

ENVIRONMENTAL
CLEARANCE



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), MADHYA PRADESH)

To,

The Head Environment and Forest

MAHAN ENERGEN LIMITED

Adani Corporate House, Shantigram, Near Vaishnodevi Circle, S.G
Highway, Ahmedabad - 382421, Gujarat -382421

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the SEIAA vide proposal number
SIA/MP/INFRA2/444647/2023 dated 29 Sep 2023. The particulars of the
environmental clearance granted to the project are as below.

- | | |
|---|--|
| 1. EC Identification No. | EC24B038MP194263 |
| 2. File No. | 10627/2023 |
| 3. Project Type | New |
| 4. Category | B |
| 5. Project/Activity including
Schedule No. | 8(a) Building and Construction projects |
| 6. Name of Project | Residential Township for Bandhaura
Thermal Power Plant at Village Karsualal,
Tehsil Mada, District Singrauli, Madhya
Pradesh. |
| 7. Name of Company/Organization | MAHAN ENERGEN LIMITED |
| 8. Location of Project | MADHYA PRADESH |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page
no 2 onwards.

Date: 29/01/2024

(e-signed)
Mujeebur Rehman Khan
Member Secretary
SEIAA - (MADHYA PRADESH)

*Note: A valid environmental clearance shall be one that has EC identification
number & E-Sign generated from PARIVESH. Please quote identification
number in all future correspondence.*

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PARIVESH

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and Virtuous Environmental Single-Window Hub)



Ref: Proposal No. SIA/MP/INFRA2/444647/2023, Case No10627/2023: Prior Environment Clearance for Residential Township for Bandhaura Thermal Power Plant at (Khasra No. 134, 135, 132, 131, 130, 144, 143, 145, 98, 146, 141/3, 141/1, 141/2, 139/1, 139/2, 140, 142) Village-Karsualal, Tehsil-Mada, District-Singrauli (MP) Total Built up Area - 43155.5 sq.m. Total Plot Area- 90,973.33 sq.m. (22.48 Acres) by Shri R.N. Shukla, Head Environment and Forest, M/s. Mahan Energen Limited Private Ltd., Adani Corporate House, Shantigram, Near Vaishnodevi Circle, S.G Highway, Ahmedabad (GJ)-382421. Email: MEL.Adanipower2023@gmail.com Mobile: 9426600976 Env Consultant: Gaurang Environmental Solutions Pvt. Ltd. Rajasthan

With reference to above the proposal has been appraised as per prescribed procedure & provisions under the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated 14th September 2006 and its amendment, on the basis of the mandatory documents uploaded with the online application viz., CAF, Part A & B, Form IA, Conceptual Plan, drawings and subsequently submission of EMP 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.

- This is case of Prior Environment Clearance for Residential Township for Bandhaura Thermal Power Plant in an area of 9.10 Ha. at (Khasra No. 134, 135, 132, 131, 130, 144, 143, 145, 98, 146, 141/3, 141/1, 141/2, 139/1, 139/2, 140, 142) Village-Karsua, Tehsil-Singrauli, District-Singrauli (MP)
- Mahan Energen Limited (MEL) a fully Owned subsidiary of Adani Power Limited (APL) is operating 1200 (2x600) MW & proposed Expansion of 1600 (2x800) MW coal based Bandhaura Thermal Power Plant situated at Singrauli District in Madhya Pradesh.
- MoEF&CC has granted Environmental Clearance for operating 1200 (2x600) MW & proposed expansion 1600 (2x800) MW of Bandhaura Thermal Power Plant in favour of Mahan Energen Limited vide letter J-13011/56/2006-IA.II (T) dated 20.04.2007, 27.07.2023.
- परियोजना का कुल भूखंड क्षेत्र 90,973.33 वर्गमीटर है। परियोजना के लिए प्रस्तावित निर्मित क्षेत्र लगभग 43,155.50 वर्ग मीटर है। इस परियोजना में 2 बीएचके, 3 बीएचके, विला, गेस्ट हाउस, क्लब हाउस सहित आवासीय इकाइयां, साथ ही मंदिर शॉपिंग कॉम्प्लेक्स, प्राथमिक विद्यालय, डिस्पेंसरी आदि सहित अन्य सुविधाएं भी सम्मिलित है।
- उक्त प्रकरण को राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की बैठक 700वीं दिनांक 14.12.2023 में पर्यावरण स्वीकृति हेतु अनुशंसित किया गया, उक्त बैठक की कार्यवाही विवरण पृष्ठ क्र. 29 से 45 तक अंकित है।
- परियोजना का विवरण निम्नानुसार है :-

Items	Details		
Project Name	Residential Township for Bandhaura Thermal Power Plant at Village Karsualal, Tehsil Mada, District Singrauli, Madhya Pradesh, India		
Lat./Log.	Latitude : 24°0'14.58"N Latitude : 24° 0'9.40"N Latitude : 24° 0'4.63"N	Longitude : 82°25'38.95"E Longitude : 82°25'38.29"E Longitude : 82°25'33.03"E	
Total Plot Area	90,973.33 sq. m. (22.48 Acres)		
FSI/FAR	Particulars	FSI/FAR	Area
	Standard/Permissible*	1.25	113,716.66 sq. m.
	Achieved	0.391 0.002	35.753 sq. m. 35,551 sq. m. 202 sq. m.
Non – FAR Area	7402.5 sq. m.		
Gross Built up area	43,155.50 sq. m.		

Ground Coverage	Permissible* : 30% (27,291.99 sq. m.) Achieved : 12.14% (11,042.24 sq. m.)			
Green Area	29,049.35 sq. m. (31.93%) Proposed No of Trees: 2000 nos. approx			
Building structure	2 BHK	3 BHK	Villas	Guest House
	108 nos.	72 nos.	2 units	52 units
	<i>Other facilities: Club House, Temple, Shopping Complex, School, Dispensary</i>			
Parking facilities	Proposed Parking : 341 ECS			
Power requirement	Construction Phase		Operational phase	
	Power Requirement : 85 KVA Source : TPP of MEL		Power Requirement: 2500KVA Source : TPP of MEL	
Power backup (During blackout/ emergency purpose only)	D.G Set Capacity	Number	Fuel	Fuel requirement
	50 kVA	1 No.	LDO/HS	10 lt/hr
	100 kVA	1 No.	D	20 lt/hr
Proposed Renewable Energy	Solar PV. Efforts will be done for achieving 750 KW (30% of the Power Requirement)			
Water Requirement	Construction Phase : 30 KLD Operation Phase : 237.5 KLD • Fresh Water : 120.5 KLD • Recycled Water : 117 KLD • Source : WTP of MEL			
Sewage treatment & disposal	Construction Phase	Operational phase		
	Sewage Generation: 10 KLD Treatment & Disposal: Modular STP	Sewage generated: 130 KLD Sewage Treatment facility : 160 KLD STP Technology : MBBR Recycled Treated water : 117 KLD ✓ Flushing : 51 KLD ✓ Greenbelt & Landscaping : 66 KLD Dried sludge from STP to be mixed with wet waste and processed in OWC, this will be used as manure for gardening.		
RWH Structures	Rainwater harvesting Pond : 1200 sq. m. (1 No.) Annual Recharge : 45779.03 cu. m.			
Solid Waste and Generation Management	445 kg/Day Biodegradable waste (60 %) : 267 kg/Day Non-Biodegradable (40 %) : 178 kg/Day ➤ Organic waste convertor of Capacity 300 kg/day will be proposed. Wet Garbage will be treated in Mechanical Composting Unit - Organic Waste Convertor (OWC) and the compost generated would be used as manure for gardening purpose. ➤ The Inorganic waste (Non-Biodegradable waste) shall be collected & disposed off at designated/authorized common place by the Nagar Palik Nigam, Waidhan, Singrauli. Application for issue NOC for disposal of generated MSW has been submitted to Nagar Palika Nigam, Waidhan, Singrauli.			
Project cost	Rs. 124 Crores			

EMP Budget	Construction Phase	Operation Phase
	Capital Cost : Rs. 36 Lacs Recurring cost : Rs. 15 Lacs	Capital Cost : Rs. 865 Lacs Recurring cost : Rs. 35 Lacs
Budget for CER activities	Rs. 125 lacs	

Based on the information submitted at Para i to Vi above, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 824th meeting held on 11.01.2024 and decided to accept the recommendations of 700th SEAC meeting held on dated 14.12.2023.

Hence, Prior Environmental Clearance is accorded under the provisions of EIA Notification dtd. 14th September 2006 & its amendments to the proposed "Residential Township for Bandhaura Thermal Power Plant at (Khasra No. 134, 135, 132, 131, 130, 144, 143, 145, 98, 146, 141/3, 141/1, 141/2, 139/1, 139/2, 140, 142) Village-Karsualal, Tehsil-Mada, District-Singrauli (MP) Total Built up Area - 43155.5 sq.m. Total Plot Area- 90,973.33 sq.m. (22.48 Acres) by Shri R.N. Shukla, Head Environment and Forest, M/s. Mahan Energen Limited Private Ltd., Adani Corporate House, Shantigram, Near Vaishnodevi Circle, S.G Highway, Ahmedabad (GJ)-382421 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

- भू जल निकासी को कम करने के दृष्टिगत परियोजना हेतु जल आपूर्ति थर्मल पावर प्लांट को जल संसाधन विभाग द्वारा रिहन्द जलाशय से आवंटित जल से किया जाना सुनिश्चित करें।
- परियोजना प्रस्तावक को अतिरिक्त उपचारित अपशिष्ट जल का पूर्ण रूप से उपयोग करें। आवासीय परिसर में दूषित जल का निष्कासन पूर्ण रूप से प्रतिबंधित रखें। भविष्य में नगर निगम क्षेत्र में शामिल होने उपरांत अतिरिक्त उपचारित अपशिष्ट जल के निपटान के लिए नगर निगम की सीवर लाइन के साथ लिंकेज सुनिश्चित करें।
- फ्लशिंग और अन्य उद्देश्यों के लिए उपचारित बहिष्प्राव के पुनः उपयोग के लिए दोहरी प्लंबिंग प्रणाली अनिवार्य रूप से अपनाई जाये।
- परियोजना से निष्क्रिय अपशिष्ट को डंपिंग साइट पर भेजा जाये एवं परियोजना प्रस्तावक को नगर निगम से अथवा सम्बंधित स्थानीय संस्था से MSW के निष्पादन हेतु अनिवार्य रूप से अनुमति प्राप्त की जाना चाहिये।
- परियोजना की योजना और डिजाइन मध्य प्रदेश भूमि विकास (MPBVR) नियम, 2012 की आवश्यकताओं के अनुरूप ही किया जाना सुनिश्चित करे। बिल्डिंग फुटप्रिंट और एफएआर, ग्राउंड कवरेज से संबंधित अन्य पैरामीटर भी (MPBVR) नियम 2012 के तहत निर्धारित अनुमेय मानदंडों के अनुसार ही रखा जावे।
- प्रस्तावित भवन में लिफ्ट की व्यवस्था, फायर सेफ्टी हेतु अलग से किया जाना होगा एवं इस हेतु संबंधित विभाग से अनुमति प्राप्त किये जाने के उपरांत निर्माण कार्य प्रारंभ किया जायेगा।
- भवन हेतु वैद्युत ऊर्जा की कुल खपत का कम से कम 20 प्रतिशत हिस्सा गैर पारम्परिक ऊर्जा स्रोत के माध्यम से प्रतिपूर्ति करना सुनिश्चित किया जाना सुनिश्चित करे।
- सीईआर गतिविधियों के लिए निर्धारित कुल बजट 125 लाख रुपये है। इसे आवश्यकता के आधार पर आसपास के स्कूलों, अस्पतालों/डिस्पेंसरियों और जरूरत मंद पशु चिकित्सकों और स्थानीय अधिकारियों द्वारा दी गई परामर्श के अनुसार निर्धारित अवधि में पूर्ण किया जाना सुनिश्चित करे।
- SEIAA द्वारा प्रकरण में जारी पर्यावरण स्वीकृति माननीय सर्वोच्च न्यायालय, माननीय उच्च न्यायालय, माननीय एन.जी.टी. एवं अन्य न्यायालयों के आदेशों/दिशा निर्देशों के अधीन मान्य रहेंगी तथा माननीय सर्वोच्च न्यायालय, माननीय उच्च न्यायालय, माननीय एन.जी.टी. एवं अन्य

न्यायालयों द्वारा जारी सभी निर्देशों/निर्णयों का अनुपालन परियोजना प्रस्तावक के लिये बाध्यकारी होगा।

10. MPSEIAA द्वारा जारी कार्यालयीन ज्ञापन दिनांक 19.06.23 के अनुसार यदि परियोजना में भू जल निकासी की जाती है तो निम्नानुसार निर्देशों का पालन किया जाना सुनिश्चित करे:-
 - a. जिन मामलों में पानी की आपूर्ति पानी के टैंकों के माध्यम से की जानी है, उन परियोजनाओं में परियोजना प्रस्तावक द्वारा पानी की आवश्यकता को केवल लाइसेंस प्राप्त टैंकर जल आपूर्तिकर्ताओं के माध्यम से पूरा किया जाना सुनिश्चित किया जाये।
 - b. सक्षम प्राधिकारी (सीजीडब्ल्यूबी/सीजीडब्ल्यूए) की पूर्व अनुमति के बिना भूजल निकासी की अनुमति नहीं दी जाएगी। तदनुसार, भूजल निकासी के लिए एन.ओ.सी की प्रति सभी नियामक प्राधिकरणों, अर्थात् प्राधिकरण (राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण), क्षेत्रीय कार्यालय, पर्यावरण वन एवं जलवायु परिवर्तन भारत सरकार, भोपाल, मध्य प्रदेश प्रदूषण नियंत्रण बोर्ड और केंद्रीय प्रदूषण नियंत्रण बोर्ड को प्रस्तुत की जाएगी।
 - c. परियोजना प्रस्तावक भूजल निकासी के लिए एन.ओ.सी में किए गए अनुबंधों का अनिवार्य रूप से अनुपालन सुनिश्चित करेंगे और इसकी स्थिति छह मासिक अनुपालन रिपोर्ट के एक भाग के रूप में प्रस्तुत करेंगे।
11. यदि परियोजना स्थल जल निकाय के आसपास है, तो जल निकाय के किनारे से स्थल की ओर 50 मीटर की दूरी को विकास/निर्माण क्षेत्र नहीं माना जाएगा। यदि यह आर्द्रभूमि के निकट है, तो आर्द्रभूमि (संरक्षण और प्रबंधन) नियम, 2017 को लागू करने के लिए दिशानिर्देशों का पालन सुनिश्चित किया जाये एवं आवश्यक अनापत्ति प्रमाण सम्बन्धित प्राधिकरण से प्राप्त किया जावे।
12. The inlet and outlet point of natural drain system should be maintained with adequate size of channel for ensuring unrestricted flow of water.
13. 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
14. PP should ensure road width, front MOS and side / rear as per MPBVR 2012.
15. The building shall be designed for compliance with earth quake resistance and resisting other natural hazardous.
16. The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body/T&CP& it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work.
17. Wet Garbage shall be composted in Organic waste convertor. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The Inert waste from the project will be sent to dumping site.
18. For firefighting:-
 - a. PP should ensure distance of fire station approachable from the project site. All the required fire fighting arrangement should be made available on the project site as per NBC 2016.
 - b. The occupancy permit shall be issued by Municipal Corporation only after ensuring that all fire fighting measures are physically in place.
 - c. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises
19. Provide solar lights for common amenities like Street lighting & Garden lighting.
20. Electrical charging points for E-Vehicles shall be provided to promote clean energy.
21. The landscape planning should include 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

- The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA/SEAC along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
23. The project proponent has to ensure that the proposed site will be developed as per layout approved by T & CP, Indore. Also In the event of any dispute on ownership or land use of the proposed site, this clearance shall automatically deemed to be cancelled.

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. 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, Murrum and other construction materials prone to causing dust polluting at the site as well as taking out debris from the site.
- v. Sand, Murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vi. Wet jet shall be provided for grinding and stone cutting.
- vii. Unpaved surface and loose soil shall be adequately sprinkled with water to suppress dust.
- viii. 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.

- ix. 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.
- x. For indoor air quality the ventilation provisions as per National Building Code of India.

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. The total water requirement during operation phase is 237.50 KLD out of which 120.50 KLD is fresh water requirement and 117 KLD will be the total recycled water generated, out of which 51 KLD recycled water will be used for flushing and 66 KLD water will be used for horticulture.
- iv. The quantity 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 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. Rainwater storage pond having an area of 1200 sq. m and effective volume of 45779.03 cu. m. will be constructed and the stored rainwater will be reused for horticulture purposes.
- 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 based STP (Capacity - 160 KLD). The treated effluent from STP shall be recycled/re-used for flushing. As proposed, no treated water shall be disposed in to municipal drain.
- xx. The waste water generated from the project shall be treated in STP of 160 KLD capacity (based on MBBR based technology) and then reused for various purposes. No water body or drainage channels are getting affected in the study area because of this project.
- 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.
- 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.
- iii. 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

- i. The PP shall ensure power generation from non- conventional sources i.e. solar power etc. to achieve 30% of the total power consumption.
- ii. Looking to the use of e-vehicles atleast three battery charging points per towers i.e. 06 point in the projects shall be provided
- iii. 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.
- iv. Outdoor and common area lighting shall be LED.
- v. 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.
- vi. Energy Conservation measures like installation of CFIs/LED's for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
- vii. Solar, wind or other renewable energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level /local building bye-laws requirement, which is higher.

- viii. 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

- i. Total waste 445 Kg/day, this consist all types of wastes (as Organic waste 267 Kg/day and non- organic waste 178 Kg/day and these all type of waste shall be treated/ disposed off as per provision made in the MSW Rules 2016.
- 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 (0.4 ton/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 27th August, 2003 and 25th January, 2016 Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto shall 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 3000 trees shall be planted in the area of 29049.35 Sq. m. (31.93% of total plot area) which is developed as greenbelt development as follows:

Sr. No.	Scientific Name	Common Name
	Trees	
1	Peltophorum pterocarpum	Yellow Gulmohar
2	Azadirachta indica	Neem
3	Madhuca longifolia	Mahua
4	Putranjiva roxburghii	Putranjiva
5	Ficus benjamina	Ficus
6	Millettia pinnata	Karanj
7	Albizia saman	Rain Tree
8	Delonix regia	Gulmohar
9	Senna siamea	Kasod
10	Syzygium cumini	Jamun

11.	Manqifera indica	Mango
12.	Psidium quajava	Guava
13.	Manilkara zapota	Chiku
14.	Phyllanthus emblica	Amla
15.	Artocarpus heterophyllus	Jack Fruit
16.	Gmelina arborea	Gumhar
17.	Saraca asoca	Ashoka
18.	Cassia fistula	Amaltaas
19.	Mimusops elengi	Molshree
20.	Terminalia arjuna	Adun
21.	Dalberqia sissoo	Sisham
22.	Bombax ceiba	Semal
23.	Schleichera oleosa	Kusum
24.	Moringa oleifera	Drumstick
25.	Brahea	Palm
26.	Lagerstroemia speciosa	Zarul
27.	Aeqle marmelos	Bel
28.	Ficus virens	White fig

- ii. Not tree will 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).
- iii. A minimum of 1 tree for every 80 sqm of land shall 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. Total proposed Parking's arrangement for 341 ECS (Open area parking 245 ECS & Still Floor parking 96 ECS).

- iv. 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. Basic facilities like wash rooms and toilets for the use by employees, guard, gardeners, outside drivers and house hold workers shall be provided in appropriate numbers to avoid open defecation in the nearby areas.
- ii. 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.
- iii. For indoor air quality the ventilation provisions as per National Building Code of India.
- iv. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implementation.
- v. 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.
- vi. Occupational health surveillance of the workers shall be done on a regular basis.
- vii. A First Aid Room shall be provided in the project both during construction and operations of the project.

X EMP & Corporation Environment Responsibility

- i. For Environment Management Plan PP has proposed Rs. 8.65 Crore as capital and Rs. 0.35 Crore as recurring cost for this project.
- ii. 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.
- iii. 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.
- iv. 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.
- v. 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.

XI Miscellaneous

- i. The project authorities must strictly adhere to the stipulation made by the MP Pollution Control Board and the State Government.
- ii. 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)

- iii. No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- 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 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. Any change in the correspondence address should be duly intimated to all the regulatory authorities within 30 days of such change.
2. All activities / mitigative measures proposed by PP in Environmental Impact Assessment (if applicable) and approved by SEAC must be ensured.
3. All activities / mitigative measures proposed by PP in Environmental Management Plan and approved by SEAC must be ensured.
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. This environmental clearance will be valid for a period of ten years from the date of its issue as per MoEF & CC, GoI notification No. S.O. 1807 (E) dated 12.04.2022 or till the completion of the project, whichever is earlier.
7. 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.
8. 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.
9. 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.
10. The Project Proponent shall inform to the Regional Office, MoEF, GoI, Bhopal and MP PCB regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
11. 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.
12. 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.
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, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company and in the public domain.

14. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the Regional Office of MoEF.
15. A copy of the environmental clearance shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat and municipal bodies as applicable in addition to the relevant officers of the Government who in turn has to display the same for 30 days from the date of receipt.
16. The Project Proponent shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of the State Level Environment Impact Assessment Authority (SEIAA) at www.mpseiaa.nic.in and a copy of the same shall be forwarded to the Regional Office, MoEF, GoI, Bhopal.
17. Any appeal against this prior environmental clearance shall lie with the Green Tribunal, if necessary, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


(Mujeebur Rehman Khan)
Member Secretary

Copy to –

- (1). Principal Secretary, Department of Environment., Government of MP, Mantralaya Vallabh Bhawan, Bhopal.
- (2). Member 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- Singrauli -M.P.
- (5). The Commissioner, Municipal Corporation, Singrauli, MP
- (6). Town & Country Planning, Office of the Deputy Director, Singrauli (M.P.)
- (7). MP Real Estate Regulatory Authority, 1, Main Rd, Zone-I, Arera Hills, Bhopal, Madhya Pradesh 462011
- (8). Director, I.A. Division, Monitoring Cell, MoEF, GoI, 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.


(Alok Nayak)
Officer-in-Charge