			ħ	loise Lev	el Meter					
Make	:	Lutron								
Model	:	SL 4023SD					10,00			
Serial No.	:	Q666935				\$. V				
Calibration Details:		Calibration Da	te: 20/01/2022 Next Calibration Due: 19/01/2023							
		C	alibration	Result of	Noise Le	vel Meter				
Calibration			94 dB at 1	000 Hz		114 dB at 1000 Hz				
Initial			· ·	93.	4			113.4		
Final				93.	6			113.7		
Sampling R	ate		1 sec.	i diana						
Sr.no.	Ti	me Duration	File no.		So	und Para	rameters (dBA)			
				Leq	L ₁₀	L_50	L90	Lmin	Lmax	
1	22	:00-23:00		55.33	56.0	54.7	53.9	52.9	66.6	
2	23	:00-00:00	1	54.61	55.3	54.3	53.7	53.0	61.6	
3	ÕÕ	:00-01:00	, i ja	54.37	55.0	54.0	53.4	52.8	62.3	
. 4	01	:00-02:00		54 39	55.0	54.1	53.6	53.0	62.0	
5	02	:00-03:00,	100	54 12	54.7	53.8	53.2	52.5	60.9	
6	Ů3	:00-04:00		54.91	55.5	54.5	54.0	53.1	65.5	
7		:00-05:00		54.77	55.4	54.6	53.8	53.1	60.1	
8		:00-06:00		56.82	56.8	54.9	54.4	53.9	69.3	
Average L e	aui	valent dB(A)		54.92	55.46	54.36	53.75	53.04	63.54	

- Sample will be retained only for 15 days.
   Above results indicate to the parameters mentioned only.
   Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
   The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

• Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

Instrument Used: Sound Level Meter-Data Logging Type (Q666935)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method- Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

### **REMARK/OBSERVATIONS:**

Note: Night time shall mean from 22.00 Hrs. to 6.00 Hrs.

Limits: Leq dB (A)

≤70 dB (A) For Night Time

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

minaigourai

End of Test Report**

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
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# **AMBIENT NOISE MONITORING REPORT (Day Time)**

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02758	
M/s Birla Carbon India Private Limited.	DATED	15/06/2022	
(Formerly known as SKI Carbon Black (India) Private Limited.)			
Production Unit- Patalganga			

				-γ				V. 195	%
Description	of L	ocation:		Date: 0	8&09/06/20	)22			1/2
Near Switch	Yar	3		<u> </u>					
## . t	1	т		Noise Le	vel Meter		<b>\</b>	%. )	
Make	:	Lutron							
Model	:	SL 4023SD					40.55		***************************************
Serial No.	:	Q666934				্			
Calibration Details:		Calibration D	alibration Date: 20/01/2022 Next Calibration Due: 19/01/2023						
	~~~~		alibration	Result o	f Noise Le	vel Mete	-		
Calibration				94 dB at	1000 Hz		114	dB at 100	0 Hz
Initial				93		not the		113.6	
Final .				93	.9			113.8	······································
	Sampling Rate 1 sec.								
Sr.no.	Tin	ne Duration	File no.		So	und Para	meters (d	iBA)	
				Leq	L10	L50	L90 ,	Lmin	Lmax
1		<u>53-12:53</u>		53.13	52.9	50.3	48.3	45.1	76.1
2		53-13:53	, Ny	57.18	56.8	50.1	47.4	44.0	79.2
3		53-14:53	<u> </u>	52.93	54.7	50.0	47.8	44.3	73.8
4		53-15:53	, \$1,50° 80	53.89	55.3	49.9	47.5	43.8	75.1
5		53-16:53	The Market	52.48	54.4	50.0	47.7	45.2	70.9
6		53-17:53) ¹⁸ 1.	53.38	52.7	49.3	47.2	45.1	76.7
7		53-18:53	No.61	49.65	50.6	48.6	47.0	44.4	66.5
88		53-19:53		50.71	51.5	49.3	47.6	44.4	66.9
9		53-20:53		51.63	52.8	50.5	48.9	46.6	71.9
10		53-21:53		51.87	53.1	49.8	48.7	46.7	66.3
1.1		53-22:53		50.14	51.0	49.7	49.0	47.8	58.7
12		53-07:53		50.26	51.2	49.4	48.7	47.5	60.4
13		53-08:53		49.72	50.7	49.4	48.4 ⁻	45.6	59.1
14	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	53-09:53		49.96	51.1	49.1	47.7	43.8	63.9
15		53-10:53		48.19	49.7	47.7	45.4	42.8	60.7
16 10:53-11:53 49.12					50.3	48.5	46.7	42.8	64.4
						68.16			

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
 The effect of results relate only to the item tested.



"Shree", K 3/4, S, No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004. Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in ... www.hespl.co.in

Instrument Used: Sound Level Meter-Data Logging Type (Q666934)

Make, Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method- Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

REMARK/OBSERVATIONS:

Note: Day time shall mean from 6.00 Hrs. to 22.00 Hrs.

Limits: Leq dB (A)

≤75 dB (A) For Day Time

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

End of Test Report

- Sample will be retained only for 15 days.
 Above results indicate to the parameters mentioned only.
 Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
 The effect of results relate only to the item tested.



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AMBIENT NOISE MONITORING REPORT (Night Time)

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02759	······································
M/s Birla Carbon India Private Limited. (Formarky known as SKI Carbon Black)	DATED	15/06/2022	
(Formerly known as SKI Carbon Black (India) Private Limited.) Production Unit- Patalganga			

Danasintias	-61		ř	D-4 00	0.00.00.00	200		<u> </u>	<u> </u>	
Description Near Switch				Date: 08&09/06/2022						
	•		I	Voise Lev	el Meter		ं	Sa. 72	*********	
Make		Lutron					*	(a)	***************************************	
Model	:	SL 4023SD								
Serial No.	:	Q666934	***				7.7			
Calibration Details:		Calibration Da	Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023							
		С	alibration	Result of	Noise Le	vel Meter	•			
Calibration				94 dB at 1	1000 Hz	***	114 dB at 1000 Hz			
Initial				93.	7	//		113.6		
Final				93.	9, 8, 8			113.8		
Sampling R	ate		1 sec.		3. S. S.					
Sr.no.	Tir	ne Duration	File no.		So	und Para	meters (dBA)		
				Leq	L10	L.50	L90 _	L _{min}	Lmax	
1	22	:00-23:00		50.55	50.6	49.6	48.9	47.6	67.7	
2	23	:00-00:00	Say.	49.85	50.4	49.6	48.9	47.7	60.8	
3	00:	:00-01:00	1	51.29	52.2	50.8	49.2	47.7	61.3	
4 1	01:	:00-02:00		51.51	51.4	50.4	49.6	48.4	76.9	
5	02:	:00-03:00	ora, Vi	51.59	53.6	49.9	48.2	46.3	72.9	
6	03:	:00-04:00		50.94	52.1	50.4	49.1	48.3	65.5	
7	04:	00-05:00	,#						66.9	
8		00-06:00		50.98	52.6	49.3	48,3	46.6	64.0	
Average L e	quiv	alent dB(A)		50.98	51.86	49.98	48.89	47.56	67.00	

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab.
 The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004. • Mobile: 7249867318, 8378018710 • Tel.: 020 - 25460202, 25460203. • Email: kmn@hespl.co.in / md@hespl.co.in • www.hespl.co.in

Instrument Used: Sound Level Meter-Data Logging Type (Q666934)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method-Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

REMARK/OBSERVATIONS:

Note: Night time shall mean from 22.00 Hrs. to 6.00 Hrs.

Limits: Leg dB (A)

≤70 dB (A) For Night Time

For HORIZON SERVICES

Menaigourae

MANISHA NARGOLKAR (Lab Incharge)

****End of Test Report****

- Sample will be retained only for 15 days. Above results indicate to the parameters mentioned only. Liability limited till issue of test reports only.
- The test report shall not be produced for any legal identity or advertised without permission of lab. The effect of results relate only to the item tested.



"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

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AMBIENT NOISE MONITORING REPORT (Day Time)

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02760	
M/s Birla Carbon India Private	DATED	15/06/2022	
Limited. (Formerly known as SKI Carbon Black			
(India) Private Limited.) Production Unit- Patalganga			

Description of Location: Date: 08&09/06/2022						22			<u> </u>
Near Main G									
			١	loise Lev	el Meter		<u> </u>		
Make	:	Lutron	r				<u> </u>		
Model	:	SL 4023SD					4.3.4		
Serial No.	•	Q666937							
Calibration Details:		Calibration Da			ext Calibra	tion Due:		23	
		С	alibration						
Calibration					000 Hz	**************************************	114	dB at 100	0 Hz
Initial				93.0		<i>*</i>		113.5	
Final				93.	8			113.8	
Sampling Ra			1 sec.	1		·········			
Sr.no.	Tit	ne Duration	File no.		So So		meters (T .
				Leq	L ₁₀	L50	L90	Lmin	Lmax
11	15	:12-16:12		64.53	66.9	61.7	60.4	59.0	80.5
22	J	:12-17:12	No.	64.72	68.1	61.7	60.3	59.2	76.8
3		:12-18:12	. 🐫	62.67	63.5	61.3	60.8	60.2	75.9
4 .	18	:12-19:12		61.80	62.1	61.3	60.8	60.2	73.9
5		:12-20:12 .	Note (N	61.66	61.7	61.2	60.8	60.0	73.6
6	20	:12-21:12	<u> </u>	61.25	61.4	60.8	60.4	59.4	73.4
7		:12-22:12		61.08	61.1	60.6	60.3	59.5	73.5
8	<u> </u>	:12-07:12		61.37	61.4	60.6	60.2	59.4	74.6
9		:12-08:12		61.93	62.3	61.2	60.7	60.0	74.7
10		:12-09:12		61.42	61.5	60.7	60.3	59.5	74.6
11		:12-10:12		61.67	62.4	60.9	60.3	59.3	73.5
12		:12-11:12	·	62.33	63.4	61.0	60.3	59.3	74.4
13	11	:12-12:12		. 66.75	65.1	61.1	60.0	50.8	94.2
14	1	:12-13:12		65.92	67.1	66.2	60.9	59.1	81.7
15		:12-14:12	,	67.41	67.5	66.9	66.5	65.7	80.9
16		:12-15:12	<u> </u>	67.18	67.4	66.8	66.3	65.5	79.4
Average L e	qui	valent dB(A)		63.36	63.93	62.13	61.21	59.76	77.23

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"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004. Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in / www.hespl.co.in

Instrument Used: Sound Level Meter-Data Logging Type (Q666937)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method- Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

REMARK/OBSERVATIONS:

Note: Day time shall mean from 6.00 Hrs. to 22.00 Hrs.

Limits: Leq dB (A)

≤75 dB (A) For Day Time

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

'End of Test Report*

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AMBIENT NOISE MONITORING REPORT (Night Time)

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02761	***************************************
M/s Birla Carbon India Private	DATED	15/06/2022	
Limited.	•		4
(Formerly known as SKI Carbon Black			
(India) Private Limited.)			
Production Unit- Patalganga	•		

,				,				4. W.	14
Description Near Main G		ocation:		Date: 08	&09/06/20)22			
	,		- 1	Noise Lev	el Meter			4.	
Make	:	Lutron					<u></u>	1999	
Model	:	SL 4023SD		***************************************	***************************************		4.3.4		
Serial No.	:	Q666937				do.		· ·	
Calibration Details:		Calibration Da	ate: 20/01/2	2022 N	ext Calibra		ue: 19/01/2023		
		С	alibration	Result of	Noise Le	vel Meter	•		
Calibration				94 dB at 1	1000 Hz		114	dB at 100	0 Hz
Initial				93.6 113.5					
Final				93.	8			113.8	
Sampling R	ate		1 sec	100	w. C. W				
Sr.no.	Tit	ne Duration	File no.		So	und Para	arameters (dBA)		
				Leq	L ₁₀	L ₅₀	L90 ,	Lmin	L _{max}
1 .	22	:00-23:00		61.16	61.2	60.6	60.2	59.6	74.3
2	23	:00-00:00	Q _{est}	61.15	61.1	60.6	60.2	59.4	73.6
. 3		:00-01:00		60.76	60.5	€0.2	59.9	59.2	73.8
4	·	:00-02:00		60.62	60.5	60.2	59.6	59.1	74.1
5	1	:00-03:00	ou V	60.80	60.6	60.3	59.9	59.6	74.2
6	03	:00-04:00 🧪		60.94	60.7	60.4	60.1	59.6	74.5
7	04	:00-05:00		61.01	61.0	60.4	60.0	59.4	74.5
8	05	:00-06:00		61.04	60.9	60.5	60.1	59.3	74.2
Average L e	quiv	/alent dB(A)		60.94	60.81	60.40	60.00	59.40	74.15

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Instrument Used: Sound Level Meter-Data Logging Type (Q666937)

Make. Lutron Instruments Calibration Date: 20/01/2022 Next Calibration Due: 19/01/2023

Test Method-Lab SOP Based on IS 9989-1981 / CPCB Protocol for Ambient Noise Level Monitoring July 2015, CPCB Regulation on Ambient Noise and Manufacturers Manual

REMARK/OBSERVATIONS:

Note: Night time shall mean from 22.00 Hrs. to 6.00 Hrs.

Limits: Leq dB (A)

≤70 dB (A) For Night Time

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

End of Test Report

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ANALYSIS REPORT

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO	HS/LAB/WA/02669
M/s Birla Carbon India Private	REPORT DATE	14/06/2022
Limited.	LAB REFERENCE NO.	HS/LAB/WA/0254
(Formerly known as SKI Carbon	SAMPLING DATE	07/06/2022
Black (India) Private Limited.)	SAMPLE RECEIPT DATE	07/06/2022
Production Unit- Patalganga	START DATE OF ANALYSIS	08/06/2022
	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/QC/07

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Industrial wastewater	Horizon Services	Plastic Bottle-1000ml	Untreated	ETP

RESULTS OF ANALYSIS

SR. NO.	DESCRIPTION OF PARAMETERS	UNIT	RESULT	TEST METHOD REFERENCE
01	рН		8.26	APHA 23 rd Ed. 2017, 4500-H ⁺ B
02	Temperature		27.00	APHA 23rd Ed 2017, 2550 B
03	Suspended Solids	mg/lit	52.00	APHA 23 rd Ed. 2017, 2540-D
04	Total Dissolved Solids	mg/lit	784.00	APHA 23 rd Ed. 2017, 2540 C
05	Ćhemical Oxygen Demand	mg/lit	78.00	APHA 23 rd Ed. 2017, 5220- C
06	Biochemical Oxygen Demand (27°C for 3 days)	mg/lit	32.50	IS 3025 (P-44) RA 2003
07	Chlorides as Cl	mg/lit	244.09	APHA 23 rd Ed. 2017, 4500 Cl ⁻ B
08	Sulphates as SO ₄	mg/lit	93.90	APHA 23 rd Ed. 2017, 4500 SO ₄ E
09	Oil and Grease	mg/lit	NIL	APHA 23 rd Ed. 2017, 2340 CI -B
10	Phosphate as P	mg/lit	0.18	APHA 23rd Ed. 2017, 4500- P D,
11	Free Chlorine	rag/lit	NIL	APHA 23 rd Ed 2017, 4500 Cl ⁻ B
12	Copper as Cu	mg/lit	NIL	APHA 23 rd Ed 2017, 3111 B
13	Total Chromium as Cr	mg/lit	· NIL	APHA 23 rd Ed 2017, 3111 B
14	Zinc as Zn	mg/lit	NIL	APHA 23 rd Ed 2017, 3111 B
15	Iron as Fe	mg/lit	0.03	APHA 23 rd Ed 2017, 3500 Fe B



For HORIZON SERVICES

MANISHA NÄRGOLKAR (Lab Incharge)

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ANALYSIS REPORT

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO	HS/LAB/WA/02670
M/s Birla Carbon India Private	REPORT DATE	14/06/2022
Limited.	LAB REFERENCE NO.	HS/LAB/WA/0254
(Formerly known as SKI Carbon	SAMPLING DATE	07/06/2022
Black (India) Private Limited.)	SAMPLE RECEIPT DATE	07/06/2022
Production Unit- Patalganga	START DATE OF ANALYSIS	08/06/2022
	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/QC/07

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Industrial wastewater	Horizon Services	Plastic Bottle-1000ml	Treated	ETP

RESULTS OF ANALYSIS

SR. NO.	DESCRIPTION OF PARAMETERS	UNIT	RESULT	TEST METHOD REFERENCE
01	pH		7.06	APHA 23 rd Ed. 2017, 4500-H+B
02	Temperature	44.5	27.00	APHA 23 rd Ed 2017, 2550 B
03	Suspended Solids	mg/lit	40.00	APHA 23 rd Ed. 2017, 2540-D
04	Total Dissolved Solids	™ mg/lit	550.00	APHA 23 rd Ed. 2017, 2540 C
05	Chemical Oxygen Demand	mg/lit	12.63	APHA 23 rd Ed. 2017, 5220- C
06	Biochemical Oxygen Demand (27°C for 3 days)	mg/lit	3.60	IS 3025 (P-44) RA 2003
07	Chiorides as Cl	mg/lit	101.70	APHA 23rd Ed. 2017, 4500 Cl-B
08	Sulphates as SO ₄ =	mg/lit	54.62	APHA 23 rd Ed. 2017, 4500 SO₄ E
09	Oil and Grease	mg/lit	NIL	APHA 23 rd Ed. 2017, 2340 Cl -B
10	Phosphate as P	mg/lit	0.20	APHA 23rd Ed. 2017, 4500- P D,
11	Free Chlorine	mg/lit	NIL	APHA 23 rd Ed 2017, 4500 Cl ⁻ B
12	Copper as Cu	mg/lit	NIL	APHA 23 rd Ed 2017, 3111 B
13	Total Chromium as Cr	mg/lit	NIL	APHA 23 rd Ed 2017, 3111 B
14	Zinc as Zn	rng/lit	NIL	APHA 23 rd Ed 2017, 3111 B
15	Iron as Fe	mg/lit	NIL	APHA 23 rd Ed 2017, 3500 Fe B

For HORIZON SERVICES menargolda

MANISHA NĂRGOLKAR (Lab Incharge)

****End of Test Report****

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ANALYSIS REPORT

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO	HS/LAB/WA/02671
M/s Birla Carbon India Private	REPORT DATE	14/06/2022
Limited.	LAB REFERENCE NO.	HS/LAB/WA/0254
(Formerly known as SKI Carbon	SAMPLING DATE	07/06/2022
Black (India) Private Limited.)	SAMPLE RECEIPT DATE	07/06/2022
Production Unit- Patalganga	START DATE OF ANALYSIS	08/06/2022
	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/QC/07

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Domestic Waste Water	Horizon Services	Plastic Bottle-1000ml	Untreated	STP

RESULTS OF ANALYSIS

SR. NO.	DESCRIPTION OF PARAMETERS	UNIT	RESULT	TEST METHOD REFERENCE
01	pH		6.82	APHA 23 rd Ed. 2017, 4500-H ⁺ B
02	Temperature	S. Š.	27.00	APHA 23 rd Ed 2017, 2550 B
03	Suspended Solids	mg/lit	18.00	APHA 23 rd Ed. 2017, 2540-D
04	Total Dissolved Solids	mg/lit	210.00	APHA 23 rd Ed. 2017, 2540 C
05	Chemical Oxygen Demand	mg/lit	88.41	APHA 23 rd Ed. 2017, 5220- C
06	Biochemical Oxygen Demand (27°C for 3 days)	mg/lit	36.80	IS 3025 (P-44) RA 2003
07	Oil and Grease	mg/lit	NIL	APHA 23 rd Ed. 2017, 2340 CI -B

For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

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ANALYSIS REPORT

Page-1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO	HS/LAB/WA/02672
M/s Birla Carbon India Private	REPORT DATE	14/06/2022
Limited.	LAB REFERENCE NO.	HS/LAB/WA/0254
(Formerly known as SKI Carbon	SAMPLING DATE	07/06/2022
Black (India) Private Limited.)	SAMPLE RECEIPT DATE	07/06/2022
Production Unit- Patalganga	START DATE OF ANALYSIS	08/06/2022
	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/QC/07

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Domestic Waste Water	Horizon Services	Plastic Bottle-1000ml	Treated	STP

SR. NO.	DESCRIPTION OF PARAMETERS	UNIT	RESULT	MPCB LIMITS	TEST METHOD REFERENCE
01	pH		6.86	Not Specified	APHA 23 rd Ed. 2017, 4500-H ⁺ B
02	Temperature		27.00	Not Specified	APHA 23 rd Ed 2017, 2550 B
03	Suspended Solids	mg/lit	10.00	< 50.00	APHA 23 rd Ed. 2017, 2540-D
04	Total Dissolved Solids	mg/lit	192.00	Not Specified	APHA 23 rd Ed. 2017, 2540 C
05	Chemical Oxygen Demand	mg/lit	56.83	< 100.00	APHA 23 rd Ed. 2017, 5220- C
06	Biochemical Oxygen Demand (27°C for 3 days)	mg/lit	16.20	< 30.00	IS 3025 (P-44) RA 2003
07	Oil and Grease	mg/lit	NIL	Not Specified	APHA 23 rd Ed. 2017, 2340 CI -B



For HORIZON SERVICES

MEN augulkal MANISHA NARGOLKAR (Lab Incharge)

****End of Test Report****

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ANALYSIS REPORT

Page, 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO	HS/LAB/WA/02673
M/s Birla Carbon India Private	REPORT DATE	14/06/2022
Limited.	LAB REFERENCE NO.	HS/LAB/WA/0254
(Formerly known as SKI Carbon	SAMPLING DATE	07/06/2022
Black (India) Private Limited.)	SAMPLE RECEIPT DATE	07/06/2022
Production Unit- Patalganga	START DATE OF ANALYSIS	08/06/2022
	END DATE OF ANALYSIS	14/06/2022
	SAMPLING REF. / SOP NO.	HS/NABL/QC/07

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Water Sample	Horizon Services	Plastic Bottle-1000ml		Pond Settling Tank

RESULTS OF ANALYSIS

SR. NO.	DESCRIPTION OF PARAMETERS	UNIT	RESULT	TEST METHOD REFERENCE
01	рН		7.53	APHA 23 rd Ed. 2017, 4500-H ⁺ B
02	Temperature		27.00	APHA 23 rd Ed 2017, 2550 B
03	Suspended Solids	mg/lit	12.00	APHA 23 rd Ed. 2017, 2540-D
04	Total Dissolved Solids	mg/lit	170.00	APHA 23 rd Ed. 2017, 2540 C
05	Chemical Oxygen Demand	ing/lit	31.00	APHA 23 rd Ed. 2017, 5220- C
06	Biochemical Oxygen Demand (27°C for 3 days)		12.90	IS 3025 (P-44) RA 2003
07	Oil and Grease	mg/lit_	NIL	APHA 23 rd Ed. 2017, 2340 CI -B



For HORIZON SERVICES MANISHA NARGOLKAR (Lab Incharge)

'End of Test Report*

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TEST CERTIFICATE

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02291
	REPORT DATE	03/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/107
Limited.	SAMPLING DATE	28/05/2022
(Formerly known as SKI Carbon	SAMPLE RECEIPT DATE	30/05/2022
Black (India) Private Limited.)	START DATE OF ANALYSIS	30/05/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	02/06/2022
, , oddollo, , o, m , oldalganiga	SAMPLING REF./ SOP NO.	HS/NABL/AIR/14A

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Workzone Air	Horizon Services	Plastic Bottles & Bags		Warehouse Loading

RESULTS

SR. NO.	DESCRIPTION	UNIT	RESULTS	FACTORIES ACT LIMITS	TEST METHOD REFERENCE
01	DATE OF SAMPLING	DD/MM/YY	28/05/2022		
02	TEST LOCATION		Warehouse Loading		
03	TIME OF SAMPLING (00.00)	Hrs	15:20		
04	AMBIENT TEMPERATURE	Deg C	30.0		
05	DRY BULB TEMPERATURE	Deg C	29.0	,	1
06	WET BULB TEMPERATURE	Deg C	21.5	•	
07	RELATIVE HUMIDITY	% RH	48		
08	SAMPLING DURATION	<u>, Min</u>	480		
09	SUSPENDED PARTICULATE MATTER	mg/m³	0.572	N.S.	IS 5182 (Part 4):1999
10	SO ₂	ຶ μg/m³	7.52	5000	IS 5182(part 2):2001
11	NO ₂	μg/m³	18.23	6000	IS 5182(part 6):2006
12	LEAD	mg/m³	0.004	0.15	IS 5182 (Part 22) :2004
13	co	mg/m³	3.46	55	IS 5182 (part 10):1999 (Reaffirmed 2003)
14	HC .	mg/m³	1.42	N.S.	Gas Chromatography
15	POLYAROMATIC HYDROCARBONS as PAH	mg/m³	, BDL	N.S.	Gas Chromatography

Equipment Used: - Respirable dust sampler, Sr. No.-0318 (Polltech Make)

Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

REMARKS/OBSERVATIONS:

N.S. - Not Specified BDL: <0.01 ppm



For HORIZON SERVICES

MANUSHA NARGOLKAR (Lab Incharge)

****End of Test Report***

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TEST CERTIFICATE

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02292
	REPORT DATE	03/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/107
Limited.	SAMPLING DATE	28/05/2022
(Formerly known as SKI Carbon	SAMPLE RECEIPT DATE	30/05/2022
Black (India) Private Limited.)	START DATE OF ANALYSIS	30/05/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	02/06/2022
Troddonori oriic Tataiganga	SAMPLING REF./ SOP NO.	HS/NABL/AIR/14A

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Workzone Air	Horizon Services	Plastic Bottles & Bags		Packing Area

RESULTS

SR. NO.	DESCRIPTION	UNIT	RESULTS	FACTORIES ACT LIMITS	TEST METHOD REFERENCE
01	DATE OF SAMPLING	DD/MM/YY	28/05/2022	,	
02	TEST LOCATION		Packing Area		
03	TIME OF SAMPLING (00.00)	Hrs	15:30		
04	AMBIENT TEMPERATURE	Deg C	30.0		
05	DRY BULB TEMPERATURE	Deg C	29.0		
06	WET BULB TEMPERATURE	Deg C	21.5	,	
07	RELATIVE HUMIDITY	% RH	48	·	
08	SAMPLING DURATION	⁴Min 🦠	480		
09	SUSPENDED PARTICULATE MATTER	mg/m³	0.986	N.S.	IS 5182 (Part 4):1999
10	SO ₂	μg/m³	8.46	5000	IS 5182(part 2):2001
11	NO ₂	μg/m³	25.13	6000	IS 5182(part 6):2006
12	LEAD	mg/m³	0.0147	0.15	IS 5182 (Part 22) :2004
. 13	со	mg/m³	6.73	55	IS 5182 (part 10):1999 (Reaffirmed 2003)
14	HC	mg/m³	0.99	N.S.	Gas Chromatography
15	POLYAROMATIC HYDROCARBONS as PAH	mg/m³	BDL	N.S.	Gas Chromatography

Equipment Used: - Respirable dust sampler, Sr. No.-0418 (Politech Make)

Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

REMARKS/OBSERVATIONS:

N.S. - Not Specified BDL: <0.01 ppm



For HORIZON SERVICES MANISHA NARGOLKAR (Lab Incharge)

****End of Test Report****

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"Shree", K 3/4, S. No. 10, Erandawane Housing Society, Opposite Deenanath Mangeshkar Hospital, Pune 411 004.

Mobile: 7249867318, 8378018710
 Tel.: 020 - 25460202, 25460203.
 Email: kmn@hespl.co.in / md@hespl.co.in
 www.hespl.co.in

TEST CERTIFICATE

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02293
	REPORT DATE	03/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/107
Limited.	SAMPLING DATE	28/05/2022
(Formerly known as SKI Carbon	SAMPLE RECEIPT DATE	30/05/2022
Black (India) Private Limited.)	START DATE OF ANALYSIS	30/05/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	02/06/2022
1 Toddollott Offic 1 dtalgariga	SAMPLING REF./ SOP NO.	HS/NABL/AIR/14A

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Workzone Air	Horizon Services	Plastic Bottles & Bags	(A)	Warehouse Canteen

RESULTS

SR.	DESCRIPTION	UNIT	RESULTS	FACTORIES	TEST METHOD REFERENCE
NO.				ACT LIMITS	REFERENCE
01	DATE OF SAMPLING	DD/MM/YY	28/05/2022		
02	TEST LOCATION		Warehouse Canteen		
03	TIME OF SAMPLING (00.00)	Hrs	15:40		
04	AMBIENT TEMPERATURE	Deg C	30.0		,
05	DRY BULB TEMPERATURE	Deg C	29.0	,	·
06	WET BULB TEMPERATURE	Deg C	21.5	•	
07	RELATIVE HUMIDITY	% RH	48		
08	SAMPLING DURATION	Min	480		
09	SUSPENDED PARTICULATE MATTER	mg/m³	0.260	N.S.	IS 5182 (Part 4):1999
10	SO ₂	° μg/m³	6.82	5000	IS 5182(part 2):2001
11	NO ₂	μg/m³	12.10	6000	IS 5182(part 6):2006
12	LEAD	mg/m ³	0.002	0.15	IS 5182 (Part 22) :2004
13	co	mg/m³	1.63	55	IS 5182 (part 10):1999 (Reaffirmed 2003)
14	HC	mg/m³	0.70	N.S.	Gas Chromatography
15	POLYAROMATIC HYDROCARBONS as PAH	mg/m³	BDL	N.S.	Gas Chromatography

Equipment Used: - Respirable dust sampler, Sr. No.-0518 (Politech Make)

Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

REMARKS/OBSERVATIONS:

N.S. - Not Specified BDL: < 0.01 ppm



For HORIZON SERVICES menagolkai MANISHA NARGOLKAR (Lab Incharge)

****End of Test Report****

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TEST CERTIFICATE

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

		1101010101010101010101
CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02294
	REPORT DATE	03/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/107
Limited.	SAMPLING DATE	28/05/2022
(Formerly known as SKI Carbon	SAMPLE RECEIPT DATE	30/05/2022
Black (India) Private Limited.)	START DATE OF ANALYSIS	30/05/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	02/06/2022
·	SAMPLING REF./ SOP NO.	HS/NABL/AIR/14A

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Workzone Air	Horizon Services	Plastic Bottles & Bags		Reactor Area

RESULTS

SR. NO.	DESCRIPTION	UNIT	RESULTS	FACTORIES ACT LIMITS	TEST METHOD REFERENCE
01	DATE OF SAMPLING	DD/MM/YY	28/05/2022	:	
02	TEST LOCATION		Reactor Area		***************************************
03	TIME OF SAMPLING (00.00)	Hrs	16:00		
04	AMBIENT TEMPERATURE	Deg C	30.0		
05	DRY BULB TEMPERATURE	Deg C	29.0		
06	WET BULB TEMPERATURE	Deg C	21.5	_ :	
07	RELATIVE HUMIDITY	% RH	48	•	
08	SAMPLING DURATION	Min	480		
09	SUSPENDED PARTICULATE MATTER	mg/m³	0.167	N.S.	IS 5182 (Part 4):1999
10	SO ₂	ω μg/rn³	5,23	5000	IS 5182(part 2):2001
11	NO₂	μg/m³	15.89	6000	IS 5182(part 6):2006
12	LEAD	mg/m³	BDL	ზ.15	IS 5182 (Part 22) :2004
13	со	mg/m³	0.89	55	IS 5182 (part 10):1999 (Reaffirmed 2003)
14	HC	mg/m³	0.76	N.S.	Gas Chromatography
15	POLYAROMATIC HYDROCARBONS as PAH	mg/m³	BDL	N.S.	Gas Chromatography

Equipment Used. - Respirable dust sampler, Sr. No.-0118 (Polltech Make)

Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

REMARKS/OBSERVATIONS:

N.S. - Not Specified BDL: <0.01 ppm



For HORIZON SERVICES MANISHA NARGOLKAR (Lab Incharge)

End of Test Report****

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TEST CERTIFICATE

Page 1 of 1 HS/LAB/NABL/F/7.8.2.1

		110/10/10/10/10/10/10/10
CLIENT'S NAME & ADDRESS	REPORT NO.	HS/LAB/AA/02295
	REPORT DATE	03/06/2022
M/s Birla Carbon India Private	LAB REFERENCE NO.	HS/LAB/AA/107
Limited.	SAMPLING DATE	28/05/2022
(Formerly known as SKI Carbon	SAMPLE RECEIPT DATE	30/05/2022
Black (India) Private Limited.)	START DATE OF ANALYSIS	30/05/2022
Production Unit- Patalganga	END DATE OF ANALYSIS	02/06/2022
	SAMPLING REF./ SOP NO.	HS/NABL/AIR/14A

DETAILS OF SAMPLE	SAMPLING DONE BY	SAMPLE CONTAINER & QUANTITY	NATURE	LOCATION
Workzone Air	Horizon Services	Plastic Bottles & Bags	, ()	D. M. Plant

RESULTS

SR.	DESCRIPTION	UNIT	RESULTS	FACTORIES	TEST METHOD	
NO.			, Lindo	ACT LIMITS	REFERENCE	
01	DATE OF SAMPLING	'DD/MM/YY	28/05/2022	:		
02	TEST LOCATION		D. M. Plant		·	
03	TIME OF SAMPLING (00.00)	Hrs	a16:15			
04	AMBIENT TEMPERATURE	Deg C	30.0			
-05	DRY BULB TEMPERATURE	Deg C	29.0			
06	WET BULB TEMPERATURE	Deg C	21.5			
07	RELATIVE HUMIDITY	% RH	48	•		
- 08	SAMPLING DURATION	Min	480		·	
09	SUSPENDED PARTICULATE MATTER	mg/m³	0.205	N.S.	IS 5182 (Part 4):1999	
10	SO ₂	μg/m³	6.37	5000	IS 5182(part 2):2001	
11	NO ₂	μg/m³	18.46	6000	IS 5182(part 6):2006	
12	LEAD	mg/m³	BDL	0.15	IS 5182 (Part 22) :2004	
13	со	mg/m³	0.80	55	IS 5182 (part 10):1999 (Reaffirmed 2003)	
14	HC	mg/m³	BDL	N.S.	Gas Chromatography	
15	POLYAROMATIC HYDROCARBONS as PAH	mg/m³	BDL	N.S.	Gas Chromatography	

Equipment Used: - Respirable dust sampler, Sr. No.-0218 (Politech Make) Date of Calibration: -07/08/2021 Next Calibration due: -06/08/2022

REMARKS/OBSERVATIONS:

N.S. - Not Specified BDL: < 0.01 ppm



For HORIZON SERVICES

MANISHA NARGOLKAR (Lab Incharge)

****End of Test Report

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कृषीवटा | शनिवार,

हायटेक कार्दना पाताळगंगा या कार्यान्यार भारत सरकात्या प्यतिशेष खात्याने पत्र क्रमांक

F NO. 3-11011/35/2007-1AII (1) तारीख २२ मार्च २०१३ जा पर्यावरणाच्या परवाना

(Environmental Clearance) दिला आहे. माहितीसाठी हायटेक कार्बन तर्फे :

र्ज्य | स्कांळ शनेवार, ३० सार्व २०१३ निवेदन
हायटेन कावने, पाताळांगा वा कारवात्तास भारत सरकारच्या पंपानका खात्याने पत्र क्रमांक F No. J-11011/35/2007-Liv II (1) तारीख २२ पार्च २०१३ त्य प्यानकायात्ता पायना (Environmental Clemance) हिला आहे.

PVOLIC NOTICE

मनियार १३ अस्टियर २००७ ।

स्कात

PUBLIC MOTICE

ENVIRONMENTAL MANAGEMENT PLAN AND DISASTER MANAGEMENT PLAN

A. ENVIRONMENTAL MANAGEMENT PLAN:

Every plant after a commissioning phase requires a Health, Safety and Environmental Control mission to be set up with proper implementation. An organization chart covering responsibilities of various officials is formulated, reviewed periodically and updated. Being existing plant site, Environmental management planning has been already done. The details of the same are as follows;

ORGANISATION CHART:

- i) Location Head
- ii) Group Leader (Operations)
- iii) Group Leader (Engineering Services)
- iv) Group Leader (Environment)
- v) Group Leader (Quality Assurance)
- vi) Group Leader (Management Services)
- vii) Emergency Control Room

Environmental management plan includes following:

- 1) Operation of plants/ Process water supply.
 Facilities Waste water control system
 Air pollution control system.
 - Solid waste management system.
- 2) Laboratory Facilities including routine monitoring.
- 3) Equipment and Periodic and systematic Instrumentation control testing and control.
 - Repairing.
- 4) Data Handling Data collection.
 - Reporting and storage of data
 - Maintaining track of discussions.
- 5) Disaster Planning Disaster management team
 - Rescue and rehabilitation.
- 6) Manpower for Environmental management.

B. <u>DISASTER MANAGEMENT PLANNING:</u>

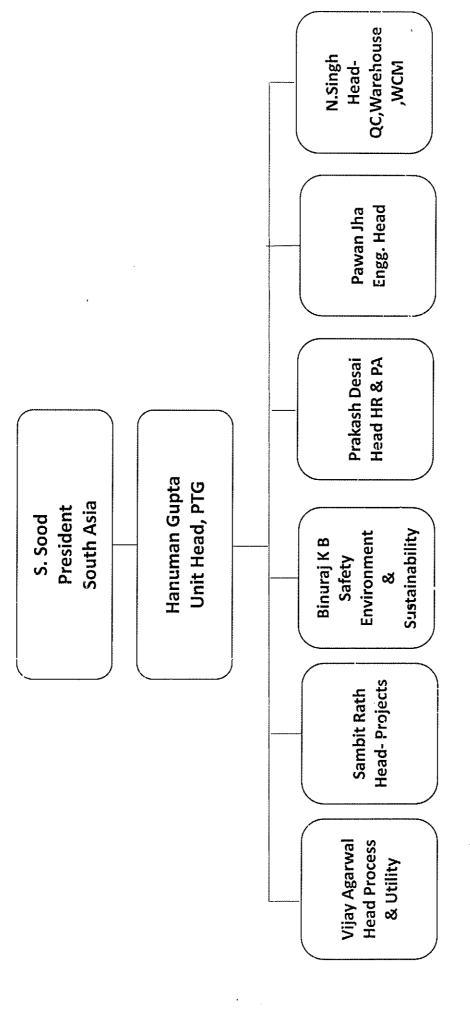
Disaster Management planning includes anticipatory action for disaster, stream lining of preparedness, assembly and coordination of disaster management team and quick mobilization of all the forces to face the situation.

Salient features of planning are;

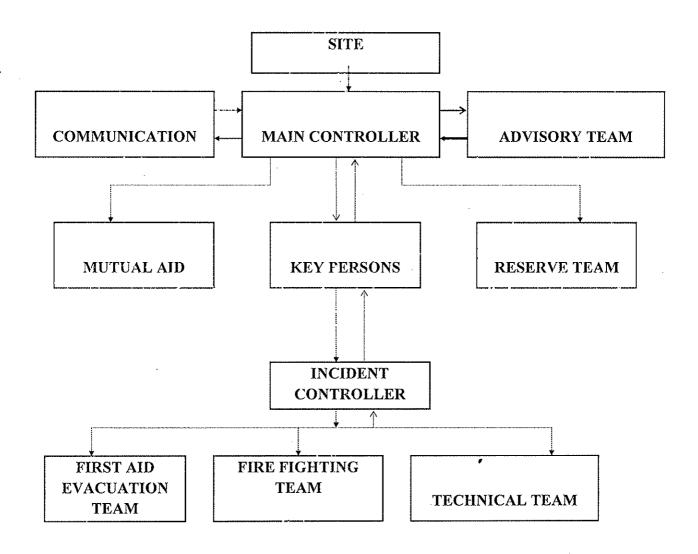
- 1. Preparation of an Organizational Chart identifying personnel to coordinate and take charge of various functions.
- 2. To train concerned personnel in safety measures required in event of disaster.
- 3. To identify communication link that can be established with local and state authorities to meet the challenges of disaster and to ensure reliability of communication system.
- 4. Identify nearby industries to muster help in case of emergency.
- 5. To ensure adequacy and efficiency of fire fighting system.
- 6. To ensure that necessary applications like boots, gas masks, protective wears, gloves, goggles, ear muffs, anti-vibration pads etc. are readily accessible.
- 7. To ensure reliability of gas leak detection system.
- 8. To prepare clear map of plant area indicating position of gates, various units, approach roads, emergency exits, etc.
- 9. To maintain adequate inventory of first aid kits, antidotes, essential drugs.
- 10. To maintain a meteorological data of site especially giving wind direction in each season, in case, evacuation becomes necessary.
- 11. Immediate precaution like providing wet towels, gas masks or respirators shall be undertaken. Awareness has to be created to avoid panic on eventualities. The safety coordinator should do the needful to restore normalcy, whereas, medical coordinator shall attend to the casualties.
- 12. If required plant shall be shutdown and the entire area sealed off till trained personnel restore normalcy.
- 13. Environmental decontamination measures to be undertaken by physical, chemical or biological approaches as required.
- 14. Rescue and Rehabilitation:
 - The rescue operation consists of removing operating personnel trapped in disaster /emergency area and shifting them to hospitals /nursing homes after first aid. A large number of ambulances may be required and should be summoned from various sources, like nearby industries, hospitals, voluntary organizations, etc. All the casualties should be identified and relatives should be informed, if possible.
- 15. The rescue operation will be initiated immediately after the disaster has occurred though relief may take some more time (few hours to couple of days). Depending upon severity of disaster, external help may be sought (to provide evacuation, medical help etc.) till normalcy is restored.
- 16. Rehabilitation will include taking adequate care of casualties, providing necessary help for the victim. It will also include rebuilding damaged plant, machinery and building, estimation of damage, compensation payment etc.

The following chart reveals the co-ordination of Emergency organization during emergency situations.

ORGANIZATIONAL STRUCTURE



EMERGENCY CONTROL ORGANISATION



The duties performed by the personnel of emergency organization team are as follows:

First Observer:

He is a person who observes the emergency at the first sight. He will try to handle the emergency with the immediately available facilities to him. If he feels that it is beyond his control, he will press hooter button nearby and inform immediately to his shift incharge. If shift in-charge is not available in the vicinity, he can directly phone to security. He will give the information like type of emergency, location and his name. After that he will contact to his staff in-charge and will give all details. Then he will act as per the instructions of the shift in-charge (Refer Emergency Organization).

Incident Controller.

The shift engineer of the plant/ officer of the dept. in which the emergency arose is considered as incident controller.

- 1. He will receive the information from first observer and reach to the spot of the emergency.
- 2. He will assess the emergency and instruct to subordinates to bring the running plant operations in shutdown mode.
- 3. He will direct fire fighters, first aiders and technical team.
- 4. He will seek help from the key person.
- 5. He will give continuous feed back to the main controller and receive his instructions.
- 6. Once the emergency is brought under control, he will inform to the main controller.

Main Controller:

- 1. On hearing siren and instructions on public address system, he will reach near the site and take over the charge of the situation.
- 2. He will communicate with the incident controller and will assess the situation.
- 3. He will instruct the incident controller, communication team.
- 4. He will take advice from the advisory team if required.
- 5. He will give feedback to the site controller during or after the emergency brought under control.
- 6. Once the emergency is brought under control, he will instruct communication team to declare all clear by sounding all clear siren.
- 7. Organize investigation after bringing emergency under control.
- 8. Incorporate corrective measures to avoid further accident/incident.

Advisory Team:

- 1. All advisory Team members should assemble at Emergency Control Centre.
- 2. They will provide essential information to the Main Controller on his demand.
- 3. If the Main Controller doesn't require any advice from the team, he can delegate any other jobs which may be more important at the time of emergency.

Communication Team:

- 1. On hearing siren they will take position in Security dept.
- 2. They will inform about their positions to the main controller.
- 3. They will receive instructions from the main controller and communicate internal personnel as well as outside agencies, authorities (fire brigade, ambulance, hospitals, and site controller) and government officials.
- 4. To restrict the vehicles from coming inside the factory except the vehicles of the emergency organization members. Also to remove the vehicles, if required from inside.
- 5. Keep the entrance road clear for emergency vehicles.
- 6. On the instructions from the main controller open the emergency exits.
- 7. To arrange for the ambulance car or vehicles.
- 8. As per the instructions of the main controller, they will inform about status of emergency to all people present in the premises.
- 9. They will sound all clear sirens once they get signal from the main controller.

Emergency Handling Team (Fire Fighting Team):

- 1. After hearing the information's about the emergency on Emergency Alarm System, they will reach at the spot of emergency. Before this, they will give charge of their jobs to the responsible person as per the instructions.
- 2. After reaching on the spot, they will act as per the instructions of the incident controller.
- 3. After handling the emergency they will be engaged in salvage operation if required, otherwise in normal case they will go back to the plant and will resume the work.

First Aid Team:

- 1. After receiving the information, the doctor and nurse will remain in occupational health centre only.
- 2. First aider will go to the site. They will remove the casualties from the place and will give them first aid treatment with help of a doctor/ nurse.

Evacuation Team:

- 1. Identify the wind direction.
- 2. Evacuate people from emergency location.
- 3. Guide them toward the assembly points.
- 4. Carry out head count operations.
- 5. Give feed to main controller.
- 6. In case of off-site implications, they will carry megaphone and evacuate neighbouring villages with help of police.

Technical Team:

- 1. Mechanical Engineer/ Utility operator to ensure that all water tanks are full and hydrant system is ready to use.
- 2. Electrical engineer/ Electricians: If required they will cut off electric supply of that area on the instructions of incident/ main controller and provide portable lights/ extension lights.
- 3. Instrumentation Engineer/ Technicians: To act as per the instructions given by incident / main controller.

C. ORGANISATIONAL SET-UP FOR POLLUTION CONTROL:

Pollution control systems will be looked after by a team of professional people headed by Manager. In general he will co-ordinate the operation and maintenance staff for control system.

Operation and maintenance of effluent treatment plant / water treatment plant:

ETP shall be operated & maintained by a team which consists of;

a. Plant In-Charge: 1
b. Shift In-Charge : 1
c. Supervisors : 1
d. Operators : 1
e. Helpers : 1

D. GENERAL SAFETY PRECAUTIONS & INDUSTRIAL HYGIENE :

- 1. Ventilation is provided by plenty of openings.
- 2. Adequate platforms are provided for manual operations. Free space for movements and carrying the material is provided.
- 3. Adequate number of fire extinguishers is provided.
- 4. All workers are provided with hand-gloves, goggles, footwear's, aprons, masks, hard hats etc. for protection.
- 5. There is no manual handling of liquids like Acids, Caustic Soda Lye etc. These liquids are always flow through pipe lines.
- 6. All steam pipe lines and steam heated vessels are provided with adequate insulation. All high pressure steam lines are IBR approved.
- 7. Safety relief valves are provided wherever necessary.
- 8. Routine medical attention is given to workers.
- 9. Company has provided a full fledged fire hydrant system for fire fighting. The system is constructed as per the TAC norms and necessary approval from TAC authority has been obtained.
- 10. Petrochemical products are being stored in petroleum tank farm licensed by Explosive

Department.

- 11. Portable fire extinguishers are provided throughout the plant as per the norms.
- 12. Process plant is controlled through Distributed Control System DCS operated instrument network to minimize the exposure of raw material to operating persons.
- 13. Plant layout and detailing is done by renowned professionals, viz. M/s. Davy Power Gas Consultants and process plants are provided with most modern Distributed Control System (DCS) with inbuilt safety features such as alarms, trips, pressure release system, etc.
- 14. Company will provide a full fledged fire hydrant system, designed as per statutory requirements.

The system is designed to adequately protect the buildings, equipment, storage facilities, utility plants & other installations by providing hydrants and water monitors around the areas.

The system mains are comprised of pressurized underground ring main of carbon steel pipes suitably waited & wrapped with hydrant points as required as per statutory norms. The installation is provided with sluice valves & suitable sizes at suitable points to facilitate isolation of ring mains, if required, during fire & maintenance.

Water Storage:

Water storage Tank of 10000 m³ capacity is provided.

Pumps & Pump House:

A separate pump house is constructed. The pumping system consists of the following pumps.

DESCRIPTION	CAPACITY	NORMAL DISCHARGE PRESSURE
Electrical Driven Pump	171.m³/hr.	88 Meters head
2 no. (Working) Diesel Driven Pump	171 m³/hr.	*88 Meters head
1 no. (Standby) Jockey Pump 2 no.	10.8 m ³ /hr.	88 Meters head

15. The pumps are provided with automatic starting devices as per statutory norms. In addition manual starting device is provided for all the pumps.

Hydrants:

Sr. No.	DESCRIPTION	QUANTITY
1.	S.S. Hydrant valve as per IS 5290	59 Nos.
2.	S.S. Fire Escape Hydrant valve as per IS 5290	8 Nos.
3.	ABC Type extinguisher - 5 Kg	44 Nos.
4.	CO2 extinguishers - 4.5 Kg	57 Nos.

PART II

DETAILS OF THE EXPENDITURE FOR THE ENVIRONMENTAL MANAGMENET PLAN

Sr. No	Descriptions	Cost (Crores)
1	Air pollution Control Equipment	23.25
	(Heat recovery boilers)	
2	ETP/STP	4.05
3	Green Belt	1.89
4	O & M and Monitoring	0.9581
	Total	30.148

उप वनसंरक्षक, अलिबाग वागिभाग अलिबाग यांचे कार्यालय. मु.पो. ता. अलिबाग जिल्हा- रायगड दूरध्वनी क्र. ०२१४१ २२२०१६

पञ

विषय :- दाखला मिळणे बाबत. आदीत्य बिर्ला न्युव्हो लिमीटेड यांचा अर्ज.

जावक क्रमांक ब/२०/जमीन/३७ (४/२०१२-२०१३) अलिबाग, दिनांक : १५। १३। २०१२

प्रति,

आदीत्य बिर्ला न्युव्हों लिमीटेड, युनिट, हाय-टेक कार्बन, पातळगंगा, लोहोप, ता. खालापूर जि. रायगड,

संदर्भ :- १) आपलेकडील दि. ०९/०५/२० २ रोजीचा विषयाधिन अर्ज.

- २) वन परिक्षेत्र खालापूर यांचकडील पत्र क्र. अ/२०/जमीन/६२५, दि. १२/१२/२०१२,
- 3) उप विभागीय वन अधिकारी, पनवेल यांचेकडील पत्र क्र ब/२०/जमीन/५६९ दि. १३/१२/२०१२.

वनक्षेत्रपाल खालापूर व उप विभागीय वन अधिकारी, पनवेल यांनी वरील संदर्भिय पत्रान्वये सादर केलेल्या अहवालानुसार आपणार कळिवण्यांत येत आहे की, आपले दिनांक ०९/०५/२०१२ रोजीचे विनंती अर्जात नमुद केल गप्रमाणे सद्या उभ्या असलेल्या युनिटमुळे (कंपनीचा प्लॅंट) लगतचे राखीव वनावर सद्यस्थितीत बाह्य स्वरुपी परिणाम झाल्याचे दिसून येत नाही.

उप वनसंरक्षक,

अलिबाग.

प्रतिलिपी :- उप विभागीय वन अधिकारी, ानवेल व वनक्षेत्रपाल खालापूर यांना माहितीसाठी रवाना.



Towards sustainable growth

Mumbai Waste Management Limited

Certificate

12/8. Biola Casbon India por Und

is a registered member of

CHW-TSDF at MIDC, Taloja

for safe & secure disposal of

Hazardous Waste.

Membership no.: MWML - HzW -..P.T.G.-.2997.

This Certificate is valid up to

315t-MAR. 2023.

Mar.

Onkar A. Kulkarni Manager - MBD Somnath Malgar Director

An ISO 9001:2015, ISO 14001 : 2015 & ISO 45001 : 2018 Certified Company MWML Laboratory is accredited by NABL and Approved by MoEF