



सत्यमेव जयते

File No: SEAC/HR/2024/045
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), HARYANA)



Date 28/05/2024



To,

MARUTI SUZUKI INDIA LIMITED
Old Palam Gurgaon Road , Gurugram, GURUGRAM, HARYANA, , 122015
madan.bansode@maruti.co.in

Subject: EC for Proposed Expansion of Industrial Shed for Automobile Manufacturing (Integrated Facilities) Unit situated at Plot No. 831, Industrial Model Township (IMT) Kharkhoda, Sonipat, Haryana

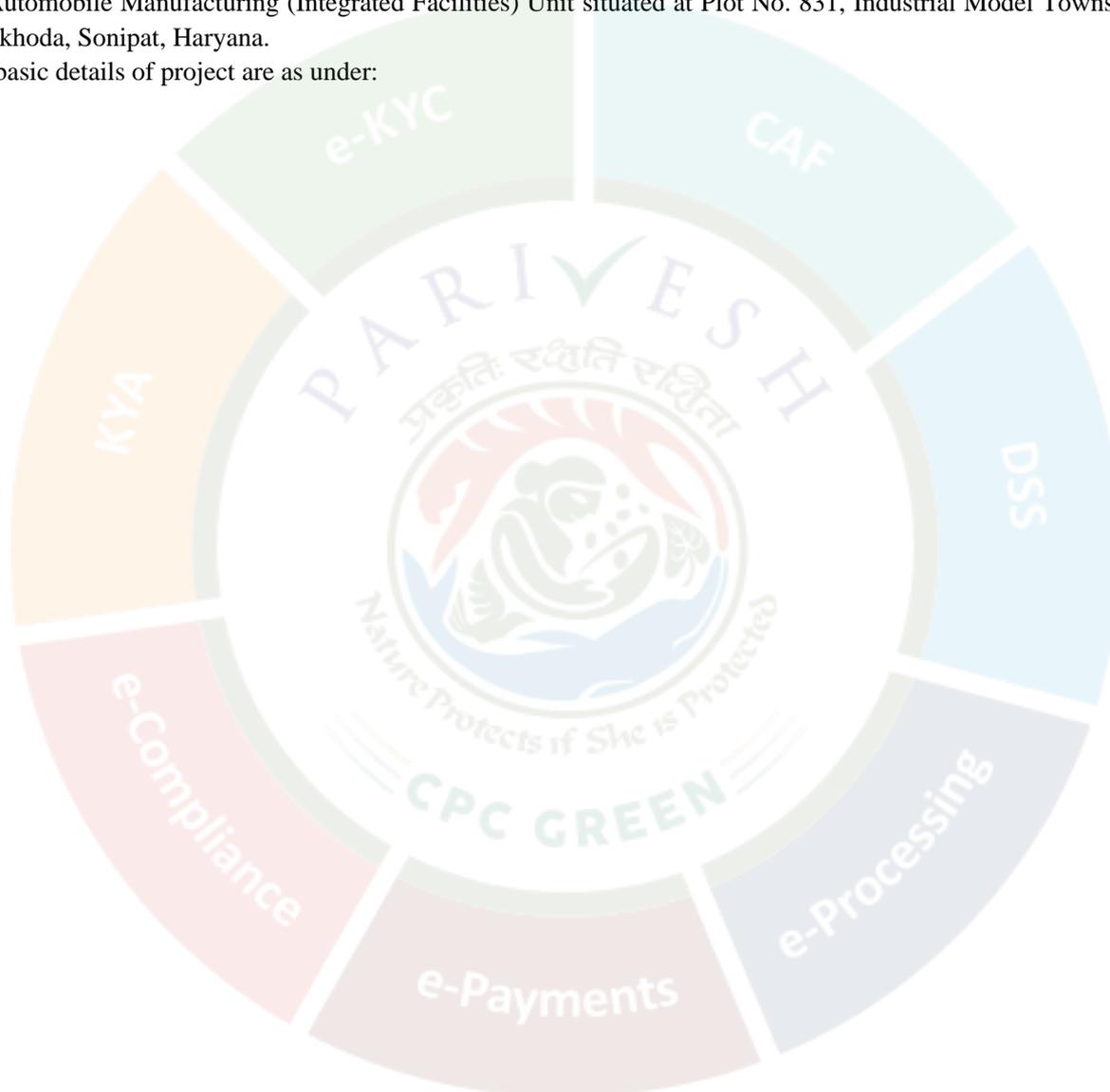
Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/HR/INFRA2/457883/2024 dated 29/01/2024 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24B3813HR5187061N
(ii) File No.	SEAC/HR/2024/045
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	8(b) Townships/ Area Development Projects / Rehabilitation Centres
(vii) Name of Project	Proposed expansion of Industrial shed for Automobile Manufacturing (Integrated facilities) Unit situated at Plot No. 831, Industrial Model Township (IMT) Kharkhoda, Sonipat, Haryana, Pincode-131402
(viii) Name of Company/Organization	MARUTI SUZUKI INDIA LIMITED
(ix) Location of Project (District, State)	SONIPAT, HARYANA
(x) Issuing Authority	SEIAA
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. In This has reference to your Proposal No. SIA/HR/INFRA2/457883/2024 dated 29.01.2024 and subsequent letter dated 05.03.2024 for obtaining Environmental Clearance under category 8(b) of EIA Notification dated 14.09.2006 along with submission of **due Scrutiny fee (as applicable) of 2,00,000/- vide DD No. 509359 dated 16.08.2023 (in compliance of Haryana Government, Environment & Climate Change, Department Notification No. DE&CCH/3060 dated 14.10.2021)**. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Form1-A, Conceptual Plan, EIA/EMP Report on the basis of Approved ToR and additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF& CC, GoI vide their Notification dated 21.02.2022, in its meeting held on 07.02.2024 and 13.03.2024 and recommended this project to SEIAA for Grant of Environment Clearance.
4. It is inter-alia, noted that the project involves the Environment Clearance for Proposed Expansion of Industrial Shed for Automobile Manufacturing (Integrated Facilities) Unit situated at Plot No. 831, Industrial Model Township (IMT) Kharkhoda, Sonipat, Haryana.
5. The basic details of project are as under:



Sr. No.	Particulars	Phase-1	Phase-2	Total
1.	Online Proposal no.	SIA/HR/INFRA2/457883/2024		
2.	Latitude	28°49'56.15" N		
3.	Longitude	76°55'42.79" E		
4.	Plot Area	30,33,122	-92,458.55	2940663.45 sqm
5.	Total FAR Proposed	13.28	22.80	36.08%
6.	Total Built Up area	390,600	670,446	1061046 sqm
7.	Total Green Area with Percentage	229,024.12	359203.65	588,227.77 sq. m. (i.e., 20% of plot area)
8.	Rain Water Harvesting Potential (Lagoon capacity)	3,13,100		3,13,100 cum
9.	Proposed STP Capacity	1,680	1,680	3360 KLD
10.	Proposed ETP Capacity	5,040	5,040	10080 KLD
11.	Total Parking	122,846.08	37,541.51	160,387.59 sqm
12.	Power Requirement	42	48	90 MW
13.	GG set Backup	6150	3700	9850 KVA (Gas Based Generator)
14.	Total Water Requirement	10,380	8,198	18101 KLD
15.	Fresh Water Requirement	5,562	4,560	10122 KLD
16.	Wastewater Generation to ETP	4,380	2,096	6,476 KLD
17.	Recycled Water	4,818	3,161	7,979 KLD
18.	Wastewater Generation to STP	1,642	1,046	2,688 KLD
19.	Treated Water from STP	1,314	837	2,151 KLD
20.	Treated Water from ETP	3,504	2,324	5,828 KLD
21.	Solid Waste Generated	306	1632	1938 TPA
22.	Biodegradable Waste	122	653	775 TPA
23.	No. of Floors	3	3	3
24.	Expected Population	7,700	9,994	17,694
25.	Plastic Waste	1030	1030	2060 TPA
26.	E-waste Generation	12.5	12.5	25 TPA
27.	Battery Waste	50	50	100 TPA
28.	Bio-Medical waste	1.25	1.25	2.5 TPA
29.	Non-biodegradable solid waste	184	979	1,163 TPA
30.	Hazardous waste generation	9,221	9,221	18,442 TPA
31.	Other Waste	72,210	72,210	144,420 TPA
32.	Dwelling unit	3101		3101
33.	Total Cost of the project:	16,886.7 Cr	20,772.88 Cr	37659.58 Cr
34.	SPV Capacity	30	20	50 MWp

Table 2: Land Utilization of the project

Land use type/Phase wise details	Phase-1 (Line-A&B) (Sq. m.)	Phase-2 (Line-C&D) (Sq. m.)	After expansion (sq. m.)
Production shed including workshop	383,028.57	518,089.20	901,117.77
Storage area of fuel	13,621.42	-	13,621.42
Storage area of product- SND	626,211.11	-	626,211.11
Storage area of Hazardous waste	2,541.38	-	2,541.38
Utility Area	74,088.50	-	74,088.50
Green Area	229,024.12	359,203.65	588,227.77
Others (please specify)	476,740.31	258,115.19	734,855.50
Total land area	1,805,255.41	1,135,408.04	2,940,663.45

Table 3: Production details (Phase-1 & Phase-2)

Sr. No.	Name of the product/ to be produced	Capacity	Production
1.	Passenger Cars and Utility Vehicles	Numbers/Day	4,286
2.	Transmission Assembly	Numbers/Day	5,714
3.	Engine Assembly	Numbers/Day	4,286

Table 4 – EMP Details**During Construction Phase:**

S. No.	Component	Capital Cost (Million Rs.)	Recurring Cost (Million Rs. /Annum)
1	Barricading of the site	89.27	-
2	Dust Mitigation Measures	0.71	25.55
3	Site Sanitation + Temporary toilets	0.35	17.91
4	Disinfection/Pest Control		0.71
5	Labour Health Check Up & First Aid facility	1.18	21.95
6	Labor Welfare	28.62	56.21
7	Wheel washing	2.66	0.04
8	Waste Storage Bins-Labour Camp/Site offices	0.01	-
9	Traffic Management Signages	0.12	-
10	Safety Training to workers	5.90	4.25
11	Environment Monitoring	0.89	-
TOTAL		129.71	126.62

During Operational Phase:

S. No.	Component	Capital Cost (Million Rs.)	Recurring Cost (Million Rs./Annum)
1	Effluent Treatment Plant	583.52	66.88
2	ZLD system	355.6	66.88
3	Sewage Treatment Plant	332.46	50.16
4	Solid waste storage bins + Composter unit	2.2	0.5
5	Green Area Development (Tree Plantation & Land Scaping)	302.6	19.2
6	Solar Power Plant (30 + 20 MWp)	3418.75	8.28
7	Pollution control devices	246.092	17.38
8	Bio-gas plant	1350	94
9	Handling & disposal of co-processing waste	106	97.261
10	Rainwater Harvesting Structures (Including Lagoons)	422.6	2.5
11	Environment monitoring	2.5	0.7
12	One-time financial contribution HPWWMA for the rejuvenation of pond as per below details. Name of pond: Rasar 1 Pond UID: 01HRSPTKKD0013GOPA001	~ 3.6	-
Total		7,125.92	423.74

Proposed CSR activities under section 135 of Companies Act, 2013

Development of classes in Kundal and Rampur village

Approx. 20 Million

6. In view of the recommendations made by State Expert Appraisal Committee (SEAC) in the said case and further consideration of the documents/details submitted by the Project Proponent; the Authority after discussions decided during **172nd Meeting held on 09.05.2024** to **“GRANT ENVIRONMENT CLEARANCE” to M/s Maruti Suzuki India Ltd. (as per the regular letter of allotment issued by HSIIDC Reference No.HSIIDC:RLA2022MAR03484/5676 dated 31.03.2022)** under **Category 8(b)** within the scope and meaning of EIA Notification dated 14.09.2006 issued by the Ministry of Environment and Forest, Government of India.

Copy To

1. Director (IA Division), MoEF& CC, GoI, Indira Paryavaran Bhavan, Zorbagh Road- New Delhi-110003.
2. Chairman, State Environment Impact Assessment Authority, Bay No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana
3. Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula.
4. Director, Environment & Climate Change Department, Haryana, SCO 1-3, Sector-17 D, Chandigarh-160017
5. Director General, Town & Country Planning Haryana, Plot No. 3, Sector - 18A, Madhya Marg, Chandigarh- 160018.
6. Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160018.
7. Concerned File/ Office Copy

Annexure 1**Specific EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)****1. Additional Condition**

S. No	EC Conditions
1.1	1. E-Waste, plastic waste and battery waste will be disposed through authorized recycle of HSPCB/CPCB.
1.2	Bio-Medical waste will be disposed through common Bio-medical treatment and disposal facility(CBWTF) authorized by HSPCB/CPCB.
1.3	The project is recommended on concept basis as such in case of any change in planning, the PP will obtain fresh EC.
1.4	Sewage shall be treated in the STP on latest Technology to achieve standards ordered by NGT. The Treated effluent from STP shall be recycled /reused for flushing, DG cooling and Gardening
1.5	The PP should not mix the ETP effluent after treatment in the STP and ETP effluent shall be separately utilized for the purposes
1.6	The Project Proponent would devise a monitoring plan to the satisfaction of the State Pollution

S. No	EC Conditions
	Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coli forms and other pathogenic bacteria.
1.7	The PP shall ensure that total EMP Budget shall be spent on project during construction as well as during operational phase as per table given above. The EMP cost on Socio Economic activities shall be used before the commencement of the project & EMP recurring inside the project shall be implemented throughout the operation of the project. The PP shall establish Environment monitoring cell as per documents submitted.
1.8	The PP shall not carry out any construct above and below revenue rasta if passing through the project and ensure that permission of the competent authority shall be obtained before carry out any construction above or below the revenue rasta. The PP shall put notice board on the revenue rasta for the passer byes
1.9	The project proponent shall upload the status of compliance of the basic details (given in above tables), stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
1.10	The Project Proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
1.11	Separate wet and dry bins must be provided in each unit and at ground level for facilitating segregation of waste. Solid Waste shall be segregated into wet garbage and inert materials. 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 solid waste dumping site through authorized vender.
1.12	Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is marinated and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or purpose to be carried out by the project or other agencies in this 05kms radius of the site in different scenarios of space and time
1.13	No tree cutting has been proposed in the instant project. 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 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
1.14	The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

S. No	EC Conditions
1.15	Consent to establish/operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of pollution) Act, 1981 and the Water (Prevention and control of pollution) Act, 1974.
1.16	The Approval of the Competent Authority shall be obtained for structural safety of building code due to earthquakes, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightening etc.
1.17	The PP shall obtain the Fire NOC from the Competent Authority before taking the occupation of the building
1.18	The PP shall install the Eco Friendly Green Transformer based on ester oil to reduce the carbon footprint. The PP shall shift to gas based generator set when the gas is available. The PP shall install APCM for the DG set
1.19	The PP shall not mix ETP treated effluent with STP water
1.20	The PP Shall comply with SOP for reduction of Air and Noise pollution during construction and operation phase
1.21	The PP shall follow SOP regarding single use plastic free
1.22	The PP shall follow the SOP for reduction of carbon footprints
1.23	PP shall not mix ETP treated effluent with STP treated effluent and MEE should be installed to evaporate ETP treated water
1.24	The PP shall obtain the permission regarding withdrawal of ground water, if any from HWRA/CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from HWRA/CGWA.
1.25	The PP shall carry out the quarterly awareness programs for the stakeholders of the project.
1.26	The PP shall install Digital water level recorder for monitoring the water recharge and carry out quarterly maintenance and cleaning of RWH pits
1.27	The PP shall ensure the compliance of provisions of Plastic Waste Management (Amendment) Rules, 2022 relevant for the project.
1.28	The PP may provide electric charging stations to facilitate electric vehicle commuters.
1.29	The PP shall take all preventive measures including water sprinkles to control dust during

S. No	EC Conditions
	construction and operational phase.
1.30	Any change in stipulations of EC will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance.
1.31	The PP is required to plant 10 times trees at the project site and compensatory tree plantation will be done @1:10. No tree cutting has been proposed in the instant project. A minimum of 1 tree for every 80sqm of land should be planted and maintained. The Existing trees will be counted for this purpose. 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. As proposed 103413.87 m2 (30% of planned area) shall be provided for green area development
1.32	The PP shall provide solar power as per HAREDA norms
1.33	90 Rain water harvesting tank shall be provided for ground water recharging as per the CGWB norms.
1.34	The PP shall install required number of Anti Smog Guns at the project site as per the requirement of HSPCB.
1.35	The PP shall register themselves on https://dustapphspcb.com portal as per the Direction No. 14 dated 11.06.2021 issued regarding dust mitigation by Commission for Air Quality Management in National Capital Region and Adjoining Areas.

Standard EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
1.2	The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
1.3	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

S. No	EC Conditions
1.5	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.
1.6	The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
1.7	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.
1.8	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.
1.9	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.
1.10	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2.2	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
2.3	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.
2.4	Diesel power generating sets 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.
2.5	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 walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
2.6	Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust

S. No	EC Conditions
	pollution.
2.7	Wet jet shall be provided for grinding and stone cutting.
2.8	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
2.9	All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Management Rules 2016.
2.10	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.
2.11	The gaseous emissions from DG set 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.
2.12	For indoor air quality the ventilation provisions as per National Building Code of India.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	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.
3.2	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3.3	Total fresh water use shall not exceed the proposed requirement as provided in the project details.
3.4	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.
3.5	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 ground water and surface water sources, ensuring that there is no impact on other users.
3.6	At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

S. No	EC Conditions
3.7	Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
3.8	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.
3.9	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.
3.10	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
3.11	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
3.12	A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh 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.
3.13	All recharge should be limited to shallow aquifer.
3.14	No ground water shall be used during construction phase of the project.
3.15	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.
3.16	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.
3.17	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
3.18	No sewage or untreated effluent water would be discharged through storm water drains.
3.19	Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

S. No	EC Conditions
3.20	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
3.21	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	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 monitored 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.
4.2	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.
4.3	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.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
5.2	Outdoor and common area lighting shall be LED.
5.3	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.
5.4	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.
5.5	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, whichever is higher.
5.6	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%

S. No	EC Conditions
	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.

6. Waste Management

S. No	EC Conditions
6.1	A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
6.2	Disposal of muck during construction phase shall not create any adverse effect on the neighbouring 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.
6.3	Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6.4	Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
6.5	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6.6	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.
6.7	Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
6.8	Fly ash should be used as building material in the construction as per the provision 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.
6.9	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.10	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.

7. Green Cover

S. No	EC Conditions
7.1	No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling

S. No	EC Conditions
	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).
7.2	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 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.
7.3	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.
7.4	Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

8. Transport

S. No	EC Conditions
8.1	A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. 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.
8.2	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.

9.

S. No	EC Conditions
9.1	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all 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 plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ 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.

10. Human Health Issues

S. No	EC Conditions
10.1	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.
10.2	For indoor air quality the ventilation provisions as per National Building Code of India.
10.3	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
10.4	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.
10.5	Occupational health surveillance of the workers shall be done on a regular basis.
10.6	A First Aid Room shall be provided in the project both during construction and operations of the project.

11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
11.2	ii. environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
11.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.5	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 balances 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 report.
11.6	A separate Environmental Cell both at the project and company head quarter level, with qualified

S. No	EC Conditions
	personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
11.7	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
11.8	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.9	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11.10	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.11	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.
11.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).
11.13	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.
11.14	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.15	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.16	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
11.17	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.
11.18	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

12. Specific Conditions

S. No	EC Conditions
12.1	The project proponent shall develop R& D facilities to develop their own technologies for propylene and polypropylene processing.

Additional EC Conditions

N/A

