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State Environment Impact Assessment Authority, M.P.

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

Environmental Planning & Coordination Organization

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No.: 3946 /SEIAA/20
Date : 14.1.2020

To,
Mr. Neeraj Bhushan,
M/s Macker Real Venture,
501, 5th Floor, Ashima Corporate Zone,
Ashima Mall, Hoshangabad Road,
Bhopal- 462026

Sub:- Case No 5751/2018: Environmental Clearance for proposed Group housing Project "Silver Estate Vertica" located at 60, 61, 62, 63, 64/1, and 66 Village- Katara Tehsil Huzur District Bhopal M.P. Plot Area - . 16,700 sq.m. and built-up area is 27,033.28 sq.m. by Mr. Neeraj Bhushan, M/s Macker Real Venture, 501, 5th Floor, Ashima Corporate Zone, Ashima Mall, Hoshangabad Road, Bhopal- 462026 E-mail info@ mackerrealventures.com Telephone No. 405-3444, 6461989 Envt. Consultant: In Situ Enviro Care,Bhopal (MP)

Ref: Your application dtd. 12.09.2018 received in SEIAA office on 17.09.2018.

With reference to above the proposal has been appraised as per prescribed procedure & provisions under the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated 14th September 2006 and its amendment, on the basis of the mandatory documents enclosed with the application viz., Form I, Form IA, Conceptual Plan, drawings and subsequently submission of EIA report, PPT & the additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) and State Environment Impact Assessment Authority (SEIAA) constituted by the competent Authority.

i. M/s Macker Real Ventures, Bhopal proposes to construct a Group Housing Residential Project as "Silver Estate Vertica" which is a multi-level residential apartments at village Katara of Bhopal District.The project includes Residential Block (06); Convenient Shops; Club house & EWS.A township of 315 residential apartments located near AIIMS.

ii. As per the T & CP Bhopal (vide let no.3091 dtd.29.10.11). The total land area is 1.67 ha (16,700 Sq.m.) The total built up area proposed by PP is 27,033.28 sq.m. The project comes under 8 (a) category (B) of schedule of EIA Notification, 2006 because total construction is between 20,000 sq mt. & 1, 50,000 sq mt. and plot area is less than 50 ha.

iii. There are no wildlife sanctuaries, national parks, elephant corridors or archaeological monuments within the study area.

iv. There are no forest lands available in the study area. It was found that the study area is majority covered with agricultural, built-up & open scrub area.

v. The nearest forest patches are Goharganj RF which is 11.7 km in ENE direction and Van Vihar National park which 11.9 km in WNW direction from the project site.

vi. The Environmental Impact Assessment Notification dated 14th September 2006 as amended to date, states that all project under Item 8(a) shall be appraised as Category B and requires environment clearance from State Environment Impact Assessment Authority. However as the present project is a violation project, it was required to prepare an EIA Report.

vii. Regarding land documents PP has submitted Khasra panchsala 2009-10. As per the KP the land is the name of M/S, Asnani Builders and Developers Pvt. Ltd. Director Vishan Lal Ashnani, R H Asnani. PP has submitted registered joint venture agreement dtd. 31st March 2011which is executed between M/S,Asnani Builders and Developers Pvt. Ltd. Director Vishan Lal Ashnani, R H Asnani and M/s. Macker Real Ventures through Proprietor, Shri Neeraj Bhushan Macker.

viii. The total water requirement is approx. 256 KLD, out of which total domestic water requirement is 221 KLD. The fresh water requirement is approx. 155 KLD which is 70% of the domestic water demand which will be met from ground. The main source of water supply will be ground water extraction. PP has obtained NOC dtd.06.03.14 GOI, Central Ground Water Authority, Ministry of Water Resources has been issued the approval for extraction of 155.0 KLD water. PP has also obtained consent from Municipal corporation. (dtd18.08.13) for water supply.

ix. The project will generate approx. 190 KLD of wastewater. The wastewater will be treated in the 200 STP based on MBBR technology provided within the complex and the treated wastewater will be reused for flushing; horticulture; DG cooling & recreational purposes and rest is discharged into the sewer. PP has obtained treated sewage water disposal permission has been obtained from Municipal Corporation, Bhopal vide letter no. S.550/SW/14 dated 07/11/2014.

x. The solid waste generated from project will be mainly domestic as well as agricultural waste and the quantity of the waste will be 948.0 KGPD. Solid Waste disposal permission has been obtained from Municipal Corporation, Bhopal vide letter no. S.551/SW/14 dated 04/11/2014.

xi. Regarding fire fighting PP has proposed fire fighting provisions are being made as per the latest Indian Standard Codes which provide for storage of water required for fire fighting purpose partly in underground tank and partly overhead tank. The fire fighting system will consist of fire hydrant system, portable fire extinguishers, sprinklers in the work areas, etc.

xii. After the completion of the project and rainwater harvesting structures, there will be total ground water recharge would be 484.55 m3/hr. Proposed recharge potential to be created by the project would improve ground water regime of the area and would contribute to positive groundwater environment. In this proposed we have proposed 6 Nos. of RWH pits of 15 m3 each capacity. No storage tank is proposed within the project site.

xiii. The maximum height of the building is 23.2 m. PP has provided internal main road 7.500 m, Front MOS 12.0 and side / rear MOS 7.5m.

xiv. PP has provided parking area for 226 ECS (stilt parking – 156 ECS, Open parking-70ECS)

xv. The power requirement for the proposed Group Housing Residential Project is 1500 kVA which will be supplied by Madhya Pradesh State Electricity Board (MPSEB). There is a provision of one no. of DG set of total capacity of 125 KVA for power back-up in the

project periphery. The DG set will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion. For energy conservation measures PP has proposed as follows:-

- In the operational phase, appropriate energy conservation measures and management plan will be adopted to minimize the consumptions of non-renewable fuel. The following measures are suggested to be adopted;
- Solar lighting will be provided in open areas.
- Use of T5 lamps instead of normal fluorescent lamps in basement.
- Use of 10% of external street lights will be solar lights.
- RCC slab with brick koba treatment / china mosaic insulation.
- CFL / LED lighting fixtures in the common areas and basements.
- Star rated/ISI mark energy efficient motors and pumps for water supply & sewage pumping.
- Orientation of building is such to reduce the power consumption.
- U & R values for roofs and walls will be as per ASHREE.

xvi. Total green area will be around 5511.0 sq.m. which will be around 33.0 % of the plot area which will be area under tree plantation within the residential plots and along the roads. Acacia dealbata (Silver wattle), Acacia nilotica (Indian Gum), Emblica officinalis (Amla), Ficus benghalensis (Banyan tree) etc. and flowing and ornamental plants have been planted inside the premises of the project. Parks will also be developed by the management. Approx. 850 plants out of 1182 have been planted in the premises.

xvii. PP has submitted remediation plan and natural community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation in the tune of suggested guidelines by the committee, with the supported by documentary proofs, such as bills, CA audit, certificates, photographs, prescribed various undertakings. The remediation plan is as given below:

Sr. No.	Environmental Factors/ Attributes	Remedial Plan/ Augmentation Plan	Remedial Cost		Environmental Management Plan	EMP Cost		Remarks
			Capital Cost	Recurring Cost		Capital Cost	Recurring Cost (per annum)	
1.	Land use as per Approved Master Plan by TNCP, Bhopal	Broken land is as per master plan approved by T&CP **NO VIOLATION**	-	-	Project cost comprising land and machinery cost	**7439850**	**3,71,993 (Say 3,72,000)**	**T & CP Letter No. 3091/L.P. 331/29 /Nagrani/ GKA/2011 dated 29/10/2011**
2	Baseline Environmental Quality	All the parameters are in the comfort zone in one season EIA study **Monitoring data from 2012-19 is pending**	--	**105000** (Amount may be proposed for additional plantation)	-	-	**15000**	PP has done EIA study. All baseline data results are found satisfactory

		@ 9000/ year * 7 Years (2 Air, 2 noise , 1 water)						
4	A)Land	Total land area 16700.00 sq.mt., Proposed Ground Coverage @ 25.20% = 3940.14 Sq.mt., Total Excavated material = 23640.84 Cu.m. (6 M depth), Top Soil = 3940.14 Sq.mt. (1 m depth) Total quantity of topsoil have been used for the development of landscaping area which is 5511 sq.mt.	-	-	Land is in possession of M/s Macker Real Ventures enclosed land revenue record	-	-	No violation
	B) Ground Water	No new ground bore well is done for construction purpose. NO VIOLATION	--	--	Not applicable, till date no bore well for ground water tapping is proposed for construction phase.	--	--	For operational phase builder has obtained CGWA permission for backup water supply from Borewell.
	c) Air	Water sprinkling had been done as per terms & condition of the work order agreements (3 water tankers/day)	-	-	Construction period = 3 years, Working Day = 600 day Per day water requirement = 12000 KLD (3 Tanker @ 250/ tanker)	0	4,50,000.00	All bills submitted.

	d) Noise & Vibration	Site was fully barricaded at the time of constructio n All modern and new machinery was used at site. Total RMC had been used. Bills submitted in hard copies.	--	--	All machines and new machinery will be used on site	--	--	Bills submitted
	g.a. Occupational Health checkup for 10 Workers	Initial Medical Examinati on (IME) for workers Deployed on site. All checkups done by JK Hospital from 2011 onwards.	--	2,00,000. 00 (amount may be proposed for plantation)	Initial Medical Examinatio n (IME) for 10 workers deployed on Site.	--	--	Total Calculated value for occupation al health and checkup, PPE's and Worker's Shelter have been covered under remedial cost.
	g.b. Personal Protection Equipment's	All required necessary PPE's provided to the workers by the Contractor .	--	--	Helmet, Jackets ,hand gloves & Boots will be Provide to 10 Workers	--	--	--
	g. c. Shelter and Sanitation for workers	Temporary shelter & Mobile toilet has been provided to the workers. Initially it was not there. Installed after 2nd year of constructio n.	--	50000 (amount may be proposed for additional plantation)	Provision of Temporary shelter &Mobile toilet will be extended in numbers during the time of constructio n for workers	--	--	As per above.
5	Contour Plan With slopes, Drainages pattern of the site and surrounding area any obstruction of the same by the projects.	No conversion is done in storm water drainage pattern on site	-	-	--	0	0	NOT APPLICAB LE

6	Tree Felling	--	-	-	No tree falling is proposed.	--	--	No tree felling is done.
7	Tree plantation	Total 332 trees would be planted & development of landscaping area	350000	-	landscaping development (Approx. 850 Trees have been planted)	5650000	80000	All remedial cost will be utilized for left over plantation & further development of additional landscaping.
8	Permission for forest Land	NOT APPLICABLE	-	-	NOT APPLICABLE	-	-	No forest area is involved in this project.
9	Environment policy	Policy is part of Terms & Condition of mutual Agreement	-	-	Terms & Condition of the departmental policy in part of Work Order awarded to Contractor by the PP	-	-	Policy is part of Terms & Condition of mutual Agreement
10	Ground Water Classification	-	-	-	--	-	--	For operational phase builder has obtained CGWA permission for backup water supply from Borewell.
11	Source of water , Water Requirement ,use of treated waste Water	Water demand fulfill by the daily basis tankers. 190 KLD STP has been installed. (Dual Plumbing)	0	-	Source of Waste Water is from Municipal Corporation. 190 KLD STP has been installed.	4600000	230000	PP has already obtained Municipal Water supply permission
12	Rain Water Harvesting	2 No. Rain water harvesting pit has been constructed for the project.	0	50000	Total 2 nos. of pits are proposed on site for operation phase	50000	8000	--

13	Solid Waste Generation Treatment	All type of construction waste had been utilized under backfilling at the time of construction. No waste have been stacked or disposed out side of the premises	100000	0	Solid Waste will be revised in proposed boundary wall & stone pitching to reduce RCC work on site	--	0	MSW NOC is attached with hard copy reply. Vide letter no. 551/SWA. V./14 dated 07/11/2014
		Permission for Disposal of Solid waste from BMC obtained from 2015	--	--	Street garbage shall be controlled segregated transferred , and disposed oil by Nagar Nigam Bhopal.	--	--	
14	Energy conservation & Energy Efficiency (LED bulb & Solar System)	Solar light proposed 5 KW	250000	--	Provisional of the solar panels for streets lighting & common areas and LED light for commercial unit	--	9000	We have proposed Solar Power of 5 KW.
15	D G Sets	Till date RMC has been used for construction.	-	-	-	--	--	We have not used DG set in our construction phase.
16	Parking & Roads	Approach road already exists sufficient space excises for Parking	-	-	Parking Area - 6,426.39 Sq.mt. & Road Area - 1064.53 Sq.mt.	--	--	All adequate parking facilities have been provided as per T&CP norms.
17	Transportation of materials for construction	Till date 80% construction have been done. Some miscellaneous transportation work	--	200000 (amount may be proposed for plantation)	Storage hall/service yard will be for materials stacking during further 20% construction.	--	--	Some miscellaneous transportation work had not been done in appropriate manner. Hence we

		had not been done in appropriate manner. Hence we are proposing some rounded amount under remediation plan						are proposing some rounded amount in our remediation cost.
19	Disaster Management Plan	-	-	-	Centralized control room with ERP system	--	--	
	a) Fire	Machines were equipped with their fire extinguishing equipments. Till date on 80% construction have been done	0	-	Fire fighting organizing and arrangement: External fire hydrant system, hose pipes, pumps with control panel, overhead tanks, first aid, fire extinguishers, sand buckets, Manual and automatic fire alarm, main security room etc.	1800000	25000	All fire & safety facilities have been provided for the 80% constructed area.
	a) Accidental & First aid etc.	First aid kit & room provided on site, enclosed photos. No accident or injury is reported during the earlier construction period.	-	50000 (amount may be proposed for plantation)	First aid kit for worker's safety on site			
	b) Safety	All loading machines, dumpers &Equipments will be deployed as per safety	-	-	All loading machines, dumpers &Equipments will be deployed as per safety			

		norms mentioned in Agreement.			norms mentioned in Agreement.			
			700000	655000		1,21,00,000	817000	
		Total Capital cost for Remedial Plan	Say	7.00 Lacs	Total capital cost for EMP	Say	121.00 Lacs.	
		Total Recurring cost for Remedial Plan	Say	6.55 Lacs	Total Recurring Cost for EMP	Say	8.17 Lacs.	
			Total	**13.55 Lacs**				

xviii. The Bank guarantee(BG) amount Rs.13.55 Lakhs (equivalent to amount proposed in remediation augmentation plan) as approved by the authority has submitted by PP .

xix. Under CER activities PP has propsed as follows:-

Corporate Environment Responsibility (CER) Budget Allocation as per OM F.No.22-65/2017-IA.III dated 1st May 2018 by MoEF&CC		
CER activities as per notifications		**Proposed Budget for CER**
Infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, electrification including solar power, solid waste management facilities, avenue plantation etc.	**Implementation area**	**We have proposed 2% of the project cost (INR 74.34 lakhs – Land and Machinery cost) which is approx. 1.50 lakh.**
	Schools & Colleges of city and adjacent villages.	

Based on the information submitted at Para i to xix above and others, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 587th meeting held on 07.12.2019 and decided to accept the recommendations of 399th SEAC meeting held on dtd. 30.10.19

Hence, Environmental Clearance is accorded under the provisions of EIA notification dtd. 14th September 2006 and its amendments to the Proposed Building Construction " Group housing Project "Silver Estate Vertica" located at 60, 61, 62, 63, 64/1, and 66 Village- Katara Tehsil Huzur District Bhopal M.P. Plot Area - . 16,700 sq.m. and built-up area is 27,033.28 sq.m. by Mr. Neeraj Bhushan, M/s Macker Real Venture, 501, 5th Floor, Ashima Corporate Zone, Ashima Mall, Hoshangabad Road, Bhopal- 462026 subject to the compliance of the Standard Conditions and the following additional Specific Conditions as recommended by SEIAA & SEAC in its meetings.

A. **Specific Conditions as recommended by SEIAA:-**

1. The fresh water supply arrangement should be met through ground water PP should explore the possibility to water supply met through Municipal Corporation and avoid extraction ground water.
2. The inlet and outlet point of natural drain system should be maintained with adequate size of channel for ensuring unrestricted flow of water.
3. **Disposal of waste water.**

a. PP should ensure disposal of waste water arrangement should be done in such a manner that water supply sources are not impaired.

b. PP should ensure linkage with municipal sewer line for disposal of extra treated waste water if project site comes within the municipal area..

4. **Solid Waste Management:**

a. Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.

b. The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.

c. Ensure linkage with Municipal Corporation for final disposal of MSW.

5. PP should ensure building height, road width, front MOS and side / rear as per approved layout of T & CP.

6. **For firefighting:-**

a. PP should ensure distance of fire station approachable from the project site.

b. As per MPBVR, 2012 rule 42 (3) PP should submit necessary drawings and details to the Authority (Nagar Nigam,Bhopal) incorporating all the fire fighting measures recommended in National Building Code 2005.The occupancy permit shall be issued by Nagar Nigam only after ensuring that all fire fighting measures are physically in place.

7. **For Rain Water Harvesting, and Storm water management:-**

a. PP should ensure the rain water harvesting with 06 recharging pits and these pits should be connected laterally to consume the surplus runoff. In addition, PP should provide recharging trenches. The base of the trenches should be Kachha with pebbles.

b. The storm water from roof – top, paved surfaces and landscaped surfaces should be properly channelized to the rain water harvesting sumps through efficient storm water network as proposed. The budget should be included in EMP plan for storm water management.

8. PP should ensure to provide car parking 226 ECS and explore the possibility to increase the number of car parking.

9. **Green belt :-**

10. PP should ensure plantation in an area of 5511.0 sq.m. which will be around 33.0 % of the net plot area under green cover with total number of 1182 **Nos** and landscaped area with regular maintaenance and also explore the possibility to plant trees of indigenous local varieties like Neem, Peepal, Kadam, Karanj, Kachnaar, Saltree, Gulmohar etc.

a. The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised if possible so as to provide protection against particulates and noise.

11. PP should ensure to complete the activities listed under ecological remediation, Natural resource augmentation & community resource augmentation for a total amount of Rs. 13.55 Lakh.

12. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1St May 2018, as applicable, regarding Corporate Environment Responsibility for which budgetary allocation of Rs. INR 74.34 lakhs – Land

and Machinery cost) which is approx. 1.50 lakh has been made and consult district administration for proper implementation.

13. PP shall carry out the works assigned under ecological damage, natural resource augmentation and community resource augmentation within a period of six months and submitted to same in MPSEIAA.

14. PP should ensure to submit half yearly compliance report and CSR activity report with photographs of plantation in MP-SEIAA. If PP is failed to upload or submit two consecutive half yearly compliance reports of EC conditions to concerned authority (SEIAA and Regional Office, MoEF&CC,GoI, Bhopal) than prior environmental clearance issued to PP will automatically be treated as cancelled/ revoked as per OM No. 930/SEIAA/2019 dated 30.05.2019 issued by MPSEIAA.

B. Specific Conditions as recommended by SEAC

I Statutory Compliance

1. The project proponent shall obtain all necessary clearance/permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The approval of the Competent Authority shall be obtained for structural safety of building due to earthquakes, adequacy of firefighting equipment etc as per National Building code including protection measures from lightening etc.
3. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.
4. The project proponent shall obtain the necessary permission for drawl of ground water/surface water required for the project from the competent authority.
5. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, and Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
7. The provisions for the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
8. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power Strictly.

II. Air Quality Monitoring and preservation

9. Notification GSR 94(E) dated: 25/1/2018 MoEF & CC regarding Mandatory implementation of Dust Mitigation Measures for Construction and Demolition Activities for project requiring Environmental Clearance shall be complied with.
10. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
11. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released covering upwind and downwind directions during the construction period.
12. Diesel power generating sets 125kVA proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the

combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board

13. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking wills all around the site plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, Murram and other construction materials prone to causing dust polluting at the site as well as taking out debris from the site.
14. Sand, Murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
15. Wet jet shall be provided for grinding and stone cutting.
16. Unpaved surface and loose soil shall be adequately sprinkled with water to suppress dust.
17. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.
18. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
19. The gaseous emission from DG set 125 kVA 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. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
20. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

21. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
22. The total water requirement is 256 KLD out of which total domestic water shall be 221 KLD, 155 KLD fresh water requirement and waste water shall be 190.0 KLD.
23. The quantity of fresh water usage, water recycling and rainwater harvesting shall be to monitor to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF & CC along with six monthly Monitoring reports.
24. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for separately for ground water and surface water sources, ensuring that there is no impact on other users.
25. At least 20% of the open spaces as required by the local building bye-laws shall be previous. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as previous surface.
26. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

27. Use of water saving devices/fixtures (Viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

28. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

29. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

30. The local bye-law construction on rain water harvesting should be followed. If local by-law provision is not available, adequate provisions for storage and recharge should be followed as per the Ministry of Urban Development Model Building bylaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

31. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meter of built up area and storage capacity of minimum one day of total fires water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

32. For rainwater harvesting, 06 recharge pits will be constructed of capacity 16 cum each. The recharge potential of this area 484.55 cum/hour.

33. Mesh will be provided at the roof so that leaves or any other solid waste/debris will be prevented from entering the pit.

34. The RWH will be initially done only from the roof top. Runoff from green and other open areas will be done only after permission from CGWB. All recharge should be limited to shallow aquifer.

35. No ground water shall be used during construction phase of the project.

36. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

37. The quality of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The recorded shall be submitted to the Regional Office, MoEF & CC along with six monthly Monitoring report.

38. Sewage shall be treated in the MBBR based STP (Capacity - 350 KLD). The treated effluent from STP shall be recycled/re-used for flushing. AC makes up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.

39. No sewage or untreated effluent water would be discharged through storm water drains.

40. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problems from STP.

41. Sludge from the onsite sewage treatment including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Control Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

IV. **Noise monitoring and prevention**

42. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise

quality shall be closely monitoring during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/SPCB.

43. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

44. Acoustic enclosures for DG sets, noise barriers for ground run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures.

45. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured, Building in the State which have notified their own ECBC, shall comply with the State ECBC.

46. Outdoor and common area lighting shall be LED.

47. Energy Conservation Techniques can be considered as Space Cooling: External shading prevents solar radiation from entering into the buildings and reduces the cooling load, results to better control of overheating and indoor temperatures. Space cooling load may be reduced by 30% due to proper shading.

48. Thermal insulation of buildings external walls and roof reduces the cooling load and improves indoor thermal comfort conditions by lowering heat gains through the building's envelope. Energy consumption in insulated buildings may be 5–30% less than in non-insulated buildings.

49. Domestic hot water: Solar collectors reduce the annual energy consumption for domestic hot water production by lowering the load covered by electrical or thermal heating. Energy consumption in buildings with solar collectors may be 60–80% less than in buildings with electric heaters.

50. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

51. Energy conservation measures like installation of CFLs/LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

VI. Waste Management

52. Total Solid waste generated during operation phase shall be 948 Kg/day, Horticulture Waste – 20.6 Kg/day and these shall be treated/ disposed off as per provision made in the MSW Rules 2016.

53. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the MSW generated from project shall be obtained.

54. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

55. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste (0.4 ton/day) shall be segregated into wet garbage and inert materials.

56. All non-biodegradable waste shall be handed over the authorized recyclers for which a written lie up must be done with the authorized recyclers.

57. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

58. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction materials quantity. These include fly ash brick, hollow bricks, AACs, Fly Ash Lime Gypsum block, compressed earth blocks and other environmental friendly materials.

59. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016 Ready mixed concrete must be used in building construction.

60. Any wastes from construction and demolition activities related thereto small be managed so as to strictly conform to the construction and Demolition Rules, 2016.

61. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

VII **Green Cover**

62. Not tree can be felled/transplant unless exigencies demand. Where absolute necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (Planted).

63. Where the trees need to be cut with prior permission from the concerned local Authority, Compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.

64. Topsoil should be stripped to depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stack plied appropriately in designated areas and reapplied during plantation of the proposed vegetations on site.

VIII **Transport**

65. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public and private network. Road should be designed with due consideration for environment and safety of users. The road system can be designed with these basic criteria.

    a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic
    b. Traffic calming measures.
    c. Proper design of entry and exit points
    d. Parking norms as per local regulation

66. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

67. A detailed traffic management and traffic decongesting plan shall be drawn up to ensure that the current level of service of the road within a 05 Kms radius of the project as maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of the development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and

the traffic management and the PWD/competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues

68. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

69. For indoor air quality the ventilation provisions as per National Building Code of India.

70. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implementation.

71. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile, STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

72. Occupational health surveillance of the workers shall be done on a regular basis.

X. Corporation Environment Responsibility

73. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated: 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

74. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The Environmental policy should prescribe for standard operating procedures to have proper checks and balance and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the Environmental/forest/wildlife norms/conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six monthly reports.

75. A separate Environmental Cell both at the project and company head quarter with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

76. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

77. PP has proposed Rs. 121.00 Lakhs in the EMP as capital cost and recurring cost is Rs. 8.17 Lakhs /Year for EMP of this project.

XI. Miscellaneous

78. The project authorities must strictly adhere to the stipulation made by the MP Pollution Control Board and the State Government.

79. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

80. 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other

orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.

Standard Conditions:

1. All activities / mitigative measures proposed by PP in Environmental Impact Assessment (if applicable) and approved by SEAC must be ensured.
2. All activities / mitigative measures proposed by PP in Environmental Management Plan and approved by SEAC must be ensured.
3. All parameters listed in Environmental Monitoring Plan approved by SEAC must be monitored at approved locations and frequencies.
4. Project Proponent has to strictly follow the direction/guidelines issued by MoEF, CPCB and other Govt. agencies from time to time.
5. The Ministry or any other competent authority may alter/modify the conditions or stipulate any further condition in the interest of environment protection.
6. The Environmental Clearance shall be valid for a period of seven years from the date of issue of this letter.
7. The Project Proponent has to upload soft copy of half yearly compliance report of the stipulated prior environmental clearance terms and conditions on 1st June and 1st December of each calendar year on MoEF & CC web portal - http://www.environmentclearance.nic.in/ or http://www.efclearance.nic.in/ and submit hard copy of compliance report of the stipulated prior environmental clearance terms and conditions to the Regulatory Authority also .
8. The Regional Office, MoEF, GoI, Bhopal and MPPCB shall monitor compliance of the stipulated conditions. A complete set of documents including Environment Impact Assessment Report. Environmental Management Plan and other documents information should be given to Regional Office of the MoEF, GoI at Bhopal and MPPCB.
9. The Project Proponent shall inform to the Regional Office, MoEF, GoI, Bhopal and MP PCB regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
10. In the case of expansion or any change(s) in the scope of the project, the project shall again require prior Environmental Clearance as per EIA notification, 2006.
11. The SEIAA of M.P. reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
12. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained (as and when applicable), by the project proponent from the respective competent authorities.
13. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the

respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company and in the public domain.

14. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 EC conditions and shall also be sent to the Regional Office of MoEF.

15. A copy of the environmental clearance shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat and municipal bodies as applicable in addition to the relevant officers of the Government who in turn has to display the same for 30 days from the date of receipt.

16. The Project Proponent shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of the State Level Environment Impact Assessment Authority (SEIAA) at www.mpseiaa.nic.in and a copy of the same shall be forwarded to the Regional Office, MoEF, GoI, Bhopal.

17. Any appeal against this prior environmental clearance shall lie with the Green Tribunal, if necessary, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(Jitendra Singh Raje)
Member Secretary

3947
Endt No. / SEIAA/ 2020 Dated 14.1.2020

Copy to:-

1. Principal Secretary, Urban Development & Environment Deptt. 3rd Floor, Mantralaya Vallabh Bhawan, Bhopal.
2. Secretary, SEAC, Research and Development Wing Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony Bhopal-462016.
3. Member Secretary, Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal-462016.
4. The Collector, District Bhopal -M.P.
5. The Commissioner, Municipal Corporation, Bhopal, MP
6. The Jt. Director, Town & Country Planning, Paryavaran Parisar, E-5, Arera Colony, Bhopal, MP
7. Director, I.A. Division, Monitoring Cell, MoEF, GoI, Ministry of Environment & Forest Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110 003
8. Director (S), Regional office of the MOEF, (Western Region), Kendriya Paryavaran Bhawan, Link Road No. 3, Ravi Shankar Nagar, Bhopal-462016.
9. Guard file.

(Dr. Sanjeev Sachdev)
Officer-in-Charge