

# 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.: 2030 /SEIAA/ Date: 05.9./9

To, Shri Vinod Bhandari, Director M/s Aurobindo Institute of Medical Sciences Indore-Ujjain State Highway Near MR 10 Crossing, Indore MP - 453555

Sub:- Case No. 5710/2018: Environment Clearance for Proposed "Shri Aurobindo Institute of Medical Sciences" at Indore-Ujjain State Highway, Village-Bhanwrasla, Tehsil- Sanwer, District- Indore MP Land area- 14.78 ha.(1,47,880 sq.m.) Total builtup-area -1,42,770.16 sq.m (Hospital Area - 33525.34 sq.m, Institutional Area - 66497.46 sq.m. & Residential Area - 42747. 36 sq.m.) Already Constructed Area - 1,29,751 sq.m. by M/s Aurobindo Institute of Medical Sciences through Director Shri Vinod Bhandari Indore-Ujjain State Highway Near MR 10 Crossing, Indore MP - 453555 E-mailsaims.aurbindoinstitute@gmail.com Telephone No. 0731- 4231000 Envt. Consultant: Greencindia Consulting (P) Ltd, NCR, Ghaziabad

Ref: Your application dtd. 01.06.2018 received in SEIAA office on 27.06.2018.

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 14<sup>th</sup> 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. Sri Aurobindo institute of Medical Sciences is a medical research private university in village Bhanwrasla, Sanwer Tehsil in Indore District. It is Medical College cum Hospital (800 bedded) over an area of 14.78 ha and built-up area of 142770.16 sq.m. . The project includes Teaching Hospital, Hospital Extension, Medical College, Auditorium(Medical), Dental College, Auditorium (Dental) Mortuary Block, Resident Staff Quarter, Girl's Hostel Block, Boy's Hostel Block, Dean's Bungalow, Nursing Hostel, Residential Building-I, Residential Building-II, Residential Quarter, PG Hostel, Management College, Engineering College, Laser Building, Guest House & Commercial, Medical College Extension etc.
- ii. The construction of the project started in 2003 and the institution became operational in 2012. After a site visit as made by MPPCB, Regional office, Indore, a letter was issued on 21st December, 2011 to stop construction work for expansion and it was then when it came to the knowledge of the Proponent that Environment Clearance for the project is to be taken.

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- iii. Earlier the case was considered in various meeting of SEIAA & SEAC however as per MoEF & CC Notification dated 14.03.2017 MP- SEIAA closed the case and transferred case to MoEF & CC. Application re submitted online in MoEF & CC as Violation case under Notification No. S.O.804(E) dated 14.03.2017 for ToR.
- iv. Meanwhile, the Ministry vide Notification No. S.O. 1030(E) dated:08.03.2018 followed by Om's dated:15<sup>th</sup> & 16<sup>th</sup> March,2018 for implementation of said notification interalia provides that the project/activities covered under Category B shall be considered by the SEAC/SEIAA in respective states/UTs.
- v. Finally when the MoEF &CC's notification dated 08.03.2018 regarding violation cases came into action, the proponent decided to apply for this project under this window as a last chance of receiving Environmental Clearance.
- 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. In line with the aforementioned EIA notification, the project was considered for Terms of Reference during 326<sup>th</sup> SEAC Meeting 21.08.18.
- vii. The case was considered in 326<sup>th</sup> SEAC meeting dtd. 21<sup>st</sup> Aug, 2018, and Committee considering the recent Gol, MoEF & CC Notification dated 8<sup>th</sup> March, 2018 recommends that case may be dealt as per the provisions laid down in this notification and the project may granted Terms of Reference for undertaking Environment Impact Assessment and preparation of Environment Management Plan on assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as a independent chapter in the EIA report by the accredited consultant.
- viii. Accordingly, ToR was granted by the SEAC on 19th Sept, 2018. 18 and EIA report submitted by PP on 05.07.19 and forwarded to SEAC on 08.07.19. The case was discussed in SEAC 385th meeting dtd. 12.07.19, and recommended the EC subject to the special conditions and submission of bank gurantee (BG) with three years validity of Rs. 54,12,250.00/- (equivalent to amount proposed in remediation and resource augmentation plan) with the MP Pollution control Board.
  - ix. PP has submitted the 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 and CER.
  - X. The cost of the project is INR 224 Crore. The Cost for Remediation Plan, Natural & Community Resource Augmentation plan is INR 83.92 Lakh. The project proponent already had invested for components mentioned under Remediation Plan by providing STP, ETP, organic converter and planting trees of cost INR 76.85 Lakh. The following table lists out the activity which could have impact on environmental parameters along with the remediation plan and budgetary estimate for the operation phase of the project.

Environmental	Remedial Remedial Co		Cost	EMP Cost		Remarks
Factors / Attributes	Plan/Augment ation Plan	Capital Cost (in Rs.)	Rec urrin g Cost	Capital Cost (in Rs.)	Recurring Cost (per annum) (in Rs.)	

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			(in			
Land use as per approved Master plan by TNCP, Indore	-		Rs.)	-	- 1	Land has been diverted from Agriculture to Public/Semi Public use by T&CP in 2004.
Environmental Sensitive places, land acquisition status, resettlement & rehabilitation		1	-	-	-	Project involves no R&R issues. Land has been purchased from land owners. Land leased documents and diversion order submitted.
Baseline Environmental Quality	For baseline monitoring of air, water, soil and noise.  1.For Water: Including ground, surface & sewage water sampleTotal Cost (Water) = Rs. 60,000  2. For Air: Total Cost (Air) = Rs. 42,500  3. For Noise: Monitoring = Total Cost(Noise) = Rs. 43,500  4. For Soil: Total Cost (Soil) = Rs. 9,000	1,55,000				No monitoring done at the initial stage. Thus remedial cost considered. Cost of RDS = Rs. 1,25,000 Cost of Noise meter = Rs. 30,000
b) Ground Water	No ground water abstraction done during construction. Water was sourced through tankers. Thus no violation.				24,000	No violation was done The water was supplied through Tankers for construction phase
c) Surface water	Water disposed to open agricultural land without proper channelization	4,00,000			24,000	Presently 650 KLD STP is present which was set up in 2005. 50 KLD ETP also installed in 2010 for treatment of wastewater
d) Air	No dust suppression mechanisms such as water sprinkling present during construction.	-	8,21, 250	45,000	1,70,000	Cost of water @ Rs. 250/ KL. It is including transportation &sprinkling for dust suppression at site for 6 months. Total Cost (in Rs.) = 45,000 Trees will be planted as part of the remediation inside the

						campus and in neighboring villages
. D		-	-			Not applicable.
) Biodiversity Noise & (ibration	Impact of Noise generation and entry's noise level on health of workers during construction phase @ Rs. 50,000 per year for 2 years (From 3 <sup>rd</sup> year, check-up was		1,00,	1,44,00	30,000	Site is fully barricaded, attached the bills of Contractor, who has arranged the barricading.
g) Socio economy &	conducted)	-	-	-	-	Not applicable
health G (a)	- \	-	-	-		Checkup of employees were done. Attached
Occupational Health checkup for 150 workers						as
G (b) Personal protection equipment				-		Contractor himself provided all the personal protection equipments like; helmets, jackets, hand gloves & boots. It was under the scope of Contractor. Agreemen attached at
G (c) Shelter and Sanitation	Rs. 60000 for setting up two temporary toilets and Rs. 150000 for septic tank	2,10,000		-	3,88,000	Bio filter STP was operational since 200 and function till 2010 when STP was converted to MBBR technology.
Contour plan with slopes, drainage pattern of the site and surrounding area. Any obstruction of the same by the project.					50,000	Drain was planned as per contour plan of the site. No obstruction was present at site. Contour plan submtd.
Tree felling			-			No tree felling was done.
Tree Plantation		-		-	1,00,000	1780 Trees /plants were planted. Greenbelt of 4.88 ha which includes landscape (2.84 ha) and plantation areas (2.04 ha). No forest land was
Permission for Forest land						involved in the project
Environment policy	Presently there is no Environmental Policy.	2,00,000				Environmental policy to be prepared by Consultant and passed by the Directors.
Ground water classification	No ground water	-			-	Total of Rs. 40,00,00 was approximately

	abstraction done during construction. Water was sourced through tankers. Thus no violation.					spent on purchasing water through tankers. Bills of 2008-12 submtd Permission of ground water from Gram Panchayat is available and from CGWB is under progress.
Source of water requirement, use of treated waste water	-	-	-	-	1,92,000	Water demand fulfilled by the tankers on daily basis. No waste water generation.
Rain water harvesting			-	-	50,000	21 recharge pits for Rain water harvesting proposed. Photographs submitted.
Soil characteristics & ground water table	9	-	-		36000	Total No. of samples annually = 12. Cost per sample = Rs. 3000
Top soil conservation	Total soil generated from excavation is 13962 m³ out of which 6289 m³ was top soil. The whole volume of soil was used for landscaping and levelling. Thus there is no violation.					Top soil was reused for leveling the ground area and garden area.
Solid waste generation treatment	All solid waste generated was used in land and road levelling during construction phase. Thus no violation.				18,76,500	Presently, all inorganic municipal waste disposed through IMC (Indore Municipal Corporation). Bills submitted. Organic waste generated is treated in Organic waste converter plant (200 kg/day capacity) on site. For Biomedical waste MoU signed with Houswin Incinerator
Energy conservation & Energy efficiency (LED bulb & solar system)	Solar water heating system	2,20,000				Procurement of Solar water heating system in process. Conventional electrica light fittings replaced by LED fittings. Negotiation for Solar System is in process.
DG sets				-	2,47,000	No DG sets were used during construction phase as connection was available from MPEB. 5 DG sets on the project site.  Approximate AMC cost Rs. 2,47,000/-

Parking & roads	22,328 m <sup>2</sup> of	-	-	-	1,75,000	Parking and Roads as per approved plan.
	an area has been allotted to parking and roads.					
Transportation of materials for construction	-			-		It was under the scope contractor. It was ensured all trucks carrying construction material were covered.
Disaster management plan	Quarterly trainings @Rs. 2,000/- per training (for ~7 years of operation period)	56,000				
a) Fire		32,50,000				150 fire extinguisher of different Categories installed in the premises. As per the suggestions of SEAC fire hydrant system will be installed. Automatic fire hydrant system with sprinkler and smoke detector.
b) Accident & First aid etc.	-		-		34,000	Health Services provided by SAIMS Hospital.
c) Safety	-			-	50,000	All construction sites were equipped with modern equipments for loading, unloading and wire nets, helmets, gloves, boots and safety belts for workers. It was under the scope of contractor.
	44,91,000	9,21,250	,89,00	31,99,50		
Total Remediation Cost (in Rs.)	54,12,	,250	33,	88,500		

- xi. Vide letter dtd. 05.08.09 PP has submitted Bank gurantee in SEIAA office of Rs. 54,12,250.00 with three years validity which has been sent to MPPCB for depositing the same.
- xii. Regarding land documents PP has submitted Khasra panchsala 2012-13. As per the KP the land is the name of Shri Aurobindo Institute of Medical Sciences.
- xiii. The total water required is 702.9 KLD, of which, fresh water requirement is 461.20 KLD while treated water requirement is 251.7 KLD which includes flushing. 25 KLD treated water is used for landscaping and remaining treated water (290 KL) is supplied to nearby agricultural land. The water is sourced from bore wells present in the site. Ground Water Extraction permission (dtd. 30.06.03 obtained from gram Panchyat, Sanwer, Indore. It was observed by the authority the huge amount of water extracted from ground however PP has not obtained permission from CGWA.

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- xiv. Based on water calculation including, STP and ETP of capacities 650 KLD & 50 KLD respectively have been installed. The increased capacities have been kept considering future needs. The STP is based on MBBR technology. The wastewater will be collected and conveyed by underground network that is designed to collect wastewater from the entire complex and finally treated in the Sewage Treatment Plant located within the proposed project area.
- xv. Total power required for the project during operation phase is estimated to be around 1,310 kW (1.31 MW). DG Sets of capacity 1097.5 kVA (2 x 250 kVA, 1 x 62.5 kVA, 1 x 35 kVA, and 1 x 500 kVA) using HSD fuel are provided which serve as backup power supply during power failure.
- xvi. The segregation and storage of wastes is done at site. The municipal solid waste is then collected by Indore Municipality for proper disposal.

= SW-stee Congreted	TPD
Type of Wastes Generated  Biodegradable Wastes consist of horticultural waste and 52% of MSW	0.82
Recyclable wastes consists of 26% of MSW	0.41
Inert wastes consist of street sweeping waste and 22% of MSW	0.34
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- xvii. All the bio-medical wastes are segregated and stored in a covered area, from where it is taken away by Hoswin Incinerators Pvt Limited. The employees are trained to collect and haul away biomedical waste in special containers (usually cardboard boxes, or reusable plastic bins) for treatment at a facility designed to handle biomedical waste. Tie-up has been made with M/s Hoswin Incinerator Private Limited for collection and treatment of biomedical wastes. Different waste types would be collected and stored separately in appropriately designed wastes storage facilities as per Bio-Medical Waste (Management & Handling) Rules, 1998 and handed over to the authorized vendors for final disposal.
- xviii. Rain water harvesting system has been installed within the premises to recharge ground water. RWH pits and storm water line has already been constructed. 21 recharging pit proposed for the project.
- xix. As per the NBC-2005, the fire fighting system consists of portable fire extinguishers, hose reel, wet riser, yard hydrant, automatic sprinkler system and fire alarm system. The hospital and college buildings are provided with automatic fire detection and alarm system. There is one fire station within 10km of the project site, at Sangam Nagar, 10km south of the site.
- xx. The project is a completed project, with the Hospital and Medical College operational since 2012. Out of the total area, 4.88ha has been developed as a green belt and landscaped area. In addition to this, trees have been planted along all roads in the residential areas and institutional buildings. A total of 1220 large trees and 494 small trees/shrubs have been planted around the campus in addition to various seasonal flowering plants such as chrysanthimum, dahlia and marigold.
- xxi. The estimated project cost is Rs. 224 Crores.
- xxii. As per MoEF&CC's OM dated 1st May, 2018, 1.5 % of the project cost is to be spent on CER (Corporate Environment Responsibility) activities for green-field projects having project cost >100 crores. As such for the proposed project, an amount of Rs. 3.36 Crores has to be earmarked for spending under CER activities. The amount earmarked in the budget will be separately kept and will not be used for any other purposes. The budget may be increased as per the actual requirement during the implementation stage.

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Project Cost in INR Crore  Corporate Environment Responsibility in INR Crore @ 1.5% of the project cost								
		1 <sup>st</sup> year						
Heal	th Related facilities		2 <sup>nd</sup> year					
1	Free of cost distribution of medicine / body check-up tests in the hospital and local area.	30,00,000	30,00,000	30,00,000	30,00,000	30,00,000	1,50,00,000	
2	Training for health awareness.	5,00,000	5,00,000	5,00,000	5,00,000	5,00,000	25,00,000	
3	Periodic medical check-up camp by appointing specialist doctor for eyes, skin, heart and dental twice in a year in neighbouring villages	24,00,000	24,00,000	24,00,000	24,00,000	24,00,000	1,20,00,000	
4	Assistance in providing study materials, uniform, books to the poor students located nearby area	3,00,000	3,00,000	3,00,000	3,00,000	3,00,000	15,00,000	
5	Scholarship to the deserving students for higher education	3,20,000	3,20,000	3,20,000	3,20,000	3,20,000	16,00,000	
6	Installation of computer systems in schools	2,00,000	2,00,000	2,00,000	2,00,000	2,00,000	10,00,000	
					То	otal	3,36,00,000	

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 561<sup>st</sup> meeting held on 08.08.2019 and decided to accept the recommendations of 385<sup>th</sup> SEAC meeting held on dtd. 12.07.19.

Hence, Environmental Clearance is accorded under the provisions of EIA notification dtd. 14<sup>th</sup> September 2006 and its amendments to the "Shri Aurobindo Institute of Medical Sciences" at Indore-Ujjain State Highway, Village-Bhanwrasla, Tehsil- Sanwer, District-Indore MP Land area- 14.78 ha.(1,47,880 sq.m.) Total builtup-area - 1,42,770.16 sq.m (Hospital Area - 33525.34 sq.m, Institutional Area - 66497.46 sq.m. & Residential Area - 42747. 36 sq.m.) Already Constructed Area - 1,29,751 sq.m. by M/s Aurobindo Institute of Medical Sciences through Director Shri Vinod Bhandari Indore-Ujjain State Highway Near MR 10 Crossing, Indore MP - 453555 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:-

- The fresh water supply arrangement should be met through Municipal Corporation if the project site falls within municipal area and for withdrawal of ground water PP should be obtain from CGWA.
- 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..

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 & Biomedical Waste Management:

- a. Ensure linkage with Municipal Corporation for final disposal of MSW.
- b. PP should make regular coordination with authorized Incinerator for collection and treatment of biomedical wastes .
- 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 the suggestions of SEAC ensure to install fire hydrant system, Automatic fire hydrant system with sprinkler and smoke detector.
- c. As per MPBVR, 2012 rule 42 (3) PP should submit necessary drawings and details to the Authority (Nagar Nigam,Indore) 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 21 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.
- PP should ensure to provide car parking explore the possibility to increase the number of car parking at least 2000ECS.

#### 9. Green belt :-

- a. PP should ensure plantation in an area of, 4.88ha 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.
- b. 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.
- PP should ensure to complete the activities listed under ecological remediation, Natural resource augmentation & community resource augmentation for a total amount of Rs. 54,12,250/.
- 11. The amount specified as CER is Rs. 3.36 Crores and CER is applicable it will be adjusted against the fund available with MPPCB who will use it as CER for government activities/projects for the following purposes: water conservation, storm water management, urban greening, and biodiversity conservation and mitigation projects implementation.

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- 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. Specific Conditions as recommended by SEAC

#### **I Statutory Compliance**

- 14. 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.
- 15. 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.
- 16. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- 17. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- 18. 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.
- 19. The project proponent shall obtain the necessary permission for drawl of ground water/surface water required for the project from the competent authority.
- 20. 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.
- 21. 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.
- 22. The provisions for the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- 23. 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

- 24. 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.
- 25. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 26. 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.

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- 27. Diesel power generating sets 1097.5 kVA (2 x 250 kVA, 1 x 62.5 kVA, 1 x 35 kVA, and 1 x 500 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.
- 28. 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.
- 29. Sand, Murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- 30. Wet jet shall be provided for grinding and stone cutting.
- 31. Unpaved surface and loose soil shall be adequately sprinkled with water to suppress
- 32. 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.
- 33. 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.
- 34. The gaseous emission from DG set 1097.5 kVA (2 x 250 kVA, 1 x 62.5 kVA, 1 x 35 kVA, and 1 x 500 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.
- 35. For indoor air quality the ventilation provisions as per National Building Code of India.

## III. Water quality monitoring and preservation

- 36. 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.
- 37. Buildings shall be designed to follow the natural topography as much as possible Minimum cutting and filling should be done.
- 38. The total water requirement during operation phase is 702.9 KLD out of which 451.20 KLD is fresh water requirement while 251.7 KLD of treated water is required for flushing and miscellaneous use.
- 39. 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.
- 40. 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

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- 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.
- 41. 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.
- 42. 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.
- 43. 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.
- 44. 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.
- 45. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 46. 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.
- 47. 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.
- 48. Rainwater harvesting design has to consider managing 66 cum of water (325 cum 259 cum).
- 49. 21 recharge pits of diameter 1.5 m and depth 1.8 m will be constructed for harvesting rainwater, Mesh will be provided at the roof so that leaves or any other solid waste/debris will be prevented from entering the pit.
- 50. All recharge should be limited to shallow aquifer.
- 51. No ground water shall be used during construction phase of the project.
- 52. 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.
- 53. 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.
- 54. Sewage shall be treated in the STP (Capacity 650 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.
- 55. The waste water generated from the project shall be treated in STP of 650 KLD capacity (based on MBBR technology) and then reused for various purposes. No water body or drainage channels are getting affected in the study area because of this project.

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- 56. No sewage or untreated effluent water would be discharged through storm water drains.
- 57. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problems from STP.
- 58. 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

- 59. 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.
- 60. 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.
- 61. 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.

- 62. 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.
- 63. Outdoor and common area lighting shall be LED.
- 64. 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.
- 65. 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.
- 66. 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.
- 67. 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.
- 68. 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

- 69. 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.
- 70. 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.
- 71. 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.
- 72. All non-biodegradable waste shall be handed over the authorized recyclers for which a written lie up must be done with the authorized recyclers.
- 73. 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.
- 74. 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.
- 75. 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.
- 76. 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

- 77. Total 1,714 trees to be planted as part of greenbelt development for Landscaping plantation total area 48,800.00 (33.03%) sq. m shall be come under green covered .
- 78. 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).
- 79. 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.
- 80. 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.
- 81. 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**

82. 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
- 83. 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.
- 84. Parking's arrangement for cars 2.89 (4277.78 units) shall be provided as proposed by PP.
- 85. 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

- 86. 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.
- 87. For indoor air quality the ventilation provisions as per National Building Code of India.
- 88. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implementation.
- 89. 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.
- 90. Occupational health surveillance of the workers shall be done on a regular basis.
- 91. A First Aid Room shall be provided in the project both during construction and operations of the project.

## X. Corporation Environment Responsibility

- 92. 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.
- 93. 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.
- 94. 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.

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- 95. 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.
- 96. PP has proposed Rs. 33,88,500 ( Rs. 1,89,000.00 as capital cost and Rs. 31,99,500 as recurring cost) for EMP of this project
- 97. The PP M/s. Sri Aurobindo Institute of Medical Sciences has proposed to submit bank guarantee of INR 54, 12,250.00 towards Remediation Plan and Augmentation Plan.
- 98. For this project PP has proposed Rs 3,36,00,000.00 Corporate Environment Responsibility (CER) in which is @ 1.5% of the project cost this amount shall be disbursed in the five years.

#### XI. Miscellaneous

- 99. The project authorities must strictly adhere to the stipulation made by the MP Pollution Control Board and the State Government.
- 100. 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.
- 101. 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 MoEF CC web portal calendar year on & December of each 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

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- 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.
- The Project Proponent shall inform to the Regional Office, MoEF, Gol, 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 31<sup>st</sup> 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, Gol, Bhopal.

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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.

2031 /SEIAA/2019 Dated 5.9.19

(Jitendra Singh Raje)

Member Secretary

Endt No. 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, Distt-Indore -M.P.

5. The Commissioner, Municipal Corporation, Indore, MP

6. The Jt. Director, Town & Country Planning, Housing Board Complex, A.B. Road, Indore

7. Director, I.A. Division, Monitoring Cell, MoEF, Gol, 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)

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