

# 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.: 2488 ISEIAAI 20
Date: 31.8.2020

rtment,

To,
Mr. Avneedra Singh,
Division Project Engineer, Public Works Department,
Project Implementation Unit, Divisional Office,
Chhindwara – 480001 (M.P.)

Sub:- Case no. 6671/2019: Prior Environmental Clearance for proposed Development of CIMS Hospital and Other Allied Buildings, at Khasra no. 1/2, 1/3, 1/4, 2/1,3/2,4, 10/13, 11/2, 11/4, 12,13/1,13/2, 14/1,14/2, 18/2, 19/1,19/2,19/3 & 21Chhindwara, MP Total land area- 2,42,524.91 sq.m.(59.92 Acre) Total Built up area- 2,95,174.0 sq.m by Mr. Avneedra Singh, Division Project Engineer, Public Works Department, Project Implementation Unit, Divisional Office, Chhindwara — 480001 (M.P.) — Email: <a href="mailto:pwdpju12ewa@gmail.com">pwdpju12ewa@gmail.com</a>, Ph-07162 - 230052, Mob- 9893273214 Envt. Consultant:

Ref: Your application dtd.18.11.2019 received in SEIAA office on 20.11.2019.

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, EIA report and subsequently submission of 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 proposed project is development of CIMS Hospital and Others Allied Buildings. The hospital at Chhindwara Institute of Medical Schemes (M.P.) is a part of the Medical College, Chhindwara. The Medical College Campus is spread over a total area of 59.92 acres. The Medical College has been currently associated with the District Hospital at Chhindwara for the purpose of Studies and MCI Norms and requirement.
- The Academic College Building for an Intake of 150 Annual Admission along with Hostels, Faculty Residences, Sport and Community facilities etc.
- iii. The various infrastructure facilities like ESS, STP, Water Tanks, Fire Tanks, Open Parking and Partial Site Development to ensure that the recently completed campus is run smoothly has already been completed and commissioned.
- iv. The Hospital Structure Consists of Ten Blocks numbered Block 1 to Block 10. Block numbers 1,2,3,4 and 5 constitute the general teaching Hospital, block nos. 6 and 7

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Constitute the Super Specialty Hospital, and Block nos. 8 and 9 constitutes the Cardiac Center. While Block Nos 10 which B+1 (triple height), constitutes the Registration Lobby. The structure of general teaching hospital, super specialty and cardiac hospital will be designed as conventional beam slab for Superstructure and flat slab for basement roof including extended basement.

- v. There are no wildlife sanctuaries and national park or archaeological monuments within the study area as well as 15.0 Km radius from the project site.
- vi. As per the approval of T & CP Chhindwara, Seoni, Balaghat (vide L. No. 3120//Na. Gra. Ni./2020 dtd 10.01.20) the total land area of the project is 242524.94 sq.m.(59.92 Acre). The total built up area proposed by PP is 2,95,174.0 sq.m The project comes under 8 (b) category (B) of schedule of EIA Notification, 2006 as the total built-up area is more than 1,50,000 sq.m. The project is high-rise building project (45m) hence approved in high rise committee meeting recommendation report dtd. 02.01.2020.

vii. The built-up area break-up of the project is as follows:-

S. No.	Block Block		
1	Hospital (Including Core/Shell Blocks)	Area (sq.m.)	
2	Auditorium	180776	
3	Staff Residences_3BHK	3633	
4	Nurses Residences_1BHK	18360	
6	SR. Nurses Residences _2BHK	14040	
5	Staff Residence_2BHK	2442	
6		12210	
7	SR. Doctor Residences_1BHK  Dharamshala	14040	
	Sub-Total Area	4000	
3	Basement (Land 1)	249501	
10	Stilt Parking (Land 1A)	41073	
11	Stilt Parking (Land 3)	2000	
Grand To	otal Area including Basement	2600	
N. S. C.	Dasement	295174	

viii. The project site is a government waste land which has been allotted to project proponent for development the medical scheme. Regarding land documents PP has submitted Khasra Panchsala 2017-18, Allotment order and Khasra Map. As per the Khasra Panchsala the land is govt and allotted to project proponent for establishing the medical colleges as required by development the medical scheme. Land area breakup of the project site is as follows:-

Land	Area (sq.m.)	Aron (In A)
Land 1A		Area (In Acre)
Proposed L-1	12777.78	3.157
(Including Existing Development of Academic building with area of 48695.42 sq.m.)	171644.04	42.414
Land 2	40890.84	10.104
Land 3	17212.28	
Total		4.253
Water requirement for proposed project	242524.94	59.929

ix. Total water requirement for proposed project will be 2843.0 KLD, which include 1553.0 KLD for fresh water requirement to be used 1307.0 KLD for domestic use and 246.0 KLD for HVAC, and about 1290.0 KLD treated water shall be reused for the various purpose like filter back wash, horticulture and flushing. The source shall be Chhindwara Municipal Corporation.PP has submitted copy of application (dtd. 13.11.19) to Municipal Corporation Chindwara for water supply.During construction phase, water demand will be fulfilled from outside or Municipal Corporation of Chhindwara.

- x. There will be no discharge of untreated sewage on land or into water bodies. Adequate treatment of sewage will be carried out in a STP within the project premises. The wastewater of 1290.0 KLD in operation phase will be treated up to tertiary level in a STP.
  - Land-1: 2 STP of Capacity 725 KLD & 275 KLD and ETP of capacity 140 KLD & 50 KLD.
  - Land-2: STP of capacity 110 KLD.
  - Land-3: STP of capacity 135 KLD.
- xi. As the source of pollution will be DG sets only after implementation of the project which will be negligible and will be managed by adopting mitigation measures. Out of 10 DG sets, consider 3 DG sets for modeling purpose. Overall the incremental values of PM, SO2, NOx & CO due to operation of DG sets for the project, will be very less in comparison of existing air pollution condition. Thus, the adverse impact of the project outside the project area will be marginal and will not have any effect on health of human and animals and flora of the project area also.
- xii. The Solid Waste generated 4100 kg/day from the project will be collected and managed as per Solid Waste Management Rules, 2016. The project will adopt a systematic approach for solid waste collection and disposal. The domestic solid waste will be generated by the occupants of the Hostel, Visitors, Patients and Staff; pertains to the two categories, Biodegradable and Non-biodegradable. PP has applied (dtd. 13.11.2019) to Municipal Corporation Chhindwara for disposal of solid waste.
- xiii. The rainwater from the terraces, open surface areas, as per design, shall be collected in the catch basins & brick masonry chambers with RCC Pipes, collection chambers and shall be ultimately connected to the main storm-water drainage system. Separate and independent rain water drainage system will be provided which collects the rain water from the roofs, balconies, paved area, lawns & toads and finally dispose the rain water from outside the building into the external chambers/external drains. Recharge pits are proposed in the green areas to allow S.W. drains to be collected and only overflow may be allowed to dispose off in the main drains.

  The total ground water recharge would be 104529.4 m3/annum. Proposed recharge potential to be created by the project would improve ground water regime of the area and would contribute to positive groundwater environment. PP has proposed 15 No. of RWH pits of 20 cu.m. each recharge capacity.
- xiv. Total power requirement is 9.54 MW which will be sourced by Madhya Pradesh Power Kshetra Vidyut Vitran Company Ltd. (MPPKVVCL).For backup, ten numbers of DG sets will be installed in the project periphery with capacity of 3x1500+3x1010+4x160 KVA as standby mode. The project has kept provision for installation of solar lights in common areas and provision of solar heating system. Appropriate energy conservation measures & management plan will be adopted to minimize the consumptions of non-renewable fuel. The following energy conservation techniques can be considered for efficient energy saving in the proposed project.
  - Use of energy efficient devices like light sources such as true-lite fluorescent lamps and LED.
  - Use of insulation on roof top to reduce air-conditioning load.
  - Use of capacitors at load centers to improve voltage and power factor to reduce distributional losses and also to avoid penalty by state electricity authority.
  - All high efficiency motors will be used in the commercial complex.
- xv. PP has proposed all other fire safety requirements in line with latest NBC-2016 these are:
  - Fire Fighting System shall comprise of Wet Riser/Hydrant (Internal & External),
     Sprinkler System, Down Comer System, Gas flooding system for panels, Computer

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- Rooms & other sensitive areas, Fire Extinguishers, Fire Signage's near Fireman's lift, Fire Exits, Fire Brigade Inlet/Draw Out Connections etc. proposed for various Buildings.
- The firefighting system is proposed on basis of type of occupancy as per NBC 2016
   Part-IV and building Height. The system proposed are water based and gas based.
- Water based Fire suppression system is having piping network inside and outside the building with internal and external Hydrants, First Aid Hose reel at regular intervals according to various type of occupancy. The distribution system is finally connected to ring main system for firefighting.
- The entire building shall be provided with a centralized fire suspension system comprising overhead water storage tanks, dedicated fire pumps on terrace, hose reels, wet riser, yard hydrants and sprinkler system as per National Building Code.
- Each Floor will have fire hydrant station and each lobby shall be provided with one set extinguisher.
- In the proposed project automatic fire detection Alarm System shall be provided and an independent fire hydrant ring main is proposed to run around the buildings.
- xvi. The maximum height of the building is 45 m. PP has proposed to provide road width 30m, Front MOS 15m and side / rear MOS 7.50 m. Systematic circulation of internal traffic has been designed for the requirement of hospitals.
- xvii. PP has proposed total car parking 1527 ECS (Open Parking -527 ECS Basement Parking- 1000 ECS )
- xviii. As the 6.5 Acres (Phase 1) of land will be developed under landscaping, horticulture work & gardening work. About 2630 nos. of trees (@1000 trees per ha) will be planted under greenbelt development scheme. Proposed green area of the plot area which will be in the form of Herbs & Shrubs, Avenue plantation, Shelter belt and water body within the project. Trees like Azadirachta indica, Delonix regia, Jacaranda mimosifolia etc. and flowering and ornamental plants have been proposed to be planted inside the premises. It is noted that about 885 nos. of trees are being proposed to be felled for the project and the permission for this have been granted by competent authority Chhindwara Nagar Nigam,(vide letter dtd.06.11.19).
- xix. The project development cost INR 1224.40 Crores has been estimated. The capital investment is estimated about Rs. 1021.40 Crores and recurring cost is Rs. 0.64 Crores under Environment Management Plan.
- xx. PP has proposed Rs 6.122 Crore (0.5% of project cost) as Corporate Environment Responsibility (CER) for remaining project component. Govt. will be utilized the proposed fund for the span of 15 years. Following are the CER Implementation details for next five years.

SIVII	Cost of the Project in	INR Crore						Rs.1224.40 Crores
SI. No.	Activity	Need Based Proposed Location	Year wise implementation and Budgetary provision during operation phase					Total budgetary provision
			1 <sup>st</sup> vear	2 <sup>nd</sup> vear	3 <sup>rd</sup> vear	4 <sup>th</sup> vear	5 <sup>th</sup> year	(Lacs)
1	Water Supply & Treatment	Nearby Adjoining Villages	10.00	6.00	6.00		3.00	28.00
	Economy, Trade & Commerce	Nearby Adjoining Villages	5.00	3.00	3.00	2.00	2.00	15.00

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Otal	(III Crore)		0.62	0.4	0.4	0.22	0.22	1.86
otal	(In Crore)		62.00	40.00	40.00			186.00
0		It will be done with the help of District Collector & Gram Panchayats of Nearby Villages.	12.00	8.00	8.00	4.00	4.00	36.00
7	technical trainings	Implementation will be done for the different type of skill development training with the help of various training Institutes available in Chhindwara District.	3.00	2.00	2.00	1.00	1.00	9.00
6	solar power in	Implementation will be done nearby village area with the help of Gram Panchayats.		2.00	2.00	1.00	1.00	10.00
5	Health	Arrangement of Health Camps to the nearby Villages & different part of city.	15.00	10.00	10.00	6.00	6.00	47.00
4	Education	Infrastructure Development of Schools of Nearby Villages	10.00	7.00	7.00	4.00	4.00	32.00
3	Transportation (Distribution of Battery Operated Vehicle)	City Area & Some of Adjoining Villages	3.00	2.00	2.00	1.00	1.00	9.00
	(Development of Agriculutre based Cottage Industries)							

Based on the information submitted at Para i to xvii above and others, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 631<sup>th</sup> meeting held on 11.08.2020 decided to accept the recommendations of 443<sup>rd</sup> SEAC meeting dtd. meeting held on dtd. 02.07.20

Hence, Environmental Clearance is accorded under the provisions of EIA notification dtd. 14<sup>th</sup> September 2006 and its amendments to the proposed Development of CIMS Hospital and Other Allied Buildings, at Khasra no. 1/2, 1/3, 1/4, 2/1,3/2,4, 10/13, 11/2, 11/4, 12,13/1,13/2, 14/1,14/2, 18/2, 19/1,19/2,19/3 & 21Chhindwara, MP Total land area-2,42,524.91 sq.m.(59.92 Acre) Total Built up area- 2,95,174.0 sq.m by Mr. Avneedra Singh, Division Project Engineer, Public Works Department, Project Implementation Unit, Divisional Office, Chhindwara – (M.P.) 480001 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, Chhindwada .PP should obtained NOC from Municipal Corporation, Chhindwada (as submitted application dtd.13.11.19) and there should no extraction of ground water.

#### 2. Disposal of waste water.

- PP should ensure disposal of waste water arrangement should be done in such a manner that water supply sources are not impaired.
- PP should ensure linkage with Nagar Nigam Chhindwada (application dtd. 13.11.2019) for disposal of extra treated waste water.
- · Ensure regular operation and maintenance of the STP.

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The final disposal point for storm water will be municipal storm drain if storm water network is present. If storm water network is absent, the storm water surface runoff Ensure regular operation and maintenance of the STP.

## 4. Solid & Bio medical Waste Management:

- a. Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.
- b. The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- c. Ensure linkage with Municipal Corporation (application dtd. 13.11.2019) for final disposal of MSW.
- d. Bio-Medical waste to be generated in the hospital shall be handled and managed as per the provisions of Bio-Medical waste (Management & Handling) Rules, 2016.
- e. Bio-medical waste should not be mixed with MSW. ETP sludge shall be disposed at approved TSDF and MoU made in this regard shall be submitted to the MPSEIAA prior to the commencement.
- f. Transportation and handling of Bio-medical Wastes shall be as per the Biomedical Wastes (Management and Handling) Rules, 2000 including the section 129 to 137 of Central Motor Vehicle Rules, 1989.
- g. Radioactive waste management program shall be adopted and implemented at the site in order to mitigate the effects coming out due to use of atomic radiation in different equipments.
- Hazardous waste/E-waste should be disposed off as per Rules applicable and with the necessary approval of the MP Pollution Control Board.
- 5. PP should ensure building height, road width, front MOS and side / rear as per approved layout of T & CP.

### 6. For fire fighting:-

- 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, Chhindwara) incorporating all the fire fighting measures recommended in National Building Code part – IV point no. 3.4.6.1. 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 15 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 area for total car parking 1527ECS (Open Parking -1000 ECS.Basement Parking- 527ECS).PP should explore the possibility to increase the number of car parking.
- 9. Green belt :-

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- a. PP should ensure plantation in an area of 6.5 Acres (Phase 1) of land will be developed of area is dedicated for the green belt development by planting 2630 nos of trees including two rows periphery and also explore the possibility to plant trees of indigenous local varieties like Neem, Peepal, Kadam, Karanj, Kachnaar, Saltree, Gulmohar etc.
- b. Every effort should be made to protect the existing trees on the site. No trees will be allow to cut without permission of competent authority. PP should ensure to compliance the condition lay down by Nagar Nigam Chhindwara for cutting of trees. (letter dtd.06.11.19)
- 10. PP should ensure Rs 6.122 Crore (0.5% of project cost) as Corporate Environment Responsibility (CER) for the span of 15 years. Following are the CER Implementation details for next five years.

S	Activity	Need Based Proposed Location	Proposed Budgetary provision durin operation phase			ring	Total budgetary provision (Lacs)	
	W. C. C.		1 year	2 year	3 yea		5 ar year	(2000)
1	Treatment	Nearby Adjoining Villages	10.00	6.00	6.00	1		28.00
2	Economy, Trade & Commerce (Development of Agriculutre based Cottage Industries)	Nearby Adjoining Villages	5.00	3.00	3.00	2.00	2.00	15.00
3	Transportation (Distribution of Battery Operated Vehicle)	City Area & Some of Adjoining Villages	3.00	2.00	2.00	1.00	1.00	9.00
4	Education	Infrastructure Development of Schools of Nearby Villages	10.00	7.00	7.00	4.00	4.00	32.00
5	Health	Arrangement of Health Camps to the nearby Villages & different part of city.	15.00	10.00	10.0	6.00	6.00	47.00
6	Electrification including solar power in surrounding of the project	Implementation will be done nearby village area with the help of Gram Panchayats.	4.00	2.00	2.00	1.00	1.00	10.00
7	Capacity building and technical trainings	Implementation will be done for the different type of skill development training with the help of various training Institutes available in Chhindwara District.	3.00	2.00	2.00	1.00	1.00	9.00
1	Avenue plantation/Community plantation	It will be done with the help of District Collector & Gram Panchayats of Nearby Villages.	12.00	8.00	8.00	4.00	4.00	36.00
-	Total		62.00	40.00	40.00	22.00	22.00	186.00
T	otal (Rs.in Crores)		0.62	0.40	0.40	0.22	0.22	1.86

- 11. PP shall give preference to develop/provide infrastructural facilities in schools or aanganwadies of nearby villages. The modification to the above activities can be made with the permission of the district administration and need based activity for the development of nearby villages shall be implemented by PP in consultation with the District Collector and Gram Panchayat.
- 12. PP should ensure to submit half yearly compliance report and CER 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

- i. 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.
- ii. 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.
- iii. 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.
- iv. The project proponent shall obtain the necessary permission for drawl of ground water/surface water required for the project from the competent authority.
- v. 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.
- vi. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
- vii. The provisions for the solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.
- viii. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power Strictly.
- ix. The project area shall be secure through boundary wall and excavated top soil shall not be used in filling of low lying area. The top soil shall be used for greenery development.

II. Air Quality Monitoring and preservation

i. 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.

- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii. 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.
- iv. 10 Diesel power generating sets (3x1500 kVA +3x1010 kVA +4x160 kVA) = 8170 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.
- v. 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.
- vi. Sand, Murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surface and loose soil shall be adequately sprinkled with water to suppress dust.
- ix. 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.
- x. 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.
- xi. The gaseous emission from 10 DG sets (3x1500 kVA +3x1010 kVA +4x160 kVA) = 8170 kVA nos 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.
- xii. For indoor air quality, the ventilation provisions as per National Building Code of India shall be provided.

III. Water quality monitoring and preservation

i. 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.

- ii. Buildings shall be designed to follow the natural topography as much as possible Minimum cutting and filling should be done.
- iii. Total water requirement for proposed project will be 2843.0 KLD, which include 1553.0 KLD for fresh water requirement to be used 1307.0 KLD for domestic use and 246.0 KLD for HVAC, and about 1290.0 KLD treated water shall be reused for the various purpose like filter back wash, horticulture and flushing.
- iv. 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.
- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. 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.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. 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.
- xii. 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.
- xiii. For rainwater harvesting, 15 recharge pits will be constructed for harvesting rain water. The total recharge capacity of these pits about 104529.4 m3/annum. Mesh will be

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- provided at the roof so that leaves or any other solid waste/debris will be prevented from entering the pit.
- xiv. 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.
- xv. All recharge should be limited to shallow aquifer.
- xvi. No ground water shall be used during construction phase of the project.
- xvii. 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.
- xviii. 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.
- xix. Sewage shall be treated in the MBBR & SBR based STPs .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.

  Details are as given below:

SI. No.	Items	Capacity in KLD		
Land-1 Hospital Area	(Phase-1 & 2)			
1.	STP Capacity Phase-1	725.0		
II.	ETP Capacity Phase-1	140.0		
III.	STP Capacity Phase-2	275.0		
IV.	ETP Capacity Phase-2	50.0		
V.	Technology of STP	MBR Technology		
Land-1 Staff Residence	ce (Phase-1 & 2)			
No STP is required, network.	sewer shall be connected	to Medical College sewerage		
Land-2 (Phase-1)		market and the second		
1.	STP Capacity Phase-1	110.0		
II.	Technology of STP	SBR Technology with Ultra Filtration System for Flushing Water Requirement.		
Land-3 (Phase-1)				
1.	STP Capacity Phase-1	135.0 KLD		
II.	Technology of STP	SBR Technology with Ultra Filtration System for Flushing Water Requirement.		

- xx. The waste water generated from the project shall be treated in STPs & ETPs should be reused for various purposes. No water body or drainage channels are getting affected in the study area because of this project.
- xxi. No sewage or untreated effluent water would be discharged through storm water drains.
- xxii. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problems from STP & ETP.

xxiii. 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

- i. 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.
- ii. 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.
- 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

- 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.
- ii. Outdoor and common area lighting shall be LED.
- iii. 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.
- iv. 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.
- v. Solar, wind or other Renewable Energy shall be installed in meet electricity generation equivalent to 1% of the demand load or as per the state level/local building bye-laws requirement, which is higher.
- vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

#### VI. Waste Management

 Total waste 4100 Kg/day, this consist all types of wastes (as Organic waste and nonorganic waste), and these all type of waste shall be treated/ disposed off as per provision made in the MSW Rules 2016.

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Details are as given below:

Say		4050.00		
Total				
3	Auditorium other miscellaneous	0.1 to 0.2 kg/cap/day	800	160.00
	1 (1 kg MSW + 0.5 KG BMW Waste)			(MSW1523+ BMV 761.5)
2	Hospital Bed Phase-	1.5 kg/bed	1523	2285.00
1	Residential	0.3 to 0.6	2676	1605.00
SI. No.	Category of Solid Waste	Waste Generation	Total Population	Waste Generated (kg/day)

- ii. 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.
- iii. 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.
- iv. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste (approx. 4100kg/day) shall be segregated into wet garbage and inert materials.
- v. All non-biodegradable waste shall be handed over the authorized recyclers for which a written lie up must be done with the authorized recyclers.
- vi. 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.
- vii. 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.
- viii. 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 27<sup>th</sup> August, 2003 and 25<sup>th</sup> January, 2016 Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto small be managed so as to strictly conform to the construction and Demolition Rules, 2016.
- x. 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

- i. Total 2630 trees shall be planted in the area of 6.5 Acres (Phase 1) which is developed as greenbelt development.
- ii. Not tree can be felled/transplant unless exigencies demand. Where absolute necessary, tree felling shall be with prior permission from the concerned regulatory

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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).

- iii. 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.
- iv. 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.
- v. 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

- i. 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
- ii. 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.
- iii. 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

- i. 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.
- ii. For indoor air quality the ventilation provisions as per National Building Code of India.
- iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implementation.
- iv. 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,

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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.

- v. Occupational health surveillance of the workers shall be done on a regular basis.
- vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

# X. Corporation Environment Responsibility

- i. 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.
- ii. 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.
- iii. 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.
- iv. 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.
- v. For Environment Management Plan PP has proposed Rs. 1021.40 Crore as capital and Rs. 0.64 Crore as recurring cost for this project.

#### XI. Miscellaneous

- i. The project authorities must strictly adhere to the stipulation made by the MP Pollution Control Board and the State Government.
- The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the State Expert Appraisal Committee (SEAC).
- 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.
- iv. 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

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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:

- All activities / mitigative measures proposed by PP in Environmental Impact Assessment (if applicable) and approved by SEAC must be ensured.
- All activities / mitigative measures proposed by PP in Environmental Management Plan and approved by SEAC must be ensured.
- Project Proponent has to strictly follow the direction/guidelines issued by MoEF, CPCB and other Govt. agencies from time to time.
- The Ministry or any other competent authority may alter/modify the conditions or stipulate any further condition in the interest of environment protection.
- The environmental clearance accorded shall be valid as per EIA Notification, 2006, and amendments by MoEF&CC Notification dated 29<sup>th</sup> April, 2015.
- 6. 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
- 7. The Regional Office, MoEF, Gol, 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, Gol 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.
- 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.
- 10. 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.
- 11. 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.
- 12. 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;

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- 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.
- 13. 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
- 14. 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.
- 15. 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.
- 16. 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.

189 1SEIAA/2020 Dated 31.8. dodo oh

(Tanvi Sundrival) 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, District Chhindwara, M.P.

5. The Commissioner, Municipal Corporation, Chhindwara, MP

6. The Town & Country Planning District Office, Chhindwara MP

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, I.A. Division, Monitoring Cell, MoEF, Gol, Ministry of Environment & Forest Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110 003

9. Director (S), Regional office of the MOEF, (Western Region), Kendriya Paryavaran Bhawan, Link Road No. 3, Ravi Shankar Nagar, Bhopal-462016.

10. Guard file.

(Dr. Sanjeev Sachdev) Officer-in-Charge

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