

Excerpt pertaining to item no. 150.03 from the proceedings of the 150th meeting of SEIAA held on 05.08.2019 at 10:30 AM in Conference Hall-II (Ist Floor) of MGSIPA in the building of Punjab State Council for Science & Technology, MGSIPA Complex, Sector 26, Chandigarh

Item No. 150.03: Application for issuance of TORs for carrying out EIA study for obtaining environmental clearance under EIA notification dated 14.09.2006 for the expansion of group housing project namely "Hero Homes" located at Sector 88, SAS Nagar, Mohali (Punjab) by M/s Hero Realty Pvt. Ltd. (Proposal No. SIA/PB/NCP/29524/2018).

The SEIAA observed as under:

- Earlier, M/s Hero Realty Pvt. Ltd. Infra Limited was granted environmental clearance under EIA notification dated 14/09/2006 vide no. SEIAA/2016/2805 dated 28/06/2016 for development of group housing project namely "Hero Homes" consisting of 9 residential towers and convenient shopping area in an area of 46861.50 sqm (11.5 Acre) and having total built up area has 1,42,449.97 sqm located at Sector 88, SAS Nagar, Mohali (Punjab).
- M/s Hero Realty Pvt. Ltd. has applied for issuance of TORs for carrying out EIA study for obtaining environmental clearance under EIA notification dated 14.09.2006 for the expansion of group housing project namely "Hero Homes" located at Sector 88, SAS Nagar, Mohali (Punjab).

The case was considered by the SEAC in its 178th meeting held on 15.04.2019 and the same was attended by the following on behalf of the project proponent: -

- (i) Sh. Dilpreet Singh, Head Co-ordination, Promoter Company
- (ii) Sh. Saurav Gola, Manager, M/s GRC India Pvt. Ltd., Environment consultant of the promoter company

The project proponent submitted a written request in the meeting for deferment of the case stating that the EIA coordinator/FAE of their Environmental Consultant could not attend the instant meeting. SEAC took the aforesaid letter on record and accepted the request of the project proponent.

After deliberation, SEAC decided to defer the case and asked the project proponent to attend the next meeting of SEAC along with their EIA Co-ordinator / FAE of the Environmental Consultant organization as & when called for.

The case was now considered by the SEAC in its 179th meeting held on 02.05.2019 and the same was attended by the following on behalf of the project proponent: -

- (i) Sh. Sandeep Sehgal, Vice President (Projects)
- (ii) Sh. Dilpreet Singh, Head Co-ordination, Promoter Company
- (iii) Dr. Dheeraj Singh, EIA Co-ordinator, M/s GRC India Pvt. Ltd., Environment consultant of the promoter company

Sh. Sandeep Sehgal submitted a copy of extract of the resolution passed by Circulation among the Board of Directors of the Company 03.09.2015 wherein it has been resolved that Sh. Sandeep Sehgal Vice President (Projects) & Sh. Dilpreet Singh Manager (Liasioning) are fully authorized to represent the company and to sign & give undertakings on behalf of Company. The said letter was taken on record by SEAC.

Before allowing the project proponent and his Environmental consultant to present the salient features of the project, SEAC asked the project proponent to submit the compliance of "Not Complied Conditions" as mentioned in the certified compliance report given by the Northern Regional Office of MoEF&CC. To this project proponent submitted copy of action taken report as under:

Sr. No as per EC	As per EC	As per report given by MOEF&CC	Action taken by project proponent
PART-A: Common conditions for all the three phases i.e. Pre-Construction Phase, Construction Phase and Operation Phase and Entire Life:			
V	Ambient air & noise levels should conform to prescribed standards both during day and night. Incremental pollution loads on the AAQ, noise especially during worst noise generating activities, water quality and soil should be periodically monitored during construction phase as	Not Complied: AAQ and noise quality are being monitored on six monthly basis and reports, as submitted. PM2.5, PM10 and CO data in the ambient air were found higher than the CPCB limits. PP was directed to take corrective action to bring the level below the prescribed standards.	Agreed. Action has been taken for reducing the AAQ i.e. PM 2.5, PM 10, CO. within the project premises. The manual water is being sprayed all along the roads and regular maintenance of vehicles and machineries, wheel washing in project

	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.		site for control the dust pollution within the project premises is being done. Photographs of the same has been attached.
xiii	<p>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.</p> <p>It shall simultaneously be sent to the RO, MOEFCC, SEIAA, Punjab, the respective ZOs 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.</p>	<p>Not Complied: A display board of appropriate Measurement showing pollutant levels for all the parameters has been erected in the public domain near to the project gate. PP has not uploaded the status of compliance of the stipulated EC conditions, including results of monitored data on their website http://herohomes-mohali.com/. PP has been directed to update the display board and website on regular basis.</p>	<p>Screenshot of website has been submitted. The link to website has been given for reference. http://www.herohomes.in/herohomes/project-mohali.php</p>
PART – B: Specific Conditions:			
II. Construction Phase:			
ii	<p>Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed off after taking the necessary precautions for general safety and health aspects of people with the approval of competent authority. The PP will comply with the provisions of Construction & Demolition Waste Rules, 2016. Dust, smoke & debris prevention</p>	<p>Not Complied: PP has claimed that disposal of muck and debris during construction phase is not causing any adverse effect to the local environment preventive measures are being taken for the proper management of debris disposal. It was directed to submit copy of authorization obtained under the provisions of construction & Demolition Waste Rules, 2016 along; with details of generation, reutilization & disposal of waste.</p>	<p>The work on “Zero Waste Generation” strategy using the construction waste for development of external works like creating ground for pavers has been chalked out. Water sprinkling is done on regular course during day time to settle down the dust at site. Photographs has been attached for reference. Compliance of the provision of</p>

	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.		Construction and Demolition Waste rules 2016.
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.	Not Complied: The solid waste and bituminous material and other hazardous materials are being managed during construction as per MSW rules, 2016 and as per Hazardous Wastes (Management and Handling) Rules, 2016 as submitted. PP was directed to submit monitoring reports of ground water in support of "water course is not contaminated.	There is no bituminous material being generated at site, all solid waste and hazardous material if any is being managed as per proper process and MSW rules, 2016. Most of the construction waste is being reused at site in external development works.
PART C – GENERAL CODITIONS:			
I. Pre-construction Phase.			
ii	The PP 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 PPCB. 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 RO, MOEF, Chandigarh and SEIAA, Punjab.	Not Complied: Advertisements have been made in the newspapers about the granting of the environment clearance letter to the project by SEIAA, Punjab. However, clause of seven days was not followed (both published on 06.07.2016). Condition is, therefore, considered as not complied.	Advertisement was published on 6th of July 2016 after receipt of Environmental Clearance.
V	A copy of the clearance letter shall be sent by the proponent to concerned	Not Complied: Copy of EC letter was not found on the	Screenshot of website has been attached.

	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.	website of the company as per condition.	The link to website has been submitted for reference. http://www.herohomes.in/herohomes/project-mohali.php
II. Construction Phase.			
i	The PP shall adhere to the commitments made in the EMP for the construction phase and CSR and shall spend minimum amount of RS.375 Lacs towards capital investment, Rs. 21.9 Lacs/annum towards recurring expenditure and Rs. 300 Lacs towards CSR activities as proposed in addition to the amount to be spent under the provision of the Companies Act, 1986.	Not Complied: PP has not submitted the details of commitments made in the EMP for the construction phase. Thus, condition is considered as not complied for the present visit.	Amount of Rs. 99 lacs has been spent capital investment and 13 lacs as recurring cost as per EMP. 4 vision triangles has been adopted from GMADA for development and maintenance for seven years. Rs. 3 lacs (approx.) has been spent on development & maintenance of vision triangles as CSR activity. Detail of expenditure has been submitted.

The project proponent submitted a copy of receipt of the action taken report dated 02.04.2019 from the Northern Regional Office of MoEF&CC. SEAC noted that Northern Regional Office of MoEF&CC has also forwarded a copy of action report vide letter no.F.No:16-04/2016-RO(NZ)/235 dated 23.04.2019 for information and further necessary action. SEAC took the copy of the action taken report on record.

SEAC allowed the project proponent to present the salient features of the project and Environmental Consultant of the promoter company presented the same as under:

- Grass Roots Research and Creation India (P) Ltd., F-375, Sector-63, Noida has got the certificate of accreditation from QCI-NABET with certificate no.

NABET/EIA/1619/RA 0064 dated 02.08.2017 valid upto 04.12.2019 and is approved for Sector Township and Area Development Projects.

- The expansion of "Hero Homes" shall be done at the existing site i.e. in Sector 88, District-SAS Nagar (Mohali), Punjab. The project comprises of following facilities Residential Towers, Community Building, Convenient Shopping, Swimming Pool & Kids Pool.

1. Site Connectivity:

Sr.No.	Description	Details	Distance
1.	Geographical Co-ordinates	Latitude: 30°41'14" N Longitude: 76°41'34" E	
2.	Nearest Railway Station	Kharar Railway station & SAS Nagar Railway station	Approx. 7 km and 5 km
3.	Nearest Airport	Chandigarh Airport	Approx. 10 km
4.	National Highway	NH-64, NH-22, NH-95	Approx. 12 km, 19 km, 5 km.
5.	State Highway	SH-4, SH-12A	Approx. 4 km, 1 km.

2. Details of area is given below:

Sr.No.	Descriptions	EC Accorded (in m ²)	Expansion (in m ²)	Total (EC Accorded + Expansion) (in m ²)
1	Total Plot area	46,861.50 (11.50 Acres)	27,964.7565 (6.99 Acres)	74,826.2565 (18.49 Acres)
2	Permissible Ground Coverage	14,058.45 (@ 30% of plot area)	8,389.427	22,447.877 (@30% of plot area)
3	Proposed Ground Coverage	5,154.765 (@ 11% of plot area)	7381.127	12535.892 (@ 16.75% of plot area)
4	Permissible FAR	1,17,153.75 (@ 2.5% of plot area)	69,911.891	1,87,065.641 (@ 2.5% of plot area)
5	Proposed FAR	1,08,504.65 (@ 2.3154% of total plot area)	76,177.074	1,84,681.724 (@ 2.4681% of total plot area)
	a) Residential Tower (T1 to T16)	1,08,130.55 (T1 to T9)	73,569.097	1,81,699.647

	b) Community Building c) Convenient Shopping	- 374.10	2,610.753 -2.776	2,610.753 371.324
6	Non-Far Area Basement Area (2 Nos.) (including Lobby+Service+Balconies)	33,383.51 (T1 to T9)	52,154.4650	85,537.975
7	Stilt Area	562.72	-562.72	-
8	Total Built-up Area	1,42,449.97	1,27,769.729	2,70,219.699
9	Permissible Green Area	11,715.375 (@ 25% of plot area)	6,991.189	18,706.564 (@ 25% of plot area)
10	Proposed Green Area	11,748.178 (@ 25.07% of plot area)	7,016.168	18,764.346 (@ 25.07% of plot area)

3. Details of Tower is given below:

Sr. No.	Tower Name	Tower Height from Internal Road (m)	No. of Floors	Type of Flats	DW	FAR (Sq.M)	Ground Coverage (Sq.M)
1.	Tower (T1)	80	G+24	3.5 BHK, 4 BHK, PH	92	18001.469	902.679
2.	Tower (T2)	80	G+24	3.5 BHK, PH	94	14590.138	616.50
3.	Tower (T3)	44.5	G+14	2.5 BHK, 3 BHK	88	10318.318	712.023
4.	Tower (T4)	44.5	G+14	2.5 BHK	58	6035.276	477.475
5.	Tower (T5)	44.5	G+14	2 BHK	73	6470.783	442.527
6.	Tower (T6)	44.5	G+14	3 BHK	58	7244.467	508.44
7.	Tower (T7)	44.5	G+14	2.5 BHK, 3 BHK	88	10318.318	712.02
8.	Tower (T8)	44.5	G+14	2.5 BHK, 3 BHK	88	10318.318	712.02
9.	Tower (T9)	80	G+24	3.5 BHK, 4 BHK, PH	92	18001.469	905.679
10.	Tower (T10)	59.45	G+19	3BHK+3T+ STORE	78	9819.926	552.838
11	Tower (T11)	59.45	G+19	3BHK+3T+ STORE	78	9819.926	552.838
12	Tower (T12)	62.4	G+20	3BHK+2T+ STORE	124	13686.644	686.298

13	Tower (T13)	62.4	G+20	3BHK+2T+ STORE	124	13686.644	686.298
14	Tower (T14)	62.4	G+20	3BHK+3T+ STORE, 3.5 BHK	82	11129.497	591.507
15	Tower (T15)	62.4	G+20	3BHK+3T+ STORE, 3.5 BHK	82	11129.497	591.507
16	Tower (T16)	62.4	G+20	3BHK+3T+ STORE, 3.5 BHK	82	11129.497	591.507
	TOTAL				1381	1,81,699.647	10244.644
17	Community Building	-	G+1	-	-	2610.753	1764.411
18	Convenient Shopping	-	G	-	-	371.324	526.837
	TOTAL					1,84,681.724	12,535.892

4. Details of the Population break up:

Sr. No.	Particulars	Units	PPU	Total Population
1.	Main Dwelling Units:			
(a)	Residents	1381	5	6,905
(b)	Visitors	10%		690
(c)	Staff			110
Total Residential population				7,705
2.	Community Building (G+1) (2,610.753 m ²)	1 person/0.6 m ² FAR		4,351
A	Visitors			4,351
3.	Convenient Shopping (371.324 m ²)	1 person/3 m ² FAR		124
A	Visitors			124
Total Population (1 + 2 + 3)				12,180

5. Comparative calculation for Water requirement

Sr.No.	Particulars	EC Accorded (KLD)	Total (EC +Expansion) (KLD)
1.	Total Water Requirement	725 KLD	1,139 KLD
2.	Total Waste Water Generation	580 KLD	885 KLD

6. Water Demand Calculation

Sr. No.	Unit type	Occupancy	Rate of demand (LPCD)		Total water requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total (KLD)
1	Main Dwelling Units:						
(a)	Residents	6905	90	45	621.4	310.7	932.1
(b)	Visitors	690	5	10	3.4	6.9	10.3
(c)	Staff	110	20	25	2.2	2.8	5
2	Community Building:						
(a)	Visitors	4,351	5	10	21.75	43.51	65.26
3	Convenient Shopping:						
(a)	Visitors	124	5	10	0.62	1.24	1.86
Total Domestic Water Requirement					650 KLD	365 KLD	1,014.52 Say 1015 KLD
4	Horticulture (18,764.346 m ²)		5 l/sqm				94 KLD
5	Swimming Pools						30 KLD
Total Water Requirement							1,139 KLD

7. Waste Water Calculation

Total Water Requirement	1,139 KLD
Total Domestic Water Requirement	1,015 KLD
Total Fresh Water:	680 KLD
Fresh Water	650 KLD
Make-up water for Swimming Pools	30 KLD
Flushing Water	365 KLD
Wastewater Generated (80% Fresh Water + 100% Flushing)	520365 = 885 KLD

8. Rain water Harvesting

- i) Rain water harvesting system will be designed as per CGWA guidelines.
- ii) 11 RWH pits will be provided considering peak hourly rainfall has been considered as 45 mm/hr.

- iii) The recharge pit of effective Length of 6.8 m and width of 4 m and depth of 2.5 m is constructed for recharging the water. Inside the recharge pit, a recharge bore is constructed having adequate diameter.
- iv) Storm water load calculations are presented as under:

Type of Area	Area (m ²)	Coefficient of run-off	Peak rainfall intensity during one hour of rainfall (m)	Rain water harvesting potential/hour (m ³ /hr)	Pits required for each Area
Roof-top area	12,535.892	0.9	0.045	507.7	3 pits
Paved Area	43,526.0185	0.7	0.045	1371.0	7 Pits
Green Area	18,764.346	0.2	0.045	168.8	1 Pits
Total storm water load on the site with per hour retention = 2,047.5 m ³ /hr					
Considering 20 minutes retention time, total storm water load				682.2 m ³ /hr	
Taking the effective Rectangular Recharge pit as 6.8 m, 4 m and 2.5 m respectively, Volume of a single Recharge pit = l x b x h				68 m ³	
Hence no. of pits required = Total storm water load considering 20 minutes retention time / Volume of a RWH pit				11 Pits	
Total no. of RWH pits provided					11 its

9. Rain Water Maintenance Plan

- i) Surroundings of the tank shall be kept clean and hygienic
- ii) Algae will be removed from the roof tiles and asbestos sheets before the monsoon.
- iii) Tank will be drained completely and cleaned from inside thoroughly before the monsoon.
- iv) Water channels (gutters) will be cleaned often during rainy season and definitely before the first monsoon rain.
- v) First 20 minutes of rainfall will be avoided depending on the intensity of rain. First flush arrangement will be used to drain off this first rain water.
- vi) Filter media will be changed every rainy season.
- vii) All inlet and outlet pipes will be covered with closely knit nylon net or fine cloth or cap during non-rainy season to avoid entry of insects, worms and mosquitoes.

- viii) Water will be withdrawn from the system at the rate of 5 l/head/day. This will ensure availability of water throughout the water scarcity period.
- ix) Leakage of cracks in the ferrocement storage tank will be immediately attended to by cement plastering. This will avoid major repairs due to the propagation of cracks.
- x) Heavy loads will not be applied on the lid.
- xi) Water will not be allowed to stagnate in the collection pit.
- xii) The filter materials will be washed thoroughly before replacing in the filter bucket

10. Solid Waste Management (Construction Phase)

Sr. No.	LIKELY IMPACT	MANAGEMENT/ MITIGATIVE MEASURES
1.	Types of waste such like bricks, concrete, MS rods, tiles, wood etc. is expected to be generated.	1. Construction yards are proposed for storage of construction materials.
2.	Soil will be excavated periodically from earth work in phased manner.	2. Excavated top soil will be stored in temporary constructed soil bank and will be later used for landscaping purpose. 3. Remaining soil will be utilized for refilling/road work/raising of site level at locations. 4. There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily. 5. Waste paper and packing material (cardboard) will be sold off to recyclers.

11. Solid Waste Generation

11.1 Details

Solid Waste	EC Accorded	Expansion	Total (EC Accorded + Expansion)
	1,518 kg/day	2,738 kg/day	4,256 kg/day

Sr. No.	Category	Waste generated (kg/Capita/day)	Total (EC Accorded + Expansion) Waste generated (kg/day)
A	Main Dwelling Units		
(a)	Resident	6,905 @ 0.5	3,452.5
(b)	Visitors	690 @ 0.15	103.5
(c)	Staff	110 @ 0.25	27.5
Total			3,583.5

B	Community Building		
(a)	Visitors	4,351 @ 0.15	653
C	Convenient Shopping		
(a)	Visitors	124 @ 0.15	19
D	Landscape Waste	0.2 (kg/acre/day)	0.92
Total (A+B+C+D)			4,256 kg/day

11.2 Management

Sr. No.	Likely Impact	Management / Mitigative Measures
1. 2.	Approx. 4,256 kg/day of solid waste would be generated (@0.5 kg per capita per day for residents, @0.15 kg per capita per day for the visitor, @0.25 kg per capita per day for the staff members and landscape waste @0.2 kg/acre/day and STP Sludge). Hazardous Waste	<ol style="list-style-type: none"> The solid waste will be collected then segregated at source. Adequate number of colored bins (green, blue & dark grey) separate for bio-degradable and non-biodegradable are proposed to be provided. STP sludge is proposed to be used for horticultural purpose as manure. Horticultural Waste/Biodegradable waste will be composted by Organic Waste Converter-300. Spent oil from DG sets will be disposed through CPCB authorized recyclers.

12. Parking Details

12.1 Parking required as per MoEF&CC

S. No.	Particulars	Area in sqm	Parking in ECS
1	For Residential Facilities	1 ECS/100 sqm FAR 1,81,699.647/100	1,817 ECS
2	For Commercial Facilities	1 ECS/50 sqm FAR 2,982.077/50	60 ECS
Total Parking required as per MoEF&CC = 1,877 ECS			

12.2 Parking required as per law

Sr. No.	Particulars	Area in sqm	Parking in ECS
1	1 ECS per DU having area upto 90 sqm	= 1 ECS X DU = 1 X 221	221 ECS

2	1.5 ECS per DU having area above 90 sqm upto 120 sqm	= 1.5 ECS X DU = 1.5 X 756	1134 ECS
3	2 ECS per DU having area above 120 sqm upto 300 sqm	= 2 ECS X DU = 2 X 388	776 ECS
4	3 ECS per DU having area above 300 sqm	= 3 ECS X DU = 3 X 16	48 ECS
5	Additional 10% for visitors		218 ECS
Total Parking required as per bye laws		= 2,397 ECS	

12.3 Parking Proposed

Sr. No.	Particulars	Area in sqm	1 ECS	Parking in ECS
1	Ground floor for open parking area	11,609.997 m ²	23 m ²	505 ECS
2	First basement area	49,292.005 m ²	32 m ²	1,540 ECS
3	Second basement area	19,320.524 m ²	32 m ²	604 ECS
Total No. of parking proposed = 2,649 ECS				

13. Landscape Details

- Total green area will measure 18,764.346 m² (25.07 % of plot area) for the project.
- Native plantation species have been selected for development of green area according to CPCB norms.

14. PROPOSED TERMS OF REFERENCE (As per Standard TOR of MoEF&CC)

I. Study period: December 2018 to February 2019

II. Project, Proponent & Land Details

- Name, Location & Type of project
- Project proponent (Name, contact address, implementing organization, project consultants etc.)
- Ownership of land
- Land description (Location of plot, Village, Tehsil, District, State and table of Khasra nos. & area)
- Centre/ State/ Local regulations and standards applicable for the project site & project

III. PROJECT FEATURES

- Plot area and area under present development.
- Built-up area.

- Ground coverage.
- Permissible floor area and ground coverage.
- Building height (actual & permitted).
- Area utilization (residential, parking & services).
- Parking facilities (required & provided).
- Power requirement, source and power backup facilities.
- Estimated population.
- Energy conservation measures.
- Water requirement & source along with calculation.
- Sewage generation, treatment & disposal.
- Connectivity of the site with surrounding area.
- Type of building materials to be used.
- Environmental liability of the site

IV. Project Drawings

- Master plan of the project.
- Contour plan of the project site.
- Rainwater harvesting plan showing location of RWH pits.
- Design drawing of the rainwater harvesting pit.
- Traffic circulation plan
- Landscape plan showing landscape, tree plantation & species.
- Latest photographs of the project site indicating the status of construction.
- Drawing of dual plumbing system.
- Schematic diagram & hydraulic design of STP.
- Drawing showing location of STP.
- Electrical line diagram.

V. Mapping of Study Area

- Vicinity map of 2 km from the project boundary delineating major features such as existing buildings, topography, land-use, drainage, habitats, roads, railways, pipelines, transmission lines etc.
- Map of the study area of 2 km from the project boundary showing location of monitoring stations (air, water, soil and noise)
- A map of 15 km aerial distance from the project boundary delineating environmental sensitive areas like National Park, Sanctuary, Protected Forest, Wetland, Historical Site etc.

- Land-use map of the study area based on Google imagery delineating the forest, agricultural land, water bodies, settlements, and important places.
- Contour map of the project area showing contours and highest & lowest levels.
- Study Area: 2 km from the project boundary.
- Primary data generation: On-site monitoring of air, water, soil & noise
- Secondary data collection: Data collection of landuse, topography, geological setting, meteorology, flora & fauna and socio-economic environment.

VI. Monitoring of Environmental Parameters

- Monitoring methodology: Monitoring had been conducted as per CPCB guidelines.
- Study period: December 2018 to February 2019
- Location, parameters & frequency of monitoring.

VII. Environmental Monitoring during Construction & Operation Phase

- Location, parameters & frequency of monitoring
- Compilation and analysis of data and reporting system

VIII. Environmental Management Plan (EMP):

- Pollution control/ mitigation measures during construction stage
- Pollution control/ mitigation measures during operation stage
- Institutional set up for implementation of the EMP
- Budget for EMP
- Corporate environmental responsibility

The project proponent stated that Environmental clearance application clearance application of above said project bearing Proposal No. SIA/PB/NCP/29524/2018 was submitted online on 22/12/2018 and their Environmental Consultant have conducted baseline monitoring from December 2018 to February 2019. He requested the SEAC to kindly accept the study and also requested for issuance of Terms of Reference.

SEAC asked the project proponent and his Environmental Consultant to clarify the following observations to which he replied as under: -

Sr. No.	Observations	Reply submitted by the project proponent and his Environmental Consultant
1.	As to whether the project proponent has sent any mail prior to the start of carrying out monitoring for	The hard copy of the letter dated 30.11.2018 regarding intimation for carrying out monitoring for collecting baseline data for the expansion project

	collecting the baseline data for the said project?	from December 2018 to February 2019 was submitted on 30.11.2018 in the secretariat Office of SEIAA-SEAC at Patiala and he showed the copy of the receipt of the aforesaid letter with stamp on it. A copy of the same was taken on record.
2.	As to whether the land use of the area is permissible for the establishment of the project for which EC has been applied as per the provisions of Master Plan of the city.	The area is permissible for the establishment of the project as the allotment letter has been issued by GMADA vide Memo no. 31342 dated 03.08.2015.
3.	As to whether, the plans have been approved by the Competent Authority or still are Conceptual plans. If so, is there any change from the conceptual plans.	At present, they are having conceptual plan.
4.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	As per allotment letter, GMADA shall provide the domestic water connection and tertiary treated effluent to the allottee for use in flushing & gardening purpose. The allottee shall also be entitled for the sewer and storm connection in the main sewer and storm network developed by GMADA. As such, GMADA will provide the water supply and sewerage connection.
5.	What will be the treatment proposal for the sewage expected from the labours / employees during the construction phase?	Septic tank will be provided for the treatment of waste water generated during construction phase and treated waste water shall be discharged onto land for plantation.
6.	Whether provision of module system shall be kept during installation of STP?	The waste water shall be discharged in to GMADA sewer which will be treated in the STP installed by GMADA. However, sewer line has yet to be laid by GMADA. The company will install its own STP on module basis to treat the waste water generated from the project if till the commissioning, the sewer line is not laid by GMADA.
7.	As to whether provision for segregating grey and black streams of waste water and separate treatment for both the streams and utilization has been made.	The provision has been kept for segregating grey and black water streams in the project.

8.	Whether the project proponent is proposing CER activities in accordance to the OM dated 01.05.2018. If yes, then how much % has been kept reserved for the proposed activities as per the said OM?	Sufficient amount shall be kept for completing the CER activities as per OM dated 01.05.2018 and detail will be submitted in EIA report.
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SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record. SEAC further accepted the request of the project proponent and his environmental consultant to consider the study carried out from December 2018 to February 2019 for collecting the baseline study and decided that additional 01 months study shall be carried out with immediate effect i.e. 02.05.2019.

After detailed deliberations, SEAC decided to categorise the project into category B-1 and recommended to SEIAA to issue the following TORs so that the project proponent and his environmental consultant shall submit the EIA report:

Special Condition:

Northern Regional Office, MOEF&CC, Chandigarh in its certified compliance report has pointed out certain incompleteness/observation w.r.t certain conditions imposed in environment clearance earlier granted to it. However, re-verification by the Ministry is yet to be made. The observations made by MOEF&CC w.r.t compliances of previous EC will be considered as additional TORs for this expansion project. Further, the application for grant of Environment Clearance for the expansion project will be considered only after the confirmation of compliance of conditions of Environmental Clearance of the existing project.

A. Construction stage

1. The project falls under category B-1 under item 8(b) Township and Area Development projects and shall carry out an Environmental Impact Assessment Study for period of 01 months with immediate effect for the entire site area (core zone) and an area of 10 kms radius around the project site (buffer zone) shall be conducted in addition to study already carried out from December 2018 to February 2019.
2. Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
3. Examine and submit the details of the environmental impacts due to change of land use and land cover including aspects such as hydrological characteristics, imperviousness of land and drainage pattern being altered.

4. Examine and submit the details of the environmental impacts at the stage of construction of boundaries & fencing including its impact on the pattern of natural drainage and flooding pattern and barriers being constructed for restricting wildlife movement into project area.
5. Examine and submit the details of the environmental impacts due to leveling and landscaping including aspects such as excavation & filling of soil, clearing of vegetation, change of topography, development of plantation, green belt, lawns & parks and development of impervious areas.
6. Examine and submit the details of the environmental impacts due to excavation, transportation and filling of earth including aspects such as excavation, filling, sourcing, transportation and disposal of soil.
7. Examine and submit the details of the construction material to be used at the construction stage including aspects such as quarries and transportation, stone crushing and screening, mining & transportation of sand, soil excavation, transportation and filling.
8. Examine and submit the impacts being caused due to transportation of construction materials and men such as increase in traffic and load on public transportation facility, destruction and damage of transportation infrastructure, increase of risk due to road accident, pollution caused due to dust and tail pipe emissions and consumption of fuel by transport vehicles.
9. Examine and submit the details of the temporary housing and amenities to be created and used by the work force including aspects such as water supply, electrical energy and fuel supply.
10. Examine and submit the details of the environmental impacts at the stage of creation of roads, transportation facility and other physical infrastructure including aspects such as use of construction materials, excavation and /or filling of soil, generation of construction waste, creation of impervious surfaces, noise & suspended dust pollution and accidental risk.
11. Examine and submit the details of the noise pollution, air pollution, consumption of fuel and generation of scrap being caused due to operation and maintenance of construction machinery and equipment.
12. Examine and submit the details of the source and supply of water for construction activity.
13. Examine and submit the details of the source and quantity of power for construction activity.
14. Examine and submit the details of the fuel consumption, noise pollution, emissions of the exhaust gas, engine & coolant oil and batteries being discarded due to captive and emergency power generation.
15. Examine and submit the details of the handling of wastewater during construction including the domestic wastewater being generated from amenities.
16. Examine and submit the details of the environmental impacts at the stage of development of residential buildings, commercial, institutional and industrial infrastructure including aspects such as construction materials to be used, earth

work (excavation and/or soil filling), generation of construction waste, lighting, HVAC units, waste generation from packaging, residual paints and chemicals and their cans, Generation of wooden, glass, metal and other scrap materials, plumbing and sanitary waste generation, creation of impervious surfaces, noise pollution, suspended dust pollution and risk of accidents.

17. Examine and submit the details of the environmental impacts due to the laying of the water supply system including aspects such as use of piping, fittings and pumps, water pumping stations, earth work and water treatment plant.
18. Examine and submit the details of the environmental impacts due to the laying of the sewerage and sewage treatment and disposal system including aspects such as use of construction material, piping, fittings and pumps, earth work, laying of sewers & manholes, sewage pumping stations and sewage treatment plant.
19. Examine and submit the details of the environmental impacts due to the laying of the storm water drainage system including aspects such as use of construction material, piping, fittings and pumps, earth work, storm drains, storm water inlets and catch basins and storm water outfalls.
20. Examine and submit the details of the environmental impacts due to the electrical power system and street lighting to be provided including aspects such as construction materials to be used, distribution lines, cables, control panels, transformers and meters.
21. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area. Any obstruction of the same by the project.
22. Submit the details of the trees to be felled for the project
23. Ground water classification as per the Central Ground Water Authority
24. Examine the details of Source of water, water requirement, use of treated waste water and prepare a water balance chart
25. Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
26. Examine soil characteristics and depth of ground water table for rainwater harvesting.
27. Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption. Energy conservation and energy efficiency
28. DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.

B. Operation stage

1. Examine and submit the details of the environmental impacts due to the residential, commercial, institutional, industrial, recreational, social, cultural & religious activities to be carried out.

2. Examine and submit the details of the environmental impacts due to the facilities to be provided such as water supply, electrical power supply, fuel supply & consumption including LPG, transportation and communication.
3. Examine and submit the details of the environmental impacts due to the coming up of the activities such as urban agriculture and animal husbandry.
4. Examine and submit the details of the environmental impacts due to the sewerage & sewage treatment and its disposal systems and storm water & its drainage system.
5. Examine and submit the details of the environmental impacts caused due to the generation of captive power & emergency power.
6. Submit the details of the management & handling of municipal solid waste, e-waste, hazardous waste, scrap, estate management, and construction and demolition waste management. The proposal of MSW should include the bio-composting of the organic waste.
7. Submit the details of the socio-economic impact due to the employment to be generated from the household activities.

C. General

1. Other details as indicated in Appendix III of EIA Notification 2006 and the manual titled as "EIA guidance Manual-Building, Construction, Township and area Development projects" published by the Ministry of Environment & Forests, New Delhi, should also be attended.
2. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
3. Environmental aspects identified under some of the project activities may not be comprehensive and some of the significant aspects under some of the activities of the project in question might not have been identified. All such environmental aspects may be added to the list.
4. Some of the activities with their associated environmental aspects of the project in question might be of significant magnitude and not included in the list project activities. All such activities may be added to the list of project activities.
5. The project proponent may add additional project activities and environmental aspects, if any, fill the impact matrix (copy attached) and carryout significance analysis for identifying the significant environmental aspects. Scale, sensitivity and duration of impacts; type, size and frequency of environmental aspects; applicable legal requirements; and concerns of interested parties and local public may be used as the basis for the significance analysis of the environmental aspects.
6. In the EIA study each of the environmental aspects listed in the TOR should be quantified, their positive and negative impacts on different areas of impacts should be identified and assessed and the results of such assessment should be reported in the EIA report.

7. In the Environment Management Plan, management of each of the significant environmental aspects (with identified and assessed significant environmental impacts) for mitigating the impacts should be objectively stated.
8. Environment Management Plan should include technical and institutional aspects for pre-treatment by constituent units.
9. Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment.
10. Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan.
11. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
12. Does the Environment policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
13. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
14. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
15. Does the company have a system of reporting of non compliances / violations of environmental norms to the Board of Directors of the Company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
16. Delineate the concrete proposal regarding activities to be undertaken under Corporate Social Responsibility programme as per OM dated 01.05.2018, which should be long lasting in nature and should be as per the needs of a particular Village/area/ local habitats/ stakeholders to be adopted by the promoter company, which can be done by involving a person having knowledge and experience of socio-economic activities.

Additional TOR

- 1) The company shall install own STP on module basis of adequate capacity at site and treat the waste water generated from the project till the sewer line is not laid by GMADA.
- 2) Plumbing system for reuse of treated wastewater for flushing/ HVAC/ other purposes etc. and colour coding of different pipe lines carrying water/wastewater from different sources / treated wastewater shall be provided as follows:

Sr. No	Nature of the Stream	Color code
a)	Fresh water	Blue Color
b)	Untreated wastewater from Toilets/ urinal & from Kitchen	Black color

c)	Untreated wastewater from Bathing/shower area, hand washing (Washbasin / sinks) and from Cloth Washing	Grey color
d)	Reject water streams from RO plants & AC condensate (this is to be implemented wherever centralized AC system and common RO has been proposed in the Project). Further, in case of individual houses/establishment this proposal may also be implemented wherever possible.	White color
e)	Treated wastewater (for reuse only for plantation purposes) from the STP treating black water	Green
f)	Treated wastewater (for reuse for flushing purposes or any other activity except plantation) from the STP treating grey water	Green with strips
g)	Storm water	Orange Color

The aforesaid 'Terms of Reference' will be valid for a period of three years from its issuance. The project proponent should prepare rapid EIA / EMP Report for its project based on above Terms of Reference and submit the same to the SEIAA for its appraisal.

The case was considered by the SEIAA in its 149th meeting held on 05.07.2019 and same was attended by Sh. Sandeep Sehgal, Vice President (Projects) on behalf of project proponent. The project proponent stated in the meeting that the EIA coordinator/FAE of their Environmental Consultant could not attend the instant meeting and requested for deferment of the case. SEIAA took the aforesaid submission on record and accepted the request of the project proponent. After deliberation, SEIAA decided to defer the case and asked the project proponent to attend the 150th meeting of SEIAA to be held on 08.07.2019 alongwith their EIA Co-ordinator / FAE of the Environmental Consultant organization.

The case was considered by the SEIAA in its 150th meeting held on 08.05.2019 and the same was attended by the following on behalf of the project proponent: -

- (i) Sh. Sandeep Sehgal, Vice President (Projects)
- (ii) Dr. Dheeraj Singh, EIA Co-ordinator, M/s GRC India Pvt. Ltd., Environment consultant of the promoter company

Environmental Consultant of the Promoter Company presented the salient features of the project and requested for issuance of TORs.

During discussions, Vice President of the promoter company agreed to prepare detailed EIA on the basis of Terms of Reference as recommended by the SEAC. SEIAA observed that the SEAC has categorized the project into B-1 category (activity listed 8 (b) of the schedule) without public consultation as not required for the said projects and has recommended specific TORs for undertaking detailed EIA & EMP for such type of projects.

SEIAA looked into the details of the case and was satisfied with the same. Therefore, the Authority decided to accept the recommendations of SEAC and approved Terms of Reference for undertaking detailed EIA & EMP as finalized by SEAC along with the additions as suggested above for the expansion of group housing project namely "Hero Homes" located at Sector 88, SAS Nagar, Mohali (Punjab) alongwith additional TOR that project proponent shall also examine the parking facility to be provided within the premises as per the latest standard norms. SEIAA also decided that Northern Regional Office, MoEF&CC, Chandigarh be requested to re-verify the action taken report of the compliances made by the Project Proponent w.r.t. the earlier observations raised by it and send the report within one month. In case of non-receipt of report from the Northern Regional Office of MoEF&CC, concerned Regional Office of PPCB at Mohali may be asked to re-verify the compliance of the aforesaid observations and send the report as per MoEF& CC circular dated 07.09.2017.

Member Secretary (SEIAA)