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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सत्यमेव जयते

No.: 3702 /SEIAA/20
Date : 04.9.2020

To,
Shri Vivek Chauhan,Partner
M/s Virasha Infrastructure
25-6, Walmi Road, Chunna Bhatti,
Bhopal, (M.P.) – 462016.

Sub:- Case No. - 5745/2018 Environment Clearance for Construction of Residential Project "Virasha Heights" at Khasra No. 401/4/1(kha), 401/4/2(kha), 401/2, 401/3, 401/4/4/4(gh), 401/4/3(ga), 401/4(ka), 401/4/3(kha), 400/2, 401/1 & 400/1) at Village - Banjari, Tehsil - Huzur & District. - Bhopal, (M.P.). Total Plot Area- 29914.72 sq.m. Total Built up Area – 44591.3 sq.m.,by M/s Virasha Infrastructure, Partner Shri Vivek Chauhan, 25-6, Walmi Road, Chunna Bhatti, Bhopal, (M.P.) – 462016. Email virasha.infrastructure@gmail.com Ph: 0755-4266719 ENV Developmental Assistance Systems Pvt. Ltd, Lucknow (U.P.).

Ref: Your application dtd. 01.09.2018 received in SEIAA office on 05.09.2018.

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. The project involves construction of residential building by M/s Virasha Infrastructure with total built up area of 44591.3 sq.m in total plot area of 29914.72 sq.m at Khasra No. 401/4/1(kha), 401/4/2(kha), 401/2, 401/3, 401/4/4/4(gh), 401/4/3(ga), 401/4(ka), 401/4/3(kha), 400/2, 401/1 & 400/1), Village - Banjari, Tehsil - Huzur & Dist. - Bhopal, (M.P.).

ii. As per the approval of T & CP Bhopal (vide L. No. 580/L.P.126/29/Na. Gra. Ni./2010 dtd 24.06.10) the total land area is 2.99 ha at Village – Banjari, Tehsil - Huzur & Dist. - Bhopal (M.P.). The total built up area proposed by PP is 44,591.3 sq m. The project comes under 8 (a) category (B) of schedule of EIA Notification, 2006 as the total construction is between 20,000 sqmt. & 1,50,000 sqmt.

iii. 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.

iv. The Project consists of multi story housing and Duplexes with all the basic amenities. The construction work for the project is already initiated and approximately 65% civil work has already been completed. As informed by the PP, 16 blocks are proposed out of which 08 are completed, 04 are incomplete (structure completed) and 04 blocks are yet to be constructed. Possession has been given for some of the flats. No construction activates were observed during site visit.

v. Regarding land documents PP has submitted sale deed, as per the land documents the said land was purchased by M/S Shubhalay through partner Shri Manoj Singh. PP has also submitted joint venture dtd. 11.03.2011 executed between M/s Virasha Infrastructures through partner Shri Vineet Chauhan and M/S Shubhalay through partner Shri Manoj Singh.

vi. Total water demand for residential township is estimated to be 218 KLD, out of which fresh water requirement is 148 KLD to meet the domestic needs. 70 KLD of recycled water will be used for flushing, Irrigation and D.G. sets cooling. PP has submitted letter dtd. 27.06.15 issued by Municipal Corporation, Bhopal for water supply.

vii. During operations phase 178 KLD waste water will be generated which will be treated into 270 KLD of STP and utilized within site for flushing, horticultural and other low end purposes. Spare treated water around 90 KLD (in non-monsoon) and 106 KLD (in monsoon) will be discharged into municipal sewer line. PP has submitted letter dtd. 25.02.15 issued by Municipal Corporation, Bhopal for disposal of extra treated waste water.

viii. The maximum quantity of municipal solid waste generated during operation phases is estimated to be 1554 kg/day Domestic waste & Horticultural waste - 29 kg/day. The solid waste so generated is being first segregated as plastic, glass, paper and other waste separately. The recyclable inorganic waste is being sold to registered buyers. The bio-degradable wastes are being transferred into a designated collection point for disposal by municipal authority/hired agency. Area for a 48 hours MSW collection & storage space has already been demarcated near the EWS area. PP has submitted letter dtd. 25.02.15 issued by Municipal Corporation, Bhopal for disposal of solid waste.

ix. The height of the building is 21 meters. Only one Entry/exit is exists at this point in time for the project. Main entry /exits are through 12 m wide road and internal circulation roads are of 12 m, 7.5 m and 6 m width. Some internal roads have already been constructed.

x. Circular roadway has been provided along the periphery of the project for movement of fire tenders. For Firefighting equipments, such as wet risers and hose reels are proposed at site. Dedicated fire storage tanks of 25,000 liters capacity have been provided on the rooftop of the multistory buildings. The fire-fighting As per fire approving authorities; and National Building Code of India (part 4, fire and life safety 2005) Following items are envisaged for firefighting:

- Manually operated electric fire alarm system
- Down corner
- Hose Reel
- Portable fire extinguishers of ABC type 5 liters. Capacity, Carbon-di-oxide of 4.5 kg capacity has been provided as first aid fire extinguishing appliances.
- Wet riser: Wet riser shall be installed as per IS- 3844 and NBC -2005.

PP has obtained fire fighting provisional NOC dtd. 05.12.15 issued by UADD.

xi. PP, 03 Nos. of Rain Water Harvesting structures are proposed for the harvesting of roof top runoff water out of which 02 have been constructed.

xii. The estimated electrical load during operation phase is estimated to be 1896 kVA. The power shall be supplied by MPMKVVCL. There is a provision of one DG set having 1x165kVA capacities for providing power back up at the time of power failure. The proponent has taken various energy conservation measures which include:

- Energy Efficient Features.
- Maximum utilization of natural light 2. CFL/LED in the common areas.
- Use of solar lights in open areas and landscaped area with 20% dual lighting system.
- All openings are shaded to reduce heat loss.
- The water supply pumping system will be provided with variable speed drive to conserve energy at part load.
- Compliance for Window glazing U-values if window to wall ratio is more than 30%.

A. For increasing the space of car parking PP has provided 34 extra open parking towards east along the road side i.e. Total 418 ECS (stilt parking-217 ECS and open parking-201ECS).

xiii. It was observed that Kaliasot River is just about the project boundary on the northern side boundary near entry gate. PP has developed garden and landscape area towards this side. A thick green belt is being developed towards the Kaliyasot River to maintain 33m distance from the River as suggested by authority.

xiv. 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:

S. No.	Environment Management guidelines prescribed by SEAC	Mitigation Measures followed	Remediation Measures required	Estimated budget of Remediation (INR Lakh)		EMP Cost (INR Lakh)		Remarks
				Capital Investment	Recurring Expenditure/ Year	Capital Cost	Recurring Cost (per annum)	
1	2	3	4	5	6	7	8	9
1.	All the construction shall be done in accordance with the local building byelaws.	The project proponents have obtained all the necessary permissions.	Guidelines followed. No remediation measures required.	Not Required	Not Required	-	-	The project is classified residential T&CP Permission and other related documents submitted
2.	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing and horticulture. Excess treated water will be discharged to Municipal Drain.	STP of 270 KLD is already installed at site and is commissioned since March 2014.	Guidelines followed. No remediation measures required.	Not Required	Not Required	60	6	Water conveyance lines for recycled water on all the laterals and roads have been laid STP

								completion certificate along with monitoring report submitted
3.	Adequate provision for storage and recharge should be followed.	2 nos. RWH structures are present at site and 1 no. RWH structure proposed is to be provided.	Guidelines followed.	7	-	17	1	Photographs of RWH pits and RMC bills are submitted.
4.	Solid waste shall be segregated into wet garbage and inert materials. Spaces hall be provided for solid waste management within the premises. The inert waste from group housing project will be sent to dumping site.	PP has earmarked an area for municipal solid waste collection inside the project premises near the STP.2 different colored containers are provided for the source segregation of the municipal solid waste material.	Guidelines followed. Solid waste management infrastructure will be strengthened.	Not Required	Not Required	20	8	Photographs of colored bins and bills submitted.
5.	The natural drain system should be maintained for ensuring unrestricted flow of water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	Natural drainage of the project sitehas been maintained ensuring unrestricted flow of water.	Guidelines followed. Construction of culverts for proper drainage.	10	-	25	-	Photographs submitted.
6.	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.	The project while in construction phase was adequately barricaded so as to reduce the spread of the particulate matter.	No Remediation measures required.			1	-	In all future construction also dust suppression measures shall be implemented. Photographs submitted.
7.	All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and	All construction and demolition debris were stored ondesignated location with	Guidelines followed. No remediation measuresrequired.	Not Required	Not Required	-	-	Transportation Bills submitted.

	construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.	proper covering via tarpaulin sheets.						
8.	Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure. The housing may be in the form of temporary structures to be removed after the completion of the project.	All the necessary arrangement swere madeforthe wellbeingof the construction workers until now.	Guidelines followed	Not Required	Not Required	-	-	provision for labour huts were provided. Photographs submitted
9.	At least15%of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.	Peripheral plantation,plantation in the openareas/parkshas already beenprovided. Dedicated green area for landscaping and peripheral plantation in the project is approximately15% of the total land area.	Grass Pavers & Paver Blocks along with pathway plantation in additional space.	8	Not Required	30	-	All the plantation has been done. PP has developed garden and landscape area so that 33 meter distance could be maintained. Photographs of plantation submitted.
10.	Outdoor and common area lighting shall be LED. 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.	LEDs/ CFLs are provided in common Areas to reduce the electricity consumption.	Remediation measures required.	1 -	Not Required	2	0.10	LEDs are provided in common areas to reduce the electricity consumption Bills submitted .
11.	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.	Water saving fixtures has been used in the building in order to conserve water.	Guidelines followed No remediation measures required.	Not Required	Not Required	-	-	Photographs and bills submitted.
12.	Installation of dual pipe plumbing for supplying	Color coded recycled	Guidelines followed	3	Not Require	40	5	Photographs

	fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.	water lines (dual plumbing)are provided in the multi storied buildings Only and in the green areas for flushing and irrigationuse.	Dual plumbing lines will also be provided in yet to be constructed duplexes& other blocks.		d			submitted.
13.	A First Aid Room shall be provided in the project both during construction and operations of the project.	A first Aid room shall be provided	Remediation measures required.	1	Not Required	6	3	First aid room shall be provided for labours to provide first aid in case of minor injuries.
14.	Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It Should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.	Topsoil stockpiled has been reused for plantation of the green area. Ground breaking has already been completed.	Guidelines followed. No Remediation measures required.	Not Required	Not Required	-	-	It was ensured that all the topsoil was reused in Landscape development at the project site. Bill submitted.
15.	Disposal of muck during construction phase shall notcreate any adverse effecton 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.	Muck generated during the construction phase did not create any problem for neighboring communities and were disposed off taking necessary precautions.	Guidelines followed. No remediation measures required.	Not Required	Not Required	-	-	The construction site was equipped with modern equipment .for workers. Bill submitted.
16.	The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed or Air and noise emission standards.	No Diesel Generator set was used.	Guidelines followed. No remediation measures required.	Not Required	Not Required	1	-	RMC Cost submitted.
17.	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Water demand during construction was reduced byuseof pre	Guidelines followed. No remediation measures	Not Required	Not Required	-	-	RMC cost submitted.

		mixed concrete and other best practices.	required.					
18.	As proposed, no ground water shall be used during construction phase of the project.	No ground water was used during the construction.	Guidelines followed. No remediation measures required.	Not Required	Not Required	-	-	Tankers were used for water during construction phaseTanker bills of approx. 23 lacs submitted.
19.	The approval of the Competent Authority shall be obtained for Structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.	Approval fromcompetentauthority has been obtained.	Guidelines followed. No remediation measures required.	Not Applicable	Not Applicable	20	1	Fire extinguisher of different Categories installed in the premises.Bills ofconsultant & material(submitted.
20	Ambient noise levels shall conform to residential standards both during Day and night as per Noise Pollution (Control and Regulation) Rules, 2000.	Ambient noise levels conform to theresidential standards for both day and night.	Guidelines followed. Monitoring will be done and cost is given in point no.24.	-	-			Noise and vibration control and monitoring shall also be ensured in all future construction.
21	Environmental Quality Monitoring	For baseline monitoring of air, water, soil and noise.	-	1	-	-	2	No monitoring at the preconstruction stage. Thus remedial cost considered as recurring cost when construction starts.
Total Cost (in lakhs.)				**31.00**		**22.0**	**26.10**	

xv. The Bank guarantee(BG) amount Rs. 31.0 Lakhs (equivalent to amount proposed in remediation augmentation plan) as approved by the authority has submitted by PP .

xvi. For the CER budget PP has committed that the total project cost is 13 Crore accordingly 2% of the project cost i.e. 26 lacs has been proposed for the following activities:-

- Blankets & clothes distribution at site for laboures.
- Virasha Infrastructures adopted Friend of Tribal Society-2 school.
- Executing shade work at Sewa Bharti,Anand Dham(Senior citizen Home) at shivaji Nagar,Link Road No.02,Bhopal.

Based on the information submitted at Para i to xxii above and others, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 584th meeting held on 02.12.2019 and decided to accept the recommendations of 398th SEAC meeting held on dtd. 04.10.19
Hence, Environmental Clearance is accorded under the provisions of EIA notification dtd. 14th September 2006 and its amendments to the Proposed "Construction of Residential Project "Virasha Heights" at Khasra No. 401/4/1(kha), 401/4/2(kha), 401/2, 401/3, 401/4/4/4(gh), 401/4/3(ga), 401/4(ka), 401/4/3(kha), 400/2, 401/1 & 400/1) at Village - Banjari, Tehsil - Huzur & District. - Bhopal, (M.P.). Total Plot Area- 29914.72 sq.m. Total Built up Area – 44591.3 sq.m.,by M/s Virasha Infrastructure, Partner Shri Vivek Chauhan, 25-6, Walmi Road, Chunna Bhatti, Bhopal, (M.P.) – 462016. subject to the compliance of the Standard Conditions and the following additional Specific Conditions as recommended by SEIAA & SEAC in its meetings.

A. <u>Specific Conditions as recommended by SEIAA:-</u>

1. The entire demand of water should be met through Municipal Corporation, Indore, there should be no extraction of ground water.
2. Corporation 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.
   c. The project not having provision for discharge of excess treated sewage cannot permit to start operation unless proper arrangements are put in place for its safe handling.
4. **Solid Waste Management:**
   a. Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.
   b. Ensure linkage with Municipal Council 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. (as per NOC dtd. 05.12.15)

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

   a. PP should ensure the rain water harvesting with 03 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 total 418 ECS (stilt parking-217 ECS and open parking- 201ECS). For increasing the space of car parking PP has provided 34 extra open parking towards east along the road side

9. **Green belt :-**

   a. PP should ensure plantation in an area of, 3239.76 Sq.m of area is dedicated for the landscaping purposes.Peripheral plantation is present along the project boundary with approx. 185 plants.

   b. as a green belt 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.

   c. 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.

10. PP should ensure to complete the activities listed under ecological remediation, Natural resource augmentation & community resource augmentation for a total amount of Rs. 31.0 Lakh.

11. The amount specified as CER Rs. 26 lacs used only for the proposed activities and not diverted for other purposes.

12. 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.

13. 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. <u>Specific Conditions as recommended by SEAC</u>

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 1 x 165 kVA 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 construction and demolition debris shall be stored at the site (are not dumped on the roads or open spaces outside) before they are properly disposed. 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 1 x 165 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. Buildings shall be designed to follow the natural topography as much as possible Minimum cutting and filling should be done.
23. The total water requirement is 218 KLD out of which 148 KLD is fresh water requirement and 178 KLD will be the total waste water generated. 70 KLD water will be recycled within the complex for flushing.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
31. 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.
32. 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.

33. For rainwater harvesting, 03 recharge pits will be constructed for rain water harvesting and 05 pits for surface runoff.

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

35. 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.

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

37. 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.

38. 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.

39. Sewage shall be treated in the MBBR based STP (Capacity - 270 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.

40. The waste water generated from the project shall be treated in STP of 270 KLD (20 % higher capacity) (based on MBBR based technology) and then reused for various purposes. No water body or drainage channels are getting affected in the study area because of this project.

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

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

43. 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

44. 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.

45. 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.

46. 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.

47. 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.

48. Outdoor and common area lighting shall be LED.

49. 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.

50. 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.

51. 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.

52. 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.

53. 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. **Water Management**

54. Total domestic waste generated 1554 Kg/day, Horticulture Waste - 29 Kg/day, E-Waste - <1.0 Kg/Day and these shall be treated/ disposed off as per provision made in the MSW Rules 2016.

55. 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.

56. 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.

57. 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.

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

59. 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.

60. 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.

61. 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.

62. 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**

63. Total 185 trees shall be planted and 3239.76 sq. m2 area shall be developed as Open area/ Landscape area.
64. 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).
65. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should included plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
66. 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.
67. 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**

68. 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
69. 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.
70. 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

71. 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.
72. For indoor air quality the ventilation provisions as per National Building Code of India.
73. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implementation.

74. 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.

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

76. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporation Environment Responsibility

77. 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.

78. 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.

79. 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.

80. 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.

81. PP has proposed Rs. 222.0 Lakhs capital cost and Rs. 26.11 Lakh/Year as recurring cost for EMP of this project

82. The PP M/s. Virasha Infrastructure Bhopal has proposed to submit bank guarantee of INR 31.00 Lakh towards Remediation Plan /Restoration Plan.

XI. Miscellaneous

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

84. 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.

85. 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

3703
Endt No. / SEIAA/ 2020 Dated 4.1.2020

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