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STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY PUNJAB

Ministry of Environment, Forest & Climate Change, Government of India O/o Directorate of Environment & Climate Change C/o PSCST, MGSIPA Complex, Sector 26, Chandigarh-160019 Tele-0172-2792325 Fax- 0172-2793143

No. DECC/SEIAA/2019/311 REGISTERED Date:02.04.2019

To

M/s Indian Railway Welfare Organization (IRWO), VIP Road, Zirakpur, District SAS Nagar (Mohali) Mob- 9871147493

Subject: Environmental Clearance under EIA notification dated 14.09.2006 for establishment of group housing project namely "Rail Vihar" at VIP Road, Zirakpur, Punjab (Proposal No.

SIA/PB/NCP /24636/2018)

This has reference to your online Proposal No. SIA/PB/NCP/24636/2018 for establishment of group housing project namely "Rail Vihar" located at VIP Road, Zirakpur, SAS Nagar (Punjab) submitted to the SEIAA, Punjab for grant of Environmental Clearance under the EIA notification dated 14.09.2006. The proposal has been appraised as per procedure prescribed under the provisions of EIA Notification dated 14.09.2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, 1-A, EIA report based on Additional Specific TORs and the additional clarifications furnished in response to the observations of the SEAC.

Salient features of the project for which EC is considered

1.	Activity or Item No.	8(a): Building and Construction Projects. Built up area ≥ than 20,000 sqm ≤1,50,000 sqm			
	as per EIA Notification, 2006 (in schedule)				
2.	Project Name	Rail Vil	har" located at VIP	Road, Zirakpur, SAS Nagar	
	and Location	(Punjab)		_	
	of the project				
3.	Total Plot	The det	under:		
	area, Built-up	S. No.	Description	Details	
	Area , Green	1. Total plot area 30,201.68 s		30,201.68 sqm	
	area and Flats		Net Plot area	29,896.31 sqm	
		3.	Total Built up area	44709.75 sqm	

		4.	Fl	ats	ur	99 No. of mainits, 44 No. of and community of	EWS units
		5.		reen Area		195.31 sqm	
		6.		arking	37	72 ECS	
4.	Estimated Project Cost	Rs. 1	195.75	Crores			
5.	Population	2515 persons approx.					
6.	Rain water recharging detail	4 nos. of rain water harvesting pits shall be provided for rain water recharging.					
7.	Water Requirement and Source	Total domestic requirement- 340 KLD which includes fresh water @245 KLD and treated water@95 KLD and the fresh water requirement shall be met through borewell at site					
8.	Waste water generation and treatment	227 KLD will be treated in Module system i.e. two STP's of capacity 150 KLD each based on MBBR technology shall be installed. Further, one module of STP of 150 KLD capacity will be operated in efficient manner during initial phase as the occupancy will be at least 50 % of the total population as undertaken by the project proponent. The treated waste water available at the final outlet of STP @ 245 KLD shall be used /disposed as under:					
			Sr. No.	Season	For Flushi purpose (KLD)	-	Into MC sewer (KLD)
			1.	Summer	95	25	125
			2.	Winter	95	9	141
			3.	Rainy	95	2	148
9.	Solid waste generation and its disposal	a) 1189 kg/day b) Solid wastes will be appropriately segregated (at source					

10.	Energy Requirements & Saving	 a) 2409 KVA through Punjab State Power Corporation Limited b) Two nos. of DG sets of capacity 320 KVA each as a source of back up c) LED based lighting done in common areas, landscape areas, signages, entry gates and boundary walls etc. d) Use of solar lights in common areas e) Appropriate design of the buildings to reduce heat gain and loss. f) Maximum use of natural light and ventilation. 			
11.	Environment Management Plan along with Budgetary break up and responsibility to implement	IRWO shall be responsible for implementation of the EMP. Rs. 138.92 lacs has been kept under EMP head for the following activities: i) Rain Water Harvesting & Solid Waste Management ii) Green Area Development iii) Environment Friendly Diesel Generator (DG) Sets (2 x 320 KVA) iv) Sewerage Treatment Plant of 300 KLD (2 x 150) KLD. v) Piezometer / Digital water level recorder			
12.	Other important facts	 The area is permissible for the establishment of the projand site plan has been approved by the Municipal Coun Zirakpur vide memo no. 1758 dated 18.3.2012 No wildlife sanctuaries/parks fall within 10 km of project site. NOC has already been granted by CGWA for abstraction ground water vide no. 1687 dated 16.10.2014 valid up 15.10.2016. Further, A copy of acknowledgement allowith set of application filed to CGWA for obtain extension in validity of NOC for abstraction of Grouw Water has been submitted and permission is awaited. The amount of Rs. 14.16 lacs + Rs 7.85 Lacs = Rs. 22 lacs reserved for the remediation and natural accommunity resource augmentation implementation p shall be kept reserved for the remediation activities which bank guarantee has already been submitted Regional Office of Punjab Pollution Control Board at Moh The following activities to be implemented und Remediation Plan and Natural and Community Resou Augmentation Plan is as under:- Sr.no. Description for Remediation Plan is as under:- Resource Augmentation Plan RAIL VIHAR, Zirakpur 			

1.	Rain V Harvesting	Water	Guruduwara Shri Guru Singh Sabha, Lohgarh, Zirakpur	7.50 lacs
2.	Green Development	Area	Govt. Sr. Secondary School, Lohgarh, Zirakpur	4.55
3.	Rain V Harvesting	Water	Govt. Sr. Secondary School Lohgarh, Zirkpur	7.50
4.	Green Development	Area	Govt. ITI, Derabassi at Zirakpur	2.50
			TOTAL =	22.05

The case was lastly considered by the SEAC in its 177th meeting held on 13.03.2019, wherein, the Committee observed that the project proponent has provided adequate and satisfactory clarifications of the observations raised by it, therefore, the Committee awarded **'Silver Grading'** to the project proposal and decided to forward the case to the SEIAA with the recommendation to grant environmental clearance to the project proponent under EIA notification dated 14.09.2006 subject to certain conditions in addition to the proposed measures.

Thereafter, the case was lastly considered by the SEIAA in its 145th meeting held on 15.03.2019. The SEIAA observed that the case stands recommended by SEAC and the Committee awarded **'Silver Grading'** to the project proposal. The Authority looked into all the aspects of the project proposal in detail and was satisfied with the same.

Therefore, the Authority decided to grant environmental clearance under category-B with project/ activity 8(a)- Building and Construction projects for establishment of group housing project namely "Rail Vihar" at VIP Road, Zirakpur, Punjab as per the details mentioned in the Form 1, 1A, EIA & subsequent presentation / clarifications made by the project proponent and his consultant withsalient features, proposed measures, conditions, subject to the conditions as proposed by the SEAC, in

addition to the proposed measures. Accordingly, SEIAA, Punjab hereby accords necessary environmental clearance for the above project under the provisions of EIA Notification dated 14.09.2006 and its subsequent amendments, subject to proposed measures & strict compliance of terms and conditions as follows: -

PART-A – Specific Conditions:

I. Pre-Construction Phase

- (i) "Consent to establish" shall be obtained from Punjab Pollution Control Board under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 and a copy of the same shall be submitted to the Ministry of Environment & Forests / State Level Environment Impact Assessment Authority before the start of any construction work at site.
- (ii) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
- (iii) The approval of competent authority shall be obtained for structural safety of the buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightning.
- (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 STP, disposal of waste water & solid waste in an environmentally sound manner, 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) The project proponent shall comply with siting criteria, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

II. Construction Phase:

- (i) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- (ii) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed of after taking the necessary precautions for general safety and health aspects of people with the approval of competent authority. The project proponent will comply with the provisions of Construction & Demolition Waste Rules, 2016. Dust, smoke & debris prevention measures such as wheel washing, screens, barricading and debris chute shall be installed at the site during construction including plastic / tarpaulin sheet covers for trucks bringing in sand & material at the site.
- (iii) Construction spoils, including bituminous material and other hazardous material, must not be allowed to contaminate watercourses. The dump sites

- for such material must be secured, so that they should not leach into the groundwater.
- (iv) Vehicles hired for bringing construction material to the site and other machinery to be used during construction should be in good condition and should conform to applicable air emission standards.
- (v) The project proponent shall use only treated sewage/wastewater for construction activities and no fresh water for this purpose will be used. A proper record in this regard should be maintained and available at site.
- (vi) Fly ash based construction material should be used in the construction as per the provisions of Fly Ash Notification of September, 1999 and as amended on August, 2003 and notification No. S.O. 2804 (E) dated 03.11.2009.
- (vii) Water demand during construction should be reduced by use of ready mixed concrete, curing agents and other best practices.
- (viii) Adequate treatment facility for drinking water shall be provided, if required.
- (ix) The project proponent shall provide electromagnetic flow meter at the outlet of the water supply, outlet of the STP and any pipeline to be used for re-using the treated wastewater back into the system for flushing and for horticulture purpose/green etc.
- i) The project proponent will provide dual plumbing system for reuse of treated wastewater for flushing/ HVAC purposes etc. and colour coding of different pipe lines carrying water/wastewater/ treated wastewater as follows:

a) Fresh water : Blue
b) Untreated wastewater : Black
c) Treated wastewater (for reuse) : Green
d) Treated wastewater (for discharge) : Yellow
e) Storm water : Orange

- (x) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xi) Separation of drinking water supply and treated sewage supply should be done by the use of different colors.
- (xii) (a) Adequate steps shall be taken to conserve energy by limiting the use of glass, provision of proper thermal insulation and taking measures as prescribed under the Energy Conservation Building Code and National Building Code, 2005 on Energy conservation.
 - (b) Solar power plant by utilizing atleast 30% of the open roof top area in the premises shall be installed for utilizing maximum solar energy. Also, solar lights shall be provided as proposed for illumination of common areas instead of CFL lights or any other conventional light/bulbs.
- (xiii) The diesel generator sets to be used during construction phase should conform

- to the provisions of Diesel Generator Set Rules prescribed under the Environment (Protection) Act, 1986.
- (xiv) Chute system, separate wet & dry bins at ground level and for common areas for facilitating segregation of waste, collection centre and mechanical composter (with a minimum capacity of 0.3kg/tenement/day) shall be provided for proper collection, handling, storage, segregation, treatment and disposal of solid waste.
- (xv) A rainwater harvesting plan shall be designed where the re-charge bores (minimum one per 5000 sqm of built up area) shall be provided. Recharging wells for roof top run-off shall have provision of adequate treatment for removing suspended matter etc. before recharging as per the CGWA guidelines. Run-off from areas other than roof top such as green areas and roads/pavement etc. may also be recharged but only after providing adequate treatment to remove suspended matter, oil & grease etc. and ensuring that rainwater being recharged from these areas is not contaminated with pesticides, insecticides, chemical fertilizer etc.
- (xvi) The project proponent should fence the storage tank properly and in addition to this, the boundary wall shall be constructed at last stage or atleast 2 feet high opening in the boundary wall be provided at ground level to allow adequate passage to the surface run off during construction phase.
- (xvii) At least single line plantation all around the boundary of the project as proposed shall be provided. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous species/variety. A minimum of one tree for every 80 sqm of land shall be planted and maintained. The existing trees may be counted for this purpose. Preference should be given to planting native species. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of three trees for every one tree that is cut) shall be done with the obligation to continue maintenance.
- (xviii) The respective project proponent shall discourage the installation of R.O. plants in their projects in order to save the wastage in form of RO reject. However, in case the requirement of installing RO plant is utmost necessary then the rejected stream from the RO shall be separated and shall be utilized by storing the same within the particular component i.e. (Tower/Mall) or in a common place in the project premises.
- (xix) The project proponent shall also adopt the new/innovating technologies and made a part of the environmental management plans like less water discharging taps (faucet with aerators)/urinals with electronic sensor system /water less urinals / twin flush cisterns/ sensor based alarming system for overhead water storage tanks so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

III. Operation Phase and Entire Life

i) "Consent to operate" shall be obtained from Punjab Pollution Control Board

- under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 and a copy of the same shall be submitted to the Ministry of Environment & Forests / State Level Environment Impact Assessment Authority at the time of start of operation.
- ii) The total water requirement for the project will be 365 KL/day, out of which 245 KL /day shall be met through own tubewell and remaining 95 KL/day through recycling of treated wastewater.
- iii) a) The total wastewater generation from the project will be 272 KL/day, which will be treated in a separate two STPs i.e. capacity 150 KLD based on MBBR technology or better technology to be installed within the project premises. Both of the STPs shall be provided on the basis of module system so as to accommodate the lesser effluent receipts during the initial phase of lower occupancy. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as per the details mentioned under the salient features.

S.No.	Season	For Flushing purposes (KLD)	Green Area 4495 sqm (KLD)	into MC Sewer (KLD)
1.	Summer	95	25	125
2.	Winter	95	09	141
3.	Rainy	95	02	148

- b) Storage tank of adequate capacity shall be provided for the storage of treated wastewater and all efforts shall be made to supply the same for construction purposes.
- iv) The project proponent shall ensure safe drinking water supply to the habitants.
- v) The wastewater generated from swimming pool(s) shall not be discharged and the same shall be reused within the premises for purposes such as horticulture, HVAC etc.
- vi) A proper record regarding groundwater abstraction, water consumption, its reuse and disposal shall be maintained on daily basis and shall maintain a record of readings of each such meter on daily basis.
- vii) Rainwater harvesting/recharging systems shall be operated and maintained properly as per CGWA guidelines and maintenance schedule submitted by the project proponent.
- viii) The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system, wet & dry bins, collection centre & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers. Organic waste shall be composted by

mechanical composters with a minimum capacity of 0.3kg/tenement/day and the inert solid waste shall be sent to the concerned collection centre of integrated municipal solid waste management facility of the area. A proper record in this regard shall be maintained.

- ix) Hazardous waste/E-waste should be disposed of as per Rules applicable and with the necessary approval of the Punjab Pollution Control Board.
- x) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- xi) The project proponent before allowing any occupancy shall obtain completion and occupancy certificate from the Competent Authority and submit a copy of the same to the SEIAA, Punjab.
- xii) The green belt along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use.
- xiii) Solar power plant and other solar energy related equipment shall be operated and maintained properly.
- xiv) A report on the energy conservation measures conforming to energy conservation norms should be prepared incorporating details about machinery of air conditioning, lifts, lighting, building materials, R & U Factors etc. and submitted to the respective Regional office of MoEF, the Zonal Office of CPCB and the SPCB/SEIAA in three months time.

PART B – General Conditions:

I. Pre-Construction Phase

- i) This environmental clearance will be valid for a period of seven years from the date of its issue or till the completion of the project, whichever is earlier.
- ii) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the Punjab Pollution Control Board. The advertisement should be made within seven days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office, Ministry of Environment & Forests, Chandigarh and SEIAA, Punjab.
- iii) The project proponent shall obtain permission from the CGWA for abstraction of groundwater & digging of borewell(s) and shall not abstract any groundwater without prior written permission of the CGWA, even if any borewell(s) exist at site.
- iv) The project proponent shall obtain certificate from the concerned authority (Deptt. of Town & Country Planning, Govt. of Punjab / Municipal Authorities) regarding its location in designated area permissible for the project for which

- this Environmental Clearance is granted.
- v) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

II. Construction Phase

i) The project proponent shall adhere to the commitments made in the Environment Management Plan for the construction phase & shall spend minimum amount towards capital cost and recurring cost as proposed.

III. Operation Phase and Entire Life

- i) a) The entire cost of the environmental management plan will continue to be borne by the project proponent until the responsibility of environmental management plan is transferred to the occupier/residents society under proper MOU under intimation to SEIAA, Punjab. The project proponent shall spend minimum amount as proposed in the EMP.
 - b) 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, regarding Corporate Environment Responsibility (CER).
- ii) The diesel generator sets to be provided shall conform to the provisions of Diesel Generator Set Rules prescribed under the Environment (Protection) Act, 1986. The exhaust pipe of DG set if installed must be minimum 10 m away from the building or in case it is less than 10 m away, the exhaust pipe shall be taken upto 3 m above the building.

<u>PART-C – Conditions common for all the three phases i.e. Pre-Construction</u> <u>Phase, Construction Phase and Operation Phase & Entire Life:</u>

- (i) Any appeal against this environmental clearance 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.
- (ii) A first aid room will be provided in the project both during construction and operation phase of the project.
- (iii) Construction of the STP, solid waste, e-waste, hazardous waste, storage facilities tubewell, DG Sets, Utilities etc, earmarked by the project proponent on the layout plan, should be made in the earmarked area only. In any case the position/location of these utilities should not be changed later-on.
- (iv) The environmental safeguards contained in the application of the promoter / mentioned during the presentation before State Level Environment Impact Assessment Authority/State Expert Appraisal Committee should be

- implemented in letter and spirit.
- (v) Ambient air & noise levels should conform to prescribed standards both during day and night. Incremental pollution loads on the ambient air quality, noise especially during worst noise generating activities, water quality and soil should be periodically monitored during construction phase as well as operation & entire life phase as per the MoEF&CC guidelines and all the mitigation measures should be taken to bring down the levels within the prescribed standards.
- (vi) 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, by project proponents from the competent authorities including Punjab Pollution Control Board and from other statutory bodies as applicable. The project proponent shall also obtain permission from the NBWL, if applicable.
- (vii) The State Environment Impact Assessment Authority, Punjab reserves the right to add additional safeguards/ measures subsequently, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguards/ measures in a time bound and satisfactory manner.
- (viii) A proper record showing compliance of all the conditions of environmental clearance shall be maintained and made available at site at all the times.
- (ix) The project proponent shall also submit half yearly compliance reports in respect of the stipulated prior environmental clearance terms & conditions including results of monitored data (both in hard & soft copies) to the respective Regional office of MoEF, the Zonal Office of CPCB, the SPCB and SEIAA, Punjab on 1st June and 1st December of each calendar year.
- (x) Officials from the Regional Office of Ministry of Environment & Forests, Chandigarh / State Level Environment Impact Assessment Authority / State Level Expert Appraisal Committee / Punjab Pollution Control Board who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to State Environment Impact Assessment Authority should be forwarded to the APCCF, Regional Office of Ministry of Environment & Forests, Chandigarh.
- (xi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by State Environment Impact Assessment Authority, Punjab.
- (xii) Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project and decisions of

- any Competent Court, to the extent applicable.
- (xiii) 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&CC, SEIAA, Punjab the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels for all the parameters of NAAQM standards shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (xiv) The project proponent shall submit action plan specifying the timeline for completion of activities under Corporate Social Environment Responsibility to the concerned Regional office of Punjab Pollution Control Board for the monitoring of the same, within 30 days from the date of issuance of the environmental clearance letter.
- (xv) The inlet and outlet point of natural drain system should be maintained with adequate size of channel for ensuring unrestricted flow of water. The unpaved area shall be more than or equal to 20% of the recreational open spaces.
- (xvi) Environmental Management Cell shall be formed during operation phase which will supervise and monitor the environment related aspects of the project.
- (xvii) The plantation should be provided as per SEIAA guidelines and as per notification dated 09.12.2016 issued by MoEF&CC, New Delhi.
- (xviii) The project proponent shall not use any chemical fertilizer /pesticides /insecticides and shall use only Herbal pesticides/insecticides and organic manure in the green area.

Sd/-

Member Secretary

Date: 02.04.2019

REGISTERED

Endst. No.312-319

A copy of the above is forwarded to the following for information & further necessary action please.

- 1. The Secretary to Govt. of India, Ministry of Environment and Forest, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi.
- 2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cumoffice Complex, East Arjun Nagar, New Delhi.
- 3. The Chairman, Punjab State Power Corporation Ltd, the Mall, Patiala.
- 4. The Deputy Commissioner, SAS Nagar.
- 5. The Chairman, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala.

6. The Advisor (Environment), Ministry of Environment and Forest, Northern Regional Office, Bays No.24-25, Sector–31-A, Chandigarh. The detail of the authorized Officer of the project proponent is as under:

a) Name of the applicant: Sh.Prabhat Kumar Chaturvedi,

General Manager, IRWO

b) Phone Number : 09871147493 c) Email ID : support@irwo.net

- 7. The Chief Town Planner, Department of Town & Country Planning, 6th Floor, PUDA Bhawan, Phase-8, Mohali
- 8. Monitoring Cell, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi 110003.

Sd/-

Member Secretary