Proceedings for the 182nd meeting of State Expert Appraisal Committee held on 03.08.2019 at 9:30 AM in the Conference Hall (Ist Floor), Punjab State Council for Science and Technology, MGSIPA Complex, Sector-26, Chandigarh.

The following members were present: -

Sr. No.	Name of SEAC Member	Designation in SEAC
1.	Er. Yogesh Gupta	Chairman
2.	Er. R K Ratra	Secretary
3.	Er. Parminder Singh Bhogal	Member
4.	Er. Gurinder Jit Singh	Member
5.	Er. Nirmal Singh Kahlon	Member
6.	Sh. Adarsh Pal Vig	Member
7.	Dr. Pawan Krishan	Member
8.	Dr. V.K. Singhal	Member
9.	Sh. K.L. Malhotra	Member
10.	Sh. Deepak Sethi	Member

At the outset, Secretary SEAC, welcomed the members of the State Expert Appraisal Committee (SEAC) and informed that detailed agenda of the meeting, has already been circulated through e-mail and through Google drive. Thereafter, the agenda was taken up for consideration.

Item No. 1): Confirmation of the proceedings of 180th and 181st meetings of State Level Expert Appraisal Committee held on held on 10.05.2019 and 11.07.2019 respectively.

It was apprised that the proceedings of 180th meeting of State Level Expert Appraisal Committee held on 10.05.2019 were circulated to all members of SEAC vide email dated 27.06.2019 & letter no. 489-502 dated 27/06/2019 & also uploaded the same on the official website of MoEF&CC. No observation has been received from any of the member. As such, SEAC confirmed the proceedings of said meetings.

It was also apprised that the proceedings of 181st meeting of SEAC are being prepared and shall be circulated after the approval and finalization of the same. It was noted by the SEAC.

Item No. 2): Action taken on the proceedings of 180th and 181st meeting of State Level Expert Appraisal Committee held on 10.05.2019 and 11.07.2019 respectively.

SEAC was apprised that the action on the proceedings of 180th meeting of SEAC held on 10.05.2019 is being taken and action taken report will be placed in the next meeting. The proceedings of 181st meeting of SEAC held on 11.07.2019 is being prepared and action on the proceedings will be taken after approval of the proceedings. SEAC decided that the action on the decisions taken in the previous meetings be taken at the earliest and the action taken reports be placed in the next meeting.

Item No.182.01: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for establishment of 18 MW Biomass based Power Plant located in revenue estate of Village Sedha Singh Wala, Tehsil Jaito, District Faridkot by M/s Sukhbir Agro Energy Ltd. (Proposal no SIA/PB/THE/25814/2018).

The facts of the case are as under: -

1. The project proponent M/s Sukhbir Agro Energy Ltd had earlier submitted an application for issuance of TOR for obtaining environmental clearance under EIA Notification, 14.09.2006 vide Proposal No. SIA/PB/THE/25814/2018 dated 23.04.2018 for establishment of 18 MW Biomass based Power Plant located in revenue estate of Village Sedha Singh Wala, Tehsil Jaito, District Faridkot.

2. SEIAA, Punjab vide No. SEIAA/2018/1039 dated 16.07.2018 granted Term of Reference(TOR) to the firm.

2. Public hearing / consultation was conducted by PPCB on 10.10.2018 and proceeding of public hearing was sent to the SEIAA, Punjab.

3. Environmental Engineer, Punjab Pollution Control Board, Regional Office, Faridkot vide email dated 25.05.2018 & letter no. 1927 dated 25.05.2018 had already reported that proposed site of the Bio Mass Power Plant was visited by

AEE of his office on 24.05.2018 in the presence of Sh. Sudhanshu Jindal, HOD Accounts (92165-79514) and it was observed as under:

- The site measuring about 24 acres is falling in the revenue estate of Village Sedha Singh Wala along Jaitu – Bajakhana road which is a ODR. The phirni of village of Sedha Singh Wala is located at a distance of 500 mtrs from the proposed site and other nearest villages Dal Singh Wala and Rau Wala are also located outside 500 mtrs distance from the site.
- The MC limit of Jaitu town is located at a distance of more than 2 kms from the proposed site.
- No residential area / religious place / educational institute are falling within 300 mtrs distance from the proposed site.
- No national highway / state highway falls within a distance of 500 mtrs from the proposed site.
- No construction work has been started at the site so far, however the site has been demarked with pillars. The site is surrounded by agriculture area all around.

4. The project proponent has submitted the final EIA report for obtaining Environmental Clearance for the project.

5. The case was considered by the SEAC in its 178th meeting held on 15.04.2019, which was attended by the following: -

a) Sh. Karamjit Singh, Project Head, from the industry

b) Sh. Nilesh Deshmukh, Head cum EIA- Co-ordinator, SMS Envocare Limited, Pune, Environmental Consultant of Promoter Company

SEAC allowed the project proponent to present the salient features of the project.

6. Environmental Consultant of the project proponent presented the same as under:

- M/s Sukhbir Agro Energy Limited has proposed Agro-based Thermal Power Plant with capacity of 18 MW at Village Sedha Singh Wala, Tehsil-Jaito , District- Faridkot.
- Sukhbir Agro Energy Limited (SAEL) was incorporated on 21.12.1999 as a Private Limited Company and reconstituted on 30.06.2006 as a Limited Company.
- Sukhbir Agro Energy Limited (SAEL) an existing Biomass Project Developer (operating 1 x 15 MW Biomass Power Plant at District – Gazipur, U.P. and 14.5 MW Biomass Power Plant at District Muktsar, Punjab.
- SAEL diversified into Grid connected Solar Power Generation 20 MW (AC) in district Mahoba (UP), 20 MW + 10 MW in District Lalitpur (UP).Also a 20 MW Grid Connected Solar Power Plant was installed and commissioned in December, 2017 at Solapur, Maharashtra**.**

- Sukhbir Agro Energy Ltd. (SAEL) has proven its expertise in the designing, construction and operation of biomass plants for the large-scale generation of electricity in India without increasing the carbon footprint.

Importance and Benefit of the Project & Chronology

- Biomass is a renewable energy source
- Minimizes overdependence on traditional electricity
- Helps climate change by reducing greenhouse gas emissions
- Help to clean our environment
- Widely available source of energy
- Improve rural economies
- Reduce Carbon Footprint
- Environmental protection and sustainability development initiative
- Job avenues to needy people from the nearby areas

Project Brief

Particulars	**Details**
Name of the Project	Proposed 18 (1X18) MW Agro-based Thermal Power Plant
Capacity	18 (1X18) MW
Regulatory Framework	1 (d) Thermal Power Plants as per EIA notification 2006 categorized as 'B'
Location	Khasra No. 206, 207, 214, 170, 171, 204, 205,571/172, 159,160, 161/1, 173, 174,572/172 at Village Sedha Singh Wala, Tehsil-Jaito, District-Faridkot, Punjab
Total Area (Ha)	10.65
Toposheet Number	44J/14, 44 J/15, 44 N/2 & 44 N/3 of SoI
Project Cost	141.25 Crore
Green Belt	35200.73 Sq. M. (33% of total Project Area)
Grant of ToR	SEIAA/2018/1039 dated 16 July, 2018
Monitoring Season	March to May 2018 (Pre-Monsoon Season)
Man Power	Direct: 200 & Indirect: 1500
Status of Litigation Pending	No litigation pending against project/ site

Co-ordinates of the Project Site

Latitude	Longitude	Elevation MSL
30°27'25.52"N	74°56'22.61"E	209
30°27'17.19"N	74°56'22.93"E	209
30°27'17.13"N	74°56'22.20"E	209
30°27'7.86"N	74°56'22.41"E	212
30°27'7.51"N	74°56'20.55"E	212
30°27'13.41"N	74°56'20.43"E	208
30°27'13.47"N	74°56'16.70"E	209
30°27'17.19"N	74°56'16.64"E	209
30°27'17.22"N	74°56'10.02"E	209
30°27'26.94"N	74°56'10.01"E	209
30°27'26.96"N	74°56'12.52"E	209
30°27'25.36"N	74°56'12.55"E	209

Land Bifurcation

Particulars	Area in Sqm.
Built-up Land	16500
Road Development	12000
Green Belt	35200.73
Storage Biomass	37000
Open Areas	5853
Total Area	106553.73

Boiler Specification

- A Travelling Grate Boiler of 80 TPH Steaming Capacity and firing Paddy Straw (100%) will be installed.
- The operating parameters of the boiler will be steam pressure 95 Kg/cm2 (g) at a superheated temperature of 540℃.
- The Boiler will be Spreader Stroker Single Drum Natural Circulation, Water Tube, and Balanced Draft type. Boiler will be operating with Paddy Straw having GCV of 2800 Kcal/Kg.
- Boiler will be operating with Paddy Straw having GCV of 2800 Kcal/Kg

Boiler Design Specification

Particulars		Design
Boiler Parameters (100% BMCR) Steam flow at main Steam Stop Valve Outlet	TPH	80
Steam pressure at main Steam Stop Valve Outlet	Kg/cm2 (g)	95
Steam temperature at main Steam Stop Valve outlet at 100% MCR	Deg.C	540
Feed Water Temperature at Boiler Inlet	Deg.C	225

Design Code for Pressure Parts		IBR

BOILER Specification

A. BOILER PARAMETERS (100% BMCR)		
Steam flow at main steams top valve outlet	TPH	80.00
Peak Generation (2 hours per 24 hours)		110%
Steam pressure at Main Steam Stop Valve outlet	Kg/cm^2 (g)	95
Superheated steam temperature at Main Steam Stop Valve outlet	Deg.C	540
Feed Water temperature at Economiser inlet	Deg.C	225
B. FUELSFORBOILER		
100%PaddyStraw		100%MCR
Fuel Sizing		
i) Bale height	mm	275 + 25/-25
ii) Bale Width	mm	550 + 50/-25
iii) Bale Length	mm	1000 + 100/-100
iv) Density of Bale	Kg/CUM	110 + 50/-15
v) Design weight	Kg	20 - 25
vi) String Orientation	-	Along Top & Ends
Note: SAEL will be utilizing Paddy Straw with GCV of 2800 Kcal / Kg.		
C. EMISSION FROM BOILER		
i) NOX	mg/Nm^3	400
ii) SOX		NA
iii) Hg		NA
iv) Dust	mg/Nm^3	30

Feed Water Boiler Requirement

Description	**Unit**	**Feed water**	**Boiler Water**
Total Hardness (max.)	ppm	Nil	Nil
pH Value at 25 deg.C		8.5-9.2	9.5-10.5
Oxygen (Max.)	ppm	0.007	Nil
Iron (max.)	ppm	Nil	Nil
Copper (max.)	ppm	Nil	Nil
Silica (Max.)	ppm	0.02	2.5
Total CO2 (Max.)	ppm	Nil	Nil
Permanganate (Max.)	ppm	Nil	Nil
Total Dissolved Solids (Max.)	ppm	0.1	100
Total suspended Solids (Max.)	ppm	Nil	Nil
Oil (Max.)	ppm	Nil	Nil
Specific electric conductivity at 25 OC.	micro S/cum	0.2	200
Residual Hydrazine (Max.)	ppm	0.01 – 0.02	-

Residual Phosphate (Max.)	ppm	-	15

Steam Turbine Generator & Balance

Sr. No.	Particular	Specification
	Turbine	
1.	Type of Steam Turbine	Slow speed Turbine (6300 RPM) & will be directly coupled to Generator Gear Box.
2.	Output Rated Output (at generator terminal)	18 MW
3.	Operating Conditions Speed (turbine/generator)	6300 rpm
	Inlet Steam Pressure	90 Kg/cm^2
	Inlet Steam temperature	535^0C
	Exhaust Steam Pressure	0.0094 Mpa (0.096 Kg/cm^2)*
	Feed Water Temperature after De- aerator	225 deg C
	Inlet Steam Flow	68.5 T / Hour
	Calculated Steam Rate	3.805 Kg / Kw-Hr
	Calculated Heat Rate	2313.25 Kcal/Kw-Hr.
4.	Mode of Generator	Brushless excitation but without PMG
5.	Rated Power	18 MW
6.	Rated Speed	1500 r/min
7.	Voltage at Generator Terminals	11 KV + 10%
8.	Rated Current	1312A
9.	Frequency	50 HZ (- 5% + 3%)
10.	Power Factor	0.8 (lagging)
11.	Poles	4
12.	Phases	3
13.	Excitation type	Brushless
14.	Efficiency	97.6%
15.	Type of Generator Air Cooler	CACW (N+1) Design
16.	Insulation Class	F
17.	Temperature Rise	B Class

Sr. No.	Particulars	Specification
1.	Steam Turbine Rating	18 MW
2.	Requirement of Steam at 100% PLF as per BHEL's Specification*	68.5 TPH

3.	Boiler Capacity	80 TPH
4.	Balance Steam Available	11.5
5.	Utilization of Boiler at Full Load of STG	85.63%

Requirement of Project

Sr. No.	Particular	Amount	Source	Remark
1	Area requirement	10.65 Ha	Private	Owned
2	Water Requirement	225 CuM/Hr	Raunta (Jaitu) Rajwaha Canal	Required permission secured
3	Power	10 to 11 % of total power generation	In-house generation	-
			DG sets shall be arranged	In case of emergency
4	Man Power /Employment	Direct: 200 Indirect:1500 (Skilled/Semi-Skilled/Unskilled)	Local will be hired	Required training will be provided
5	Paddy Straw (Biomass)	141912 MT/Annum 430 MT/Day	Nearby Areas	10 Collection Center will be within 10 km radius from project site

Water Requirement

- Cooling Water Circulation will be 6000 CuM/Hr.
- Evaporation Loss will depend on season and will vary from 3-4%.
- Considering 3.5% loss, make-up water requirement will be 210 CuM/Hr.
- After adding requirement of Water for Green Belt Development & Human consumption, total requirement of Water has been estimated at 225 CuM/Hr.
- SAEL proposes to obtain water from Raunta (Jaitu) Rajwaha Canal, a 2.5 Km long Pipeline with 12" diameter, RCC Pipes will be laid with due permission from concerned department

Raw Material Requirement

- Fuel proposed for thermal power plant will be Paddy Straw.
- Specific Biomass consumption has been estimated at 1.2 Kg/Kw-Hr of Power generated.
- For collection of Paddy Straw, Power Plant will be required to undertake farming activities to make bales of paddy straw by employing chipper to cut the straw standing in the field to ground level, a rake and a baler to produce Rice Straw in bales.

- Area under cultivation of Paddy & Cotton (Kharif Crop) & Wheat as provided by the District Agricultural Department of Faridkot District during 2010-11 to 2014-15 is given below:

Year	Paddy in '000 Ha.	Wheat in '000 Ha.	Cotton in '000 Ha.
2010-11	101	117	15.5
2011-12	100	116.5	17.5
2012-13	101	116.5	15
2013-14	99	116	12
2014-15	106	116	10

The estimated of availability of Paddy Straw, area under cultivation of Paddy has been assumed at 100 Thousand Ha or 250 Thousand Acre. Considering generation of Paddy Straw @ 2 MT/Acre, total generation of Green Paddy Straw will be 5.00 Lac MT/Annum. Considering 80% recovery, generation of dry Paddy Straw (20% moisture content) comes to 5.00 x 80% = 4.00 Lac MT/Annum.

Man Power Requirement

The Agro-based Thermal Power Project will be required employment in the surroundings for the local people during the construction as well as during operation period**.** Unskilled/semi-skilled manpower related to industrial activities will be drawn locally or from nearby places.

Environment Setting

Particulars	Details	
Geographical Coordinate	Latitude	Longitude
	30°27'22.8"N	74°56'16.2"E
Elevation	209 MSL	
Nearest Railway Station	Gangasar Jaito: 8.0 Km (SW)	
Nearest Air Port	Sri Guru Ram Dass Jee International Airport Amritsar: 145.0 Km (SE)	
Nearest Town	Jaito city: 5.0 Km (W)	
Nearest River	Raunta (Jaitu) Rajwaha Canal: 2.50 KM(S)	
Eco Sensitive Zone (National Park, Wildlife Sanctuary, Biosphere Reserve, Wild Life Corridors etc.)	Not within 10 Km radius Study area	
Historical & Archeological Important Place/s		

Seismic Zone	Zone-III

Baseline Environmental Studies

- Study Season: Pre Monsoon Season
- Duration: 1st March to 31st May, 2018
- Study area: 10 Km radius from project boundary
- Environmental Aspects Covered during study:
  - Ambient Air Quality Monitoring (AAQM)
  - Surface & Ground Water Sampling & Analysis
  - Soil sampling and analysis
  - Noise Level Monitoring
  - Ecology & Biodiversity Study
  - Socio-economic Study
  - Hydrological & Hydro-geological study
  - Land Use Land Cover Study and Traffic Study

Sampling/ Monitoring Results

Parameter	Location	Results	Standards	
Ambient Air Quality	8 Location	PM2.5 : 13.98 to 18.02 µg/m^3 PM10 : 34.93 to 40.42 µg/m^3 Sox : 9.95 to 15.93 µg/m^3 NOx : 14.95 to 20.72 µg/m^3	PM2.5 : 60 µg/m^3 PM10 : 100 µg/m^3 SOx : 80 µg/m^3 NOx : 80 µg/m^3	
Noise Level	8 Location	Day : 47.18- 60.28 dB(A) Night : 34.51-42.83 dB(A)	Industrial	Day:75 dB(A) Night: 70 dB(A)
			Residential	Day: 55 dB(A) Night: 45 dB(A)
Water Quality	Ground Water: 8 Location	pH : 7.7 to 8.16 TDS : 1100to 1840 mg/l TH : 200 to 652 mg/l.	6.5 to 8.5 2000 mg/l	
	Surface Water: 2 Location (2 samples from 1000 m distance)	pH : 7.69 to 7.54 TDS : 180 to 274 mg/l TH :138 to 142 mg/l	- -	
Soil Quality	8 Location	pH : 8.42 to 9.45 Organic Matter: 0.4 % to 5.42 %. Total Nitrogen : 580.32 to 992.64kg/Ha Potassium : 20to 98 Kg/Ha. Phosphorus : 0.1 to 25.19 Kg/Ha	- - - -	

ECOLOGY & BIODIVERSITY

- Total 19 tree species, 11 Shrub species and 18 herb species identified.
- Based on secondary information; 3 Reptile species, 16 Bird species and 6 mammal species are commonly found in the area.
- No any species of Flora & Fauna are categorized under conservation category by IUCN.
- No Wildlife Sanctuary, National Park, Biosphere Reserves, Wildlife Corridors, Protected Forest exists within study area of 10 km radius from the project boundary.

Socio-economic Status

a. Total 28 villages are present in the study areas
b. Total Population of 28 villages is 86901 (Male: 45742, Female: 41159)
c. Total SC Population: 35155
d. Total ST Population: 0
e. Total Literate: 50697 (Male: 28936, Female: 21761)
f. Total Illiterate: 36204
g. Total Working Population: 30603 (Male: 26465, Female: 4136)
h. Total Non Working Population: 56298
i. Education facility are available in all of the villages in study area
j. Female literacy is good & people attitude regarding female education is good
k. Water supply is mostly through wells and hand pumps as well as through RO
l. Transportation is to the satisfactory level in the villages
m. Almost villages are electrified in the region and electricity
n. Primary Health Centre & health sub centers are available in the 10.0 radius study areafrom the project site;
o. Proposed project will add employment to the local

Anticipated Environment Impacts & Mitigation Measures-Construction Phase

Environmental Component	Activity	Potential Impacts
Air Quality	• Land Preparation and Construction activity • Vehicular traffic • Transportation of construction material	• Dust Emission • Stacking of construction material may block the road • Air pollution due to transportation • Cumulative impact on air due to other future industry

Noise Level	• HEMM, Heavy machineries and Trucks movements	• Workers exposed to increased noise near machineries
Water Quality	• Waste water generation • Excavated material	• Public health concern due to wastewater • Soil contamination • Storm water with sediments from excavated material
Land Quality	• Land Preparation and construction activity	• Change in Land Use pattern • Overburden & Construction waste may pollute the soil
Ecology (Terrestrial & Aquatic)	• Land Preparation for construction of TPP	• Generation of Noise • Clearing of ground flora, if any
Socioeconomic	• Construction of TPP	• No adverse impact
Environmental Hazards	• Construction activities	• No much Environmental Hazards identified • Air pollution may create breathing difficulties
Air Quality	• Vehicular movement • Plant Operation • Operation of Boiler	• Air pollution due to dust emission • Air pollution from burning of fuel • Traces of odor may be produced • Cumulative emission generation from the stack of boiler
Noise Level	• Pumps, Fans, Generator and Vehicles • Vehicular movement	• Some amount of increase in Noise level
Water Quality	• Transpiration of Raw Effluent • Disposal of treated effluent	• No impact like eutrophication will be there as no effluent will be discharged without proper treatment
Land Quality	• Handling of Hazardous material • Ash handling	• No impact due to proper management • Proper disposal of other solid waste
Ecology (Terrestrial & Aquatic)	• Operation of TPP • Disposal of effluent • Handling of Ash	• No impacts due to insignificance emission through air • No impact of aquatic ecology as treated effluent will not discharge into the water bodies
Socioeconomic	• Operation of TPP	• Negligible influx of outside people as workers • Beneficial impacts with respect to employment and other socioeconomic aspects

Traffic Study

Name of Road	Recommended PCU/day in both directions as per IRC73-1980 guidelines for capacity of Roads in Non-Urban Highway (for Two lane Roads)	Maximum PCU/hr observed during peak hour	Expected from Proposed Project (PCU/hr)	Future after proposed Project (PCU/hr)	Remark
Jaito-Bajakhana Road	10000	902	428	1330	Less than the standard

- Peak hours are considered from 9:00 am – 11:00 am and 4:00 pm – 6:00 pm. and non-peak hours are considered from 2:00 pm – 3: 00 pm and 8:00 pm – 9:00 pm.
- Recommended PCU/day as per IRC 73-1980 guidelines for capacity of Roads in Non-Urban Highway (for two lane Roads) is 10,000 PCU/day. As per the above data, the additional load on the carrying capacity of the concern roads is not likely to have any significant adverse effect.

Environmental Management Plan

Major Aspects of EMP:

- Air Pollution mitigation and management
- Water Pollution mitigation and management
- Solid & Hazardous Waste management
- Noise Pollution mitigation and management
- Greenbelt development
- Occupational health & Safety management
- Environmental Monitoring programme

Air Pollution Management

(i) <u>Dust and Particulate Matters</u>

- The pollution control norms stipulate a maximum dust concentration of 30 mg/ Nm3
- The proposed bio-mass plant will have a Bag filter, which will separate the dust from the flue gas.
- ESP has been proposed for trap the Fly Ash and Bottom Ash
- The dust concentration is the flue gas leaving the Bag filter will be maximum 30 mg/ Nm3

- The dust concentration level in the chimney will be periodically monitored.
- Corrective steps will be taken, if the concentration is not within the acceptable limits**.**

(ii) <u>Sulphur Dioxide and Nitrogen Dioxide</u>

- The main fuel in the proposed bio-mass plant is Paddy Straw which contain little sulphur, (about 0.61%) hence sulphur dioxide produced will have insignificant effect.
- The stack height will be as per the local pollution control board stipulations (70 m).
- Nitrogen di-oxides produced in bio-mass firing is very low as it contains only 1% Nitrogen.
- SAEL has also secured the NOC from Office of District Magistrate, Faridkot Punjab for Stack erection.

(iii) Air Pollution Management

- Ash content in Paddy Straw by mass is about 14%.
- Annual consumption of Paddy Straw is estimated at 1,41,912 MT/Annum.
- Annual Ash generation will be 19800 MT.
- Ash collected form the bottom of furnace (bottom ash) and the ash collected in the air heater hoppers and Bag filter are taken to an ash silo through a pneumatic conveying system.
- Ash from the silo will be given to farmers, who can use the ash as manure for the crops free of cost and to local industries, who will utilize the ash for manufacture of bricks, for road building material, for land filling locally and in Cement Grinding Unit for producing PPC.

Other Mitigation Measures

- Emission of Particulates matters, SO_2, NO_X and CO shall be confirmed within the norms
- All necessary safety measures shall be implemented
- Necessary records shall be maintained for work place monitoring done on regular basis.
- Regular review and necessary proceedings shall be ensured by proponent for timely correction & improvement in the safety system of the unit
- All storage, handling & transfer shall be done with properly designed facilities
- Regular water sprinkling shall be carried out in and around the plant site which will help to reduce the dust emission
- Thick green belt shall be developed to control the air pollution
- Transportation of Construction material by closed trucks
- PUC will be ensured to all the vehicles

Noise Pollution Mitigation and Management

- Manufacturers and suppliers of machine/equipment shall be selected to ensure that these machines /equipment's meet the desired noise/vibration standards
- The operators working in the high-noise areas shall be provided with ear-muffs/ear-plugs
- Acoustic laggings and silencers shall be provided in equipment wherever required
- Transportation of Raw material & Final Product shall be ensured in day time only
- Proper green belt shall be develop which helps to reduce the noise level
- Noise level can be reduced by stopping leakages from various steam lines, compressed air lines and other high pressure equipment
- The air compressor, process air blower, pneumatic valves shall be provided with acoustic enclosure
- All rotating items shall be well lubricated and provided with enclosures as far as possible to reduce noise transmission
- Extensive vibration monitoring system shall be provided to check and reduce vibrations. Vibration isolators shall be provided to reduce vibration and noise wherever possible

Water Pollution Mitigation and Management

- During construction phase, the modular septic tanks will be provided, if required
- Excavation during dry season and management of excavated soils
- Clearing of all debris from site as soon as construction is over
- Care will be taken to securely store the excavated material and to reuse it as early as possible in construction or for land filling during landscaping
- Storm water drainage system to collect surface runoff
- CT blow down would be utilized for meeting the requirement of ash handling system, Biomass handling system (dust suppression). Excess blow down, if any, will be treated in the RO system and recycled.
- While developing the water system for the project, utmost care has been taken to maximize the recycle/ reuse of effluents and to ensure zero effluent discharge.
- There is also no storage of toxic waste and thus there is also no scope of polluting ground water sources by seepage or leaching.
- Domestic waste water from main plant and staff quarter will be treated in a sewage treatment plant.
- Proper drainage facility shall be provided to effluent and storm water

Storm Water Management

- The storm water treatment facility will be located at feasible location on the site keeping in view the slope contours and collection point;
- Use of low flow fixtures and appliances for reduced water consumption such as low flush water closets and cistern will be considered;
- Sewage generated will be treated in the sewage treatment plant and reused for green belt to reduce the fresh water requirement;
- The storm water from open areas and rain water from the roof tops of various buildings will be treated for the removal of oil & grease, sediments and routed to the water harvesting structures to recharge the ground water table;
- The storm water from the previous area will also be routed to the rainwater harvesting structures;

Solid Waste & Hazardous Waste Management

- During construction phase, major component of the solid waste can be the overburden of the area which will be removed during clearing of the land.
- Over burden will be stored at the suitable place so that it can be used for green belt development.
- Other waste such as metal, nonmetal plastic and other material will be stored and send to the authorized waste management unit or to the recyclers.
- All construction waste shall be managed as per C&D management Rule, 2016.
- Ash will be the major solid waste generated from the power project.
- Annual consumption of Paddy Straw is estimated at 1, 41,912 MT/Annum. Thus annual Ash generation will be 19800 MT.
- Ash management scheme shall be implemented consisting of dry collection of fly ash, supply of ash to entrepreneurs for utilization and promoting ash utilization to maximum extent and safe disposal of unused ash.
- Ash shall be stored in Silo and sent to Brick manufactures.
- MoU has been prepared. Ash can also be given to farmers free of cost so they can use the same as manure.
- Chemical Sludge shall be generated along with other Solids from, Effluent Treatment plant Unit.
- Chemical sludge shall be de-watered and shall be stored at safe place in dry form. The same shall be sent to CHWTSDF for secured treatment and disposal of the same.
- All generated hazardous shall be managed as per Hazardous and Other Wastes (Management & Trans-boundary Movement) Rule, 2016.
- Municipal solid waste shall be managed as per new Solid Waste (Management) Rule, 2016.
- Bio-medical waste generated during construction and operation phase will be managed as per Bio-medical Waste Management Rule, 2016.
- All the E-Waste generated during construction as well operation phase will be managed as per E-Waste Management Rule, 2016.

Greenbelt Development Plan

- 35200.73 Sq.m Area will be developed under Greenbelt Development
- Total 4000 Plant species (Tree-2500& Shrubs-1500) will be planted in entire 4 year plantation programs.
- Required nutrients/water/manure and protection mess shall be provided.
- Ground flora will also be developed in open area. Survival of plant shall also be monitored.

i) Location for developing green belt

- Plantation along the road site (Main & Internal)
- Plantation around the project component
- Plantation around the maximum boundary of TPP

ii) Year wise plantation planning

Description	End of 2018	End of 2019	End of 2020	End of 2021
Number of Plants	• 1000 Nos. • (Tree-600) • (Shrubs-400)	• Additional 1500 Nos. • (Tree-1000) • (Shrubs-500)	• Additional 1000 Nos. • (Tree-600) (Shrubs-400)	• Additional 500 Nos. • (Tree-300) • (Shrubs-200)
Plantation Priority	• First Tire	• Second Tire	• Second Tire	• Third Tire
Plantation of Grasses and ground flora	• As per vacant area available in the unit			

Public Hearing

- Public hearing was conducted on 10th October 2018 as per EIA Notification 2006
- The Public hearing was conducted at Proposed Project site
- Public hearing was headed by Shri Gurjit Singh (PCS), Er. Pradeep Balu, Environmental Engineer, Regional Office, Faridkot PPCB, Er. Praveen Kumar Saluja, Environmental Engineer (Mega), PPCB, Patiala
- Notice of the Public hearing was published as per prescribed norms on Local and English newspaper on 1st September, 2018.

Question & Reply at Public Hearing

S.No.	Name of the Person & Address	Details of query/ Statement/ information/ Clarification Sought by the person present	Reply of the query/ Statement/ Information/Clarification given by the Project Proponent	Action Plan
1.	Sh. Nachhatar Singh, Ex. Member Panchayat,	1. How many bailers are there with the industry. 2. How the bailers will be	The representative of the company informed that:- 1. The industry has hired 50 bailer machines for its Sedha Singh Wala project.	The industry has hired 50 bailer machines for its Sedha Singh Wala project.

	Village Dal Singh Wala, District Faridkot	distributed to village wise. 3. What charges will be taken by the industry from the farmers for taking bundles of rice straw (bailes).	2. The bailer machines will be distributed village wise in the nearby area for which a list shall be prepared and same can be taken up from them. 3. No charges will be taken by the industry from the farmers for taking bundles of rice straw (bailes).	The bailer machines will be distributed village wise in the nearby area for which a list shall be prepared and same will be shared with the farmers. No charges will be taken by the industry from the farmers for taking bundles of rice straw (bailes).
2	Sh. Sukhwant Singh, Village Lakhanwala, District Faridkot	He stated that the bailer owners will charge Rs.1500/- per acre for bailing the bundles of rice straw, which is not bearable for the farmers. He further stated that the farmers will prefer to fire the rice straw then spending amount Rs.1500/- on the bailer machine. Therefore, the bailers should be provided free of cost. Two bailers should be provided to each village through cooperate societies and company should give assurance in this regard. He also stated that the bailers should work within 15 kms. If company will not provide free of cost to the farmers then the project may not be fully successful.	The representative of the company informed that the company will not take any amount from the farmers for facilitating to arrange bailers. However they will purchase baillies @ 130/- per quintal. Two bailers to each village will be ensured within 25 kms of the project site and their phone numbers will be made available to the farmers for arrangement of the bailer. As already informed that the company has not owned any bailer machines, but the bailer machine owners have been associated with them from the nearby area. He also informed that they cannot bound the bailer owners to work within 15 kms as they have invested huge amount on it and they will try to work more to earn more for getting amount so invested by them.	The Company will engage contractors/person who will not charge any payment from the farmers. Therefore, bailers will be providing services free of cost to the farmer. Company will purchase their paddy straw at mutually agreed rates. Therefore, farmer don't need to burn the paddy straw and create the pollution. Two bailers wiil be provided to each village within a radius of 25km of the project. The company would allocate areas to each bailer who would be responsible to collect the paddy straw from that area. They would move out from the area only when all paddy straw is collected. Further, in order to smoothen the

				process, the company will appoint its agent in this regard.
3.	Sh. Nirmal Singh, r/o Village Harike Kalan, District Faridkot	He stated that he has bailer. The thread used in the bailer is very costly and the company has fixed moisture of the baile as 16%, which is not possible. The rate of rice straw has been fixed by the company is Rs.130/- per quantal which is very less. Minimum rate of Rs.200-250 per quantal should be fixed as Rs.80/- per quantal is demanded by the transporter for transporting the bailes to the destination.	The representative of the industry informed that their company has fixed moisture as 16% in the rice straw but the other companies have fixed this as 15%. The bailes have been stored upto 20-22 ft., if the moisture will be more than 16% then there chances of fire in the stock and also there will be no efficiency of the plant with more moisture in the bailes. They will review the rate of rice straw and will take up the matter in a meeting at their head office level.	The representative of the industry informed that their company has fixed moisture as 16% in the rice straw whereas other companies have fixed this as 15%. The bailes would be stored up to 20-22 ft., if the moisture is more than 16% then there are chances of fire in the stock and also there will be no efficiency of the plant with higher moisture in the bailes. They will review the rate of paddy straw and will take up the matter in a meeting at their head office level. Proper firefighting safety measures to be made for storage of stock at each location.

Corporate Environment Responsibility

- Corporate Environmental Responsibility is an integral part of the planning as management
- Company has secured approx. 1.5 % of total project cost for developmental activities under company's CER initiative
- Regular health checkup for employees, financial assistance to establish Self Help Group, support to development of educational facilities, avenue plantation etc. are few highlights of CER activities.
- Regular health checkup for employees, financial assistance to establish Self Help Group, support to development of educational facilities, avenue plantation etc. are few highlights of CER activities.

Sr. No.	**Sector**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**Total (In Lakhs)**
1	Water Supply &	20	12	8	6	4	50

	Treatment						
2	Economy, Trade & Commerce	20	12	8	6	4	50
3	Transportation	20	12	8	6	4	50
4	Education	20	12	8	6	4	50
5	Health	20	12	8	6	4	50
6	Open Spaces, Parks & Water Bodies	20	12	8	6	4	50
7	Village Governance/Capacity Building	20	12	8	6	4	50
8	Power Supply & Electrification	20	12	8	6	4	50
Total (In Lakhs)		**160**	**96**	**64**	**48**	**32**	**400**

Budgetary Allocation for Environmental Management Plan

EMP Budgetary allocation		
Sr.no.	**PARTICULAR**	**AMOUNT (RS. IN LAKHS)**
Capital Cost		
i)	Green Belt Development	10.0
ii)	Solid & Hazardous Waste Management	20.0
iii)	Water & Waste Water Management	20.0
iv)	Air Pollution Management including instrumentation	30.0
v)	Occupational Health & Safety	25.0
vi)	RWH & Miscellaneous Cost	20.0
Total		**125.0**
Recurring Cost		
Sr.No.	**PARTICULAR**	**AMOUNT (RS. IN LAKHS/year)**
i)	Green Belt Development	2.0
ii)	Environmental Monitoring	3.0
iii)	Solid & Hazardous Waste Management	25.0
iv)	Water & Waste Water Management	5.0
v)	Air Pollution Management	15.0
vi)	Occupational Health & Safety	5.0
	RWH & Miscellaneous Cost	5.0
Total		**60**

SEAC raised the following queries to which the project proponent and his Environmental Consultant replied as under:

Sr. No.	**Observations raised by SEAC**	**Reply of the project Proponent and/or his environmental consultant**

1.	▪ MoEF&CC has prescribed statuary notifications prescribing standards and other guidelines for the control of pollution from Thermal Plants. ▪ Ministry has also prescribed standardize conditions vide OM dated 19.11.2018 for Thermal Power Plants. The project proponent has not taken into account the compliance of above statuary notifications and OM specifically prescribed for the Thermal Power Plants.	Environmental consultant and project proponent sought time to submit compliance.
2.	▪ Bag house filter has been proposed as the air pollution control device. More often, electrostatic precipitator(ESP) are used to arrest the fine / ionized particulate matter from power plants. ✓ Clarify, as to whether the proposed APCD will be adequate for the emissions being excepted from the power plants. ✓ Whether the proposal is in line with the EIA manuals issued by MoEF&CC. ✓ What will be the pollution control arrangements at various stages of combustion. ✓ Whether bag filter will be able to handle the high temperature of flue gas. If so, specifications of proposed bag house filter shall be provided and temperature upto which flue gas can be passed through it. ▪ Is bag house filter able to handle the high temperature of flue gas. If so, specifications of proposed bag house filter shall be provided and temperature upto which flue gas can be passed through it. ▪ Maintenance plan for APCD not	▪ It is true that ESPs are commonly used as pollution control device in power plants. They have proposed Bag house filter with modified technology that can arrest even fine particles. Further, the operational cost of bag filter house is comparatively less and requires lesser skilled man power. It will achieve the desired results. Further, they are ready to submit an under taking to the effect that in case of non achievement of desired results, they will replace the bag filter system with alternative technology like ESP. ▪ For rest of the queries like the consonance of proposal with the EIA manual / MoEF&CC notifications, sometime is required. ▪ Stage wise requirement / proposal of pollution control device will also be submitted in due course. ▪ Details with respect to compatibility of bag filters to stand high temperatures will be submitted in due course. ▪ Will be submitted.

	submitted	
3.	a. Is there any proposal to abstract ground water? b. Whether permission from the Department of Irrigation or Drainage regarding allowing the industry to use the canal water has been obtained.	a. No there is no such proposal. Only canal water shall be utilised for meeting the daily water requirement. b. They have obtained permission from the competent authority. However, same could not be presented immediately before the Committee. They sought time to submit the same.
4.	CER activities such as regular heath check-up are subjective activities. The proposal must reflect some concrete works to be actually done at site. Details of the same shall be in consonance to the OM dated 01.05.2018 issued by MoEF&CC. The amount to be spent on proposed CER activities shall also be proportionally spent for the proposed period.	Revised CER activities w.r.t OM dated 01.05.2018 shall be submitted in short period of time.
5.	Proposed green area @ 33 % of the plant area shall be clearly earmarked on the layout map and to be submitted. A maintenance plan for at least 3 years for ensuring survival of trees must also be submitted.	Layout plan duly marked with proposed green belt along with maintenance plan will be submitted in due course.
6.	(a) It has been proposed in the EIA report that ash will be provided to nearby Cement Plants to use it as raw material for manufacturing cement. Ash from the proposed plant will have high silica content, which may not be suitable for using it in cement plants. (b) Weather, the Project Proponent has explored other alternatives like recovery of silica powder from the fuel ash. (c) Details of ash storage and its disposal shall be provided. Submit the Concrete proposal for storage and utilization of ash in scientific manner.	(a). This issue will be re-examined. (b). Some time is required to explore the proposal. (c). Will be submitted in due course.

7.	Biomass plant have huge fire hazard. a) What kind of arrangement has been made to control the fire. b) How many water hydrants have been proposed on the site with other type of fire extinguishers? c) How much quantity of water shall be stored for extinguishing the fire?	Some time is required to submit the details .
8.	Rain water harvesting calculations shall be revised considering the peak rainfall in the area.	Revised details will be submitted.

After detailed deliberations, SEAC decided to accept the request of project proponent and defer the case till the project proponent submits the reply to aforesaid observations.

Accordingly, observations were conveyed to the project proponent through the ADS (Additional Details Sought) facility available on the web portal of SEAC. Now, the project proponent has replied to the observations online, which is annexed as Annexure-A of agenda.

The case was again considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(i) Sh. S. Das , Sr. Vice President and Sh. Karamjit Singh, Plant Head.
(ii) Sh. K.K.Sinha, Environment Consultant of the promoter company.

Sh. S. Das submitted an authority letter wherein he has been authorized by the Company Secretary, to attend the meeting of SEAC on 03.08.2019 and sign, execute and submit the undertakings & any other documents in the meeting of SEAC, to do all other acts and things necessary in relation to the matter.

To the earlier raised the queries of SEAC and , the project proponent and his Environmental Consultant presented the reply. SEAC considered the replies one by one and further deliberated the various issues one by one with the project Proponent and their consultants. The observations of SEAC and Reply submitted by Project Proponent / Environmental Consultant are as under:

OBSERVATION : 1

- **MoEF&CC has prescribed statuary notifications prescribing standards and other guidelines for the control of pollution from Thermal Plants.**
- **Ministry has also prescribed standardize conditions vide OM dated 19.11.2018 for Thermal Power Plants, according to which the Electrostatic Precipitator (ESP) as APCD shall be provided for control of pollutants within the permissible limits.**

Reply of Project Proponent / Environmental Consultant

- Standards of 30 mg/Nm^3 prescribed vide MoEF&CC Notification Dec. 2015 shall be followed in true letter and spirit.
- Bag Filter Technology is sufficient to control the emissions within the prescribed limit as notified by MoEF&CC. To support this, the project proponent has submitted
  - A copy of declaration made by the developer, namely M/s Desin Private Limited vide Ref. no. AE/Bag Filter/ SAEL/19-01 dated 03.08.2019, to the effect that the company has selected the Bag Filter instead of Electrostatic Precipitator for dust emission control to meet with the Environment requirements on emission, as for paddy straw the Bag Filter House is more suitable than the Electrostatic Precipitator for the operation and maintenance.
  - An undertaking made by M/s Thyssenkrupp Industries India Pvt. Ltd. (Boiler & Bag house supplier) to the effect that the particulate matter emission levels during boiler running condition will be strictly limited within 30 mg/Nm3 by providing Bag Filters of adequate capacity.
  - An undertaking from their Environment consultancy company namely M/s Envirocare Limited to the effect that Bag Filter proposed by the project proponent is enough to restraint the outlet emissions within 30 mg/Nm3 under any operating conditions.
  - Moreover, it has been declared by the developer that ESP will be added, if MOEF directs the installation of ESP, and / or the installed bag filter falls short meeting the SPM emission level of 30 Mg / Nm3.

    The project proponent submitted an undertaking dated 3, Aug, w.r.t above, which was taken on record by SEAC.

    The Project Proponent & the Environmental Consultant further pleaded that while prescribing the Standards vide Notification Dec. 2015, MoEF & CC has not any issue any instructions or directions for making it mandatory to provide ESP. Only standards have been prescribed, which will be adhered to. It is true that MOEFCC while Standardizing the conditions vide OM dated 04.01.2019 has provided a condition to provide ESP to achieve the desired standards of 30 mg/ Nm^3, but simultaneously, the cover note of this OM clearly state that the expert appraisal committee can modify, prescribe additional conditions based on the project specific requirements.

The Project proponent & environmental consultant added that these conditions are designed keeping in mind the pollution aspects of coal/ lignite based thermal

plants but they have biomass based plant and have lesser pollution potential and different emission characteristics.

They requested the committee to allow them to provided Bag Filter Technology in place of ESP and assured the committee to replace the same with ESP within 6 months, in event of non achievement of results or on making it mandatory by MoEF&CC.

The committee considered the pleadings and undertakings submitted by the Project Proponent, Environmental Consultant, Boiler/ Bag House Supplier and developers and observed that as per OM dated 1.4.2019 SEAC can modify or prescribe additional conditions based on the project specific requirements. The committee decided to recommend the Bag Filter Technology with following condition:

" *In case, MoEFF&CC make it mandatory for thermal plants to provide Electrostatic Precipitator as air pollution control device or in event of failure to achieve the prescribed emission standards with the proposed Bag Filter House Technology, the Project Proponent shall replace the Bag House Filters with Electrostatic Precipitator or better Technology(if any prescribed by the MoEFF&CC), within a period of six months as undertaken by it.*"

OBSERVATION : 2

- **Is there any proposal to abstract ground water?**
- **Whether permission from the Department of Irrigation or Drainage regarding allowing the industry to use the canal water has been obtained.**
- **In case of no or less flow in the canal, the industry must have adequate storage arrangement.**
- **What is the proposal for utilisation of treated wastewater of the STPs within the radius of 50 Km from the proposed project.**

Reply of Project Proponent / Environmental Consultant

- There is no proposal to draw ground water. Only canal water shall be utilised for meeting the daily water requirement.
- The project proponent has obtained permission from the Department of Irrigation vide no. 3262 dated 27.06.2018.
- Sufficient storage arrangement will be provided to collect the fresh water.
- Representative assured that they will procure treated water from STP plant with in the radius of 50 km and shall be used as an alternative to the fresh water source to minimize the fresh water drawl from surface water bodies.

OBSERVATION : 3

CER activities such as regular health check-up are subjective activities. The proposal must reflect some concrete works to be actually done at site. Details of the same shall be in consonance to the OM dated 01.05.2018 issued by MoEF&CC. The amount to be spent on proposed CER activities shall also be proportionally spent for the proposed period.

Reply of Project Proponent / Environmental Consultant

The project proponent submitted the revised CER activities as per the detail given as under:

Sr No.	Proposed activity	Amount in lacs	Date of completion
1.	Company will provide infrastructure facilities, i.e. computers, toilets & RO water systems, library and plantation in the nearby school of the village in consultation with Sarpanch.	50	1 year after issuance of EC.
2.	Skill development centre in the Tehsil Jaito Distt. Faridkot.	150	2 years after issuance of EC.

OBSERVATION : 4

The project proponent has not submitted the bifurcation of the proposed green area @ 33 % of the plant area.

Reply of Project Proponent / Environmental Consultant

The project proponent submitted that total green belt area in the plant will be 35200 sqm and detail of the said area is as under:

1.	Boundary Wall Side Area	4800 Sqm
2.	All Road Side	3500 Sqm
3.	Plant Area	18400 Sqm
4.	Reservoir Surroundings	1500 Sqm
5.	Admin & Colony	3800 Sqm
6.	Parking & Switch Yard area	3200 Sqm
	Total Green Belt Area	**35200 Sqm (33%)**

OBSERVATION : 5

- **It has been proposed in the EIA report that ash will be provided to nearby Cement Plants to use it as raw material for manufacturing cement. Ash from the proposed plant will have high silica content, which may not be suitable for using it in cement plants.**
- **Weather, the Project Proponent has explored other alternatives like recovery of silica powder from the fuel ash.**
- **Details of ash storage and its disposal shall be provided. Submit the Concrete proposal for storage and utilization of ash in scientific manner.**

Reply of Project Proponent / Environmental Consultant

- Company has approached TERI, Delhi & Punjab Council of Science, Environment & Technology, Chandigarh, for useful utilization of ash from Paddy straw. Copy of

letters have been submitted. Meanwhile, the project proponent has made agreement with the brick kilns and interlocking tiles industry existing in the vicinity of the project.

- Ash will be stored in the silos. From silos, ash will be transported to the brick kilns/ paver block industries by trucks. The project proponent will ensure that the frequency of trucks is adequate vis-à-vis the storage capacity of the silos.

OBSERVATION : 6

Biomass plant have huge fire hazard. What kind of arrangement has been made to control the fire ?

Reply of Project Proponent / Environmental Consultant

Following arrangements shall be made to control the fire hazard:

- Hydrant system for station building, transformer yard, Boiler, Bag filter and other associated buildings such as Fuel Handling Plant etc.
- Conventional Fire Alarm System for Control Rooms & Switchgear
- Manual Call Point at various strategic locations & Boiler house
- obtained NOC from the Fire Brigade, Kotakpura vide no. 67 dated 07/08/2018.

OBSERVATION : 7

Rain water harvesting calculations shall be revised considering the peak rainfall in the area.

Reply of Project Proponent / Environmental Consultant

The project proponent has submitted that as per data available with Central Ground Water Authority, average annual rainfall at Faridkot district is about 349 mm (0.349 m). The detail of runoff at plant is calculated as under:

S.No.	Particular area	Area (sq. m)	Runoff Coefficient	Rainfall intensity (m)	Runoff generated (M3)
1.	Admin Buildings and canteen (Rooftop)	2768	0.8	0.349	773
2.	Road Development	12000	0.5	0.349	2094
3.	Green Belt	35200.73	0.2	0.349	2457
Total Runoff					5324
Note: The estimated approx Runoff is 5324 m^3. The average rain water available per day is 5324/365=14.59m^3.					

OBSERVATION : 8

The details of the trees to be planted by the project proponent is to be given.

Reply of Project Proponent / Environmental Consultant

Total 4000 Plant species (Tree-2500 & Shrubs-1500) will be planted in entire 4 year plantation programs. Required nutrients/water/manure and protection mess shall be provided. Ground flora will also be developed in open area. Survival of plant shall also be monitored. Green belt layout is displayed. Plant species will be selected based on the suggesting of Concerned Forest/ Horticulture Department.

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

SEAC after deliberating the application has awarded **'Silver Grading'** to the project proposal and decided that case be forwarded to SEIAA with the recommendations to grant environmental for establishment of 18 MW Biomass based Power Plant located in revenue estate of Village Sedha Singh Wala, Tehsil Jaito, District Faridkot Punjabas per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

EC Conditions:

Special Condition:

In case, MoEFF&CC make it mandatory for thermal plants to provide Electrostatic Precipitator as air pollution control device or in event of failure to achieve the prescribed emission standards with the proposed Bag Filter House Technology, the Project Proponent shall replace the Bag House Filters with Electrostatic Precipitator or better Technology(if any prescribed by the MoEFF&CC), within a period of six months as undertaken by it.

A. Statutory compliance:

1. Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305(E) dated 7.12.2015, G.S.R.5 93 (E) dated 28.6.2018 and as amended from time to time shall be complied.
2. Part C of Schedule II of Municipal solid Wastes Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.
3. MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 as amended time to time regarding use of raw or blended or beneficiated/washed coal with ash content not exceeding 34% shall be complied with, as applicable.
4. MoEF&CC Notifications on Fly Ash Utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S. O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 as amended from time to time shall be complied.
5. The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.

6. No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.
7. Groundwater shall not be drawn during construction of the project. In case, groundwater is drawn during construction, necessary permission be obtained from CGWA.
8. The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.
9. Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

B. Ash content/ mode of transportation of Bio Mass:

1. EC is given on the basis of assumption of 15 % of ash content and 50 Km radial distance of transportation in rail/road/conveyor/any other mode. Any increase of % ash content by more than 1 percent, and/or any change in transportation mode or increase in transport distance (except for rail) require application for modifications of EC conditions after conducting the 'incremental impact assessment' and proposal for mitigation measures.

C. Air quality monitoring and Management:

1. Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the So2 emissions standard of 100 mg/Nm3, if required.
2. Selective Catalytic Reduction (SCR) system or the Selective Non-Catalytic Reduction (SNCR) system or Low NOX Burners with Over Fire Air (OFA) system shall be installed to achieve NOx emission standard of 100 mg/Nm3, if required
3. High efficiency Bag Filter shall be installed in each unit to ensure that particulate matter (PM) emission to meet the stipulated standards of 30 mg /Nm3.
4. Stacks of prescribed height of 70 m shall be provided with continuous online monitoring instruments for SOX, NOx and Particulate Matter as per extant rules.
5. Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
6. Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM-10, PM-

2.5, S02, NOx within the plant area at least at one location. The monitoring of other locations (at least three locations outside the plant area covering upwind and downwind directions at an angle of 1200 each) shall be carried out manually.

7. Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.

8. Appropriate Air Pollution Control measures (DEs/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz., roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.

D. Noise pollution and its control measures:

1. The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.

2. Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ear muffs, etc.

3. Periodical medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy/less noisy areas.

E. Human Health Environment:

1. Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.

2. Baseline health status within study area shall be assessed and report be prepared. Mitigation measures should be taken to address the endemic diseases.

3. Impact of operation of power plant on agricultural crops, large water bodies (as applicable) once in two years by engaging an institute of repute. The study shall also include impact due to heavy metals associated with emission from power plant.

4. Sewage Treatment Plant shall be provided for domestic wastewater.

F. Water quality monitoring and Management:

1) Induced/Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 2.5m3/MW hr. (Or) Induced/Natural draft open cycle

cooling system shall be set up with minimum Cycles of Concentration (COC) of 1.5 or above for power plants using sea water.

2) Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/ Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.

3) Rainwater harvesting in and around the plant area be taken up to reduce drawl of fresh water. If possible, recharge of groundwater to be undertaken to improve the ground water table in the area.

4) Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg, Cr, As, Pb, etc.) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.

5) The treated effluents emanating from the different processes such as DM plant, boiler blow down, ash pond/dyke, sewage, etc. conforming to the prescribed standards shall be re-circulated and reused. Sludge/ rejects will be disposed in accordance with the Hazardous Waste Management Rules.

6) Hot water dispensed from the condenser should be adequately cooled to ensure the temperature of the released surface water is not more than 5 degrees Celsius above the temperature of the intake water.

7) Based on the commitment made by the Project Proponent, Sewage Treatment Plants within the radius of 50 km from proposed project, the treated sewage of shall be used as an alternative to the fresh water source to minimize the fresh water drawl from surface water bodies.

8) Wastewater generation of from various sources (viz. cooling tower blowdown, boiler blow down) shall be used for ash quenching purposes within premises

9) Sewage will be treated by setting up Sewerage Treatment plant of adequate capacity to maintain the treated sewage characteristics of pH: 6.5-9.0; Bio-Chemical Oxygen Demand (BOD): 30 mg/l; Total Suspended Solids: Coliforms (Most Probable Number): <1000 per 100 ml.

10) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

G. Risk Mitigation and Disaster Mitigation and Disaster Management:

1) Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.

2) Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made as per the extant rules in the plant area in accordance with the directives of Petroleum & Explosives Safety Organization (PESO). Sulphur Content in the liquid fuel should not exceed 0.5%.

3) Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.

4) Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.

5) Regular mock drills for on-site emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situations.

H. Green belt and Biodiversity conservation:

1) Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.

2) In-situ/ex-situ Conservation Plan for the conservation of flora and fauna should be prepared and implemented.

3) Suitable screens shall be placed across the intake channel to prevent entrainment of life forms including eggs, larvae, juvenile fish, etc., during extraction of seawater.

I. Waste management:

1) Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.

2) Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.

3) Ash pond shall be lined with impervious liner as per the soil conditions. The project proponent shall store ash in the silos. From silos, the ash will be transported to the brick kilns/ paver block industries by trucks. The project proponent will ensure that the frequency of trucks is adequate vis-à-vis the storage capacity of the silos.

4) Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry and amendment thereto. By the end of 4th year,

100% fly ash utilization should be ensured. Unutilized ash shall be disposed-off in the ash pond in the form of High Concentration Slurry. Mercury and other heavy metals (As, Hg, Cr, Pb, etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. Fly ash utilization details shall be submitted to concern Regional Office along with the six-monthly compliance reports and utilization data shall be published on company's website.

5) Unutilized ash shall be disposed-off in the ash pond in the form of High Concentration Slurry/Medium Concentration Slurry/Lean Concentration Slurry method. Ash water recycling system shall be set up to recover supernatant water.

6) In case of waste-to-energy plant, major problems related with environment are fire smog in MSW dump site, foul smell and impacts to the surrounding populations. Therefore, the following measures are required to be taken up:

    i) Water hydrant at all the dumpsites of MSW area to be provided so that the fire and smog could be controlled.

    ii) Sprayer like microbial consortia may be provided for arresting the foul smell emanating front MSW area.

J. Monitoring of Compliance:

1) Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.

2) Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.

3) Energy Conservation Plan to be implemented as envisaged in the EIA / EMP report. Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy power plant (such as solar, wind, etc.) or by purchasing Renewable Energy Certificates.

4) Monitoring of Carbon Emissions from the existing power plant as well as for the proposed power project shall be carried out annually from a reputed institute and report be submitted to the Ministry's Regional Office.

5) Energy and Water Audit shall be conducted at least once in two years and recommendations arising out of the Report should be followed. A report in this regard shall be submitted to Ministry's Regional Office.

6) Environment Cell (EC) shall be constituted by taking members from different divisions, headed by a qualified person on the subject, who shall be reporting directly to the Head of the Project.

7) The project proponent shall (Post-EC Monitoring)'

i) send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;

ii) upload the clearance letter on the web site of the company as a part of information to the general public

iii) inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at http://parviesh.nic.in.

iv) Upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;

v) Monitor the criteria pollutants level namely; PM (PM-10 & PM-2.5 in case of ambient AAQ), S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;

vi) submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;

vii) 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;

viii) inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project and the date of commencement of the land development work.

K. Corporate Environmental Responsibility (CER) activities:

1. CER activities will be carried out as per OM No. 22-65/201 7-IA.II dated 01.05 2018 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed scheduled of implementation with appropriate budgeting.

XI. Validity

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.

XII. Miscellaneous

i) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ii) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

iii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

iv) 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.

v) The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

vi) The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

vii) 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.

viii) 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.

ix) 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.

Item No. 182.02 Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for establishment of 18 MW Biomass based Power Plant located in revenue estate of village Hakumat Singh Wala, Ferozeshah, Tehsil & District Firozpur by M/s Sukhbir Agro Energy Ltd. (Proposal no. SIA/PB/THE/25813/2018).

The SEAC observed as under: -

1. The project proponent had earlier submitted an application for issuance of TOR for obtaining environmental clearance under EIA Notification, 14.09.2006 vide Proposal No. SIA/PB/THE/25813/2018 dated 23.04.2018 for establishment of 18 MW Biomass based Power Plant located in revenue estate of village Hakumat Singh Wala, Ferozeshah, Tehsil & District Firozpur.
2. SEIAA, Punjab vide no. SEIAA/2018/1042 dated 16.07.2018 granted Term of Reference (TOR) to the firm.
3. Public Hearing / consultation was conducted by PPCB on 18.10.2018 and proceedings of public hearing was sent to the SEIAA, Punjab.
4. Environmental Engineer, Punjab Pollution Control Board, Regional Office, Faridkot vide email dated 25.05.2018 & letter no. 1928 dated 25.05.2018 had already reported that proposed site of the Bio Mass Power Plant was visited by AEE of his office on 24.05.2018 and it was observed that the industry has not yet demarked boundary of the land and no construction activity has been started at the site. Further, in continuation to his office letter no. 1928 dated 25.05.2018, it has been informed that proposed site of the Bio Mass Power Plant was visited again by AEE of his office on 15.06.2018 and it was observed as under:

a. The site measuring about 42 acres is falling in the revenue estate of Village Hakumat Singh Wala along Ferozepur - Ludhiana road, (National Highway 95). The phirni of village of Hakumat Singh Wala is located at a distance of 600 meters from the proposed site. Aslo, phirni of any other village does not fall within 500 m from the proposed site.
b. The MC limit of Talwandi Bhai town is located at a distance of more than 2 kms from the proposed site.
c. No residential area (15 pucca houses) / religious place falls within 500 m distance from the proposed site.
d. One educational institute falls within a distance of 250 meter from the proposed site i.e. Meritorious School, Village Hakumat Singh Wala& one training institute of army is located just opposite to the proposed site.

e. No construction work has been started at the site so far, however the site has been de-marked with pillars. The site is surrounded by agriculture area all around.

5. The project proponent submitted the final EIA report for obtaining environment clearance for the project.

The case was considered by the SEAC in its 178th meeting held on 15.04.2019, which was attended by the following: -

a) Sh. A.K. Diwan, Project Head, from the industry

b) Sh. Nilesh Deshmukh, Head cum EIA- Co-ordinator, SMS Envocare Limited, Pune, Environmental Consultant of Promoter Company

Environmental Consultant of the project proponent presented the same as under:

A. Introduction

- M/s Sukhbir Agro Energy Limited has proposed Agro-based Thermal Power Plant with capacity of 18 MW at Village Hukumat Singh Wala, Tehsil-Firozshah , District- Firozpur.
- Sukhbir Agro Energy Limited (SAEL) was incorporated on 21.12.1999 as a Private Limited Company and reconstituted on 30.06.2006 as a Limited Company.
- Sukhbir Agro Energy Limited (SAEL) an existing Biomass Project Developer (operating 1 x 15 MW Biomass Power Plant at District – Gazipur, U.P. and 14.5 MW Biomass Power Plant at District Muktsar, Punjab.
- SAEL diversified into Grid connected Solar Power Generation 20 MW (AC) in district Mahoba (UP), 20 MW + 10 MW in District Lalitpur (UP).Also a 20 MW Grid Connected Solar Power Plant was installed and commissioned in December, 2017 at Solapur, Maharashtra.

B. Importance and Benefit of the Project & Chronology

- Biomass is a renewable energy source
- Minimizes overdependence on traditional electricity
- Helps climate change by reducing greenhouse gas emissions
- Help to clean our environment
- Widely available source of energy
- Improve rural economies
- Reduce Carbon Footprint
- Environmental protection and sustainability development initiative
- Job avenues to needy people from the nearby areas

C. Project Brief

Sr. No.	Particulars	Details
1	Name of the Project	18 MW Agro-based Thermal Power Plant
2	Capacity	18 MW
3	Regulatory Framework	1 (d) Thermal Power Plants as per EIA notification 2006 categorized as 'B'
4	Location	Plot No. 13M:21,22,23,24, 14M:3,4,5,6,7,8,13,14,15,16,17,18,23,24,25,2 ,9,12, 15M:1,10/1,11/1,21/1,20/2 19M:1,2,3,4,5,6,7,8,9,10 20M:1,2,3,4,5,6,7,8,9,12,13,14,15,17,18,19 21M:5/1 at Village Hakumat Singh Wala, Ferozeshah, Tehsil – Firozpur, District – Firozpur
5	Total Area(Ha)	17.17
6	Toposheet Number	44J/9 & 44J/13 of SoI
7	Project Cost	144.66 Crore
8	Green Belt	33% of Total Project Area
10	Grant of ToR	SEIAA/2018/1039 dated 16 July, 2018
11	Monitoring Season	March to May 2018 (Pre-Monsoon Season)
12	Man Power	Direct: 200 & Indirect: 1500
13	Status of Litigation Pending	No litigation pending against project/ site

D. Environmental Setting

1	Geographical Coordinate	**Latitude**	**Longitude**
		30°51'43.0"N	74°49'50.0"E
2	Elevation	204 MSL	
3	Nearest Railway Station	Firozpur Railway Station: 24.0 km(NW)	
4	Nearest Air Port	Sri Guru Ram Dass Jee International Airport, Amritsar Airport: 123.0 km (NW)	
6	Nearest Town	Firozpur: 23 km (NW)	
7	Nearest River	Indira Gandhi Canal: 1.0 KM (W)	
8	Eco Sensitive Zone (National Park, Wildlife Sanctuary, Biosphere Reserve, Wild Life Corridors etc.)	Not within 5 Km Study area	
9.	Historical & Archeological Important Place/s		
10.	Seismic Zone	Zone-III	

E. Land Bifurcation

Sr. No.	Particulars	Area in SQM

1.	Built-up Land	19950
2.	Road Development	15000
3.	Green Belt	56700
4.	Storage Biomass	50500
5.	Open Areas	29558.12
	Total Area	171708.12

F. Boiler Details

a) Boiler Specification

- A Travelling Grate Boiler of 80 TPH Steaming Capacity and firing Paddy Straw (100%) will be installed.
- The operating parameters of the boiler will be steam pressure 95 Kg/cm2 (g) at a superheated temperature of 540℃.
- The Boiler will be Spreader Stroker Single Drum Natural Circulation, Water Tube, and Balanced Draft type. Boiler will be operating with Paddy Straw having GCV of 2800 Kcal/Kg.
- Boiler will be operating with Paddy Straw having GCV of 2800 Kcal/Kg

b) Boiler Design Specification

Particulars		**Design**
Boiler Parameters (100% BMCR) Steam flow at main Steam Stop Valve Outlet	TPH	80
Steam pressure at main Steam Stop Valve Outlet	Kg/cm2 (g)	95
Steam temperature at main Steam Stop Valve outlet at 100% MCR	Deg.C	540
Feed Water Temperature at Boiler Inlet	Deg.C	225
Design Code for Pressure Parts		IBR

A. BOILER PARAMETERS (100% BMCR)		
Steam flow at main steams top valve outlet	TPH	80.00
Peak Generation (2 hours per 24 hours)		110%
Steam pressure at Main Steam Stop Valve outlet	Kg/cm^2 (g)	95
Superheated steam temperature at Main Steam Stop Valve outlet	Deg.C	540
Feed Water temperature at Economiser inlet	Deg.C	225
B. FUELSFORBOILER		
100%PaddyStraw		100%MCR
Fuel Sizing		
i) Bale height	mm	275 + 25/-25

ii) Bale Width	mm	550 + 50/-25
iii) Bale Length	mm	1000 + 100/-100
iv) Density of Bale	Kg/CUM	110 + 50/-15
v) Design weight	Kg	20 - 25
vi) String Orientation	-	Along Top & Ends
Note: SAEL will be utilizing Paddy Straw with GCV of 2800 Kcal / Kg.		
C. EMISSION FROM BOILER		
i) NOX	mg/Nm^3	400
ii) SOX		NA
iii) Hg		NA
iv) Dust	mg/Nm^3	30

c) Feed Water Boiler Requirement

Description	**Unit**	**Feed water**	**Boiler Water**
Total Hardness (max.)	ppm	Nil	Nil
pH Value at 25 deg.C		8.5-9.2	9.5-10.5
Oxygen (Max.)	ppm	0.007	Nil
Iron (max.)	ppm	Nil	Nil
Copper (max.)	ppm	Nil	Nil
Silica (Max.)	ppm	0.02	2.5
Total CO2 (Max.)	ppm	Nil	Nil
Permanganate (Max.)	ppm	Nil	Nil
Total Dissolved Solids (Max.)	ppm	0.1	100
Total suspended Solids (Max.)	ppm	Nil	Nil
Oil (Max.)	ppm	Nil	Nil
Specific electric conductivity at 25 OC.	micro S/cum	0.2	200
Residual Hydrazine (Max.)	ppm	0.01 – 0.02	-
Residual Phosphate (Max.)	ppm	-	15

d) Steam Turbine Generator & Balance

Sr. No.	**Particular**	**Specification**
	Turbine	
1.	Type of Steam Turbine	Slow speed Turbine (6300 RPM) & will be directly coupled to Generator Gear Box.
2.	Output Rated Output (at generator terminal)	18 MW
3.	Operating Conditions Speed (turbine/generator)	6300 rpm
	Inlet Steam Pressure	90 Kg/cm^2
	Inlet Steam temperature	535^0C
	Exhaust Steam Pressure	0.0094 Mpa (0.096 Kg/cm^2)*
	Feed Water Temperature after De- aerator	225 deg C

	Inlet Steam Flow	68.5 T / Hour
	Calculated Steam Rate	3.805 Kg / Kw-Hr
	Calculated Heat Rate	2313.25 Kcal/Kw-Hr.
4.	Mode of Generator	Brushless excitation but without PMG
5.	Rated Power	18 MW
6.	Rated Speed	1500 r/min
7.	Voltage at Generator Terminals	11 KV + 10%
8.	Rated Current	1312A
9.	Frequency	50 HZ (- 5% + 3%)
10.	Power Factor	0.8 (lagging)
11.	Poles	4
12.	Phases	3
13.	Excitation type	Brushless
14.	Efficiency	97.6%
15.	Type of Generator Air Cooler	CACW (N+1) Design
16.	Insulation Class	F
17.	Temperature Rise	B Class

Sr. No.	Particulars	Specification
1.	Steam Turbine Rating	18 MW
2.	Requirement of Steam at 100% PLF as per BHEL's Specification*	68.5 TPH
3.	Boiler Capacity	80 TPH
4.	Balance Steam Available	11.5
5.	Utilization of Boiler at Full Load of STG	85.63%

G. Requirement of the project

Sr. No.	Particular	Amount	Source	Remark
1	Area requirement	17.17 Ha	Private	Owned
2	Water Requirement	225 CuM/Hr	Sirhind feeder	Required permission secured
3	Power	10 to 11 % of total power generation	In-house generation	-
			DG sets shall be arranged	In case of emergency

4	Man Power /Employment	Direct: 200 Indirect:1500 (Skilled/Semi-Skilled/Unskilled)	Local will be hired	\Required training will be provided
5	Paddy Straw (Biomass)	141912 MT/Annum	Nearby Areas	10 Collection Center will be within 10 km radius from project site

H. Water Requirement

- Cooling Water Circulation will be 6000 CuM/Hr.
- Evaporation Loss will depend on season and will vary from 3-4%.
- Considering 3.5% loss, make-up water requirement will be 210 CuM/Hr.
- After adding requirement of Water for Green Belt Development & Human consumption, total requirement of Water has been estimated at 225 CuM/Hr.
- SAEL proposes to obtain water from Sirhind Feeder, through lift system a 2.5 Km long Pipeline with 12" diameter, RCC Pipes will be laid with due permission from concerned department.

I. Raw Material Requirement

- Fuel proposed for thermal power plant will be Paddy Straw
- Specific Biomass consumption has been estimated at 1.2 Kg/Kw-Hr of Power generated.
- For collection of Paddy Straw, Power Plant will be required to undertake farming activities to make bales of paddy straw by employing chipper to cut the straw standing in the field to ground level, a rake and a baler to produce Rice Straw in bales.
- Area under cultivation of Paddy & Cotton (Kharif Crop) & Wheat as provided by the District Agricultural Department of Firozpur District is given below:

Year	Paddy	Cotton	Wheat	Sugarcane
2010-11 (FZP+Fazi	258000	117000	397000	1000
2011-12 (FZP+Fazi	257000	124000	394000	1000
2012-13	267000(FZP+Fazilka	113000(FZP+Fazilka	185000 (Ferozepur	2000 (FZP+Fazilka)
2013-14 (Ferozepu	183000	1000	189000	Nil
2014-15 (Ferozepu	189000	1000	188000	Nil

The estimated of availability of Paddy Straw, area under cultivation of Paddy has been assumed at 190 Thousand Ha or 475 Thousand Acre. Considering generation of Paddy Straw @ 2 MT/Acre the estimated, production of Green Paddy Straw comes to 950 Thousand MT.

J. Manpower Requirement

The Agro-based Thermal Power Project will required employment in the surroundings for the local people during the construction as well as during operation period**.** Unskilled/semi-skilled manpower related to industrial activities will be drawn locally or from nearby places. The total required direct manpower will be around 200 & indirect manpower will be approx. 1500.

K. Baseline Environment Studies

- Study Season: Pre Monsoon Season
- Duration: 1st March to 31st May, 2018
- Study area: 10 Km radius from project boundary
- Environmental Aspects Covered during study:
  - Ambient Air Quality Monitoring (AAQM)
  - Surface & Ground Water Sampling & Analysis
  - Soil sampling and analysis
  - Noise Level Monitoring
  - Ecology & Biodiversity Study
  - Socio-economic Study
  - Hydrological & Hydro-geological study
  - Land Use Land Cover Study and Traffic Study

L. Sampling / Monitoring Results

Parameter	Location	Results	Standards/ Remark
Ambient Air Quality	8 Location	PM2.5 : 13.3 to 17.2 µg/m^3 PM10: 34.9 to 37.3µg/m^3 SOx : 14.5 to 18.2 µg/m^3 NOx : 9.4 to 15.3 µg/m^3	PM2.5 : 60 µg/m^3 PM10 : 100 µg/m^3 SOx : 80 µg/m^3 NOx : 80 µg/m^3
Noise Level	8 Location	Day: 64.1- 72.2 dB(A) Night: 53.2-62.0 dB(A)	Noise level at almost all the locations were found increasing. The increase noise level is observed during busy timing mostly traffic loaded time. The Noise level is observed at the road which shoes the increasing noise level.
Water Quality	Ground Water: 8 Location	pH : 7.16 to 8.02 TDS : 823.0 to 1670 mg/l TH : 104.0 to 396.0 mg/l.	6.5 to 8.5 2000 mg/l

	Surface Water: 4 Location (Two samples from 1000 m distance)	pH : Slightly alkaline TDS : US: 180.0 mg/l, DS: 169 mg/L Hardness: US: 142.0 mg/L, DS: 162 mg/L	
Soil Quality	8 Location	The analysis results show that the soil is Neutral and slightly alkaline in nature. Values of Nitrogen, Potassium and Phosphorus show that the soil quality of almost every place is good for agriculture practices	

M. Eco-logical & Bio-diversity

- Total 23 tree species, 12 Shrub species and 12 herb species identified.
- Based on secondary information; 3 Reptile species, 19 Bird species and 6 mammal species are commonly found in the area.
- No any species of Flora & Fauna are categorized under conservation category by IUCN.
- No Wildlife Sanctuary, National Park, Biosphere Reserves, Wildlife Corridors, Protected Forest exists within study area of 10 km radius from the project boundary.

N. Socio-Economic Status

- Total 28 villages are present in the study areas
- Total Population of 28 villages is 31287 (Male: 16477, Female: 14810)
- Total SC Population: 10196
- Total ST Population: 0
- Total Literate: 18784 (Male: 10605, Female: 8179)
- Total Illiterate: 12503
- Total Working Population: 12360 (Male: 9463, Female: 2897)
- Total Non Working Population: 18927
- Education facility are available in all of the villages in study area
- Female literacy is good & people attitude regarding female education is good
- Water supply is mostly through wells and hand pumps as well as through RO
- Transportation is to the satisfactory level in the villages
- Almost villages are electrified in the region and electricity
- Primary Health Centre & health sub centers are available in the 10.0 radius study area from the project site;
- Proposed project will add employment to the local

O. Anticipated Environment Impacts & Mitigation Measures-Construction Phase

Environmental Component	**Activity**	**Potential Impacts**
Air Quality	• Land Preparation and Construction activity • Vehicular traffic • Transportation of construction material	• Dust Emission • Stacking of construction material may block the road • Air pollution due to transportation • Cumulative impact on air due to other future industry
Noise Level	• HEMM, Heavy	• Workers exposed to increased noise near

	machineries and Trucks movements	machineries
Water Quality	• Waste water generation • Excavated material	• Public health concern due to wastewater • Soil contamination • Storm water with sediments from excavated material
Land Quality	• Land Preparation and construction activity	• Change in Land Use pattern • Overburden & Construction waste may pollute the soil
Ecology (Terrestrial & Aquatic)	• Land Preparation for construction of TPP	• Generation of Noise • Clearing of ground flora, if any
Socioeconomic	• Construction of TPP	• No adverse impact
Environmental Hazards	• Construction activities	• No much Environmental Hazards identified • Air pollution may create breathing difficulties
Air Quality	• Vehicular movement • Plant Operation • Operation of Boiler	• Air pollution due to dust emission • Air pollution from burning of fuel • Traces of odor may be produced • Cumulative emission generation from the stack of boiler
Noise Level	• Pumps, Fans, Generator and Vehicles • Vehicular movement	• Some amount of increase in Noise level
Water Quality	• Transpiration of Raw Effluent • Disposal of treated effluent	• No impact like eutrophication will be there as no effluent will be discharged without proper treatment
Land Quality	• Handling of Hazardous material • Ash handling	• No impact due to proper management • Proper disposal of other solid waste
Ecology (Terrestrial & Aquatic)	• Operation of TPP • Disposal of effluent • Handling of Ash	• No impacts due to insignificance emission through air • No impact of aquatic ecology as treated effluent will not discharge into the water bodies
Socioeconomic	• Operation of TPP	• Negligible influx of outside people as workers • Beneficial impacts with respect to employment and other socioeconomic aspects

P. Traffic Study

Name of Road	Recommended PCU/day in both directions as per IRC73-1980 guidelines for capacity of Roads in Non-Urban Highway (for Two lane Roads)	Maximum PCU/hr observed during peak hour	Expected from Proposed Project (PCU/hr)	Future after proposed Project (PCU/hr)	Remark
NH-95	10000	1065	653	1718	Less than the

					standard

- Peak hours are considered from 9:00 am – 11:00 am and 4:00 pm – 6:00 pm. and non-peak hours are considered from 2:00 pm – 3: 00 pm and 8:00 pm – 9:00 pm.
- Recommended PCU/day as per IRC 73-1980 guidelines for capacity of Roads in Non-Urban Highway (for two lane Roads) is 10,000 PCU/day. As per the above data, the additional load on the carrying capacity of the concern roads is not likely to have any significant adverse effect**.**

Q. Environmental Management Plan

Major Aspects of EMP:

- Air Pollution mitigation and management
- Water Pollution mitigation and management
- Solid & Hazardous Waste management
- Noise Pollution mitigation and management
- Greenbelt development
- Occupational health & Safety management
- Environmental Monitoring programme

R. Air Pollution Management

(iv) Dust and Particulate Matters

- The pollution control norms stipulate a maximum dust concentration of 30 mg/ Nm3
- The proposed bio-mass plant will have a Bag filter, which will separate the dust from the flue gas.
- ESP has been proposed for trap the Fly Ash and Bottom Ash
- The dust concentration is the flue gas leaving the Bag filter will be maximum 30 mg/ Nm3
- The dust concentration level in the chimney will be periodically monitored.
- Corrective steps will be taken, if the concentration is not within the acceptable limits**.**

(v) Sulphur Dioxide and Nitrogen Dioxide

- The main fuel in the proposed bio-mass plant is Paddy Straw which contain little sulphur, (about 0.61%) hence sulphur dioxide produced will have insignificant effect.
- The stack height will be as per the local pollution control board stipulations (70 m).
- Nitrogen di-oxides produced in bio-mass firing is very low as it contains only 1% Nitrogen.

- SAEL has also secured the NOC from Office of District Magistrate, Faridkot Punjab for Stack erection.

(vi) Air Pollution Management

- Ash content in Paddy Straw by mass is about 14%.
- Annual consumption of Paddy Straw is estimated at 1,41,912 MT/Annum.
- Annual Ash generation will be 19800 MT.
- Ash collected form the bottom of furnace (bottom ash) and the ash collected in the air heater hoppers and Bag filter are taken to an ash silo through a pneumatic conveying system.
- Ash from the silo will be given to farmers, who can use the ash as manure for the crops free of cost and to local industries, who will utilize the ash for manufacture of bricks, for road building material, for land filling locally and in Cement Grinding Unit for producing PPC.

(vii) Other Mitigation Measures

- Emission of Particulates matters, SO_2, NO_X and CO shall be confirmed within the norms
- All necessary safety measures shall be implemented
- Necessary records shall be maintained for work place monitoring done on regular basis.
- Regular review and necessary proceedings shall be ensured by proponent for timely correction & improvement in the safety system of the unit
- All storage, handling & transfer shall be done with properly designed facilities
- Regular water sprinkling shall be carried out in and around the plant site which will help to reduce the dust emission
- Thick green belt shall be developed to control the air pollution
- Transportation of Construction material by closed trucks
- PUC will be ensured to all the vehicles

S. Noise Pollution Mitigation and Management

- Manufacturers and suppliers of machine/equipment shall be selected to ensure that these machines /equipment's meet the desired noise/vibration standards
- The operators working in the high-noise areas shall be provided with ear-muffs/ear-plugs
- Acoustic laggings and silencers shall be provided in equipment wherever required

- Transportation of Raw material & Final Product shall be ensured in day time only
- Proper green belt shall be develop which helps to reduce the noise level
- Noise level can be reduced by stopping leakages from various steam lines, compressed air lines and other high pressure equipment
- The air compressor, process air blower, pneumatic valves shall be provided with acoustic enclosure
- All rotating items shall be well lubricated and provided with enclosures as far as possible to reduce noise transmission
- Extensive vibration monitoring system shall be provided to check and reduce vibrations. Vibration isolators shall be provided to reduce vibration and noise wherever possible

T. Water Pollution Mitigation and Management

- During construction phase, the modular septic tanks will be provided, if required
- Excavation during dry season and management of excavated soils
- Clearing of all debris from site as soon as construction is over
- Care will be taken to securely store the excavated material and to reuse it as early as possible in construction or for land filling during landscaping
- Storm water drainage system to collect surface runoff
- CT blow down would be utilized for meeting the requirement of ash handling system, Biomass handling system (dust suppression). Excess blow down, if any, will be treated in the RO system and recycled.
- While developing the water system for the project, utmost care has been taken to maximize the recycle/ reuse of effluents and to ensure zero effluent discharge.
- There is also no storage of toxic waste and thus there is also no scope of polluting ground water sources by seepage or leaching.
- Domestic waste water from main plant and staff quarter will be treated in a sewage treatment plant.
- Proper drainage facility shall be provided to effluent and storm water

U. Storm Water Management

- The storm water treatment facility will be located at feasible location on the site keeping in view the slope contours and collection point;
- Use of low flow fixtures and appliances for reduced water consumption such as low flush water closets and cistern will be considered;
- Sewage generated will be treated in the sewage treatment plant and reused for green belt to reduce the fresh water requirement;
- The storm water from open areas and rain water from the roof tops of various buildings will be treated for the removal of oil & grease,

sediments and routed to the water harvesting structures to recharge the ground water table;

- The storm water from the previous area will also be routed to the rainwater harvesting structures;

V. Solid Waste & Hazardous Waste Management

- During construction phase, major component of the solid waste can be the overburden of the area which will be removed during clearing of the land.
- Over burden will be stored at the suitable place so that it can be used for green belt development.
- Other waste such as metal, nonmetal plastic and other material will be stored and send to the authorized waste management unit or to the recyclers.
- All construction waste shall be managed as per C&D management Rule, 2016.
- Ash will be the major solid waste generated from the power project.
- Annual consumption of Paddy Straw is estimated at 1, 41,912 MT/Annum. Thus, annual Ash generation will be 19800 MT.
- Ash management scheme shall be implemented consisting of dry collection of fly ash, supply of ash to entrepreneurs for utilization and promoting ash utilization to maximum extent and safe disposal of unused ash.
- Ash shall be stored in Silo and sent to Brick manufactures.
- MoU has been prepared. Ash can also be given to farmers free of cost so they can use the same as manure.
- Chemical Sludge shall be generated along with other Solids from, Effluent Treatment plant Unit.
- Chemical sludge shall be de-watered and shall be stored at safe place in dry form. The same shall be sent to CHWTSDF for secured treatment and disposal of the same.
- All generated hazardous shall be managed as per Hazardous and Other Wastes (Management & Trans-boundary Movement) Rule, 2016.
- Municipal solid waste shall be managed as per new Solid Waste (Management) Rule, 2016.
- Bio-medical waste generated during construction and operation phase will be managed as per Bio-medical Waste Management Rule, 2016.
- All the E-Waste generated during construction as well operation phase will be managed as per E-Waste Management Rule, 2016.

W. Greenbelt Development Plan

- 56,700 Sq.m Area will be developed under Greenbelt Development

- Total 4000 Plant species (Tree-2500& Shrubs-1500) will be planted in entire 4 year plantation programs.
- Required nutrients/water/manure and protection mess shall be provided.
- Ground flora will also be developed in open area. Survival of plant shall also be monitored.

j) Location for developing green belt

- Plantation along the road site (Main & Internal)
- Plantation around the project component
- Plantation around the maximum boundary of TPP

iii) Year wise plantation planning

Description	End of 2018	End of 2019	End of 2020	End of 2021
Number of Plants	• 1000 Nos. • (Tree-600) • (Shrubs-400)	• Additional 1500 Nos. • (Tree-1000) • (Shrubs-500)	• Additional 1000 Nos. • (Tree-600) (Shrubs-400)	• Additional 500 Nos. • (Tree-300) • (Shrubs-200)
Plantation Priority	• First Tire	• Second Tire	• Second Tire	• Third Tire
Plantation of Grasses and ground flora	• As per vacant area available in the unit			

X. Public Hearing

- Public hearing was conducted on 18th October 2018 as per EIA Notification 2006
- The Public hearing was conducted at Proposed Project site
- Public hearing was headed by Shri Gurmeet Singh Multani, PCS Additional Deputy Commissioner, Ferozepur, Shri Amit Gupta, Sub Division Magistrate, Ferozepur, Er. Pradeep Balu, Environmental Engineer, Regional Office, Faridkot PPCB, Er. Praveen Kumar Saluja, Environmental Engineer (Mega), PPCB, Patiala
- Notice of the Public hearing was published as per prescribed norms on Local and English newspaper on 18th September, 2018.

S. No.	**Name of The Person & Address**	**Details of query/ Statement/ information/ Clarification Sought by the person present**	**Reply of the query/ Statement/ Information/Clarification given by the Project Proponent**	**Action Plan**

1	Sh. Gurvinder Singh, r/o Village Hakumat Singh Wala, Tehsil & District Ferozepur	He stated that where the rice straw will be stored there will be pollution. He further stated that after the operation of the project, there will be problem from the ash. He also informed that no bailer machine has been provided in their Village or nearby area of the project, but the rice straw is taken from far away from the project. Baler owners are charging Rs.1000-1500/- per acre from the farmers for bailing the rice straw. He further stated that there will not be much benefit from the project. He also stated that no baler has been provided to their village and he has to sow potatoes in his field and if the bailer not provided by the industry, he will be compelled to fire the rice straw to sown the crop as the time is lapsing for the same. He demanded that this problem should be solved by the project proponent, immediately.	Representative of the company stated that they will not give any chance to fire the rice straw. ESP & bag filters will be provided with boiler as APCD to control the dust/ash problem. Bailer machines will be provided to nearby villages today it self and he will leave the site after making proper arrangements for providing bailer machines. Bailer machine owners are also farmers and to earn more, therefore, they have firstly started the work far away from the project to earn more money to get the investment back as they have invested lot of money on the bailer machines & other related equipment. He further informed that the company has also a similar project in Village Channu and the farmers in 15 kms of that project never fire the rice straw.	The rice straw will be stored at collection centers with adequate infrastructure to avoid pollution due to storage. In addition, to control air pollution during process, High Efficiency ESP or Bagfilters will be installed to meet emission norms stipulated by PPCB/CPCB. The ash generated after burning of rice straw would be stored in Silos and sent to the farmer (for manure) and brick manufacturing industries. Bailer Machine would be provided free to the nearby villages as per requirement. Also company will have arrangement with contractors so that they will not charge anything from the farmers. Due to the proposed project, there would be number of benefits-line revenue generation by the farmers by selling rice straw, pollution would not be generated due to open burning, direct and indirect employment of local people would be generated.

2	Sh. Manjinder Pal Singh, r/o. Hakumat Singh Wala, Tehsil & District Ferozepur	He stated that his house is 150-200 ft away from the project and he wanted to know what measures will be taken to control the air & noise pollution from the project?	Representative of the company informed that there will be no air pollution from the project as electrostatic precipitator (ESP) along with bag filters of latest technology will be provided to control the air pollution from the project and this equipment will effectively work and will not discharge even small dust particles. He also informed that there will not be any noise pollution as no such machinery will be installed in the project which may create noise pollution.	In order to avoid air pollution, High Efficiency ESP or Bag filters will be installed to meet emission norms stipulated by PPCB/CPCB. To prevent & control noise pollution, all the plant and machinery would be equipped with Acoustic Enclosure to meet Noise level standards stipulated by PPCB.
3	Sh. Amarjit Singh, r/o Salhani, Tehsil & District Ferozepur	He stated that a distillery project has been established in Village Mansoorwala, Tehsil Zira and the industry failed to control the water pollution from the project. The problem from distillery unit at Mansoorwala (Zira) is also known by the SDM Ferozepur, who is also supervising the public hearing. He further stated that the bailer owners are demanding Rs.1500/- per acre from the farmer for bailing the rice straw. A written agreement should be made with them that no charge will be taken from the farmers for bailing & taking the rice straw. The company has not provided any bailer	Representative of the company informed that the company will not charge any amount from the farmers for taking rice straw. The rice straw will firstly be taken from the nearby area. There will be no water pollution from this project as this projects not similar to distillery unit. He also informed that pollution caused by the other projects is to be monitored by the Punjab Pollution Control Board. He reiterated that the bailer machines will be made available to the nearby area on priority and proper system in this regard will be made.	The proposed project has well equipped wastewater treatment plant with Zero Liquid Discharge (ZLD). Therefore, there would not be any discharge of treated effluent from the premises. Already mentioned at Point-1. The bailers will be provided to farmers during season depending on their requirements without charging any fee. The company undertakes not to charge any fee from the farmers

		machines in the nearby 7 villages. He also stated that they will be forced to fire the rice straw if, the bailers are not provided immediately by the industry. The rice straw bailes are being taken by the industry from the outside the nearby area. He also stated that the farmers who have to sown potatoes, the industry should make arrangement on priority and no charge may be taken from the farmers for bailing the rice straw.		
4	Sh. Rajwant Singh, r/o Village Hakumat Singh Wala, Tehsil & District Ferozepur	He demanded that the employment should be given to the people of their village.	Representative of the company informed that the preference will be given to the local people. He further informed that the persons who want to employment in the project should give their resumes at the earliest. The company has policy to prefer the local person in employment. He further informed that only qualified/technical persons will be taken from outside the area.	Employment will be provided to local persons based on their qualifications
5	Sh. Baldev Singh Zira, Representative Bharati Kissan Union	He stated that there should not be any noise & water pollution from the project. The distillery project at Zira has created severe water pollution and is discharging its effluent underground. The project	Representative of the company informed that the plant is green project and there will be zero discharge. The water will be recirculated and the wastewater after treatment will be provided to the green belt to be developed in 8 acres within the industrial project. The distillery projects are water polluting units and this project is not such type of project. He	Already mentioned in Point-3 about control of water and noise pollution. The Company undertakes to adhere to meet all norms stipulated by the PPCB and CPCB. Also, qualified persons from local areas will be hired in the proposed plant.

		proponent, of the distillery unit gives lot assurance at the time of public hearing that whatever is being explained, the same will be implemented. The project proponents always given assurance to give the employment to the local people, but thereafter they employed the persons from outside on the plea that the labour from outside is cheaper. Commitment on the pollution control measures and employment related issues should be taken from the project proponents in writing, so that the same may show to the project proponent at the time of non-implementation. He wanted that the project proponent should implement the issues regarding pollution control measures and employment to the local people in letter & spirit.	reiterated that the employment will be given to the local people and the company always employment local people and only qualified persons will be taken from outside.	
6	Sh. Charanjit Singh Mann, Channu	He stated that the company has given employment to the local people in its Channu project.	No need any comment.	Employment will be provided to local persons based on their technical qualifications

7	Sh. Gurtej Singh, r/o Jawahar Singh Wala (Bailer owner)	He stated that there is a problem of toll plaza. He further stated that the loaded trollies of bailes of rice straw are not unloaded by the labour, which are lying parked since last two days.	Representative of the company informed that the problem of Toll-Plaza will be sorted out at the earliest. Sufficient labour will be deployed for unloading the rice straw bailes at the earliest.	Company had talk with concerned department/ agency of Toll Plaza. They assured that the problem will be solved as per their policy. The loading/unloading problem of rice straw has been solved. In future, also care will be taken that no such problem arises.

Y. Corporate Environment Responsibility

- Corporate Environmental Responsibility is an integral part of the planning as management
- Company has secured approx. 1.5 % of total project cost for developmental activities under company's CER initiative
- Regular health checkup for employees, financial assistance to establish Self Help Group, support to development of educational facilities, avenue plantation etc. are few highlights of CER activities.
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Sr. No.	**Sector**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**Total (In Lakhs)**
1	Water Supply & Treatment	20	12	8	6	4	50
2	Economy, Trade & Commerce	20	12	8	6	4	50
3	Transportation	20	12	8	6	4	50
4	Education	20	12	8	6	4	50
5	Health	20	12	8	6	4	50
6	Open Spaces, Parks & Water Bodies	20	12	8	6	4	50
7	Village Governance/Capacity Building	20	12	8	6	4	50
8	Power Supply & Electrification	20	12	8	6	4	50
Total (In Lakhs)		**160**	**96**	**64**	**48**	**32**	**400**

Z. Budgetary Allocation for Environmental Management Plan

EMP Budgetary allocation		
Sr.no.	**PARTICULAR**	**AMOUNT (RS. IN**

		LAKHS)
Capital Cost		
i)	Green Belt Development	10.0
ii)	Solid & Hazardous Waste Management	20.0
iii)	Water & Waste Water Management	20.0
iv)	Air Pollution Management including instrumentation	30.0
v)	Occupational Health & Safety	25.0
vi)	RWH & Miscellaneous Cost	20.0
Total		**125.0**
Recurring Cost		
Sr.No.	**PARTICULAR**	**AMOUNT (RS. IN LAKHS/year)**
i)	Green Belt Development	2.0
ii)	Environmental Monitoring	3.0
iii)	Solid & Hazardous Waste Management	25.0
iv)	Water & Waste Water Management	5.0
v)	Air Pollution Management	15.0
vi)	Occupational Health & Safety	5.0
	RWH & Miscellaneous Cost	5.0
Total		**60**

SEAC raised the following queries to which the project proponent and his Environmental Consultant replied as under:

Sr. No.	**Observations raised by SEAC**	**Reply of the project Proponent and/or his environmental consultant**
1.	▪ MoEF&CC has prescribed statuary notifications prescribing standards and other guidelines for the control of pollution from Thermal Plants. ▪ Ministry has also prescribed standardize conditions vide OM dated 19.11.2018 for Thermal Power Plants. The project proponent has not taken into account the compliance of above statuary notifications and OM specifically prescribed for the Thermal Power Plants.	Environmental consultant and project proponent sought time to submit compliance.
2.	▪ Bag house filter has been proposed as the air pollution control device. More often, electrostatic precipitator(ESP) are used to arrest the fine / ionized particulate matter from power plants. ✓ Clarify, as to whether the proposed APCD will be adequate for the emissions being excepted from the power plants. ✓ Whether the proposal is in line with the EIA manuals issued by	▪ It is true that ESPs are commonly used as pollution control device in power plants. They have proposed Bag house filter with modified technology that can arrest even fine particles. Further, the operational cost of bag filter house is comparatively less and requires lesser skilled man power. It will achieve the desired results. Further, they are ready to submit an under taking to the effect that in case of non achievement of desired results, they will replace the bag

	MoEF&CC. ✓ What will be the pollution control arrangements at various stages of combustion. ✓ Whether bag filter will be able to handle the high temperature of flue gas. If so, specifications of proposed bag house filter shall be provided and temperature upto which flue gas can be passed through it. ▪ Is bag house filter able to handle the high temperature of flue gas. If so, specifications of proposed bag house filter shall be provided and temperature upto which flue gas can be passed through it. ▪ Maintenance plan for APCD not submitted	filter system with alternative technology like ESP. ▪ For rest of the queries like the consonance of proposal with the EIA manual / MoEF&CC notifications, sometime is required. ▪ Stage wise requirement / proposal of pollution control device will also be submitted in due course. ▪ Details with respect to compatibility of bag filters to stand high temperatures will be submitted in due course. ▪ Will be submitted.
3.	c. Is there any proposal to abstract ground water? d. Whether permission from the Department of Irrigation or Drainage regarding allowing the industry to use the canal water has been obtained.	c. No there is no such proposal. Only canal water shall be utilised for meeting the daily water requirement. d. They have obtained permission from the competent authority. However, same could not be presented immediately before the Committee. They sought time to submit the same.
4.	CER activities such as regular heath check-up are subjective activities. The proposal must reflect some concrete works to be actually done at site. Details of the same shall be in consonance to the OM dated 01.05.2018 issued by MoEF&CC. The amount to be spent on proposed CER activities shall also be proportionally spent for the proposed period.	Revised CER activities w.r.t OM dated 01.05.2018 shall be submitted in short period of time.
5.	Proposed green area @ 33 % of the plant area shall be clearly earmarked on the layout map and to be submitted. A maintenance plan for at least 3 years for ensuring survival of trees must also be submitted.	Layout plan duly marked with proposed green belt along with maintenance plan will be submitted in due course.
6.	(d) It has been proposed in the EIA report that ash will be provided to nearby Cement Plants to use it as raw material for manufacturing cement. Ash from the proposed plant will have high silica content, which may not be suitable for using it in cement plants. (e) Weather, the Project Proponent has explored other alternatives like recovery of silica powder from the	(d). This issue will be re-examined. (e). Some time is required to explore the proposal.

	fuel ash. (f) Details of ash storage and its disposal shall be provided. Submit the Concrete proposal for storage and utilization of ash in scientific manner.	(f). Will be submitted in due course.
7.	Biomass plant have huge fire hazard. d) What kind of arrangement has been made to control the fire. e) How many water hydrants have been proposed on the site with other type of fire extinguishers? f) How much quantity of water shall be stored for extinguishing the fire?	Some time is required to submit the details .
8.	Rain water harvesting calculations shall be revised considering the peak rainfall in the area.	Revised details will be submitted.

After detailed deliberations, SEAC decided to accept the request of project proponent and defer the case till the project proponent submits the reply to aforesaid observations.

Accordingly, observations were conveyed to the project proponent through the ADS (Additional Details Sought) facility available on the web portal of SEAC. Now, the project proponent has replied to the observations online, which is annexed as Annexure-B of agenda.

The case was again considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

1. Sh. S. Das , Sr. Vice President and Sh. Karamjit Singh, Plant Head.
2. Sh. K.K.Sinha, Environment Consultant of the promoter company.

Sh. S. Das submitted an authority letter wherein he has been authorized by the Company Secretary, to attend the meeting of SEAC on 03.08.2019 and sign, execute and submit the undertakings & any other documents in the meeting of SEAC, to do all other acts and things necessary in relation to the matter.

To the earlier raised the queries of SEAC and the project proponent and his Environmental Consultant presented the reply. SEAC considered the replies one by one and further deliberated the various issues one by one with the project Proponent and their consultants. The observations of SEAC and Reply submitted by Project Proponent / Environmental Consultant are as under:

OBSERVATION : 1

- **MoEF&CC has prescribed statuary notifications prescribing standards and other guidelines for the control of pollution from Thermal Plants.**
- **Ministry has also prescribed standardize conditions vide OM dated 19.11.2018 for Thermal Power Plants, according to which the Electrostatic Precipitator (ESP) as APCD shall be provided for control of pollutants within the permissible limits.**

Reply of Project Proponent / Environmental Consultant

- Standards of 30 mg/Nm^3 prescribed vide MoEF&CC Notification Dec. 2015 shall be followed in true letter and spirit.
- Bag Filter Technology is sufficient to control the emissions within the prescribed limit as notified by MoEF&CC. To support this, the project proponent has submitted
  - A copy of declaration made by the developer, namely M/s Desin Private Limited vide Ref. no. AE/Bag Filter/ SAEL/19-01 dated 03.08.2019, to the effect that the company has selected the Bag Filter instead of Electrostatic Precipitator for dust emission control to meet with the Environment requirements on emission, as for paddy straw the Bag Filter House is more suitable than the Electrostatic Precipitator for the operation and maintenance.
  - An undertaking made by M/s Thyssenkrupp Industries India Pvt. Ltd. (Boiler & Bag house supplier) to the effect that the particulate matter emission levels during boiler running condition will be strictly limited within 30 mg/Nm3 by providing Bag Filters of adequate capacity.
  - An undertaking from their Environment consultancy company namely M/s Envirocare Limited to the effect that Bag Filter proposed by the project proponent is enough to restraint the outlet emissions within 30 mg/Nm3 under any operating conditions.
  - Moreover, it has been declared by the developer that ESP will be added, if MOEF directs the installation of ESP, and / or the installed bag filter falls short meeting the SPM emission level of 30 Mg / Nm3.

The project proponent submitted an undertaking dated 3, Aug, w.r.t above, which was taken on record by SEAC.

The Project Proponent & the Environmental Consultant further pleaded that while prescribing the Standards vide Notification Dec. 2015, MoEF & CC has not any issue any instructions or directions for making it mandatory to provide ESP. Only standards have been prescribed, which will be adhered to. It is true that MOEFCC while Standardizing the conditions vide OM dated 04.01.2019 has provided a condition to provide ESP to achieve the desired standards of 30 mg/ Nm^3, but simultaneously, the cover note of this OM clearly state that the expert appraisal committee can modify, prescribe additional conditions based on the project specific requirements.

The Project proponent & environmental consultant added that these conditions are designed keeping in mind the pollution aspects of coal/ lignite based thermal

plants but they have biomass based plant and have lesser pollution potential and different emission characteristics.

They requested the committee to allow them to provided Bag Filter Technology in place of ESP and assured the committee to replace the same with ESP within 6 months, in event of non achievement of results or on making it mandatory by MoEF&CC.

The committee considered the pleadings and undertakings submitted by the Project Proponent, Environmental Consultant, Boiler/ Bag House Supplier and developers and observed that as per OM dated 1.4.2019 SEAC can modify or prescribe additional conditions based on the project specific requirements. The committee decided to recommend the Bag Filter Technology with following condition:

" *In case, MoEFF&CC make it mandatory for thermal plants to provide Electrostatic Precipitator as air pollution control device or in event of failure to achieve the prescribed emission standards with the proposed Bag Filter House Technology, the Project Proponent shall replace the Bag House Filters with Electrostatic Precipitator or better Technology(if any prescribed by the MoEFF&CC), within a period of six months as undertaken by it.*"

OBSERVATION : 2

- **Is there any proposal to abstract ground water?**
- **Whether permission from the Department of Irrigation or Drainage regarding allowing the industry to use the canal water has been obtained.**
- **In case of no or less flow in the canal, the industry must have adequate storage arrangement.**
- **What is the proposal for utilisation of treated wastewater of the STPs within the radius of 50 Km from the proposed project.**

Reply of Project Proponent / Environmental Consultant

- There is no proposal to draw ground water. Only canal water shall be utilized for meeting the daily water requirement.
- The project proponent has obtained permission from the Department of Irrigation vide no. 22141 dated 21.06.2018.
- Sufficient storage arrangement will be provided to collect the fresh water.
- Representative assured that they will procure treated water from STP plant with in the radius of 50 km and shall be used as an alternative to the fresh water source to minimize the fresh water drawl from surface water bodies.

OBSERVATION : 3

CER activities such as regular health check-up are subjective activities. The proposal must reflect some concrete works to be actually done at site. Details of the same shall be in consonance to the OM dated 01.05.2018 issued by MoEF&CC. The amount to be spent on proposed CER activities shall also be proportionally spent for the proposed period.

Reply of Project Proponent / Environmental Consultant

The project proponent submitted the revised CER activities as per the detail given as under:

Sr No.	Proposed activity	Amount in lacs	Date of completion
1.	Company will provide infrastructure facilities, i.e. computers, toilets & RO water systems, library and plantation in the nearby school of the village in consultation with Sarpanch.	50	1 year after issuance of EC.
2.	Skill development center in the Tehsil & Distt. Freozpur	150	2 years after issuance of EC.

OBSERVATION : 4

The project proponent has not submitted the bifurcation of the proposed green area @ 33 % of the plant area.

Reply of Project Proponent / Environmental Consultant

The project proponent submitted that total green belt area in the plant will be 35200 sqm and detail of the said area is as under:

1.	Boundary Wall Side Area	8750 Sqm
2.	All Road Side	7900 Sqm
3.	Plant Area	16800 Sqm
4.	Reservoir Surroundings	800 Sqm
5.	Admin & Colony	20500 Sqm
6.	Parking & Switch Yard area	1950 Sqm
	Total Green Belt Area	56700 Sqm (33%)

OBSERVATION : 5

- **It has been proposed in the EIA report that ash will be provided to nearby Cement Plants to use it as raw material for manufacturing cement. Ash from the proposed plant will have high silica content, which may not be suitable for using it in cement plants.**
- **Weather, the Project Proponent has explored other alternatives like recovery of silica powder from the fuel ash.**
- **Details of ash storage and its disposal shall be provided. Submit the Concrete proposal for storage and utilization of ash in scientific manner.**

Reply of Project Proponent / Environmental Consultant

- Company has approached TERI, Delhi & Punjab Council of Science, Environment & Technology, Chandigarh, for useful utilization of ash from Paddy straw. Copy of letters have been submitted. Meanwhile, the project proponent has made agreement with the brick kilns and interlocking tiles industry existing in the vicinity of the project.
- Ash will be stored in the silos. From silos, ash will be transported to the brick kilns/ paver block industries by trucks. The project proponent will ensure that the frequency of trucks is adequate vis-à-vis the storage capacity of the silos.

OBSERVATION : 6

Biomass plant have huge fire hazard. What kind of arrangement has been made to control the fire ?

Reply of Project Proponent / Environmental Consultant

Following arrangements shall be made to control the fire hazard:

- Hydrant system for station building, transformer yard, Boiler, Bag filter and other associated buildings such as Fuel Handling Plant etc.
- Conventional Fire Alarm System for Control Rooms & Switchgear
- Manual Call Point at various strategic locations & Boiler house
- Obtained NOC from the Fire Brigade, Faridkot vide no. FS-56 dated 24/08/2018.

OBSERVATION : 7

Rain water harvesting calculations shall be revised considering the peak rainfall in the area.

Reply of Project Proponent / Environmental Consultant

The project proponent has submitted that as per data available with Central Ground Water Authority, average annual rainfall at Faridkot district is about 389 mm (0.389 m). The detail of runoff at plant is calculated as under:

S.No.	Particular area	Area (sq. m)	Runoff Coefficient	Rainfall intensity (m)	Runoff generated (M3)
1.	Road Area	15000	0.5	0.389	2918
1.	Admin Buildings, Office of HOD, Guest house area and canteen (Rooftop)	2768	0.8	0.389	862
3.	Green Belt	56700	0.2	0.389	4413
Total Runoff					8193
Note: The estimated approx Runoff is 8193 m^3. The average rain water available per day is 8193/365=22.45m^3.					

OBSERVATION : 8

The details of the trees to be planted by the project proponent is to be given.

Reply of Project Proponent / Environmental Consultant

Total 4000 Plant species (Tree-2500 & Shrubs-1500) will be planted in entire 4 year plantation programs. Required nutrients/water/manure and protection mess shall be provided. Ground flora will also be developed in open area. Survival of plant shall also be monitored. Green belt layout is displayed. Plant species will be selected based on the suggesting of Concerned Forest/ Horticulture Department.

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

SEAC after deliberating the application has awarded **'Silver Grading'** to the project proposal and decided that case be forwarded to SEIAA with the recommendations to grant environmental for establishment of 18 MW Biomass based Power Plant located in revenue estate of Village Sedha Singh Wala, Tehsil Jaito, District Faridkot Punjab as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

EC Conditions:

Special Condition:

In case, MoEFF&CC make it mandatory for thermal plants to provide Electrostatic Precipitator as air pollution control device or in event of failure to achieve the prescribed emission standards with the proposed Bag Filter House Technology, the Project Proponent shall replace the Bag House Filters with Electrostatic Precipitator or better Technology(if any prescribed by the MoEFF&CC), within a period of six months as undertaken by it.

A. Statutory compliance:

1. Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305(E) dated 7.12.2015, G.S.R.5 93 (E) dated 28.6.2018 and as amended from time to time shall be complied.
2. Part C of Schedule II of Municipal solid Wastes Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.

3. MoEF&CC Notification G.S.R 02(E) dated 2.1 .2014 as amended time to time regarding use of raw or blended or beneficiated/washed coal with ash content not exceeding 34% shall be complied with, as applicable.
4. MoEF&CC Notifications on Fly Ash Utilization S. O. 763(E) dated 14.09.1999,
5. S. O. 979(E) dated 27.08.2003, S. O. 2804(E) dated 3.11.2009, S. O. 254(E) dated 25.01.2016 as amended from time to time shall be complied.
6. The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.
7. No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.
8. Groundwater shall not be drawn during construction of the project. In case, groundwater is drawn during construction, necessary permission be obtained from CGWA.
9. The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.
10. Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

B. Ash content/ mode of transportation of Bio Mass:

2. EC is given on the basis of assumption of 15 % of ash content and 50 Km radial distance of transportation in rail/road/conveyor/any other mode. Any increase of % ash content by more than 1 percent, and/or any change in transportation mode or increase in transport distance (except for rail) require application for modifications of EC conditions after conducting the 'incremental impact assessment' and proposal for mitigation measures.

C. Air quality monitoring and Management:

9. Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the So2 emissions standard of 100 mg/Nm3, if required.
10. Selective Catalytic Reduction (SCR) system or the Selective Non-Catalytic Reduction (SNCR) system or Low NOX Burners with Over Fire Air (OFA) system shall be installed to achieve NOx emission standard of 100 mg/Nm3, if required

11. High efficiency Bag Filter shall be installed in each unit to ensure that particulate matter (PM) emission to meet the stipulated standards of 30 mg /Nm3.
12. Stacks of prescribed height of 70 m shall be provided with continuous online monitoring instruments for SOX, NOx and Particulate Matter as per extant rules.
13. Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
14. Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM-10, PM-2.5, S02, NOx within the plant area at least at one location. The monitoring of other locations (at least three locations outside the plant area covering upwind and downwind directions at an angle of 1200 each) shall be carried out manually.
15. Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.
16. Appropriate Air Pollution Control measures (DEs/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz., roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.

D. Noise pollution and its control measures:

4. The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.
5. Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ear muffs, etc.
6. Periodical medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy/less noisy areas.

E. Human Health Environment:

5. Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.
6. Baseline health status within study area shall be assessed and report be prepared. Mitigation measures should be taken to address the endemic diseases.

7. Impact of operation of power plant on agricultural crops, large water bodies (as applicable) once in two years by engaging an institute of repute. The study shall also include impact due to heavy metals associated with emission from power plant.

8. Sewage Treatment Plant shall be provided for domestic wastewater.

F. Water quality monitoring and Management:

11) Induced/Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 2.5m3/MW hr. (Or) Induced/Natural draft open cycle cooling system shall be set up with minimum Cycles of Concentration (COC) of 1.5 or above for power plants using sea water.

12) Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/ Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.

13) Rainwater harvesting in and around the plant area be taken up to reduce drawl of fresh water. If possible, recharge of groundwater to be undertaken to improve the ground water table in the area.

14) Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg, Cr, As, Pb, etc.) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.

15) The treated effluents emanating from the different processes such as DM plant, boiler blow down, ash pond/dyke, sewage, etc. conforming to the prescribed standards shall be re-circulated and reused. Sludge/ rejects will be disposed in accordance with the Hazardous Waste Management Rules.

16) Hot water dispensed from the condenser should be adequately cooled to ensure the temperature of the released surface water is not more than 5 degrees Celsius above the temperature of the intake water.

17) Based on the commitment made by the Project Proponent, Sewage Treatment Plants within the radius of 50 km from proposed project, the treated sewage of shall be used as an alternative to the fresh water source to minimize the fresh water drawl from surface water bodies.

18) Wastewater generation of from various sources (viz. cooling tower blowdown, boiler blow down) shall be used for ash quenching purposes within premises

19) Sewage will be treated by setting up Sewerage Treatment plant of adequate capacity to maintain the treated sewage characteristics of pH: 6.5-9.0; Bio-Chemical Oxygen Demand (BOD): 30 mg/l; Total Suspended Solids: Coliforms (Most Probable Number): <1000 per 100 ml.

20) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

G. Risk Mitigation and Disaster Mitigation and Disaster Management:

1) Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.

2) Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made as per the extant rules in the plant area in accordance with the directives of Petroleum & Explosives Safety Organisation (PESO). Sulphur Content in the liquid fuel should not exceed 0.5%.

3) Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.

4) Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.

5) Regular mock drills for on-site emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situations.

H. Green belt and Biodiversity conservation:

1) Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.

2) In-situ/ex-situ Conservation Plan for the conservation of flora and fauna should be prepared and implemented.

3) Suitable screens shall be placed across the intake channel to prevent entrainment of life forms including eggs, larvae, juvenile fish, etc., during extraction of seawater.

I. Waste management:

1) Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.

2) Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.

3) Ash pond shall be lined with impervious liner as per the soil conditions. The project proponent shall store ash in the silos. From silos, the ash will be transported to the brick kilns/ paver block industries by trucks. The project proponent will ensure that the frequency of trucks is adequate vis-à-vis the storage capacity of the silos.

4) Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry and amendment thereto. By the end of 4th year, 100% fly ash utilization should be ensured. Unutilized ash shall be disposed-off in the ash pond in the form of High Concentration Slurry. Mercury and other heavy metals (As, Hg, Cr, Pb, etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. Fly ash utilization details shall be submitted to concern Regional Office along with the six-monthly compliance reports and utilization data shall be published on company's website.

5) Unutilized ash shall be disposed-off in the ash pond in the form of High Concentration Slurry/Medium Concentration Slurry/Lean Concentration Slurry method. Ash water recycling system shall be set up to recover supernatant water.

6) In case of waste-to-energy plant, major problems related with environment are fire smog in MSW dump site, foul smell and impacts to the surrounding populations. Therefore, the following measures are required to be taken up:

    i) Water hydrant at all the dumpsites of MSW area to be provided so that the fire and smog could be controlled.

    ii) Sprayer like microbial consortia may be provided for arresting the foul smell emanating front MSW area.

J. Monitoring of Compliance:

1) Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.

2) Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.

3) Energy Conservation Plan to be implemented as envisaged in the EIA / EMP report. Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy power plant (such as solar, wind, etc.) or by purchasing Renewable Energy Certificates.

4) Monitoring of Carbon Emissions from the existing power plant as well as for the proposed power project shall be carried out annually from a reputed institute and report be submitted to the Ministry's Regional Office.

5) Energy and Water Audit shall be conducted at least once in two years and recommendations arising out of the Report should be followed. A report in this regard shall be submitted to Ministry's Regional Office.

6) Environment Cell (EC) shall be constituted by taking members from different divisions, headed by a qualified person on the subject, who shall be reporting directly to the Head of the Project.

7) The project proponent shall (Post-EC Monitoring)'

i) send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;

ii) upload the clearance letter on the web site of the company as a part of information to the general public

iii) inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at http://parviesh.nic.in.

iv) Upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;

v) Monitor the criteria pollutants level namely; PM (PM-10 & PM-2.5 in case of ambient AAQ), S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;

vi) submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;

vii) 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;

viii) Inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project and the date of commencement of the land development work.

K. Corporate Environmental Responsibility (CER) activities:

2. CER activities will be carried out as per OM No. 22-65/201 7-IA.II dated 01.05 2018 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed scheduled of implementation with appropriate budgeting.

XI. Validity

ii) 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.

XII. Miscellaneous

x) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

xi) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

xii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xiii) 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.

xiv) The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xv) The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xvi) 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.

xvii) 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.

xviii) 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.

Item No. 182.03: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for installation of Common Bio Medical Waste Treatment Facility in the revenue estate of Village Bir Pind, Tehsil Nakodar, District Jalandhar, Punjab by M/s Meridian Milieu Care Pvt. Ltd. (SIA/PB/MIS/35114/2018).

The facts of the case are as under:

M/s Meridian Milieu Care Pvt. Ltd. has applied online for obtaining Environmental clearance under EIA notification dated 14.09.2006 for installation of Common Bio Medical Waste Treatment Facility in the revenue estate of Village Bir Pind, Tehsil Nakodar, District Jalandhar, Punjab. The project of the promoter pertains to category 'B-1' with activity listed at 7 (d) of the Schedule appended to the said notification.

The project was earlier granted TOR vide letter no. SEIAA/2019/04 dated 07.01.2019 with Standard Terms of Reference and additional specific TORs decided during meeting of SEAC.

- The total area of the project is 5058.571 sq.m. (1.25 Acre) and land breakup for proposed project is given below:

Building No.	Description	Area Sq.ft.
1	Security Room	64
2	Administrative Room	875
3	Worker & Maintenance Room	1225
4	Vehicle Parking Area	1225
5	Vehicle Washing Area	900
6	Sharp Pit	-
7	Waste Storage Area	900
8	Incineration Shed	1400
9	Autoclave & Shredding Room	900
10	DG Set Room	64
11	Hazardous Waste Room	900
12	Treated Waste Shed	900
13	Effluent Treatment Plant	1600
14	Green Area	20322.26

Earlier, Environmental Engineer, Regional Office, Punjab Pollution Control Board, Jalandhar was requested vide e-mail dated 11.09.2018 to visit the project site and submit report regarding construction status. Environmental Engineer, Regional Office, Punjab Pollution Control Board, Jalandhar vide its return email dated 21.09.2018 intimated that no construction work has been carried out at the proposed site for installation of Common Bio-Medical Waste treatment facility. There is no religious place, school, residential area with 10 pucca houses, however, agricultural land is located within 500 m radius of the site. A Gurudwara is located at about 650 m from the proposed site.

Now, the project proponent has submitted final EIA report.

The matter was placed before SEAC in its 181st meeting held on 20.06.2019. However, no one on behalf of the promoter company attended the meeting. SEAC was also apprised that vide email 18.06.2019, Sh. Suhab Partap Singh Sekhon on behalf of the promoter company intimated that, he was not able to attend the said meeting due to personal reasons and requested to consider the case in the next meeting.

After deliberation, SEAC decided to accept the request of the representative of the promoter company, defer the case and same be placed in the next meeting of SEAC as & when scheduled.

Further, SEIAA has received a complaint/representation vide letter dated 23.05.2019 regarding environmental clearance to M/s Meridian Milieu Care Pvt. Ltd., for setting up of a Common Bio-Medical Waste Treatment Facility (CBWTF) in Jalandhar from Sh. Sarbhjit Singh, Director, M/s Rainbow Environments Private Limited, 1139, Sector 69, Mohali .The matter was considered by SEIAA in its 148th meeting held on 26.06.2019. SEIAA was apprised that M/s Meridian Milieu Care Pvt Ltd was issued TORs vide letter no. SEIAA/2019/04 dated 07.01.2019 for establishment of Common Bio-medical waste treatment facility in the revenue estate of Village Bir Pind, Tehsil, Nakodar, District Jalandhar, Punjab. The Project proponent has submitted its final EIA report which is under consideration with SEAC for appraisal. After detailed deliberations, SEIAA decided as under:

a) A copy of the representation be forwarded to PPCB with a request to send the comments on the same directly to SEAC within ten days.

b) A copy of the representation be forwarded to SEAC and the Committee shall send the recommendation after considering the comments of PPCB & contents of representation while appraising the environmental clearance application of M/s Meridian Milieu Care Pvt Ltd.

Accordingly, Member Secretary, PPCB was requested vide letter no 510 dated 09.07.2019 to send the comments on the representation directly to Secretary (SEAC). A copy of the same was also endorsed to the Secretary (SEAC) for necessary action in the matter. Member Secretary, PPCB vide letter no. 2990 dated 30.07.2019 sent the comments on the representation, which is annexed as Annexure-C of agenda of 182nd meeting of SEAC.

Considering the representation made by Sh. Sarbjeet Singh and being specialized field, Member Secretary, PPCB, Patiala was requested by the SEAC to nominate an expert from the Board to attend the meeting so as the appraise the members w.r.t representation received.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(i) Sh. Suhab Partap Singh Sekhon, Director
(ii) Ms. Daksha Gupta, Environment Consultant of the promoter company

Er. Kuldeep singh, Emvironmental Engineer (EPA) has attended the meeting as a special invitee on behalf of Punjab Pollition Control Board.

SEAC was apprised that SEIAA has sent a complaint/representation of Sh. Sarabjit Singh, Director, M/s Rainbow Environments Private Limited, 1139, Sector 69, Mohali. In the said complaint, it has been mentioned that as per the CPCB guidelines 2016, GAP analysis has not been carried out by the PPCB and permission granted to establish another CBWTF in spite of treatment capacity still available in the area. Move to add more CBWTFs may thus be detrimental to environmental process as viability of CBWTF is likely to be threatened with the addition of more capacity where already 75% of the installed capacity is lying un-utilized. Complainant has requested that appropriate course of action be taken by the authority against the project proponent of the proposed project.

Er. Kuldeep Singh, Environmental Engineer, PPCB informed that comments that the PPCB has sent the comments vide no. 2990 dated 30.07.2019 to the Secretary (SEAC). The contents of the same are reproduced as under:

REPLY OF PPCB TO THE REPRESENTAATION OF SH. SARABJEET SINGH

It is intimated that Central Pollution Control Board in the year August, 2003 issued guidelines for the establishment of CBWTFs throughout the country. As per the guidelines, coverage area of the CBWTF had been defined as under:

"*In an area, only one CBWTF may be allowed to cater up to 10,000 beds at the approved rate by the Prescribed Authority. A CBWTF shall not be allowed to cater healthcare units situated beyond a radius of 150 km. However, in an area where 10,000 beds are not available within a radius of 150 km, another CBWTF may be allowed to cater the healthcare units situated outside the said 150 km".*

After the issuance of guidelines by CPCB, 3 more CBWTF were set up in the State in the year 2004 at SAS Nagar, Amritsar and Pathankot. Thereafter, 5th CBWTF was set up in the State at Bathinda in the year 2010 in the name of M/s Green-Tech at village Lehra, Bathinda and subsequently again area was distributed among 5 CBWTFs. However, the 5th facility shut down its operation after 3 months due to public complaints of nearby villages.

Punjab Pollution Control Board invited Expression of Interest (EOI) for setting up of CBWTF in Distt. Bathinda on 09.09.2011 and proposal of M/s Alliance Healthcare System for setting up of CBWTF at Village Burj Mehama, Distt. Bathinda was accepted and subsequently NOC was issued by PPCB. The said facility completed its building and installed the plant & machinery at site, but could not start its operation due to regular dharna against setting up of CBWTF by local kissan unions. Finally, the said unit was closed as per directions of DC, Bathinda.

Performance Audit on management of bio-medical waste in the State was conducted by the AG, Punjab in 2013-2014, wherein there was an audit objection that CPCB guidelines for CBWTF provide that only one CBWTF may be allowed to cater up to 10,000 beds and shall not be allowed to cater to healthcare units situated beyond a radius of 150 km . However, Audit Examination showed that three (Amritsar, Ludhiana and Mohali) out of four CBWTFs were catering to HCEs beyond a radius of 150 Km and CBWTF Ludhiana was also catering to 17500 beds.

Further, during monitoring of the 4 CBWTF operators by the Board, it has been observed that the CBWTF operators are not able to provide adequate service of collection, transportation, treatment and disposal of bio-medical waste as per the installed capacity. Accordingly, show-cause notices were issued by the Board to the CBWTF operators which were found deficient in providing adequate services of collection, transportation, treatment and disposal of bio-medical waste

and on several occasions bank-guarantees of the CBWTF operators were en-cashed by the Board from time to time.

The area in which the CBWTF of the complainant is located has been declared as residential zone as per Master Plan of Mohali & the urbanization is coming at a very fast pace in the neighbourhood of the complainant CBWTF and the Board at any time can order for closure of the complainant CBWTF.

Hence, the Board in order to take care of the future growth of the HCFs, for ensuring proper collection, transportation, treatment and disposal of bio-medical waste, in order to plug-in the gaps identified in the Audit finding and to comply with the CPCB Guidelines for CBWTF applicable at that time, PPCB in the year 2014 called for Expression of Interest in the newspapers for setting up of 2 Common Bio-medical Waste Treatment and Disposal Facilities in the State i.e one in Bathinda region and another in other part of the State. Out of 20 applications received against the Expression of Interest advertisement, applications of two project proponent were selected for setting up of common bio-medical waste treatment facilities out of which one was of M/s Meridian Milieu Care, Jalandhar. The Complainant CBWTF operator M/s Rainbow Environments Pvt. Ltd., Mohali also applied for setting up of CBWTF in Bathinda region in reference to EOI, but his application was not selected by the scrutinizing committee.

With reference to the points mentioned by the complainant regarding guidelines of gap-analysis to be carried out by Board, submission of gap analysis to MoEFCC & CPCB and permission granted inspite of adequate treatment capacity still available in the area, it is mentioned here that ***these guidelines were not there in the CPCB guidelines for CBWTFs issued in 2003 which were applicable at the time of issue of Expression of Interest in 2014.***

It is pertinent to mention here that the complainant Sh. Sarabjit Singh again applied for setting up of Common Bio-Medical Waste Treatment Facility in Jalandhar/Kapurthala region in the name of new Company M/s Pacific Waste Management, 1139, Sector-69, Mohali to the Board vide its application dated 02.06.2017. However, the proposal was not considered citing reason that the in the State of Punjab, the bed capacity of HCFs is around 60,000 (sixty thousand). Two more CBWTFs to be setup at Distt. Sri Muktsar Sahib and Jalandhar are in pipeline. Therefore, there is no requirement of setting up of any more CBWTFs in the State at this stage.

It is informed that the complaint made by the proprietor of M/s Rainbow Environments Pvt. Ltd., Mohali doesnot have any merit and it has been made as the prime concern of the complainant CBWTF operator is the loss in his business due to shifting of the area earlier catered by him to some other facility and further there is no issue regarding the viability of the existing CBWTFs. The new CBWTFs have been issued EOI/NOC by the Board in order to take care of the gaps in the treatment and management of bio-medical waste and to provide services to the HCFs keeping in view the projected demand in future.

The SEAC members further deliberated the issues with the Sh. Kuldeep Singh, EE, PPCB, Patiala on the issue. To this Sh. Kuldeep Singh, EE further explained that

1 There is difference between the installed capacity of existing facilities and actual operational capacities because due to number of practical reasons, facilities seldom operates at installed capacities.

2 These facilities require periodic shut downs for mandatory maintenance particular for incinerators. Theses shut downs varies from 3-5 days and some time for a week for major repairs. Being contaminated waste, same cannot be stored beyond 24 hrs and is to be treated through other facilities.

3 There may be fire, natural calamity or accident at facility or major break down. During such periods, waste has to be treated by other facilities.

4 Being NRI dominating pockets in various parts of State, Punjab is going towards, Medical tourism. Number of new Hospitals like AIIMS at Bathinda and Medicity, New Chandigarh etc. along with many more HCFs are coming up.

5 Due to non- performance of certain facilities, some time these facilities have to be closed for upgradation/ improvement. During such periods, waste has to be treated by other facilities.

6 There are more than 70,000 bed capacity in the state, which is likely to increase in future. Therefore, even installation of new facility, average bed capacity of each facility be around 12,000 beds.

For the above reason, Punjab pollution Control Board is going for capacity building for the treatment and disposal of bio-medical waste in the State. Moreover, Jalandhar is a medical hub of the State but there is no bio- medical facility in the area. Therefore, the establishment of Bio- medical Facility at Jalandhar is the need of hour. It requires 3-4 years to initiate the process and finally setup a bio medical treatment facility. Moreover, the Hon'ble National Green Tribunal is monitoring the waste management system through special monitoring committees and thus adequate treatment arrangements for bio- medical waste are required in the State. Representation/ complaint made by Sh. Sarabjeet Singh is only due to personal business interests and not on merit. This is the responsibility of State & Punjab Pollution Control Board to ensure proper treatment of biomedical waste for that such facilities are required to be established.

The SEAC deliberated the issue at length and found the reply of Punjab Pollution Control Board is justified. SEAC decided that there is need to further deliberate this issue as the distribution of work/ work area or Gap Analysis

is the duty of State Pollution Control Board and the State Government and does not fall under the domain of SEAC.

SEAC was satisfied with the reply submitted by the PPCB.

Thereafter, SEAC allowed the environmental consultant of the promoter company to present the salient features of the project. The Environmental Consultant presented the salient features of the project as under:

<table>
<tr><th>S. No.</th><th>Description</th><th>Details</th></tr>
<tr><td>1.</td><td>Name of the project/Activity and address</td><td>Common Bio Medical Waste Treatment Facility proposed by M/s Meridian Milieu Care Pvt. Ltd. at Village Bir Pind, Tehsil Nakodar, District Jalandhar, Punjab</td></tr>
<tr><td>2.</td><td>S. No. in the schedule</td><td>7 (d) – Bio medical waste treatment facilities (EIA notification, 2006)</td></tr>
<tr><td>3.</td><td>Proposed capacity/area /length /tonnage to be handled/command area/lease area/number of Wells to be drilled.</td><td>The treatment equipment/facility shall be installed for treatment of Bio- Medical waste.
<table>
<tr><th>Sr. No.</th><th>Equipment</th><th>Number</th><th>Proposed Capacity</th></tr>
<tr><td>1.</td><td>Incinerator</td><td>02 (Both the Incinerator will be working simultaneously, if needed)</td><td>250 kg/hr each</td></tr>
<tr><td>2.</td><td>Autoclave</td><td>02</td><td>2000 ltrs each</td></tr>
<tr><td>3.</td><td>Shredder</td><td>02</td><td>300 kg/hr each</td></tr>
<tr><td>4.</td><td>Effluent Treatment Plant</td><td>01</td><td>10 KLD</td></tr>
</table></td></tr>
<tr><td>4.</td><td>New/Expansion/Modernization</td><td>New</td></tr>
<tr><td>5.</td><td>Area</td><td>10 Kanal (1.25 acres) of the land has been designated for setting up the proposed common biomedical waste treatment facility (CBWTF).</td></tr>
<tr><td>6.</td><td>Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)</td><td>The proposed site is located notified Industrial zone and is about 800 meters away from the nearest village in SE direction. CLU has been granted to the project proponent by Punjab Bureau of Investment Promotion (PBIP) vide Ref. no. PBIP/1807909861 for an area of 1.25 acre.

Further, Consent to Establish (NOC) has been granted to the project proponent by PBIP vide Ref. no. PBIP/LORC1/1807909861.</td></tr>
<tr><td>7.</td><td>Latitude, Longitude</td><td>A- 31° 6’46.61”N, 75°30’35.00”E</td></tr>
</table>

	of site	B- 31° 6'50.23"N, 75°30'35.00"E C- 31° 6'49.37"N, 75°30'36.59"E D- 31° 6'45.81"N, 75°30'36.54"E
8.	Plot/Survey/Khasra No.	Khasra No. 20//19/2, 22/1, 25//2/1/1,
9.	Total Cost of the project	Rs. 5 crores (Approx.)
10.	Manpower	During Construction phase, the labors and workers will be hired from nearby villages. Construction phase: 10 Operation phase: 15
11.	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	100 KVA power requirement will be sourced from existing line of Punjab State Power Corporation Limited (PSPCL). In case of power failure, D.G. sets (2x45 KVA) will be used.
12.	Demand and Supply Gap	There are 70,000 beds (approx.) in the health care facilities in the State of Punjab. If Dental/Eye chairs will be added, the number will rise upto 90,000 beds. In the State of Punjab, four number of CBWTF are in operation and one is under establishment. As per CPCB guidelines, one facility caters 10,000 beds and in order to manage the huge quantum of Biomedical Waste generated in and around Jalandhar and Kapurthala districts, CBWTF is required to cater to the need of the health care facilities. The proposed CBWTF shall be located in notified Industrial Zone Nakodar, Village Bir Pind, Tehsil, Nakodar, District Jalandhar, Punjab, and shall ensure the proper management of Biomedical Waste generated by the Health Care Facilities of Jalandhar and Kapurthala districts as per Bio-Medical Waste Management Rules 2016.
13.	Green Belt	Green belt shall be provided at the common bio-medical waste treatment facility@ 20322.26 sqft.
14.	Water (expected source & competing users) unit: KLD	The total water requirement for the project is 10 KLD. For Drinking purpose source - Private water connection from water supply scheme Bir Pind Block Nakodar given by SDE, Sub Division, Nakodar, PWSSB vide letter no. 190 dated 22/3/2019. For Industrial purpose – EE, PWSSB, Div-1, Jalandhar vide its letter no. 1504 dated 9/4/2019 has given permission to draw treated water @ 8 KLD from 6 MLD STP at Nakodar. Out of 10 KLD, domestic requirement will be 1.2 KLD, process water requirement will be 3.5 KLD (Autoclave, Boiler, Scrubber) and floor washing & vehicle cleaning will be 5.3 KLD.

15.	Facilities for treatment or disposal of solid waste or liquid effluents?	Wastewater generated from the treatment of Biomedical wastes including washing of floors, vehicles, water use in autoclave etc. shall be treated in effluent treatment plant of 10 KLD.. The treated water shall be used for green belt and again for floor washing. The sludge generated shall be sent to nearest Landfill at TSDF, Nimbua, Derabassi.
16.	Components of ETP	The effluent treatment plant shall consist of the following Units: • CollectionTank • Chemical Dosing tank/ disinfectiontank • EqualizationTank • Primary SettlingTank • Aerationtank • Secondary SettlingTank • CollectionTank • Activated Dual MediaFilter
17.	Air Pollution Control System (APCS)	APCD will be provided for final flue gasses trapping. Venturi alkali scrubber and droplet separator shall be provided as APCD. Online monitoring system shall be installed and same be connected to SPCB and CPCB server.
18.	Solid Waste Management	➢ Estimated Municipal solid waste around 9 kg/day will be sent to district municipal corporation site for safe disposal. ➢ Incinerator ash will be generated as waste after the treatment of Bio medical waste and will be disposed throughTSDF Nimbua, Derabassi. ➢ Used plastic bottles will be shredded and resulting plastic will be sold to authorizedrecyclers. ➢ Used oil to be generated from the DG sets will be managed, handled and disposed as per the provisions of the Hazardous Waste Rules,2016.
19.	Other permissions	➢ The project proponent has obtained Consent to establish vide no. PBIP/LORC1/1807909861 from PBIP, Chandigarh. ➢ The project proponent has obtained CLU from Department of Town & Country Planning, vide no. PBIP/CAPA(HUD)/2019/26 dated 18.01.2019. ➢ The project proponent has obtained permission from PWSSB vide no. 1504 dated 09/04/2019 for utilization of 8 KLD of treated wastewater from STP, Nakodar. ➢ The project proponent has obtainbed permission for water connection for drinking

		purpose from PWSSB vide no. 190 dated 22.03.2019. ➢ The project proponent has submitted a letter bearing no. 7174 dated 02.08.2018 of Divisional Forest Officer, Jalandhar addressed to Chief Conservator of Forestswherein it has been mentioned that no forest land is involved in the project.

Other important features:

1. Number of Existing HCF's and Bed capacity in near project site areas

S.No.	**Districts**	**NumberofHealthCareFacilities/Institutions**	**BedStrength**
1	Jalandhar	1200	15000
2.	Kapurthala	400	5000
Total		**1600**	**20,000**
(Source: PunjabPollution Control Board,Patiala)			

2. Calculation of Biomedical Waste Generation

Number of Functional Beds	20,000 beds* approx
Quantity of Waste Generation	500 gms per bed per day
Estimated Biomedical Waste Generation	= Number of Functional Beds × Quantity of Waste Generated Per Bed = 20,000 × 500 per Bed per Day. 10,000 kg/ day or 10 TPD
Allowing for Future expansion-Design capacity of Biomedical Waste Facility (@10%)	11 TPD
Expected Incinerable waste	4 TPD
Expected Non Incinerable Waste (@60%)	6 TPD

3. Land Details

S.No.	**Tehsil**	**Village**	**KhasraPlan**	**Area**	**Ownership**

1.	Nakodar	Bir Pind	20//19/2, 22/1, 25//2/1/1	1.25 Acres	M/s Meridian Milieu Care Pvt. Ltd

5. Details on collection and transportation of Bio Medical Waste.
   - Segregated waste shall be collected from Health care facility in color coded bins
   - Collected waste will be transported in dedicated authorized covered vehicles along

with manifest system.

   - Waste collection, transportation and treatment shall be done within 48 hrs.
   - 7 Closed vehicles (dimension size of 14ft x 6ft x 5.5ft with carrying capacity 3000kg) for collection and transportation of biomedical waste to CBWTF covering Jalandhar & Kapurthala areas within 75 km radius.

6. Online monitoring systems installation is proposed for the incinerator during the commissioning of the project as per the CPCB guidelines. It is also incorporated in the budget of Environmental Management Plan.
7. The project proponent has submitted the Ambient Air Quality Results, Ground Water Test Results, Noise Analysis Results and Soil Sampling Results and the same were taken on record.
8. Details of flue gas emissions discharge through stack:
   - The flue gases from the Secondary chamber would be sent to venturi scrubber. where particulate matter as well as acidic pollutants would be scrubbed. Here the acidic gases would be removed by absorption with caustic soda .
   - The temperature of the flue gas at the outlet of the venturi scrubber would be approx. 70-800 C to ensure the saturation of the flue gas. The scrubbing medium would be circulated @ 2-2.5 liters/m3 of saturated flue gas at venturi outlet. The quenching process shall prevent the reformation of dioxin and furan .
   - The scrubbed water shall be collected into a sump, where the water is neutralised, and then sent into a cooling tower from where the water is

recirculated into the scrubber after cleaning them of their particulates by way of pressure sand filter and activated carbon filter.

- Flue gas emission shall meet prescribed standard. Stack of 30 mtrs height would be provided as per IS –6533-1989. The chimney would be lined from inside with minimum 3mm thick natural hard rubber. Port hole with sampling platform would be provided for monitoring of flue gases as per the norms of pollution control board.

9. Ash, residue from high temperature incineration and other material residues from the process shall be collected into containers and shall be disposed into authorized Common Hazardous Waste Treatment and Disposal Facility at Nimbua in Punjab.
10. Effluent treatment plant of capacity 10 KLD is proposed at site for treating the wastewater
11. The proposed CBWTF will have an ETP of 10 m3 per day (KLD) capacity. The ETP will receive; Chemical wastes after chemical treatment of infected waste, waste water generated from the scrubber, vehicle sterilization area and floor washing:-
    - Sealed drainage will be provided to collect the all liquid effluents.
    - Effluent will be collected in equalization tanks after passing through the grit chamber. Grit chamber removes large solid particles. From the equalization tank, raw effluent is pumped to the flash mixers where flocculants and coagulants are added. Effluent is taken to primary clarifier where settling of solids takes place.
    - The biologically treated effluent will be taken to the secondary clarifier and the overflow from the secondary clarifier will be allowed to pass through pressurized sand filters (PSF) and activated carbon filters (ACF).
    - The wet sludge is dewatered in sludge drying bed and temporarily stored in sludge storage area. Sludge after drying will be disposed in landfill. Clarified effluent is biologically treated by activated sludge process in an aeration tank.
    - The thickened sludge is collected, dewatered and disposed in the landfill.
    - Finally, the treated effluent will be recycled for use in scrubber floor washing and gardening.

12. Odor Control Measures

Good housekeeping and timely treatment preferably within 24 hrs will greatly reduce general site smell and reduce impact from odour .Good practice includes the following:-

- Storage of waste in a confined area. B. Speedy disposal of waste.
- Consideration of prevailing wind direction while planning location of BMW plant.
- Plantation of Fragrances generating flowering trees.

13. Details of EMP

Sr. No.	Particulars	CapitalCost(Rs)Lakhs	RecurringCost(Rs)Lakhs/annum
1.	Air Pollution Control Systems	10	1
2.	Effluent Treatment Plant andSeptictanketc.	10	1
3.	Landscaping, Green belt Development	2	0.3
4.	Rainwater harvestingstructure (alternate site)	1	0.1
5.	Online Stack Monitoring	3	0.3
6.	AmbientAirQualitymonitoring,Laboratory equipment etc.	5	1
7.	Third Party monitoring,	0	0.5
8.	Environmental Control	2	0.3
9.	OccupationalHealth&Safety,Immunization, Health Checkups Training and PPE	1.5	0.1
10	ProvisionofCCTVCamera&GPSmonitoring system in transport vehicles	2.0	0
11.	Provisionofcostforthetransportationof hazardous waste to TSDF site	-	0.2
Total		36.5	4.8

14. Details of CER

S.no.	Activities	Location	Cost (in Lacs)
1.	Provision to install solar street lights	Village Bir Pind	1.5
2.	Provision of Rainwater Harvesting structure along with ground water recharge	Govt. High School at Village Bir Pind	2.5
3.	Plantation of trees in consultation with Village Panchayat	In and around Village Bir Pind	1.0
	Total		**5.0**
Note: The company shall earmark fund of Rs 5.0 lacs for the CER. This Fund will be utilized over a period of 3 years. After this company shall allocate 1% of the profit to towards the same			

15. All the queries raised during the Public Hearing has been addressed by the project proponent.
16. There are no protected areas as notified under the Wildlife Protection Act, 1972 within 5 km radius from the boundary of the project site.

Following observations were raised by the SEAC to which the project proponent replied as under:

SR No.	Observations	Reply submitted by the project proponent and his Environmental Consultant
1.	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 and CLU has been granted vide no. 23994-23998 dated 05/12/2018 and then amendment vide no. 981 dated 14/01/2019.The copy of both the letters have been submitted.
2.	The project proponent has proposed ZLD, but that is not possible as the industry will require to purge some quantity of water as there will be continuous buildup of TDS.	The project proponent submitted that wastewater from ETP shall be treated up to tertiary level i.e. ultrafiltration (To maintain TDS level) followed by chlorination for the recycle & reuse of treated water within the plant & maintaining green area. The components of ETP will be Bar Screen, Oil & Grease Trap, Effluent Collection tank, Aeration Tank, Clarifier, Sludge Drying Bed, Filtered water tank,

		Pressure Sand Filter, Carbon Filter and ultrafiltration followed by chlorination. The project proponent has submitted undertaking in this regard.
3.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	The project proponent submitted that it will not provide any tube well for the abstraction of groundwater. Thus, it has not applied for obtaining permission from CGWA.
4.	How the project proponent will obtain the freshwater for domestic use and industrial purpose?	The project proponent submitted that water connection from the Deptt. of Water Supply & Sanitation under Water Supply Scheme, Village Bir Pind, Block Nakodar, shall be used exclusively for domestic purpose i.e. about 1.2 KLD. The treated water from their plant as well as from STP Nakodar shall be used exclusively for industrial purpose i.e. about 8.0 KLD. The project proponent has submitted undertaking in this regard.
5.	The activities under the CER are general and not specific.	The project proponent submitted revised CER plan and the components of which are given as under:

	<table><tr><th>S.no.</th><th>Activites</th><th>Location</th><th>Cost (in Lacs)</th></tr><tr><td>1.</td><td>Provision to install solar street lights</td><td>Village Bir Pind</td><td>1.5</td></tr><tr><td>2.</td><td>Provision of Rainwater Harvesting structure along with ground water recharge</td><td>Govt. High School at Village Bir Pind</td><td>2.5</td></tr><tr><td>3.</td><td>Plantation of trees in consultation with Village Panchayat</td><td>In and around Village Bir Pind</td><td>1.0</td></tr><tr><td></td><td>Total</td><td></td><td>5.0</td></tr></table>	
6.	The project proponent has not submitted calculations for rainwater harvesting on per hour basis.	The project proponent has submitted that it will provide one rainwater harvesting pits at Govt. High School in village Bir Pind, which will catch the maximum run-off from the area. The rainwater harvesting calculation submitted by the project proponent are given as under:
7.	<table><tr><th>S. No.</th><th>Particulars</th><th>Catchment Area in m2 (A)</th><th>Runoff Coefficient (C)</th><th>Rainfall Intensity in mm (I)</th><th>Discharge (m3/hr)</th></tr><tr><td>1</td><td>Rooftop Area</td><td>929.03</td><td>0.80</td><td>0.035</td><td>26.01</td></tr><tr><td>2</td><td>Green Area</td><td>743.22</td><td>0.20</td><td>0.035</td><td>5.20</td></tr><tr><td>3</td><td>Paved Area</td><td>650.32</td><td>0.70</td><td>0.035</td><td>15.93</td></tr><tr><td colspan="5">Total Runoff</td><td>47.14</td></tr></table>	
8.	What will be the total parking area for vehicles.	As per the layout plan, total parking area for vehicles will be 1225 sq ft. which is sufficient for their vehicles.
9.	What kind system to be installed for online monitoring of CBWTF	1) CCTV Camera linked with web site of PPCB 2) Online Continuous Emission

		Monitoring System for stack emission and waste water to be linked with web site of CPCB 3) Bar coding system to be followed. 4) GPS system on vehicles to be used followed.

The SEAC observed that the project proponent has provided adequate and satisfactory clarifications to the observations raised by it. Therefore, the Committee awarded **'Silver Grading'** to the project proposal and decided that case be forwarded to SEIAA with the recommendations to grant environmental clearance for establishment of Common bio-medical waste treatment, storage and disposal facilities (TSDFs) having total project area 1.25 acres in the revenue estate of Village Bir Pind, Tehsil Nakodar, Distt. Jalandhar, Punjab subject to the following conditions in addition to the proposed measures:

SPECIAL CONDITION

The Project proponent shall comply with the guidelines/SOPs and Codes of practices prescribed by the Punjab Pollution Control Board, Central Pollution Control Board and Ministry of Environment & Forests for the Common Bio medical Waste Treatment Facilities from time to time.

I. Statutory compliance:

i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

iii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan /Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)

iv) 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.

v) Transportation and handling of Bio-medical Wastes shall be as per the Biomedical Wastes (Management and Handling) Rules, 20016 including the section 129 to 137 of Central Motor Vehicle Rules 1989.

vi) Project shall fulfil all the provisions of hazardous Wastes (Management, handling and Transboundary Movement) Rules, 2016 including collection and transportation design etc and also guidelines for Common Hazardous Waste Incineration - 2005, issued by CPCB Guidelines of CPCB/MPPCB for Bio-medical Waste Common Hazardous Wastes incinerators shall be followed.

vii) The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.

viii) 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.

ix) 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

x) Guidelines,2016 published by the Central Pollution Control Board or Punjab Pollution Control Board from time to time for Common Bio Medical Waste Treatment published shall be referred for implementation.

xi) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xii) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines, if any, prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

II. Air quality monitoring and reservation

i) The project proponent shall install emission monitoring system including Dioxin and furans to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time

according to equipment supplier specification through labs recognised under Environment (Protection) Act, J 986 or NABL accredited laboratories.

ii) Periodical air quality monitoring in and around the site including VOC, HC shall be carried out.

iii) Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, so as to achieve Total Organic Carbon (TOC) content in the slag and bottom ashes less than 3%, or their loss on ignition is less than 5% of the dry weight of the material.

iv) Venturi Scrubber (alkaline) should be provided with the incinerator with stack of adequate height (Minimum 30 meters) to control particulate emission within 50mg/Nm3.

v) Appropriate Air Pollution Control (APC) system shall be provided for fugitive dust from all vulnerable sources, so as to comply prescribed standards. All necessary air pollution control devises (quenching, Venturi scrubber, mist eliminator) should be provided for compliance of emission standards.

vi) Masking agents should be used for odour control.

III. Water quality monitoring and preservation

i) The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii) Waste water generated from the facility shall be treated in the ETP and treated waste water shall be reused in the APCD connected to the incinerator. The water quality of treated effluent shall meet the norms prescribed by State Pollution Control Board. Zero discharge should be maintained.

iii) Process effluent/any waste water should not be allowed to mix with storm water.

iv) Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.

v) Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.

vi) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.

vii) The leachate from the facility shall be collected and treated to meet the prescribed standards before disposal.

viii) Magnetic flow meters shall be provided at the inlet and outlet of the ETP and any pipeline to be used for re-using the treated waste water back in to the system for cooling, flushing and for horticulture purpose/green etc & all ground water abstraction points and records for the same shall be maintained regularly.

ix) Rain water runoff from hazardous waste storage area shall be collected and treated in the effluent treatment plant.

IV. Noise monitoring and prevention

i) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly:

ii) Provide LED lights in their offices and residential areas.

VI. Waste management

i) Incinerated ash shall be disposed at approved TSDF and MoU made in this regard shall be submitted to the Ministry prior to the commencement.

ii) The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016.

iii) A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W generated from project.

iv) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

v) No landfill site is allowed within the CBWTF site.

vi) The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.

vii) The project proponent shall follow the Bar coding System and GPS system to handle the waste.

viii) The project proponent shall maintain records of waste movements-

- Daily records shall be maintained for the waste accepted and treated waste removed from the site. This record shall include the following minimum details:

- Waste accepted: -Records on day-to-day basis in the prescribed format shall be maintained with respect to the waste collection date, name of the healthcare unit with bar code, waste category as per BMWM Rules, category-wise quantity of waste accepted, vehicle registration number used for collection of bio-medical waste from member health care facilities, time at which waste collected from member HCFs, name of the vehicle driver and his signature and waste receiving date & time (at CBWTF site). Similar information to be acknowledged to the member health care facility by the CBWTF operator on daily basis through manifest and daily email.
- Treated waste to be disposed: - Date, treated waste type, Quantity, vehicle number, disposal as stipulated under BMWM Rules.

VII. Green Belt

i) Green belt shall be developed in area as provided in project details, with native tree Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

VIII. Public hearing and Human health issues

i) Feeding of materials/Bio-medical waste should be mechanized and automatic no manual feeding is permitted.

ii) Proper parking facility should be provided for employees & transport used for collection & disposal of waste materials.

iii) Necessary provision shall be made for fire-fighting facilities within the complex.

iv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

v) Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or gradual release of hazardous waste or hazardous waste constituents to air, soil or surface water.

vi) 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, creche

etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

vii) Occupational health surveillance of the workers shall be done on a regular basis.

IX. Corporate Environment Responsibility

i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01 May 2018, as applicable, regarding Corporate Environment Responsibility.

ii) The project proponent shall adhere to the commitments made in the Environment Management Plan and Corporate Environment Responsibility and shall spend minimum amount of Rs. 36.5 Lacs towards capital investment in construction phase, Rs. 4.8 Lacs/annum towards recurring including monitoring expenditure in operation phase and Rs. 5.0 Lacs towards CER activities as proposed in addition to the amount to be spent under the provisions of the Companies Act 1956

iii) The company shall have a well laid down environmental policy duly approve 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.

iv) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

v) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

vi) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X. Miscellaneous

i) 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

ii) The copies of the 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.

iii) 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.

iv) 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.

v) 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.

vi) The criteria pollutant levels namely; SPM, RSPM, So2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

vii) 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.

viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xi) 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.

xii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiv) 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 I information/monitoring reports.

xv) 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/NGT and any other Court of Law relating to the subject matter.

xvi) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.

xvii) 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

xviii) 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

xix) The plantation should be provided as per SEIAA guidelines and as per notification dated 09.12.2016 issued by MoEF&CC, New Delhi.

xx) 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.

Part proceedings for the 182nd meeting (Item no 182.04 to 182.09 and 182.12) of State Expert Appraisal Committee held on 03.08.2019 at 9:30 AM in the Conference Hall (Ist Floor), Punjab State Council for Science and Technology, MGSIPA Complex, Sector-26, Chandigarh.

<u>Item No. 182.04</u>: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Commercial project namely "Sushma Empiria" within Super Mega Mixed Land Use Integrated Industrial Park at Village Nagla, Zirakpur, Punjab by M/s Suksha Developers Pvt. Ltd. (Proposal No. SIA/PB/NCP/87995/2018).

The SEAC observed as under: -

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Commercial project namely "Sushma Empiria" within Super Mega Mixed Land Use Integrated Industrial Park at Village Nagla, Zirakpur, Punjab by M/s Suksha Developers Pvt. Ltd.

Earlier, the project was considered in 179th meeting of SEAC, wherein after detailed deliberations, SEAC decided to defer the case till the project proponent submits the approved layout plan of the main project along with copy of CLU of Super Mega Mixed Land Use Integrated Industrial Park at Village Nagla, Zirakpur.

The observations were conveyed to the project proponent. Accordingly, the project proponent has submitted reply vide its letter dated 29/07/2019 alongwith copy of the agreement with the Govt. of Punjab and copy of CLU.

The case was again considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(iii) Sh. Bharat Mittal, Director , Sh. Bhupinder Singh Bedi, GM (Corporate Affairs) and Sh. Deepak Gupta, Environmental Advisor, of the project proponent.

(iv) Sh. Sital Singh, EIA-co-ordinator cum CEO, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

Sh. Bharat Mittal submitted an authority letter dated 02.08.2019 wherein, Sh. Bhupinder Singh Bedi GM (Corporate Affairs) and Sh. Deepak Gupta, Environmental Advisor of the Company have been authorized by the Director of the promoter company to submit any reply, documents on behalf of company. Any commitment made be him during the presentation will be binding / acceptable to the company. The said letter was taken on record by SEAC.

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

<table>
<tr><td rowspan="2">1)</td><td>Activity or Item No.
as per EIA Notification, 2006 (in schedule)</td><td>8(a): Building & Construction Project.
Area less than 50 ha or /and built up area less than 1,50,000 sqm</td></tr>
<tr><td>Category as per EIA Notification, 2006
(in schedule)</td><td>Category B2</td></tr>
<tr><td>2)</td><td>Requirement of Public consultation</td><td>Not required being Building Construction Project under B2 category.</td></tr>
<tr><td>3)</td><td>Requirement of EIA</td><td>Not required being B2 category project.</td></tr>
<tr><td>4)</td><td>Applicability of GC</td><td>Not applicable being Building Construction Project under B2 category project.</td></tr>
<tr><td>5)</td><td>Name and Location of the project</td><td>"Sushma Empiria" within Super Mega Mixed Land Use Integrated Industrial Park at Village Nagla, Zirakpur, Punjab by M/s Suksha Developers Pvt. Ltd.</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>Rs. 125 Crores.</td></tr>
<tr><td>7)</td><td>Co-ordinates of the site</td><td>30,3742.92 N 76,5014.16 E
30,3739.17 N 76,5008.15 E
30,3735.89 N 76,5002.64 E
30,3742.17 N 76,5001.66 E
30, 3739.27 N 76,5000.07 E</td></tr>
<tr><td>8)</td><td>Total Plot area, Built-up Area and Green area</td><td>The details of the group housing project is as under:
<table>
<tr><td>Sr. No.</td><td>Description</td><td>Details</td></tr>
<tr><td>1.</td><td>Total Project land Area</td><td>34616 sqm.</td></tr>
<tr><td>2.</td><td>Built-up Area</td><td>141757 sqm.</td></tr>
<tr><td>3.</td><td>Green Area</td><td>9994 sqm.</td></tr>
</table></td></tr>
<tr><td>9)</td><td>Population (when fully inhabited)</td><td>7501 Persons.</td></tr>
<tr><td>10)</td><td>Water Requirements & source</td><td><table>
<tr><td>Break up of water requirement</td><td>Source</td></tr>
<tr><td>Total requirement: 413 KLD in operation phase (252 KLD fresh water).
a. Domestic</td><td>a. Groundwater</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td><table><tr><td>purposes:252 KLD
b. Flushing : 161 KLD

Total: 10-15 in construction phase.</td><td>b. treated effluent from STP

2. Treated effluent from the STP.</td></tr></table></td></tr>
<tr><td>11)</td><td>Disposal Arrangement of Waste water</td><td>Total = 330 KLD, which will be treated in the STP of capacity 350 KLD to be installed in the project premises.<table><tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>Into sewer (KLD)</th></tr><tr><td>1.</td><td>Summer</td><td>161</td><td>55</td><td>114</td></tr><tr><td>2.</td><td>Winter</td><td>161</td><td>15</td><td>121</td></tr><tr><td>3.</td><td>Rainy</td><td>161</td><td>05</td><td>131</td></tr></table></td></tr>
<tr><td>12)</td><td>Rain water recharging detail</td><td>14878 KL/year rainwater shall be recharged with adequate treatment as per the norms of CGWA. 6 no. of Rainwater Harvesting oits shall be provided.</td></tr>
<tr><td>13)</td><td>Solid waste generation and its disposal</td><td>a) 1956 kg/day
b) Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.
c) Mechanical composter will be provided.
d) Non-biodegradable & recyclable waste will be sold to recyclers.</td></tr>
<tr><td>14)</td><td>Hazardous Waste & E-waste</td><td>1. Spent/used oil from DG sets will be sold to approved recyclers as per EPA, 1986.
2. E-waste generated will be stored in an isolated room and will be sent to the manufacturers as per the EPA Rules.</td></tr>
<tr><td>15)</td><td>Energy Requirements & Saving</td><td>a) 3950 KW from State Power Supply.
b) 1 x 500 KVA and 2 x 1010 KVA DG sets with canopy as standby arrangements will be provided.
c) Solar energy will be used for street lights on the road as well as in the parks in phased manner.
d) Use of LED will be encouraged.
e) Energy efficient electrical gadgets will be used.
f) 307 KWHD total energy will be saved by installing solar lights (15 Nos) & replacing common area lights (500) with LED.</td></tr>
</table>

<table>
<tr><td>16)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>GM, Projects will be responsible for implementation of the EMP. The budgetary breakup phase wise of the EMP is as under:<table><tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost including the monitoring charges (per annum)</th></tr><tr><td>Construction</td><td>Rs. 89.5 lacs</td><td>Rs.14.9 Lacs</td></tr><tr><td>Operation</td><td>-</td><td>Rs.16.4 Lac</td></tr></table></td></tr>
<tr><td>17)</td><td>CER activities along with budgetary break up and responsibility to implement</td><td>1. Director will be responsible for implementation of the CER activities.
2. Rs 75 Lakh will be earmarked for maintenance of PR-7 road, Central verge starting from NH-64, Aerocity light point towards village Nagla, Zirakpur. Approximate 5 km (For 2 years). Started on 28/03/2019 upto 27/03/2021.</td></tr>
<tr><td>18)</td><td>Other important facts</td><td>➢ The Project is part of Super Mega Mixed Use Integrated Industrial Park Project, which has been granted CLU by CTP vide no. SP-432(M) dated 11/01/2010. Although, as per the master plan the site falls under residential zone.
➢ MC, Zirakpur vide its certificate no. 127/BB dated 06/04/2018 certified that presently sewer facility is not available in the area. The work is in progress for laying of sewer and water supply by MC, Zirakpur in the area under its limit and after lying of sewer lines in the vicinity of area the permission will be given for discharge of its 200 KLD of treated sewerage in the sewer.</td></tr>
</table>

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.	a. As to whether the land use of the area is permissible for the	a. The project will be developed as per the agreement made by M/s Shipra

	establishment of the project for which EC has been applied as per the provisions of Master Plan of the city. b. SEAC observed that as per agreement submitted by the project proponent, in the heading 5 (C(b)) it has been mentioned as under: *Additional activities within the industrial pocket may include convention centres, community centres, Film & multimedia facilities (to be identified) and water bodies (without water games), but not Multiplex or Recreational activities. The extent of additional activities in addition to industry (which may include IT, ITES, BPOs, KPOs, Software development, data processing and other industrial activities defined as such by the government) will be limited to 30% of the total applicable industrial component of the park*.	Estate Pvt. Ltd with the Govt. of Punjab on 18/05/2009. M/s Shipra Estate Pvt. Ltd has already obtained CLU vide no. SP-432(M) dated 11/01/2010. b. The project proponent agreed to comply with the same. Also, components like hotel will be established in the industrial pocket as per agreement. Further, they will get the layout plans approved from the Competent Authority for the activities / establishments proposed to be set up by them in this project for which EC applied.
2.	As to whether the permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	No forest land is involved at the project site.
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. They will get the layout plans approved from the Competent Authority for the activities / establishments proposed to be set up by them in this project for which EC applied.
4.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	Online application has been submitted on the portal of CGWA for obtaining permission for abstraction of ground water and a copy of the same has been submitted.
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. The treated effluent will be utilized for the green area/plantation.

6.	Whether provision of module system shall be kept during installation of STP?	No. As it is a commercial project and whole of the project is likely commissioned in short period of span, module system will not be feasible.
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.	Being commercial project, nature of the effluent is more or less same. Hence, it will not be feasible for the project proponent to make provision for segregating grey and black streams of waste water and separate treatment for both the streams and utilization thereafter.
8.	(a) Whether the project proponent has proposed CER activities in accordance to the OM dated 01.05.2018. (b) What is the bifurcation of amount to be spent on CER as the agreement with GMADA? (c) The project proponent shall provide display boards at site indicating that the project is being carried out under CER activities as required under the provisions of EIA Notification 2006 & as per the conditions of Environment Clearnace granted by the SEIAA, Punjab.	a. Rs. 75 Lakhs has been kept reserved for completing the CER activities.The activities shall be completed by 27 March 2021. Rs 75 Lakh will be earmarked for maintenance of PR-7 road, Central verge starting from NH-64, Aerocity light point towards village Nagla, Zirakpur. Approximate 5 km (For 2 years). The work has already been started on 28/03/2019 and will be carried on upto 27/03/2021. b. The project proponent will incur an expenditure of approximately 37-40 lakhs annually, which will include initial capital cost of plantation and maintenance of the same comprising of watering, mortality and replacement cost of plantation, supervision and manpower cost related thereto. c. The project proponent agreed to this point.
9.	The calculations for rainwater harvesting pits were found incorrect. The project proponent	The project proponent submitted proposal for 10 Rain Water Harvesting Pits after showing the revised

	should provide additional pits for Rain Water Harvesting and revised details along with calculations. Further, the number of pits are not in consonance to the formula devised by the MoEFCC for minimum one recharge bore per 5,000 square meters of built up area.	calculations. The project has a total area of 141757 Sqm. According to the built up area formula minimum recharge bores required are 28. The project proponent assured to provide recharge bores as per the guidelines issued by the MoEFCC.
10.	What are the parking details to be provided by the project proponent?	As per layout plan submitted parking provision equivalent to 1919 ECS have been made which will be sufficient to cater the needs of the occupants and the visitors.

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

After deliberations, SEAC decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to grant environmental clearance for establishment of 'commercial project' namely " Sushma Empiria" having built up area 141757 sqm in total land area of 34616 sqm at Village Nagla, Zirakpur, Punjab, as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

I. Statutory compliance:

i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

ii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

iii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

iv) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

v) 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.

vi) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

vii) 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.

viii) 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.

ix) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

x) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xi) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xii) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xiii) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site in consonance of the project proposal for which this environment clearance is applied.

xiv) The project proponent shall carryout developmental activities only as allowed as per the agreement made by M/s Shipra Estate Limited with the Govt. of Punjab on 18/05/2009.

II. Air quality monitoring and preservation

i) 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.

ii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

iii) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

iv) 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.

v) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

vi) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

vii) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

viii) Wet jet shall be provided for grinding and stone cutting.

ix) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

x) 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 Rules 2016.

xi) 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.

xii) 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.

xiii) For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

i) The natural drain system should be maintained for ensuring unrestricted flow of water.

ii) 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.

iii) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

iv) The total water requirement for the project will be 413KL/day, out of which 252 KL /day shall be met through own tubewell and remaining 161 KL/day through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

v) a) The total wastewater generation from the project will be 330 KL/day, which will be treated in STP of capacity @350 KLD on SBR technology within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:-

S. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Into sewer (KLD)
1.	Summer	161	55	114
2.	Winter	161	15	121
3.	Rainy	161	05	131

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.

c) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

vi) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

vii) The waste water 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.

viii) 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.

ix) 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.

x) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

xi) 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.

xii) 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.

xiii) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

xiv) The project proponent will provide 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 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

xv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xvi) 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 (28 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xvii) 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.

xviii) All recharge should be limited to shallow aquifer.

xix) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

xx) 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.

xxi) 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.

xxii) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

xxiii) No sewage or untreated effluent water would be discharged through storm water drains. xix. 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.

xxiv) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxv) 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.

IV. Noise monitoring and prevention

i) Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely 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.

ii) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

i) 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.

ii) Outdoor and common area lighting shall be LED.

iii) Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased. day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

iv) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

v) Solar, wind or other Renewable Energy shall be installed 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.

vi) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-

laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

i) 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.

ii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

iii) 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.

iv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

v) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

vi) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

vii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

viii) 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.

ix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

x) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

i) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

ii) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

iii) 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.

iv) 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.

v) 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.

vi) 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.

VIII. Transport

i) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private 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.

ii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

iii) A detailed traffic management and traffic 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.

iv) 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.

IX. Human health issues

i) All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

ii) For indoor air quality the ventilation provisions as per National Building Code of India.

iii) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

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, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

v) Occupational health surveillance of the workers shall be done on a regular basis.

vi) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 75 Lakhs (approx. 0.6%) has been kept reserved for completing the CER activities as per OM dated 01.05.2018.The activities shall be completed by 27 March 2021. Rs 75 Lakh will be earmarked for maintenance of PR-7 road, Central verge starting from NH-64, Aerocity light point towards village Nagla, Zirakpur. Approximate 5 km (For 2 years). However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The

amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

The project proponent shall provide display boards at the site of CER activity indicating that the project is being carried out under CER activities as required under the provisions of EIA Notification 2006 & as per the conditions of Environment Clearance granted by the SEIAA, Punjab.

i) 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.

ii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

iii) 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. The project proponent shall spend minimum amount of Rs 89.5 Lacs towards capital cost and Rs 14.90 Lacs/annum towards recurring cost in Construction phase of the project including the environmental monitoring cost and shall spend minimum amount of Rs 16.9 Lacs/annum towards recurring cost in operation phase of the project including the environmental monitoring cost. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

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.

XII. Miscellaneous

i) 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.

ii) The project proponent shall comply with the conditions of CLU, if obtained.

iii) 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.

iv) The copies of the 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.

v) 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.

vi) 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.

vii) 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.

viii) 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.

ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xii) 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.

xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xv) 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.

xvi) 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.

xvii) 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.

Item No. 182.05: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of Warehouse/Logistics/Indstrial Estate in the revenue estate of village Chamaru & Mehtabgarh, Tehsil Rajpura, Distt. Patiala by M/s Ishanavi Industrial & Logistics Park Pvt. Ltd. (Proposal No. SIA/PB/NCP/94495/2019).

The SEAC observed as under:

The project proponent has filed an application under category 8(a) for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Warehouse project namely Warehouse/Logistics/ Industrial Assembling Light Engineering located at Plot No. 8, Super Mega Industrial Estate at revenue estate of Village Chamaru & Mehtabgargh, Tehsil Rajpura, Distt Patiala, Punjab by M/s Ishanvi Industrial & Logistics Park Pvt. Ltd.

The following EDS has been raised after the initial scrutiny, for which project proponent replied as under:

Sr. No.	**Observation**	**Reply of Project Proponent**
1.	The project proponent has proposed to construct logistic park at Plot no. 8 inside "Super Mega Industrial Estate" by M/s Vividha Infrastructure Pvt Ltd. at Village Chamaru & Mehtabgargh, Rajpura. As per the approved plan of the said estate, the area of plot no. 8 is 9.903 Acres, but your proposal is to set up in an area of 1,91,011.792 m^2 i.e. around 47.2 Acre. Please clarify and submit the complete layout plan of estate marking your project in the same.	The total site area for which Environment Clearance is accorded for the Super Mega Industrial Estate" by M/s Vividha Infrastructure Pvt. Ltd. is 255.28 acres out of which the land area of proposed warehouse/logistics/ industrial assembling light engineering park is approx. 47.2 acres. The complete layout of the project showing the proposed project site is submitted.

2.	The designation of the plot in the approved plan of the Super Mega Industrial Estate is industrial plot. Please clarify, whether the industrial plot is compatible for logistic park as per the EC granted to the estate. A	As per the granted EC for M/s Vividha Infrastructure Pvt Ltd for the " Super Mega Industrial Estate; the "projects covered under category 8(b) like warehousing etc. will be allowed".
	supporting document may be submitted in this regard.	
3.	The project proponent has not attached the application filed with CGWA for obtaining permission for abstraction of ground water.	The copy of acknowledgment of the submission of the Application form to obtain NOC from CGWA for ground water abstraction is submitted
4.	The project proponent has not submitted permission from the competent authority regarding disposal of Municipal Solid Waste to be generated from the project.	The organic waste convertor will be installed for the treatment of bio-degradable waste. However, for the disposal of non-biodegradable waste; the necessary agreement will be done with the authorized vendor
5.	The project proponent has proposed that wastewater generated from the project @ 56 KLD will be treated in the common STP of 600 KLD to be provided by M/s Vividha Infrastructure Pvt Ltd. It is therefore, required confirmation from M/s Vividha Infrastructure Pvt Ltd. that sufficient capacity will be available for treatment and disposal effluent to be generated from your project.	As per the EC letter obtained for the Super Mega Industrial Estate by M/s Vividha Infrastructure Pvt Ltd. ; the STP of capacity 600 KLD will be installed. Further, the confirmation from M/s Vividha Infrastructure Pvt Ltd. to provide the facility of sewage treatment (56 KLD) will be obtained before the commencement of the construction work
6.	The status of STP to be provided by M/s Vividha Infrastructure Pvt Ltd. and details there upon to be submitted. In case, the arrangement and disposal is yet to be made operational, provide the alternate plan for the effluent to be generated from your project.	The STP is yet to be installed at the project site by M/s Vividha Infrastructure. The proposed warehouse/logistics/ industrial assembling light engineering park will be made operational after the installation of STP at the project site.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(v) Sh. Nitin Gawli, Senior Vice President on behalf of the project proponent.

(vi) Sh. Shekhar Upadhyaya, M/s Aplinka Solutions & Technologies Pvt. Ltd., A-68, Sector- 64, Noida, Uttar Pradesh.

Sh. Nitin Gawli submitted an authority letter wherein, he has been authorized by the Director of the promoter company to sign all forms, documents, applications, intimations, deeds, undertakings, affidavits, including giving certified true copy of documents and to undertake all formalities as may be required. The said authority letter was taken on record by SEAC.

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, Patiala was requested vide e-mail dated 08.05.2019, 10.07.2019 and 18.07.2019 to send the report on the following:

1. Construction status at the site along with physical structures within 500 mt radius of the site including the status of industries if any
2. As to whether the site of the project is meeting with the siting guidelines farmed by Punjab Pollution Control Board for such type of projects.

Environmental Engineer, PPCB, Regional Office, Patiala vide letter no. 2924 dated 19/7/2019 has intimated that no construction activity has started. Only demarcation of the site has been done by burjis. No industry falls within the radius of 500 m of the project. The village Mehtabgarh falls within 500 m from the boundary of the site. Also, no project specific siting criteria has been notified by the Board. Apparently, the site is meeting with the general siting criteria as per policy of the Board. A detailed report in this regard may be obtained from the revenue authorities (SDM Rajpura) as per policy

of the Board dated 30.04.2013. The photographs of the project taken during the visit are as under:

The said letter was taken on record by the SEAC.

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

<table>
<tr><td rowspan="2">1)</td><td>Activity or Item No. as per EIA Notification, 2006 (in schedule)</td><td>8(a): Building & Construction Project.
Area less than 50 ha or /and built up area less than 1,50,000 sqm</td></tr>
<tr><td>Category as per EIA Notification, 2006 (in schedule)</td><td>Category B2</td></tr>
<tr><td>2)</td><td>Requirement of Public consultation</td><td>Not required being Building Construction Project under B2 category.</td></tr>
<tr><td>3)</td><td>Requirement of EIA</td><td>Not required being B2 category project.</td></tr>
<tr><td>4)</td><td>Applicability of GC</td><td>Not applicable being Building Construction Project under B2 category project.</td></tr>
<tr><td>5)</td><td>Name and Location of the project</td><td>Warehouse/Logistics/ Industrial Assembling Light Engineering located at Plot No. 8, Super Mega Industrial Estate at revenue estate of Village Chamaru & Mehtabgargh, Tehsil Rajpura, Distt Patiala, Punjab to be developed by M/s Ishanvi Industrial & Logistics Park Pvt. Ltd.</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>164.58 crores</td></tr>
<tr><td>7)</td><td>Total Plot area, Built-up Area and Green area</td><td>The details of the group housing project is as under:
<table>
<tr><th>Sr. No.</th><th>Description</th><th>Details</th></tr>
<tr><td>1.</td><td>Total Project land Area</td><td>1,91,011.79 sqm.</td></tr>
<tr><td>2.</td><td>Net Plot area</td><td>1,90,607.78 sqm.</td></tr>
<tr><td>3.</td><td>Built-up Area</td><td>1,17,616.79 sqm.</td></tr>
</table></td></tr>
</table>

		4.	Green Area	39,903.73 sqm.	
		5.	Parking	15,370.25 sqm.	

<table>
<tr><td>8)</td><td>Population (when fully inhabited)</td><td>2300 Persons.</td></tr>
<tr><td>9)</td><td>Water Requirements & source</td><td>
<table>
<tr><th>S. No.</th><th>Season</th><th>Fresh water (KLD)</th><th>Treated water (KLD)</th><th>Total water (KLD)</th></tr>
<tr><td>1.</td><td>Summer</td><td>42</td><td>103</td><td>145</td></tr>
<tr><td>2.</td><td>Winter</td><td>42</td><td>63</td><td>105</td></tr>
<tr><td>3.</td><td>Rainy</td><td>42</td><td>43</td><td>85</td></tr>
</table>
Treated waste water from nearby STP will be used in construction phase (Approx. 50 KLD)
</td></tr>
<tr><td>10)</td><td>Disposal Arrangement of Waste water</td><td>56 KLD of wastewater will be generated, which will be treated in Common STP of 600 KLD capacity to be provided by M/s Vividha Infrastructure Pvt. Ltd. for Super Mega Industrial Estate. During summer, 103 KLD of treated effluent from common STP will be taken, during winter 63 KLD and during rainy season 43 KLD will be taken.
<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD) Treated water (Total including Fresh Water)</th></tr>
<tr><td>1.</td><td>Summer</td><td>23</td><td>80</td></tr>
<tr><td>2.</td><td>Winter</td><td>23</td><td>40</td></tr>
</table>
During construction phase, septic tank will be provided.
</td></tr>
<tr><td>11)</td><td>Rain water recharging detail</td><td>4305.178 m^3/hour of rain water volume will be recharged. The rain water harvesting tanks will be
provided.</td></tr>
<tr><td>12)</td><td>Solid waste generation and its disposal</td><td>a) 546.972 kg/day
b) Solid wastes will be appropriately segregated as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.
c) Bio-degradable waste will be handled as per the MSW Rules, 2016.
d) Horticulture waste is proposed to be composted and will be used for gardening purpose.
e) Recyclable waste like paper, plastic, metal will be sold to recyclers.</td></tr>
<tr><td>13)</td><td>Hazardous Waste</td><td>The project will generate used oil from DG sets which will be covered under category 5.1 of Schedule-1 of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. It will be managed as per the provisions of Hazardous and
Other Wastes (Management and Transboundary Movement) Rules, 2016.</td></tr>
</table>

<table>
<tr><td>14)</td><td>Energy Requirements & Saving</td><td>a) 2.5 MVA from State Power Supply.
b) 4 x 140 KVA, 12 x 110 and 1 x 62.5 DG sets with canopy as standby arrangements will be provided.
c) LED will be used in common areas.
d) Solar water heater arrangements.
e) The orientation of the building will be done in such a way that maximum daylight is available.
f) Landscape and green areas are well spaced so as to cool the surrounding environment, which will reduce energy consumption.</td></tr>
<tr><td>15)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>The budgetary breakup phase wise of the EMP is as under:
<table>
<tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost including the monitoring charges (per annum)</th></tr>
<tr><td>Construction</td><td>Rs. 54.0 lacs</td><td>Rs.5.75 Lacs</td></tr>
<tr><td>Operation</td><td>Rs. 141.5 lacs</td><td>Rs.19.0 Lac</td></tr>
</table></td></tr>
<tr><td>16)</td><td>CER activities alongwith budgetary break up and responsibility to implement</td><td>The CER programme will be implemented in the following steps
1. Floating of RFP/tender for CER implementation
2. Finalization of CER implementation organisation
3. Memorandum of Understanding and award of CER Project
4. Monitoring & Evaluation
5. Reporting
CER Implementation Area:
The Proposed Corporate Environmental Responsibility Programme (CER) will be restricted to the following five settlements (affected area) around the proposed project.
1 Mehtabgarh Village
2 Chamru
3 Alampur
4 Thuha
5 Gardi Nagar
CER activities:
The activities proposed under CER shall be worked out based on social need assessment. The important CER Programme</td></tr>
</table>

		includes following. • Infrastructure creation for drinking water supply sanitation (WATSAN) in schools • Toilet construction under swacch bharat mission for families • Road and drainage repair & maintenance in vill panchayat • Plantation in community areas in close coordination village panchayat A- Infrastructure creation for drinking water suppl sanitation (WATSAN) in schools: The safe drinking wa and sanitation are the most important needs came during interaction with villagers. The ground water of project villages is not fit for drinking and is hard water. proponent proposes to install the aqua guard and wa filtration machines in the primary and secondary scho (both private and govt). B- Toilet construction under Swacch Bharat miss for BPL families:- Open defecation is still a widely preval practice among rural poor (BPL families). The proj proponents propose to identity the needy BPL families association with panchayat and construct the toilet them. C- Road and drainage repair & maintenance in vill panchayat : The condition of roads and drainages in nearby villages are pathetic. The project propon proposes to undertake the road and drainage repair tas close association with village panchayat. D-Plantation in Community Areas in close association with village panchayat: The plantation is must for climate amelioration and fresh air. The project proponent proposes to conduct the plantation drive in village commons and along the village roads. This activity will be carried out with close collaboration of village panchayat and local communities.

17)	Other important facts	➢ The type of the products to be stored in project is given below: 1. Automotive-Spare parts & accessories 2. IT Hardware 3. Packaging 4. FMCG Retail Products 5. Ready-to-assemble furniture, fixtures & appliances 6. Engineering Products 7. Non-Agriculture Raw Produce 8. Readymade Garments 9. Cosmetics, Pharmaceutical& Healthcare Products 10. Finished Electronic goods 11. Consumer Durables
		12. Finsihed Food Products 13. Books and Paper 14. Schedule-II & III Chemicals with threshold limit ➢ The proposed Warehouse/Logistics/Industrial Assembling Light Engineering Warehouse/ Logistics/Industrial Assembling Light Engineering project is located inside the Integrated Industrial Estates namely "Super Mega Indutrial Estate" by M/s Vividha Infratructure Pvt Ltd. at Village Chamaru & Mehtabgargh, Tehsil Rajpura, Distt Patiala, Punjab which has already been accorded with the Environment Clearance by SEIAA, Punjab vide letter no. SEIAA/2018/643 dated 24.5.2018. ➢ NH-1 is approximately 1 km from the project site. ➢ The project proponent has submitted copy of acknowledgment of the submission of the Application form to obtain NOC from CGWA for ground water abstraction.

SEAC asked the project proponent and his Environmental

Consultant to clarify the following observations to which he replied as under:

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Sr. No.	Observations	Reply submitted by the project proponent and his Environmental Consultant
11.	As to whether the permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	There is no forest land is involved at the project site.
2.	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.
3.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	Online application has been submitted on the portal of CGWA for obtaining permission for abstraction of ground water and a copy of the same has been submitted.
4.	There is possibilities of storing hazardous waste/ hazardous goods at site. Even the process of the firms ~~might~~ may include generation of industrial effluent/ emissions. How the PP shall ensure that these types of waste storage /effluent /emission generating manufacturing process shall not be allowed since the application has been applied under 8(a) category-Building and Construction projects.	They will not allow the firms to store any hazardous waste / hazardous goods. Besides warehouse/go-downs, assembly type manufacturing units under white or green category with no industrial effluent and no emissions (except DG sets) will be established.
5.	Whether the trees have been proposed in the green belt or only parks/lawns will be provided.	39903.73 sqm. plantation area to be developed and maintained. Trees will be provided all along the boundary wall~~.~~
6.	What are the arrangements proposed for rain water harvesting.	Two no. storm water harvesting tanks of capacity 2520 cum and 1800 cum shall be provided.
7.	To ease out the traffic congestion due to setting up of the project, the project proponent shall explore the possibility of mass transportation.	The project proponent shall take up the matter with the other project partners located in the complex of ~~–~~M/s Vividha Infrastructure Pvt. Ltd. to explore the possibility of mass transportation for the staff / workers for the proposed projects so as to reduce the traffic burden within the premises as well as on the approach roads.

8.	Who will be responsible for the maintenance of organic waste composter proposed by the project proponent	The project proponent intimated that they will maintain the organic waste composter and submitted an undertaking dated 03/08/2019 in this regard.
9.	The project proponent should submit the CER activities proportionate with the time schedule for construction phase.	The project proponent agreed and submitted revised CER proportionate with the construction phase time schedule. The details of the same are given as under:

S. No.	Activities	1st Year	2nd Year	3rd Year	4th Year	Total cost (in lac)
1	Infrastructure creation for drinking water supply & sanitation (WATSAN) in schools	3.00/-	3.00/-	3.00/-	3.00/-	12.00/-
2	Toilet construction under swacch bharat mission for BPL families	3.00/-	3.00/-	3.00/-	3.00/-	12.00/-
3	Road and drainage repair & maintenance in village panchayat	3.00/-	3.00/-	3.00/-	3.00/-	12.00/-
4	Plantation in community areas in close coordination of village panchayat	3.35/-	3.35/-	3.35/-	3.35/-	13.40/-
Total CER cost for 1 settlement		12.35/-	12.35/-	12.35/-	12.35/-	49.40/-
Total cost CER for 5 settlements		**61.75/-**	**61.75/-**	**61.75/-**	**61.75/-**	**247.00/-**

	The village to be adopted by the project proponent under CER activity shall be the one which has not been adopted earlier by any other project.	The project proponent agreed to it.

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

After deliberations SEAC decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to grant environmental clearance for establishment of a Warehouse project located at at Village Chamaru and Mehtabgarh, Tehsil Rajpura, Distt. Patiala, Punjab having built up area of 117616.79 sqm in total land area of 191011.79 sqm namely "Ishanavi

Industrial & Logistics Park", as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

EC Conditions:

Special Condition:

The project proponent shall not give this logistic park or part thereof to any firm or any person or any industry to store any hazardous chemical/ hazardous waste or for any such activity that may result in generation of any trade effluent or emission or hazardous waste (except emission from DG sets in controlled conditions).

I. Statutory compliance:

i) The project proponent shall neither allow any firm to store any hazardous waste / hazardous goods / e-waste inside the project site nor allow any firm to generate industrial effluent / emissions at the project site except the emission from the operation of DG sets.

ii) 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.

iii) 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.

iv) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

v) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

vi) 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.

vii) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

viii) 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.

ix) 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.

x) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

xi) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xii) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xiii) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xiv) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xv) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site in consonance of the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

i) 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.

ii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

iii) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.

iv) 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.

v) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

vi) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

vii) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

viii) Wet jet shall be provided for grinding and stone cutting.

ix) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

x) 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 Rules 2016.

xi) 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.

xii) 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.

xiii) For indoor air quality the ventilation provisions as per National Building Code of lndia.

III. Water quality monitoring and preservation

i) The natural drain system should be maintained for ensuring unrestricted flow of water.

ii) 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.

iii) Buildings shall be designed to follow the natural topography as much

as possible. Minimum cutting and filling should be done.

iv) The total water requirement for the project will be 145 KL/day, out of which 42 KL /day shall be met through own tubewell and remaining through recycling of treated waste water from the STP installed by M/s Vividha Infrastructure Pvt. Ltd. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

v) a)The total wastewater generation from the project will be 56 KL/day, which will be treated in a STP of capacity 600 KLD on installed by M/s Vividha Infrastructure Pvt. Ltd. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:

S.No.	Season	For Flushing purposes (KLD)	Green Area (KLD) Treated water (Total including Fresh Water)
1.	Summer	23	80
2.	Winter	23	40
3.	Rainy	23	20

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.

c) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

vi) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

vii) The waste water generated from swimming pool(s) if to be provided shall not be discharged and the same shall be reused within the

premises for purposes such as horticulture, HVAC etc.

viii) 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.

ix) 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.

x) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

xi) 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.

xii) 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.

xiii) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

xiv) The project proponent will provide 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 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

xv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xvi) 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. Two no. storm water harvesting tanks of capacity 2520 cum and 1800 cum shall be provided as proposed by the project proponent.

xvii) 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.

xviii) All recharge should be limited to shallow aquifer.

xix) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

xx) 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.

xxi) 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.

xxii) 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.

xxiii) No sewage or untreated effluent water would be discharged through storm water drains. 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.

xxiv) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxv) 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.

IV. Noise monitoring and prevention

i) Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely 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.

ii) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

i) 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.

ii) Outdoor and common area lighting shall be LED.

iii) Concept of passive solar design that minimize energy consumption in

buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased. day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

iv) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

v) Solar, wind or other Renewable Energy shall be installed 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.

vi) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

i) 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.

ii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

iii) 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.

iv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

v) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

vi) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

vii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

viii) 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.

ix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

x) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

i) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the

Forest Department. Plantations to be ensured species (cut) to species (planted).

ii) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

iii) 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.

iv) 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.

v) 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.

vi) 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.

VIII. Transport

i) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-

motorized, public, and private 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.

ii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

iii) A detailed traffic management and traffic 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.

iv) 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.

v) The project proponent shall explore the possibility of providing the facility for mass transportation jointly with other project proponents of M/s Vividha Infrastructure Pvt. Ltd for the staff/workers in the

project to reduce the additional traffic burden within the premises as well as on approach roads of the project**.**

IX. Human health issues

i) All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

ii) For indoor air quality the ventilation provisions as per National Building Code of India.

iii) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

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, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

v) Occupational health surveillance of the workers shall be done on a regular basis.

vi) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending at least minimum amount of Rs. 247 Lacs towards following CER activities. The details are given below: -

S. No.	Activities	1st Year	2nd Year	3rd Year	4th Year	Total cost (in lac)
1	Infrastructure creation for drinking water supply & sanitation (WATSAN) in schools	3.00/-	3.00/-	3.00/-	3.00/-	12.00/-
2	Toilet construction under swacch bharat mission for BPL families	3.00/-	3.00/-	3.00/-	3.00/-	12.00/-
3	Road and drainage repair & maintenance in village panchayat	3.00/-	3.00/-	3.00/-	3.00/-	12.00/-
4	Plantation in community areas in close coordination of village panchayat	3.35/-	3.35/-	3.35/-	3.35/-	13.40/-
Total CER cost for 1 settlement		12.35/-	12.35/-	12.35/-	12.35/-	49.40/-
Total cost CER for 5 settlements		**61.75/-**	**61.75/-**	**61.75/-**	**61.75/-**	**247.00/-**

However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and 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.

iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. The project proponent shall spend minimum amount of Rs 195.5 Lacs towards capital cost and Rs 5.75 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 19.0 lacs/annum towards recurring cost in operation phase of the project. 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/resident's society under proper MOU under intimation to SEIAA, Punjab. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

v) The villages to be adopted by the project proponent for implementation under the CER activities shall be the ones which have not been adopted earlier by any other project.

XI. Validity

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.

XII. Miscellaneous

i) 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.

ii) The project proponent shall comply with the conditions of CLU, if obtained.

iii) 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.

iv) The copies of the 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.

v) 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.

vi) 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.

vii) 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.

viii) 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.

ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xii) 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.

xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xv) 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.

xvi) 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.

xvii) 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.

<u>Item No.182.06</u>: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Commercial project namely "HLP Galleria" located at Sector-62, Mohali, Distt. SAS Nagar by M/s KCB INFRA (Proposal No. SIA/PB/MIS/101416/2019).

The SEAC observed as under:

M/s KCB INFRA has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Commercial project namely "HLP Galleria" at Sector-62, Mohali, Distt. SAS Nagar, Punjab.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(i) Sh. Raj Kumar, Vice President (Projects) Partner.

(ii) Sh. Sital Singh, EIA-co-ordinator cum CEO, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

Sh. Raj Kumar, Vice President has been authorized by Partners of the promoter company to submit any reply, documents on behalf of company. Any commitment made be him during the presentation will be binding / acceptable to the company. The said authority letter was taken on record by SEAC.

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, SAS Nagar was requested vide email dated 08.05.2019:

1. Construction status at the site along with physical structures within 500 mt radius of the site including the status of industries if any
2. To verify the as to whether any (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries falls within 5 km radius from the boundary of the project site
3. As to whether the site of the project is meeting with the siting guidelines farmed by Punjab Pollution Control Board for such type of projects.

Environmental Engineer, PPCB, Regional Office, SAS Nagar vide letter no. SPL 38 dated 03.08. 2019 has intimated that the site of the subject cited project was visited by AEE of Regional Office, Regional Office, SAS Nagar on 24.07.2019 and Sh. Deepak Gupta was contacted and he showed the site of the project. It was observed that no construction work has been started by the promoter company. The boundary has been demarcated with iron sheet, Cosmo

Hospital is adjoining the site. Many existing residential projects are there and upcoming residential/commercial many construction projects are within the 500 m various of the proposed site. It was observed that there is no industry such as rice sheller/saila plant/brick kiln/stone crushing/ screening cum washing unit/hot mix plant/cement unit etc. within a radius of 500 m. There is no air polluting industry within a radius of 100 m from the boundary of the project site and there is no MAH industry within a radius of 250 m radius from the boundary of the proposed site. Therefore, the site of the project is conforming to the siting guidelines laid down by the Govt. of Punjab, Department of Science Technology and Environment vide order dated 25/07/2008 as amended on 30/10/2009. As regards to distance of site of the project from the stipulation of general condition, the Environmental Engineer, PPCB, Regional Office, SAS Nagar is unable to comment in the absence of proper reports from the concerned departments i.e. report regarding protected area and notified eco-sensitive area from the Dept. of Forest & Wildlife Preservation and Interstate and International boundaries from the revenue authorities (concerned SDM).

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

1)	Activity or Item No. as per EIA Notification, 2006 (in schedule)	8(a): Building & Construction Project. Area less than 50 ha or /and built up area less than 1,50,000 sqm
	Category as per EIA Notification, 2006 (in schedule)	Category B2
2)	Requirement of Public consultation	Not required being Building Construction Project under B2 category.
3)	Requirement of EIA	Not required being B2 category project.
4)	Applicability of GC	Not applicable being Building Construction Project under B2 category project.
5)	Name and Location of the project	"HLP Galleria" located at Sector-62, Mohali, Distt. SAS Nagar by M/s KCB INFRA
6)	Total cost of the project	Rs. 219 crores,
7)	Co-ordinates of the site	30,42'00.07"N, 76,43'35.55"E

<table>
<tr><td></td><td></td><td>30,41’57.27”N, 76,43’38.11”E
30,41’53.89”N, 76,43’25.58”E
30,41’50.31”N 76,43’26.99”E</td></tr>
<tr><td>8)</td><td>Total Plot area, Built-up Area and Green area</td><td>The details of the group housing project is as under:<table><tr><td>Description</td><td>Area</td></tr><tr><td>Land</td><td>27073 sqm</td></tr><tr><td>Built-up area</td><td>99878 sqm</td></tr><tr><td>Green area</td><td>1120 sqm</td></tr></table></td></tr>
<tr><td>9)</td><td>Population (when fully inhabited)</td><td>7645 persons</td></tr>
<tr><td>10)</td><td>Water Requirements & source</td><td><table><tr><th>Break up of water requirement</th><th>Source</th></tr><tr><td>1. Total: 10-12 KLD in construction phase.

2.Total: 138 KLD (in operation phase) (56 KLD fresh water)

3. For flushing purposes : 82 KLD</td><td>1. Treated effluent from the STP of GMADA.

2. GMADA

3. Treated effluent.</td></tr></table></td></tr>
<tr><td>11)</td><td>Disposal Arrangement of Waste water</td><td>Total = 110 KLD, which will be treated in the STP of capacity 300 KLD to be installed in the project premises.<table><tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>Into sewer (KLD)</th></tr><tr><td>1.</td><td>Summer</td><td>82</td><td>06</td><td>22</td></tr><tr><td>2.</td><td>Winter</td><td>82</td><td>02</td><td>26</td></tr><tr><td>3.</td><td>Rainy</td><td>82</td><td>01</td><td>27</td></tr></table></td></tr>
<tr><td>12)</td><td>Rain water recharging detail</td><td>13880 m3/year rainwater shall be recharged with adequate treatment and 13 no. rain water harvesting pits as per the norms of CGWA.</td></tr>
<tr><td>13)</td><td>Solid waste generation and its disposal</td><td>1529 kg/day
Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.
Mechanical composter will be provided
Non-biodegradable & recyclable waste will be sold to recyclers.</td></tr>
<tr><td>14)</td><td>Hazardous Waste & E-waste</td><td>1. Spent/used oil from DG sets will be sold to</td></tr>
</table>

<table>
<tr><td></td><td></td><td>approved recyclers as per EPA, 1986.
2. E-waste generated will be stored in an isolated room and will be sent to the manufacturers as per the EPA Rules.</td></tr>
<tr><td>15)</td><td>Energy Requirements & Saving</td><td>a) a) 5500 KW from PSPCL.
b) b) 1x 500 KVA, 2 x240 KVA & 2x125 KVA (silent DG sets) Energy Saving measures:
c) Solar Light 15 No = 37 KWHD
d) Common area (700) lights replaced with LED = 378 KWHD
e) Total Energy saved/day= 415 KWHD</td></tr>
<tr><td>16)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>During construction phase GM will be responsible and during operation phase, GM Will be responsible for implementation of the EMP. The budgetary breakup phasewise of the EMP is as under:
<table>
<tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost including the monitoring charges (per annum)</th></tr>
<tr><td>Construction</td><td>Rs. 106.50 lac</td><td>Rs. 9.95 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs. 12.60 Lacs</td></tr>
</table></td></tr>
<tr><td>17)</td><td>CER activities along with budgetary break up and responsibility to implement</td><td>Director will be responsible for implementation of the CER activities. The details of the various CER activities, fund allocated and its completion schedule are as under:
<table>
<tr><td>Sr.no.</td><td>CER activities</td><td>Fund Allocated (Rs.) Lakhs</td><td>Time Schedule
Start</td></tr>
<tr><td>1.</td><td>Chatt village will adopted and the fund will be utilized for roads,, sewer, schools , shamshan ghatt etc.</td><td>132/-</td><td>March, 2021</td></tr>
</table></td></tr>
<tr><td>18)</td><td>Other important facts</td><td>➢ Land for mixed land use for site measuring 6.69 acres (27073.24 sqm) has been allotted by GMADA vide no. EO/2019/12045 dated</td></tr>
</table>

		22/02/2019. ➢ In the said allotment letter, it has been mentioned that GMADA shall provide domestic water connection and the tertiary treated effluent to the allottee for use in flushing and gardening purposes. The allottee shall also be entitled for the sewer and storm water connection in the main sewer and storm network developed by GMADA.

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**
12.	As to whether the permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	No forest land is involved at the project site.
13.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	No permission from CGWA is required as the fresh water supply will be met through the GMADA supply.
14.	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.
15.	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.	No segregation is required being a commercial project.
16.	Whether provision of module system shall be kept during installation of STP?	No, as it is a commercial project and the occupancy is likely to be achieved in a short span.
17.	The PP shall earmark the specific location for which the CER funds to be utilized.	The project proponent submitted an undertaking dated 03.08.2019 to the effect that Govt. High school at village Chhatt will be adopted and amount of Rs. 132 lakhs will be utilised to provide trees, rainwater harvesting, solar power generation, library, laboratory etc.

7.	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.
8.	The project proponent has proposed 13 no. rainwater harvesting bores, which are not in consonance to the formula devised by the MoEFCC for minimum one recharge bore per 5,000 square meters of built up area.	The project has a total area of 99878 Sqm. According to the built up area formula minimum recharge bores required are 20. The project proponent assured to provide recharge bores as per the guidelines issued by the MoEFCC.

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

After deliberations SEAC decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to grant environmental clearance for establishment of commercial project namely " HLP Galleria" having built up area 99878 sqm in total land area of 27073 sqm at Sector-62, Mohali, Distt. SAS Nagar, Punjab as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

II. Statutory compliance:

xv) 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.

xvi) 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.

xvii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

xviii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

xix) 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.

xx) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

xxi) 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.

xxii) 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.

xxiii) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

xxiv) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xxv) The project proponent shall comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xxvi) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xxvii) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xxviii) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site in consonance to the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

xiv) 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.

xv) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

xvi) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

xvii) 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.

xviii) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

xix) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

xx) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

xxi) Wet jet shall be provided for grinding and stone cutting.

xxii) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

xxiii) 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 Rules 2016.

xxiv) 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.

xxv) 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.

xxvi) For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

xxvi) The natural drain system should be maintained for ensuring unrestricted flow of water.

xxvii) 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.

xxviii) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

xxix) The total water requirement for the project will be 138 KL/day, out of which 56 KL /day shall be met through GMADA supply and remaining through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

xxx) a) The total wastewater generation from the project will be 110 KL/day, which will be treated in STP of capacity @300 KLD on SBR technology within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:-

S. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Into sewer (KLD)
1.	Summer	82	6	22
2.	Winter	82	2	26
3.	Rainy	82	1	27

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.

c) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

xxxi) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

xxxii) The waste water 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.

xxxiii) 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.

xxxiv) 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.

xxxv) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

xxxvi) 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.

xxxvii) 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.

xxxviii) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

xxxix) The project proponent will provide 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 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

xl) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xli) 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 (20 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xlii) 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.

xliii) All recharge should be limited to shallow aquifer.

xliv) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

xlv) 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.

xlvi) 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.

xlvii) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

xlviii) No sewage or untreated effluent water would be discharged through storm water drains. xix. 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.

xlix) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

l) 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.

IV. Noise monitoring and prevention

iv) 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.

v) 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.

vi) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

vii) 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.

viii) Outdoor and common area lighting shall be LED.

ix) 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.

x) 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.

xi) 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.

xii) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall

be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

xi) 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.

xii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

xiii) Chute system, 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.

xiv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

xv) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

xvi) 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.

xvii) 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.

xviii) 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.

xix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

xx) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

vii) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth

and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

viii) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

ix) 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.

x) 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.

xi) 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.

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.

VIII. Transport

v) 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.

e) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

f) Traffic calming measures.

g) Proper design of entry and exit points.

h) Parking norms as per local regulation.

vi) 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.

vii) 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.

viii) 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.

IX. Human health issues

vii) 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.

viii) For indoor air quality the ventilation provisions as per National Building Code of India.

ix) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

x) 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xi) Occupational health surveillance of the workers shall be done on a regular basis.

xii) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

ii) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 132 Lakhs has been kept reserved for completing the CER activities as per OM dated 01.05.2018.The project proponent shall adopt Govt. High school at village

Chhatt and amount of Rs. 132 lakhs will be utilised to provide trees, rainwater harvesting, solar power generation, library, laboratory etc.

iii) However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

iv) 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.

v) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

vi) 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. The project proponent shall spend minimum amount of 106.5 lacs towards capital cost and 9.95 lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs. 12.60 lacs towards recurring cost in operation phase of the project. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

ii) 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.

XII. Miscellaneous

xviii) 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.

xix) The project proponent shall comply with the conditions of land allotment letter for mixed land use for site measuring 6.69 acres (27073.24 sqm) issued by GMADA vide no. EO/2019/12045 dated 22/02/2019.

xx) 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.

xxi) The copies of the 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.

xxii) 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.

xxiii) 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.

xxiv) 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.

xxv) 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.

xxvi) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

xxvii) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

xxviii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xxix) 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.

xxx) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xxxi) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xxxii) 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.

xxxiii) 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.

xxxiv) 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.

<u>Item No.182.07</u>: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Commercial project namely "GUILDFORD SQUARE" by Chandigarh Builders & Promoters located at Zirakpur, Tehsil Dera Bassi, Distt. SAS Nagar (Proposal No. SIA/PB/MIS/101664/2019).

The SEAC observed as under:

M/s Chandigarh Builders & Promoters has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Commercial project namely "GUILDFORD SQUARE" at Zirakpur, Tehsil Dera Bassi, Distt. SAS Nagar, Punjab.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(i) Sh. Pawan Bansal, Partner of the promoter company.

(ii) Sh. Sital Singh, EIA-co-ordinator cum CEO, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, SAS Nagar was requested vide email dated 18.07.2019:

1. Construction status at the site along with physical structures within 500 mt radius of the site including the status of industries if any
2. As to whether the site of the project is meeting with the siting guidelines farmed by Punjab Pollution Control Board for such type of projects.

SEAC was apprised that Environmental Engineer, PPCB, SAS Nagar, vide letter no. 4151 dated 30/7/2019 has intimated that no construction work has been started by the promoter company and boundary has been demarcated by the iron sheets. However, a security room has been constructed on the front of the site. As per the report, the security room land is owned by the owners but is not part of the project. The site is surrounded by empty land on one side wherein some construction was carried out. On the other side, the site of M/s GBP group exists. No construction on the site of M/s GBP is also there. On the front PR-7 is there. No other physical structure exists within a radius of 500 m from the project site. As per the report received from the Environmental Engineer, PPCB, SAS Nagar , there is no industry such as rice sheller/ saila plant/ brick kiln/ stone

crushing/ screening-cum-washing unit/ hot mix plant/ cement unit etc. within a radius of 500m. There is no air polluting industry within a radius of 100 m from the boundary of the project site and there is no MAH industry within a radius of 250m from the boundary of the project site. Therefore, the site of the project is conforming to the siting guidelines laid down by the Govt. of Punjab, Department if Science, Technology and Environment vide order dated 25/07/2008 as amended on 30/10/2009. The Environmental Engineer, PPCB, SAS Nagar has intimated that as regards to distance of the site of the project from the stipulation of general condition, no comments can be given in absence of proper reports from the concerned departments i.e. report regarding protected area and notified eco-sensitive area from the Dept. of Forest & Wildlife Preservation and Interstate and International boundaries from the revenue authorities (concerned SDM).

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

1)	Activity or Item No. as per EIA Notification, 2006 (in schedule)	8(a): Building & Construction Project. Area less than 50 ha or /and built up area less than 1,50,000 sqm
	Category as per EIA Notification, 2006 (in schedule)	Category B2
2)	Requirement of Public consultation	Not required being Building Construction Project under B2 category.
3)	Requirement of EIA	Not required being B2 category project.
4)	Applicability of GC	Not applicable being Building Construction Project under B2 category project.
5)	Name and Location of the project	Guildford Square by Chandigarh Builders & Promoters located at Zirakpur
6)	Total cost of the project	16.25 Crores
7)	Co-ordinates of the site	30°37'01.77"N - 30°37'06.21"N 30°37'05.74"N - 30°48'59.58"N 76°48'10.52"E - 76°48'11.17"E 76°00'48.31"E - 76°48'14.27"E

<table>
<tr><td>8)</td><td>Total Plot area, Built-up Area and Green area</td><td>The details of the group housing project is as under:
<table><tr><td>Description</td><td>Area</td></tr><tr><td>Land</td><td>11695.46 sqm</td></tr><tr><td>Built-up area</td><td>25479.36 sqm</td></tr><tr><td>Green area</td><td>545 sqm</td></tr></table></td></tr>
<tr><td>9)</td><td>Population (when fully inhabited)</td><td>1525 persons</td></tr>
<tr><td>10)</td><td>Water Requirements & source</td><td><table><tr><th>Break up of water requirement</th><th>Source</th></tr><tr><td>1. Total: 10-12 KLD in construction phase.

2.Total: 39 KLD (in operation phase) (15 KLD fresh water)
3. For flushing purposes : 24 KLD</td><td>1. Treated effluent from the STP of MC, Zirkapur.

2. Groundwater (Main source)

3. Treated wastewater</td></tr></table></td></tr>
<tr><td>11)</td><td>Disposal Arrangement of Waste water</td><td>Total = 28 KLD, which will be treated in the STP of capacity 50 KLD based on SBR Technology to be installed in the project premises.

<table><tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>Into sewer (KLD)</th></tr><tr><td>1.</td><td>Summer</td><td>24</td><td>4</td><td>0</td></tr><tr><td>2.</td><td>Winter</td><td>24</td><td>3</td><td>0</td></tr><tr><td>3.</td><td>Rainy</td><td>24</td><td>1</td><td>0</td></tr></table></td></tr>
<tr><td>12)</td><td>Rain water recharging detail</td><td>7016 m3/year rainwater shall be recharged with adequate treatment as per the norms of CGWA.</td></tr>
<tr><td>13)</td><td>Solid waste generation and its disposal</td><td>a) 505 kg/day
b) Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.
c) Mechanical composter will be provided
d) Non-biodegradable & recyclable waste will be sold to recyclers.</td></tr>
<tr><td>14)</td><td>Hazardous Waste & E-waste</td><td>1. Spent/used oil from DG sets will be sold to approved recyclers as per EPA, 1986.
2. E-waste generated will be stored in an isolated room and will be sent to the manufacturers as per the EPA Rules.</td></tr>
<tr><td>15)</td><td>Energy Requirements & Saving</td><td>a) 4500 KW from PSPCL.
I Distribution
1.Internal Lighting Load = 1250KW</td></tr>
</table>

<table>
<tr><td></td><td></td><td>2.Outer Lighting Load = 150KW
3.Power Load = 3100KW
II SAVING:-
i)Saving on light points by using 30W LED instead of 40 W tubes @ 25% = 312KW
ii) By using solar energy for outer Lighting Savers @ 100% = 150 KW
TOTAL = 462 KW
Saving %age =10.2 %</td></tr>
<tr><td>16)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>During construction phase GM will be responsible and during operation phase, Partner will be responsible for implementation of the EMP till the handing over of the project to MC/ the association of the residents. The budgetary breakup phasewise of the EMP is as under:
<table>
<tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost including the monitoring charges (per annum)</th></tr>
<tr><td>Construction</td><td>Rs. 27.0lac</td><td>Rs. 7.90 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs. 9.90 Lacs</td></tr>
</table></td></tr>
<tr><td>17)</td><td>CER activities along with budgetary break up and responsibility to implement</td><td>1. Rs 5 lacs for providing Solar Power Plant of 10 KW & 10 No. Solar Light in Government Elementary School, Shatabgarh. This activity will be Started within one year of grant of EC.
2. Rs 3 Lac Development of Greenbelt by plantation inside the school premises. This activity will be started with 24 months of grant of EC.
3. Rs 0.25 lac for Distribution of School Uniform & Books to BPL Students
This activity will be started within one year of grant of EC.
4. Rs 1.5 lac Construction of Rain Water Harvesting Pit. This activity will be started within 24 months of grant of EC.</td></tr>
<tr><td>18)</td><td>Other important facts</td><td>➢ CLU has been obtained from Invest Punjab for an area of 2.89 acres vide Ref no. 1808837009 for commercial purposes.
➢ MC, Zirakpur vide its letter no. 325 dated 15/10/2018 has given certificate regarding disposal of Municipal Solid Waste.</td></tr>
</table>

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 permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	No forest land is involved at the project site.
2.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	Online application has been submitted on the portal of CGWA for obtaining permission for abstraction of ground water and a copy of the same has been submitted.
3.	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.	CLU has been obtained from Invest Punjab vide Ref no. 1808837009 for total land area of 2.89 acres for commercial purposes.
3.	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.
4.	The project proponent has not mentioned the number of rain water harvesting bores. Further, these should be in consonance to the formula devised by the MoEF&CC for minimum one recharge bore per 5,000 square meters of built up area.	The project has a total area of 25479.36 Sqm. According to the built up area formula minimum recharge bores required are 5. The project proponent assured to provide recharge bores as per the guidelines issued by the MoEFCC.
5.	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?	1. Rs 5 lacs for providing Solar Power Plant of 10 KW & 10 No. Solar Light in Government Elementary School, Shatabgarh. This activity will be Started within one year of grant of EC. 2. Rs 3 Lac Development of Greenbelt by plantation inside the school premises. This activity will be started with 24 months of grant of EC. 3. Rs 0.25 lac for Distribution of School Uniform & Books to BPL Students This activity will be started within one year of grant of EC. 4. Rs 1.5 lac Construction of Rain Water Harvesting Pit. This activity will be started within 24 months of grant of EC.

7.	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.
8.	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.	No segregation is required being a commercial project.
9.	Whether provision of module system shall be kept during installation of STP?	No, as it is a commercial project.

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

After deliberations SEAC, decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to grant environmental clearance for establishment of commercial project namely " GUILDFORD SQUARE" having built up area 25479.36 sqm in total land area of 11695.46 sqm at Zirakpur, Distt. SAS Nagar, Punjab as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

III. Statutory compliance:

xxix) 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.

xxx) 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.

xxxi) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

xxxii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

xxxiii) 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.

xxxiv) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

xxxv) 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.

xxxvi) 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.

xxxvii) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

xxxviii) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xxxix) The project proponent shall comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xl) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xli) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xlii) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site consummate to the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

xxvii) 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.

xxviii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

xxix) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

xxx) 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.

xxxi) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

xxxii) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

xxxiii) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

xxxiv) Wet jet shall be provided for grinding and stone cutting.

xxxv) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

xxxvi) 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 Rules 2016.

xxxvii) 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.

xxxviii) 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.

xxxix) For indoor air quality the ventilation provisions as per National Building Code of lndia.

III. Water quality monitoring and preservation

li) The natural drain system should be maintained for ensuring unrestricted flow of water.

lii) 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.

liii) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

liv) The total water requirement for the project will be 39 KL/day, out of which 15 KL /day shall be met through GMADA supply and remaining through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

lv) a)The total wastewater generation from the project will be 28 KL/day, which will be treated in STP of capacity @50 KLD on SBR technology within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:-

S. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Into sewer (KLD)
1.	Summer	24	4	0
2.	Winter	24	3	0
3.	Rainy	24	1	0

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.

c) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

lvi) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

lvii) The waste water 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.

lviii) 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.

lix) 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.

lx) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

lxi) 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.

lxii) 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.

lxiii) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

lxiv) The project proponent will provide 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 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

lxv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

lxvi) 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 (05 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

lxvii) 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.

lxviii) All recharge should be limited to shallow aquifer.

lxix) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

lxx) 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.

lxxi) 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.

lxxii) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

lxxiii) No sewage or untreated effluent water would be discharged through storm water drains. xix. 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.

lxxiv) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

lxxv) 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.

IV. Noise monitoring and prevention

vii) 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.

viii) 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.

ix) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

xiii) 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.

xiv) Outdoor and common area lighting shall be LED.

xv) 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.

xvi) 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.

xvii) 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.

xviii) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall

be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

xxi) 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.

xxii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

xxiii) 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.

xxiv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

xxv) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

xxvi) 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.

xxvii) 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.

xxviii) 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.

xxix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

xxx) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

xiii) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth

and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

xiv) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

xv) 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.

xvi) 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.

xvii) 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.

xviii) 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.

VIII. Transport

ix) 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.

i) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

j) Traffic calming measures.

k) Proper design of entry and exit points.

l) Parking norms as per local regulation.

x) 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.

xi) 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.

xii) 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.

IX. Human health issues

xiii) 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.

xiv) For indoor air quality the ventilation provisions as per National Building Code of India.

xv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

xvi) 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xvii) Occupational health surveillance of the workers shall be done on a regular basis.

xviii) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

vii) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 9.75 Lakhs (approx. 0.6%) has been kept reserved for completing the following CER activities as per OM dated 01.05.2018:

S.No.	Activities	Cost(Rs. in lakhs)	Recurring cost (Annually) (Rs. Lakhs)	Timeline
1.	Providing Solar Power Plant of 10 KW & 10 No. Solar Light in Government Elementary School, Satabgarh.	5.00	0.10	Within one year of grant of EC.
2.	Development of green belt by plantation inside the school premises.	3.00	0.10	Within 24 months of grant of EC
3.	Distribution of School Uniform & Books to BPL students.	0.25	--	Within one year of grant of EC.
4.	Construction of Rain Water Harvesting Pit	1.50	0.15	Within 24 months of grant of EC.
Total		9.75	0.35	

viii) However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

ix) 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.

x) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

xi) 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. The project proponent shall spend minimum amount of Rs 27.0 Lacs towards capital cost and Rs 7.90 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 9.90 Lacs/annum towards recurring cost in operation phase of the project. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

iii) 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.

XII. Miscellaneous

xxxv) 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.

xxxvi) The project proponent shall comply with the conditions of CLU obtained from Invest Punjab for an area of 2.89 acres vide Ref no. 1808837009.

xxxvii) 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.

xxxviii) The copies of the 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.

xxxix) 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.

xl) 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.

xli) 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.

xlii) 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.

xliii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

xliv) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

xlv) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xlvi) 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.

xlvii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xlviii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xlix) 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.

l) 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.

li) 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.

<u>Item No.182.08</u>: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Group Housing Project namely "HI-GREENS" located at Zirakpur, Tehsil Dera Bassi, Distt. SAS Nagar by M/s MRS Developers (Proposal No. SIA/PB/MIS/102139/2019).

The SEAC observed as under:

M/s MRS Developers has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Group Housing Project namely "HI-GREENS" at Zirakpur, Tehsil Dera Bassi, Distt. SAS Nagar, Punjab.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(i) Sh. Kewal Krishan, Partner of the project proponent.

(ii) Sh. Sital Singh, EIA-co-ordinator cum CEO, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, SAS Nagar was requested vide email dated 29.07.2019:

1. Construction status at the site along with physical structures within 500 m radius of the site including the status of industries if any
2. As to whether the site of the project is meeting with the siting guidelines farmed by Punjab Pollution Control Board for such type of projects.

SEAC was apprised that Environmental Engineer, PPCB, SAS Nagar, vide letter no. 4271 dated 02/08/2019 has intimated that the site of the subject cited project was visited by AEE of Regional Office, SAS Nagar on 24.07.2019 and Sh. Kewal Garg was contacted and he showed the site of the project. It was observed that no construction work has been started by the promoter company. However the promoter company was carrying the construction work of the boundary wall with bricks. It was observed that there is no industry such as rice sheller/saila plant/brick kiln/stone crushing/ screening cum washing unit/hot mix plant/cement unit etc. within a radius of 500 m. There is no air polluting industry within a radius of 100 m from the boundary of the project site and there is no MAH industry within a radius of 250 m radius from the boundary of the proposed site. Therefore, the site of the project is conforming to the siting guidelines laid

down by the Govt. of Punjab, Department of Science Technology and Environment vide order dated 25/07/2008 as amended on 30/10/2009.As regards to distance of site of the project from the stipulation of general condition, Environmental Engineer, PPCB, SAS Nagar was unable to comment in absence of proper reports from the concerned departments i.e. report regarding protected area and notified eco-sensitive area from the Dept. of Forest & Wildlife Preservation and Interstate and International boundaries from the revenue authorities (concerned SDM).

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

<table>
<tr><td rowspan="2">1)</td><td>Activity or Item No.
as per EIA Notification, 2006 (in schedule)</td><td>8(a): Building & Construction Project.
Area less than 50 ha or /and built up area less than 1,50,000 sqm</td></tr>
<tr><td>Category as per EIA Notification, 2006
(in schedule)</td><td>Category B2</td></tr>
<tr><td>2)</td><td>Requirement of Public consultation</td><td>Not required being Building Construction Project under B2 category.</td></tr>
<tr><td>3)</td><td>Requirement of EIA</td><td>Not required being B2 category project.</td></tr>
<tr><td>4)</td><td>Applicability of GC</td><td>Not applicable being Building Construction Project under B2 category project.</td></tr>
<tr><td>5)</td><td>Name and Location of the project</td><td>HI GREENS by MRS Developers</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>25 Cr.</td></tr>
<tr><td>7)</td><td>Co-ordinates of the site</td><td>30,38’36.44” N 76,51’15.19” E
30,38,36.28” N 76,51’18.35” E
30,38’34.28” N 76,51,18.20” E
30,38’34.34” N 76,51’15.05” E</td></tr>
<tr><td>8)</td><td>Total Plot area, Built-up Area and Green area</td><td>The details of the group housing project is as under:
<table><tr><td>Description</td><td>Area</td></tr><tr><td>Land area</td><td>12188 sqm</td></tr><tr><td>Built-up area</td><td>27754sqm</td></tr><tr><td>Green area</td><td>4455sqm</td></tr></table></td></tr>
<tr><td>9)</td><td>Population (when fully inhabited)</td><td>920 persons</td></tr>
<tr><td>10)</td><td>Water Requirements & source</td><td>Break up of water | Source</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><th>requirement</th><th></th></tr>
<tr><td>1. Total: 10-12 KLD in construction phase.

2.Total: 124 KLD (in operation phase) (83 KLD fresh water)

3. Flushing : 41 KLD</td><td>1. Treated effluent from the STP of MC, Zirkapur.

2. Groundwater (Main source)

3. Treated wastewater</td></tr>
</table>
</td></tr>
<tr><td>11)</td><td>Disposal Arrangement of Waste water</td><td>Total = 100 KLD, which will be treated in the STP of capacity 160 KLD to be installed in the project premises.

<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>Into sewer (KLD)</th></tr>
<tr><td>1.</td><td>Summer</td><td>41</td><td>25</td><td>34</td></tr>
<tr><td>2.</td><td>Winter</td><td>41</td><td>11</td><td>48</td></tr>
<tr><td>3.</td><td>Rainy</td><td>41</td><td>03</td><td>56</td></tr>
</table>

Black stream 60% of the total generation = 90 KLD
Grey Stream 40 % of the total generation = 60 KLD
STP for Black Stream 100 KLD on SBR Technology
STP for Grey stream 60 KLD on MBBR technology.</td></tr>
<tr><td>12)</td><td>Rain water recharging detail</td><td>5257 m3/year rainwater shall be recharged with adequate treatment as per the norms of CGWA. 5 no. of rainwater harvesting pits to be provided.</td></tr>
<tr><td>13)</td><td>Solid waste generation and its disposal</td><td>a) 368 kg/day
b) Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.
c) Mechanical composter will be provided
d) Non-biodegradable & recyclable waste will be sold to recyclers.
e) Chute system will be provided to segregate the waste.</td></tr>
<tr><td>14)</td><td>Hazardous Waste & E-waste</td><td>1. Spent/used oil from DG sets will be sold to approved recyclers as per EPA, 1986.
2. E-waste generated will be stored in an isolated room and will be sent to the manufacturers as per the EPA Rules.</td></tr>
<tr><td>15)</td><td>Energy Requirements & Saving</td><td>a) 7000 KW from PSPCL.
b) 1x 240 KVA & 1 x125 KVA (silent DG sets) Energy Saving measures:
• Solar Light 10 No= 15 KWHD
• Common area (250) lights replaced with LED</td></tr>
</table>

<table>
<tr><td></td><td></td><td>= 135 KWHD
• Solar water heater for the total water required = 500 Ltr
• Total Energy saved/day 15+135
= 150 KWHD
c) Solar power generation area on rooftop = 1278 sqm
Approximate power generation = 127 KW</td></tr>
<tr><td>16)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>During construction phase, GM will be responsible and during operation phase, Partner will be responsible for implementation of the EMP, till the handing over of the project to MC or to the association of the residents.. The budgetary breakup phase wise of the EMP is as under:
<table>
<tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost including the monitoring charges (per annum)</th></tr>
<tr><td>Construction</td><td>Rs. 71.50 lac</td><td>Rs. 11.90 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs. 16.40 Lacs</td></tr>
</table></td></tr>
<tr><td>17)</td><td>CER activities along with budgetary break up and responsibility to implement</td><td>Partner will be responsible for implementation of the CER activities. The details of the various CER activities, fund allocated and its completion schedule are as under:
<table>
<tr><td>Sr. No.</td><td>CER activities</td><td>Fund Allocated (Rs.)</td><td>Time schedule/ start</td></tr>
<tr><td>1</td><td>450 trees to be plants in village, Sanouli activity to be started in July 2020.</td><td>5 lakh</td><td>Started on 01/06/2020 upto 31/05/2022</td></tr>
<tr><td>2</td><td>Rain water harvesting in Village School, Sanouli, Tree plantation around the boundary, solar power generation 10 KW</td><td>10 lakh</td><td>April, 2021</td></tr>
<tr><td colspan="3">Total = Rs. 15 lakh</td><td></td></tr>
</table></td></tr>
<tr><td>18)</td><td>Other important facts</td><td>➢ CLU has been granted vide no. 6240 dated 02/03/2019 for the purpose of residential group housing.
➢ The MC Zirakpur has issued the certificate vide letter no.1208 dated 26/03/2019 to the effect that facility of the sewer is not available for the project and the work pertaining to the water</td></tr>
</table>

		supply and laying of sewer is under progress. The project proponent can connect the sewer to the Municipal Council sewer to discharge 170 KLD treated waste water after depositing requisite charges to the Municipal Council and getting the map approved on completion of the project. ➢ The MC, Zirakpur has issued certificate vide letter no 1209 dated 26/03/2019 to the effect that they will handle the MSW generated from the project scientifically as per the SWM Rules,2016 after completion of the project. The cost to manage the handling of waste will be borne by the company.

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**
18.	As to whether the permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	No forest land is involved at the project site.
19.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	The application has been submitted with the CGWA.
20.	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.
21.	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.	Two no. ETPs will be provided for the separate treatment of grey and black wastewater. Details are given as under: Black stream 60% of the total generation = 90 KLD Grey Stream 40 % of the total generation = 60 KLD STP for Black Stream 100 KLD on SBR Technology STP for Grey stream 60 KLD on MBBR technology.

<table>
<tr><td>22.</td><td>Whether provision of module system shall be kept during installation of STP?</td><td>Yes. Module system for the STP of capacity 100 KLD (2x50 KLD each) and 60 KLD (2x30 KLD each) will be provided.</td></tr>
<tr><td rowspan="4">23.</td><td>a. How far main sewer is located from the project site?</td><td>a. 615 m.</td></tr>
<tr><td>b. Whether permission has been obtained for the connection to the main sewer for discharge of treated wastewater.</td><td>b. The MC Zirakpur has issued the certificate vide letter no.1208 dated 26/03/2019 to the effect that facility of the sewer is not available for the project and the work pertaining to the water supply and laying of sewer is under progress. The project proponent can connect the sewer to the Municipal Council sewer to discharge 170 KLD treated waste water after depositing requisite charges to the Municipal Council and getting the map approved on completion of the project.</td></tr>
<tr><td>c. If the MC is unable to lay down the sewer, what will be the proposal of the project proponent?</td><td>c. The land (in which sewer is to be laid down) belongs to the MC, Zirakpur and in case MC fails to provide the sewer before start of the project, then sewer will be laid at own cost.</td></tr>
<tr><td>d. To this, SEAC asked the project proponent that no occupancy shall be allowed in the project till the sewer connection of the project is made with the main sewer of the Municipal Council.</td><td>d. The project proponent agreed to this point.</td></tr>
<tr><td>24.</td><td>The calculations for rainwater harvesting pits were found incorrect. The project proponent should provide additional pits for Rain Water Harvesting and revised details along with calculations.</td><td>The project proponent submitted proposal for 6 Rain Water Harvesting Pits after showing the revised calculations.</td></tr>
<tr><td>25.</td><td>The project proponent shall submit CER activity by proposing toilet and water coolers in the place of activity proposed for tree plantation.</td><td>
<table>
<tr><th>S. No.</th><th>Proposed CER activity</th><th>Amount (INR)</th><th>Likely date of completion</th></tr>
<tr><td>1.</td><td>Toilets and water coolers in village school, sanouli</td><td>5 lakh</td><td>April, 2021</td></tr>
<tr><td>2.</td><td>Activities to be carried out in village school, Sanouli Rain water harvesting,Tree plantation around</td><td>10 lakh</td><td>April, 2021</td></tr>
</table>
</td></tr>
</table>

			the boundary, solar power generation 10 KW		
		Total = Rs. 15 lakh			

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

After deliberations SEAC decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to grant environmental clearance for establishment of group housing project namely " HI-GREENS" having built up area 27754 sqm in total land area of 12188 sqm at Zirakpur, Distt. SAS Nagar, Punjab as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

IV. Statutory compliance:

xliii) 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.

xliv) 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.

xlv) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

xlvi) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

xlvii) 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.

xlviii) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

xlix) 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.

l) 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.

li) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

lii) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

liii) The project proponent shall comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

liv) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

lv) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

lvi) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site consummate to the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

xl) 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.

xli) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

xlii) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

xliii) 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.

xliv) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

xlv) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

xlvi) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

xlvii) Wet jet shall be provided for grinding and stone cutting.

xlviii) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

xlix) 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 Rules 2016.

l) 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.

li) 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.

lii) For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

lxxvi) The natural drain system should be maintained for ensuring unrestricted flow of water.

lxxvii) 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.

lxxviii) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

lxxix) The total water requirement for the project will be 124 KL/day, out of which 83 KL /day shall be met through groundwater and remaining through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

lxxx) a)The total wastewater generation from the project will be 100 KL/day, which will be treated in STPs of capacity 90 KLD on SBR technology for black stream and 60 KLD on MBBR Technology within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated

wastewater shall be as under:-

S. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Into sewer* (KLD)
1.	Summer	41	25	34
2.	Winter	41	11	48
3.	Rainy	41	3	56

* Note- In case Municipal Council, Zirakpur, fails to connect main sewer to project site sewer, then, project proponent shall provide sewer at its own cost.

b) Both STPs shall be designed on module system for the STP of capacity 100 KLD (2x50 KLD each) and 60 KLD (2x30 KLD each).

c) 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.

d) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation.

lxxxi) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

lxxxii) The waste water 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.

lxxxiii) 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.

lxxxiv) 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.

lxxxv) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

lxxxvi) 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.

lxxxvii) 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.

lxxxviii) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

lxxxix) 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.

xc) The project proponent will provide 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 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

xci) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xcii) 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 (06

Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xciii) 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.

xciv) All recharge should be limited to shallow aquifer.

xcv) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

xcvi) 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.

xcvii) 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.

xcviii) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

xcix) No sewage or untreated effluent water would be discharged through storm water drains. 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.

c) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

ci) 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.

IV. Noise monitoring and prevention

x) 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.

xi) 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.

xii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

xix) 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.

xx) Outdoor and common area lighting shall be LED.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

xxxi) 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.

xxxii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

xxxiii) Chute system, 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.

xxxiv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

xxxv) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

xxxvi) 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.

xxxvii) 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.

xxxviii) 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.

xxxix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

xl) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

xix) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

xx) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) 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.

VIII. Transport

xiii) 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.

m) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

n) Traffic calming measures.

o) Proper design of entry and exit points.

p) Parking norms as per local regulation.

xiv) 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.

xv) 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.

xvi) 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.

IX. Human health issues

xix) 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.

xx) For indoor air quality the ventilation provisions as per National Building Code of India.

xxi) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

xxii) 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xxiii) Occupational health surveillance of the workers shall be done on a regular basis.

xxiv) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

xii) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 15.00 Lakhs (approx. 0.6%) has been kept reserved for completing the CER activities as per OM dated 01.05.2018.

xiii) However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

xiv) 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.

xv) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

xvi) 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. The project proponent shall spend minimum amount of Rs 71.50 Lacs towards capital cost and Rs 11.90 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 16.40 Lacs/annum towards recurring cost in operation phase of the project. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

iv) 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.

XII. Miscellaneous

lii) 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.

liii) The project proponent shall comply with the conditions of CLU obtained vide no. 6240 dated 02/03/2019.

liv) 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.

lv) The copies of the 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.

lvi) 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.

lvii) 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.

lviii) 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.

lix) 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.

lx) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

lxi) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

lxii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

lxiii) 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.

lxiv) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

lxv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

lxvi) 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.

lxvii) 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.

lxviii) 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.

Item No. 182.09: Application for amendment in the environmental clearance granted under EIA notification dated 14.09.2006 for the expansion of the Group Housing Project namely "GROUP HOUSING" AT Sector 119, SAS Nagar, Mohali by M/s Flamboyant Developers (P) Ltd. (Proposal no. SIA/PB/NCP/35856/2015).

The SEAC observed as under: -

The project proponent has filed an application for amendment in the Environment Clearance granted under EIA notification, 2006 for the expansion of the Group Housing Project namely "GROUP HOUSING" AT Sector 119, SAS Nagar, Mohali by M/s Flamboyant Developers (P) Ltd. Earlier the project proponent was granted Environmental Clearance vide letter no. 8051 dated 16/12/2015 under the EIA notification, 2006 for the construction of group housing project at Sector-119, SAS Nagar, Mohali.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(vii) Sh. Rajesh Rajasekharan, Director of the promoter company.

(viii) Sh. Sital Singh, EIA-co-ordinator cum CEO, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC queried the project proponent regarding the proposed amendment. In reply to this, the project proponent presented the amendments as under:

19)	Activity or Item No. as per EIA Notification, 2006 (in schedule)	8(a): Building & Construction Project. Area less than 50 ha or /and built up area less than 1,50,000 sqm
	Category as per EIA Notification, 2006 (in schedule)	Category B2
20)	Requirement of Public consultation	Not required being Building Construction Project under B2 category.
21)	Requirement of EIA	Not required being B2 category project.
22)	Applicability of GC	Not applicable being Building Construction Project under B2 category project.
23)	Name and Location of the project	Flamboyant developers (P) LTD" located at Mohali
24)	Total cost of the project	Rs. 175 Crores.

<table>
<tr><td>25)</td><td>Co-ordinates of the site</td><td>30.731230 N
76.699460 E</td></tr>
<tr><td>26)</td><td>Total Plot area, Built-up Area, Green area and no of flats etc.</td><td>The details of the group housing project is as under:
<table>
<tr><td>Description</td><td>Existing</td><td>Proposed change</td><td>After amendment</td></tr>
<tr><td>Land</td><td>40481 sqm</td><td>-18223</td><td>22258</td></tr>
<tr><td>Built-up area</td><td>157993 sqm</td><td>-80627</td><td>77366</td></tr>
<tr><td>Green area</td><td>--</td><td>--</td><td>6606</td></tr>
<tr><td>Total no of flats</td><td>726</td><td>-506</td><td>220</td></tr>
<tr><td>STP capacity</td><td>450 KLD</td><td>-250 KLD</td><td>200 KLD</td></tr>
</table></td></tr>
<tr><td>27)</td><td>Population (when fully inhabited)</td><td>3630 – 2380 =1250 persons</td></tr>
<tr><td>28)</td><td>Water Requirements & source</td><td>
<table>
<tr><th>Break up of water requirement</th><th>Source</th></tr>
<tr><td>Total: 157 KLD (544-387) in operation phase (107 KLD fresh water.
Total: 10 KLD in construction phase.
Flushing purpose: 50 KLD</td><td>1. Groundwater (Main source).
2. Treated effluent from the STP of GMADA.</td></tr>
</table></td></tr>
<tr><td>29)</td><td>Disposal Arrangement of Waste water</td><td>Total = 125 KLD(435-310), which will be treated in the STP of capacity 200 KLD to be installed in the project premises.
<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>Into sewer (KLD)</th></tr>
<tr><td>1.</td><td>Summer</td><td>50</td><td>36</td><td>39</td></tr>
<tr><td>2.</td><td>Winter</td><td>50</td><td>10</td><td>65</td></tr>
<tr><td>3.</td><td>Rainy</td><td>50</td><td>3</td><td>72</td></tr>
</table></td></tr>
<tr><td>30)</td><td>Rain water recharging detail</td><td>9261 m3/year rain water will be collected and/or 9 no. of recharging pits will be provided to recharge the rooftop rainwater of buildings after treatment through oil & Grease traps</td></tr>
<tr><td>31)</td><td>Solid waste generation and its disposal</td><td>e) 470 (1452-982) kg/day
f) Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>g) Mechanical composter will be provided.
h) Non-biodegradable & recyclable waste will be sold to recyclers.
i) Chute system will be provided.</td></tr>
<tr><td>32)</td><td>Hazardous Waste & E-waste</td><td>1. Spent/used oil from DG sets will be sold to approved recyclers as per EPA, 1986.
2. E-waste generated will be stored in an isolated room and will be sent to the manufacturers as per the EPA Rules.</td></tr>
<tr><td>33)</td><td>Energy Requirements & Saving</td><td>g) 4000(Earlier) – 1965(amendment) = 2035 KW from PSPCL.
h) 1x 500 KVA, 2 x240 KVA & 1x125 KVA and 1x
i) 500 KVA (silent DG sets) Energy Saving measures:
j) Solar Light 20 No = 30 KWHD
k) Common area (200) lights replaced with LED = 108 KWHD
l) Power generation of 40 KW on roof top.</td></tr>
<tr><td>34)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>GM, Projects will be responsible in the construction phase and Director of the promoter company will be responsible for implementation of the EMP in the operation phase till the handing over of the project to the MC/ GMADA (whosoever takes over the project) or to the association of residents.

The budgetary breakup phase wise of the EMP is as under:
<table>
<tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost including the monitoring charges (per annum)</th></tr>
<tr><td>Construction</td><td>127 lac</td><td>11.5</td></tr>
<tr><td>Operation</td><td>--</td><td>17.0</td></tr>
</table>
</td></tr>
<tr><td>35)</td><td>CER activities along with budgetary break up and responsibility to implement</td><td>As per the earlier EC, the Director of promoter company was bound to utilize Rs. 20 Lakhs fir providing toilets for girls in the nearby schools.
Now, as per the OM dated 01.05.2018, the CER activities and fund allocated is proposed as under:
<table>
<tr><td>Proposed CER activity</td><td>Amount (INR)</td><td>Likely date of completion</td></tr>
<tr><td>Adoption of govt. school at village matour, Mohali, Repair of road, Solar power generation, Paint,</td><td>1.05 cr</td><td>Started after 6 months and every year 25 lacs will be utilized</td></tr>
</table>
</td></tr>
</table>

		Toiles, RWH etc.			
36)	Other important facts	➢ All the environmental monitoring parameter are within permissible limits prescribed for such type of projects ➢ The project has already been accorded EC by SEIAA			

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.	What is the status of the construction.	Construction is yet to be started.
2.	As to whether the permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	NOC from Deptt. of Forest has already been obtained vide letter no. 10328 dated 04/03/2016 wherein it has been mentioned that land is neither involved under the section 4 & 5 of PLPA, 1900 nor under any forest area for its service road/ approach road. A copy of NOC has already been submitted.
3.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	The application has been submitted with the CGWA.
4.	As to whether, the plans have been approved by the Competent Authority or still are Conceptual plans.	At present, they are having only conceptual plan.
5.	a) What is the mode of disposal of treated wastewater and how it is different from the mode of disposal for which earlier EC was granted.	a) Earlier, Environmental Clearance was obtained with the proposal of discharging treated wastewater @272 KLD(Maximum) into sewer during rainy season. Now, there is no change in the mode of discharging treated wastewater into sewer, however, the quantity of treated wastewater has been reduced to 72 KLD (Maximum) during rainy season.
	b) What is the current status of laying of sewer in the area?	b) Presently, GMADA has not laid down the sewer in the area. The project proponent further submitted that the EC has already been granted to him with the proposal of discharging treated wastewater into sewer. Now he has applied only for the amendment and thus no alternative arrangement has been suggested. To this SEAC was not satisfied with the reply submitted by the project proponent.

<table>
<tr><td></td><td>c) How the 72 KLD of treated wastewater will be disposed off in the absence of sewer since, the sewer has not been laid by GMADA for the past so many years.</td><td>c) Project proponent submitted that they had proposed a school in an area of 0.5 acres of land and as per norms 40% is the permissible ground coverage. They will develop 0.25 acres of land as per karnal technology to utilize the treated wastewater as per the norms till they get the sewer connection. They have submitted an undertaking to the effect that they will utilize the remaining quantity of the treated wastewater for construction purposes in their projects and their sister concerned projects till they get the sewer connection. Further, the project proponent submitted the revised water balance as per the details given below:
<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>For construction purposes (KLD)</th></tr>
<tr><td>1.</td><td>Summer</td><td>50</td><td>51</td><td>11</td></tr>
<tr><td>2.</td><td>Winter</td><td>50</td><td>25</td><td>37</td></tr>
<tr><td>3.</td><td>Rainy</td><td>50</td><td>14</td><td>48</td></tr>
</table>
</td></tr>
<tr><td>6.</td><td>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.</td><td>Two no. ETPs will be provided for the separate treatment of grey and black wastewater. Details are given as under:
Black stream 60% of the total generation = 120 KLD
Grey Stream 40 % of the total generation = 80 KLD
STP for Black Stream 120 KLD on SBR Technology
STP for Grey stream 80 KLD on MBBR technology.</td></tr>
<tr><td>7.</td><td>Whether provision of module system shall be kept during installation of STP?</td><td>Yes. Module system for the STP of capacity 200 KLD (2x60 KLD each based on SBR technology and 2x40 KLD each based on MBBR) will be provided.</td></tr>
<tr><td>8.</td><td>The project proponent has proposed 09 no. rainwater harvesting bores, which are not in consonance to the formula devised by the MoEFCC for minimum one recharge bore per 5,000 square meters of built up area.</td><td>The project has a total area of 77366 Sqm. According to the built up area formula minimum recharge bores required are 15.5=16. The project proponent assured to provide recharge bores as per the guidelines issued by the MoEFCC.</td></tr>
<tr><td>9.</td><td></td><td>The proposed amount and CER activities will be as under:</td></tr>
</table>

For CER activities, only Rs. 20.00 lacs has been reserved which are not inconsonance with the OM dated 1.5.2018	**Proposed CER activity**	**Amount (INR)**	**Likely date of completion**
	Adoption of govt. school at village Matour, Mohali, Repair of road, Solar power generation, Paint, Toiles, RWH etc.	1.05 cr	Started after 6 months and every year 25 lacs will be utilized

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

The project proponent also requested to amend the condition regarding provisioning of the chute system for the collection of the municipal solid waste as they have now proposed door to door collection and segregation by providing extra manpower. He also informed that chute system does not work properly as the waste bag gets torn in the path down the line and waste gets scatterd. SEAC agreed to the same.

After deliberations SEAC decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to amend environmental clearance granted earlier vide no. 8051 dated 16/12/2015 for establishment of Group Housing Project with amended built up area 77366 sqm in total land area of 22258 sqm at Sector 119, Badmajra, Mohali, Punjab, as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

Special Condition

This amendment is issued in the supersession of Environmental Clearance granted earlier vide no. 8051 dated 16/12/2015.

I. Statutory compliance:

i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

ii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

iii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

iv) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

v) 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.

vi) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

vii) 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.

viii) 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.

ix) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

x) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xi) The project proponent shall comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xii) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xiii) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xiv) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site consummate to the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

liii) 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.

liv) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

lv) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

lvi) 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.

lvii) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

lviii) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

lix) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

lx) Wet jet shall be provided for grinding and stone cutting.

lxi) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

lxii) 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 Rules 2016.

lxiii) 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.

lxiv) 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.

lxv) For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

cii) The natural drain system should be maintained for ensuring unrestricted flow of water.

ciii) 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.

civ) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

cv) The total water requirement for the project will be 157 KL/day, out of which 107 KL /day shall be met through own tubewell and remaining 50 KL/day through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

cvi) a) The total wastewater generation from the project will be 125 KL/day, which will be treated in STP of capacity @200 KLD on SBR technology within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:-

S. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Into sewer*
1.	Summer	50	51	39
2.	Winter	50	25	65
3.	Rainy	50	14	72

b) STP shall be designed on module system for the STP of capacity 200 KLD (2x60 KLD each based on SBR Technology) and 80 KLD (2x40 KLD each based on MBBR Technology).

c) *Till the laying of public sewer by GMADA in the area, the project proponent shall utilize the treated effluent (proposed for public sewer disposal) to the plantation as per Karnal Technology in 0.25 Acres of school land and remaining for the construction activities of this project as well as for the other projects of sister concern in the area.

d) 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.

e) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

cvii) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

cviii) The waste water 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.

cix) 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.

cx) 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.

cxi) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

cxii) 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.

cxiii) 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.

cxiv) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

cxv) 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.

cxvi) The project proponent will provide 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 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

cxvii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

cxviii) 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 (16 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

cxix) 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.

cxx) All recharge should be limited to shallow aquifer.

cxxi) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

cxxii) 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.

cxxiii) 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.

cxxiv) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

cxxv) No sewage or untreated effluent water would be discharged through storm water drains. xix. 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.

cxxvi) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

cxxvii) 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.

IV. Noise monitoring and prevention

xiii) 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.

xiv) 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.

xv) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

xxv) 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.

xxvi) Outdoor and common area lighting shall be LED.

xxvii) 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.

xxviii) 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.

xxix) 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.

xxx) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

xli) 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.

xlii) 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.

xliii) 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.

xliv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

xlv) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

xlvi) 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.

xlvii) 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.

xlviii) 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.

xlix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

l) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

xxv) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

xxvi) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

xxvii) 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.

xxviii) 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.

xxix) 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.

xxx) 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.

VIII. Transport

xvii) 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.

q) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

r) Traffic calming measures.

s) Proper design of entry and exit points.

t) Parking norms as per local regulation.

xviii) 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.

xix) 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.

xx) 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.

IX. Human health issues

xxv) 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.

xxvi) For indoor air quality the ventilation provisions as per National Building Code of India.

xxvii) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

xxviii) 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, creche

etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xxix) Occupational health surveillance of the workers shall be done on a regular basis.

xxx) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

xvii) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 105 Lakhs (approx. 0.6%) has been kept reserved for completing following CER activities as per OM dated 01.05.2018:

Proposed CER activity	Amount (INR)	Likely date of completion
Adoption of govt. school at village Matour, Mohali, Repair of road, Solar power generation, Paint, Toiles, RWH etc.	1.05 cr	Started after 6 months and every year 25 lacs will be utilized

xviii) However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

xix) 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.

xx) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

xxi) 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. The project proponent shall spend minimum amount of Rs 127 Lacs towards capital cost and Rs 11.5 Lacs/annum towards recurring cost in Construction phase of the project including the environmental monitoring cost and shall spend minimum amount of Rs 17.0 Lacs/annum towards recurring cost in operation phase of the project including the environmental monitoring cost. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

v) This environmental clearance will be valid upto 15/12/2022 or till the completion of the project, whichever is earlier.

XII. Miscellaneous

lxix) 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.

lxx) The project proponent shall comply with the conditions of CLU if obtained.

lxxi) 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.

lxxii) The copies of the 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.

lxxiii) 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.

lxxiv) 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.

lxxv) 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.

lxxvi) 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.

lxxvii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

lxxviii) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

lxxix) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

lxxx) 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.

lxxxi) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

lxxxii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

lxxxiii) 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.

lxxxiv) 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.

lxxxv) 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.

Item No.182.10: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Commercial project-cum-hotel namely "North View Park" located at village Singhpura, Tehsil Dera Bassi, Distt. SAS Nagar by M/s BB Developers (Proposal No. SIA/PB/MIS/101664/2019).

The SEAC observed as under:

M/s BB Developers has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Commercial cum Hotel project namely "North View Park" at village Singhpura, Tehsil Dera Bassi, Distt. SAS Nagar, Punjab.

The case was considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(i) Sh. Sahil Modi, Partner of the promoter company.
(ii) Sh. Sital Singh, EIA-co-ordinator cum CEO, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, SAS Nagar was requested vide email dated 18.07.2019:

1. Construction status at the site along with physical structures within 500 mt radius of the site including the status of industries if any
2. As to whether the site of the project is meeting with the siting guidelines farmed by Punjab Pollution Control Board for such type of projects.

Environmental Engineer, PPCB, SAS Nagar, vide letter no. 4269 dated 02/08/2019 has intimated that the site of the subject cited project was visited by AEE of Regional Office, SAS Nagar on 24.07.2019 and Sh. Ram Sharan Modi, Partner was contacted and he showed the site of the project site and the details are as under:

1. It is pertinent to mention here that the promoter company has already obtained 'Consent to Establish' from the Board for the commercial project.

2. The construction status of the existing blocks and the proposed expansion is as under:

Sr. No.	Block	Existing configuration	Proposed configuration	Present construction.
1.	Block-1	B+LG+UG+3 floors	B+LG+UG+4 floors	Presently construction is carried upto 2nd floor.
2.	Block-2	B+LG+UG+2 floors	B+LG+UG+4 floors	Construction carried upto 1st floor.
3.	Block-3	B+LG+UG+2 floors	B+LG+UG+4 floors	Construction upto 1st floor.
4.	Block-	B+LG+UG	No change	Construction upto upper

	4			ground floor.

No construction work of the STP has yet been started. The proposed site is surrounded by various commercial and residential buildings on all sides. It was observed that there is no industry such as rice sheller/saila plant/brick kiln/stone crushing/ screening cum washing unit/hot mix plant/cement unit etc. within a radius of 500 m. There is no air polluting industry within a radius of 100 m from the boundary of the project site and there is no MAH industry within a radius of 250 m radius from the boundary of the proposed site. Therefore, the site of the project is conforming to the siting guidelines laid down by the Govt. of Punjab, Department of Science Technology and Environment vide order dated 25/07/2008 as amended on 30/10/2009. As regards to distance of site of the project from the stipulation of general condition, Environmental Engineer, PPCB, SAS Nagar was unable to comment in absence of proper reports from the concerned departments i.e. report regarding protected area and notified eco-sensitive area from the Dept. of Forest & Wildlife Preservation and Interstate and International boundaries from the revenue authorities (concerned SDM).

SEAC perused the report and observed that no construction work for the expansion part of the project has been started. SEAC also observed that the project proponent had already obtained the Consent to Establish under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 from Invest Punjab vide no. PBIP/PPCB/2018/CTE-268 dated 09/07/2018 which had expired on 08/07/2019 for establishment of commercial project having plot area of 1.76 acres and built up area 18,834.90 sqm, which is less than 20,000 sqm and not covered under the EIA notification, 14/09/2006.

The project proponent has intimated that consent to establish and EC are independent entities. He added that the extension invalidity of consent to establish (NOC) was not applied as the industry has gone for expansion for which this application applied for obtaining EC. He assured to submit revised application for obtaining consent to establish (NOC) with the Punjab Pollution Control Board, shortly.

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

<table>
<tr><td>1</td><td>Activity or Item No.
as per EIA Notification, 2006 (in schedule)</td><td>8(a): Building & Construction Project.
Area less than 50 ha or /and built up area less than 1,50,000 sqm</td></tr>
<tr><td></td><td>Category as per EIA Notification, 2006
(in schedule)</td><td>Category B2</td></tr>
<tr><td>2)</td><td>Requirement of Public consultation</td><td>Not required being Building Construction Project under B2 category.</td></tr>
<tr><td>3)</td><td>Requirement of EIA</td><td>Not required being B2 category project.</td></tr>
<tr><td>4)</td><td>Applicability of GC</td><td>Not applicable being Building Construction Project under B2 category project.</td></tr>
<tr><td>5)</td><td>Name and Location of the project</td><td>"North View park" located at village Singhpura, Zirakpur, Tehsil Dera Bassi, Distt. SAS Nagar</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td><table><tr><td>Existing</td><td>New</td><td>total</td></tr><tr><td>35 Cr.</td><td>7 Cr.</td><td>42 Cr.</td></tr></table></td></tr>
<tr><td>7)</td><td>Co-ordinates of the site</td><td>30,37,37.98" N 76,49'24.75"E
30,37,34.89" N 76,49'24.66"E
30,37,37.89" N 76,49'22.42"E
30,37,34.99" N 76,49'24.26"E</td></tr>
<tr><td>8)</td><td>Total Plot area, Built-up Area and Green area</td><td>The details of the group housing project is as under:<table><tr><td>Description</td><td>Existing</td><td>Additional</td><td>Total</td></tr><tr><td>Land</td><td>6600 sqm</td><td>---</td><td>6600 s</td></tr><tr><td>Built-up area</td><td>18834.9 sqm</td><td>4715.10 sqm</td><td>23550</td></tr><tr><td>Green area</td><td>444 sqm</td><td>---</td><td>444 sq</td></tr></table></td></tr>
<tr><td>9)</td><td>Population (when fully inhabited)</td><td>1818+332=2150 persons</td></tr>
<tr><td>10)</td><td>Water Requirements & source</td><td><table><tr><th>Break up of water requirement</th><th>Source</th></tr><tr><td>1. Total: 10-12 KLD in construction phase.

2.Total: 49 KLD (in operation phase) (23 KLD fresh water)

3. Flushing purposes</td><td>1. Treated effluent from the STP of MC, Zirkapur

2. Groundwater (Main source)

3. Treated waste water</td></tr></table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>@ 26 KLD</td></tr>
<tr><td>11)</td><td>Disposal Arrangement of Waste water</td><td>Total = 39 KLD, which will be treated in the STP of capacity 50 KLD to be installed in the project premises.

<table><tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD)</th><th>Into sewe (KLD</th></tr><tr><td>1.</td><td>Summer</td><td>26</td><td>3</td><td>10</td></tr><tr><td>2.</td><td>Winter</td><td>26</td><td>1</td><td>12</td></tr><tr><td>3.</td><td>Rainy</td><td>26</td><td>0</td><td>13</td></tr></table></td></tr>
<tr><td>12)</td><td>Rain water recharging detail</td><td>3453 m3/year rainwater shall be recharged with adequate treatment as per the norms of CGWA.</td></tr>
<tr><td>13)</td><td>Solid waste generation and its disposal</td><td>a) 442 kg/day
b) Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.
c) Mechanical composter will be provided
d) Non-biodegradable & recyclable waste will be sold to recyclers.</td></tr>
<tr><td>14)</td><td>Hazardous Waste & E-waste</td><td>1. Spent/used oil from DG sets will be sold to approved recyclers as per EPA, 1986.
2. E-waste generated will be stored in an isolated room and will be sent to the manufacturers as per the EPA Rules.</td></tr>
<tr><td>15)</td><td>Energy Requirements & Saving</td><td>a) 1800 KW from PSPCL.
b) 1x 500 KVA & 1 x240 KVA (silent DG sets)
Energy Saving measures:
• Solar Light 10 No = 15 KWHD
• Common area (300) lights replaced with LED = 162 KWHD
• Total Energy saved/day = 177 KWHD</td></tr>
<tr><td>16)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>During construction and operation phase, GM (Projects) will be responsible for implementation of the EMP. The budgetary breakup phasewise of the EMP is as under:
<table><tr><th>Description</th><th>Capital Cost</th><th>Recurring Cos including th monitoring charges (pe</th></tr></table></td></tr>
</table>

				annum)	
		Construction	Rs. 73.50 lac	Rs. 11.90 Lacs	
		Operation	-	Rs. 15.40 Lacs	
17)	CER activities along with budgetary break up and responsibility to implement	The project proponent submitted the revised CER as under -: 1. Rs 6 lacs for providing Toilets, water cooler and trees all around the boundary wall of school. This activities will be Started on 01/07/2020 upto 31/05/2022 2. Rs 2 Lac for providing Rain water harvesting in Village School, bhankarpur. This activity will be started in April 2021 3. Rs 7 lac for providing Solar power generation in the School Bhankarpur 10 KW. This activity will be started in April 2021 4. Rs 3 lac for providing Laboratory equipment for school. This activity will be started in March 2021 5. RS 7 Lacs for providing Library in school . This activity will be started in May 2021			
18)	Other important facts	➢ The project proponent has obtained CLU of 1.63 acres issued by Punjab Bureau of investment promotion GoP vide ref. no. 1804199464. The CLU is issued for commercial purposes. ➢ The MC Zirakpur, has issued the certificate vide letter no.3248 dated 07/05/2019 to the effect that facility of the sewer is available for the commercial project. The project proponent can connect the sewer to the Municipal Council sewer to discharge 40 KLD treated waste water after depositing requisite charges to the Municipal Council and getting the map approved on completion of the project, ➢ The MC, Zirakpur has issued certificate vide letter no 3249 dated 07/05/2019 to the effect that they will handle the MSW generated from the project scientifically as per the SWM Rules,2016 after completion of the project. The cost to manage the			

		handling of waste will be borne by the company.

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 permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	NOC from the Divisional Forest Officer, SAS Nagar has been obtained vide no. FCA/1053 dated 08/05/2018, wherein, it was mentioned that no forest land is involved in the project.
2.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	Online application has been submitted on the portal of CGWA for obtaining permission for abstraction of ground water and a copy of the same has been submitted.
3.	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.
4.	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.	No requirement being commercial project.
5.	As to whether the 5 no. rain water harvesting pits are sufficient w.r.t. calculation devised by MoEF&CC against the built up area parameter	The project proponent submitted that the total built up area of the project is 23550 Sqm. Accordingly, 5 no. pits proposed by the project proponent are sufficient.
6.	Whether the existing structure is safe after the proposed expansion in the project considering that the industry is adding new floors to the project?	The project proponent has submitted that MRM INFRA-NIRMAAN PVT. LTD., has certified that the project has designed the foundation of the building to withstand the load of basement + 6 storey's and hence can be considered safe for construction of the basement + 6 storey's building. Present project has six storeys consisting of lower ground floor, upper ground floor, first floor, second floor, third floor and the fourth floor and the structurally safe.
7.	The project proponent shall submit	The revised CER activities as per the OM

	CER activity by proposing toilet and water coolers in the place of activity proposed for tree plantation.	dated 01.05.2018 are as under:

Sr. No.	Proposed CER activity	Amount (INR) in lakhs	Likely date of completion	
1.	Providing Toilets, water cooler and trees all around the boundary wall of school.	6 Lakhs	Started on 01/07/2020 upto 31/05/2022	
2.	Rain water harvesting in Village School, bhankarpur	2 Lakhs	April, 2021	
3.	Providing Solar power generation in the School Bhankarpur 10 KW	7 Lakhs	April, 2021	
4.	Providing Laboratory equipment for school	3 Lakhs	March, 2021	
5.	Providing Library in school	7 Lakhs	May, 2021	
Total		25 Lakhs		

SEAC took a copy of presentation along with reply given by the project proponent and his environmental consultant on record.

After deliberations SEAC decided to award **'Silver Grading'** to the project proposal and to forward the application of the project proponent to SEIAA with the recommendations to grant environmental clearance for establishment of commercial project-cum-hotel namely "North View Park" having built up area 23550 sqm in total land area of 6600 sqm at village Singhpura, Tehsil Dera Bassi, Distt. SAS Nagar, Punjab as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

II. Statutory compliance:

xv) 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.

xvi) 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.

xvii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

xviii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

xix) 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.

xx) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

xxi) 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.

xxii) 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.

xxiii) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

xxiv) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xxv) The project proponent shall comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xxvi) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xxvii) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xxviii) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site consummate to the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

lxvi) 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.

lxvii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

lxviii) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

lxix) 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.

lxx) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

lxxi) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

lxxii) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

lxxiii) Wet jet shall be provided for grinding and stone cutting.

lxxiv) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

lxxv) 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 Rules 2016.

lxxvi) 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.

lxxvii) 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.

lxxviii) For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

cxxviii) The natural drain system should be maintained for ensuring unrestricted flow of water.

cxxix) 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.

cxxx) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

cxxxi) The total water requirement for the project will be 49 KL/day, out of which 23 KL /day shall be met through GMADA supply and remaining through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

cxxxii) a)The total wastewater generation from the project will be 39 KL/day, which will be treated in STP of capacity @50 KLD within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:-

S. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Into sewer (KLD)
1.	Summer	26	3	10
2.	Winter	26	1	12
3.	Rainy	26	0	13

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.

c) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

cxxxiii) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

cxxxiv) The waste water 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.

cxxxv) 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.

cxxxvi) 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.

cxxxvii) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

cxxxviii) 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.

cxxxix) 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.

cxl) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

cxli) The project proponent will provide 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 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

cxlii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

cxliii) 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 (05 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

cxliv) 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.

cxlv) All recharge should be limited to shallow aquifer.

cxlvi) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

cxlvii) 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.

cxlviii) 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.

cxlix) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

cl) No sewage or untreated effluent water would be discharged through storm water drains. xix. 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.

cli) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

clii) 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.

IV. Noise monitoring and prevention

xvi) 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.

xvii) 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.

xviii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

xxxi) 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.

xxxii) Outdoor and common area lighting shall be LED.

xxxiii) 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.

xxxiv) 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.

xxxv) 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.

xxxvi) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-

laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

li) 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.

lii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

liii) 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.

liv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

lv) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

lvi) 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.

lvii) 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.

lviii) 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.

lix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

lx) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

xxxi) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

xxxii) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

xxxiii) 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.

xxxiv) 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.

xxxv) 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.

xxxvi) 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.

VIII. Transport

xxi) 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.

u) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

v) Traffic calming measures.

w) Proper design of entry and exit points.

x) Parking norms as per local regulation.

xxii) 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.

xxiii) 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.

xxiv) 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.

IX. Human health issues

xxxi) 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.

xxxii) For indoor air quality the ventilation provisions as per National Building Code of India.

xxxiii) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

xxxiv) 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xxxv) Occupational health surveillance of the workers shall be done on a regular basis.

xxxvi) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

xxii) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 25 Lakhs (approx. 0.6%) has been kept reserved for completing following CER activities as per OM dated 01.05.2018:

Sr. No.	Proposed CER activity	Amount (INR) in lakhs	Likely date of completion
1.	Providing Toilets, water cooler and trees all around the boundary wall	6 Lakhs	Started on 01/07/2020 upto

	of school.		31/05/2022
2.	Rain water harvesting in Village School, bhankarpur	2 Lakhs	April, 2021
3.	Providing Solar power generation in the School Bhankarpur 10 KW	7 Lakhs	April, 2021
4.	Providing Laboratory equipment for school	3 Lakhs	March, 2021
5.	Providing Library in school	7 Lakhs	May, 2021
Total		25 Lakhs	

xxiii) However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

xxiv) 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.

xxv) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

xxvi) 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. The project proponent shall spend minimum amount of Rs 73.50 Lacs towards capital cost and Rs 11.90 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 15.40 Lacs/annum towards recurring cost in operation phase of the project. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

vi) 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.

XII. Miscellaneous

lxxxvi) 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.

lxxxvii) The project proponent shall comply with the conditions of CLU obtained vide ref. no. 1804199464 for 1.63 acres issued by Punjab Bureau of investment promotion GoP.

lxxxviii) 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.

lxxxix) The copies of the 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.

xc) 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.

xci) 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.

xcii) 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.

xciii) 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.

xciv) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

xcv) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

xcvi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xcvii) 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.

xcviii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xcix) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

c) 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.

ci) 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.

cii) 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.

Item No. 182.11: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for expansion of Steel Manufacturing Unit namely "Taksus Steels Pvt. Ltd." at Bhadla Road, 66 KVA Sub Station, Near Grain Market, Distt. Fatehgarh Sahib, Punjab by M/s. Taksus Steels Pvt. Ltd. (Proposal no SIA/PB/IND/22234/ 2018).

The case was placed before the SEAC in its 182nd meeting held on 03.08.2019. However, the application could not be taken up due to paucity of time.

SEAC decided to defer the case and decided to place the application in the next meeting of SEAC on priority basis.

Item No.182.12: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Commercial project namely "Social Square" at Zirakpur- Patiala Road, VIP Road, SAS Nagar, Punjab by M/s Home and Land Planners LLP. (Proposal No. SIA/PB/NCP/81260/2018)

The SEAC observed as under:

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Commercial project namely "Social Square" at Zirakpur-Patiala Road, VIP Road, SAS Nagar, Punjab by M/s Home and Land Planners LLP.

Earlier, The case was 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.Charanjit Singh, Director of the project proponent.

(ii) Dr. Sandeep Garg, EIA-co-ordinator, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, SAS Nagar was requested vide email dated 20.03.2019 and reminder dated 29.03.2019 to send the report on the following:

1. Construction status at the site along with physical structures within 500 mt radius of the site including the status of industries if any.
2. To verify the as to whether any (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries falls within 5 km radius from the boundary of the project site
3. As to whether the site of the project is meeting with the siting guidelines farmed by Punjab Pollution Control Board for such type of projects.

Environmental Engineer, PPCB, Regional Office, SAS Nagar vide letter no. 2218 dated 01.05.2019 has sent the report which is reproduced as under:

"The site of the subject cited project was visited by AEE of his office on 25.03.2019. It was observed that no construction work has been started by the promoter company. However, building has been constructed there and boundary has been demarcated with iron sheets. The site was surrounded by agricultural on one side. On other side VIP road

exists and on the front Zirakpur-Patiala road is there. Towards VIP road, small shops are there. There are commercial and residential buildings within 250 m from the site. It was observed that there is no industry such as rice sheller/ saila plant/ brick kiln / stone crushing/ screening cum washing unit/ hot mix plant/cement unit etc. within a radius of 500 m. There is no MAH industry within a radius of 250 m radius from the boundary of the proposed site. Therefore, the site of the project is conforming to the siting guidelines laid down by the Govt. or Punjab, Department of Science Technology and Environment vide order dated 25/ 07/2008 as amended on 30/ 10/ 2009. As regards to distance of site of the project from the stipulation of general condition, this office is unable to comment in the absence of proper reports from the concerned departments i.e. report regarding protected area and notified eco-sensitive area from the Dept. of Forest & Wildlife Preservation and Interstate and International boundaries from the revenue authorities (concerned SDM)."

SEAC perused the visit report and observed that report of regional office is ambiguous. On one hand, it is being reported that no construction work has been started by the promoter company, whereas, on the other hand, it has been mentioned that a building has been constructed. SEAC also asked the project proponent to submit the copies of NOC from Forest Department for the approach road and CLU from Town and Country Planning Department so as to confirm land use pattern. To this, the project proponent sought time to submit the same. After detailed deliberation, SEAC decided as under:

(i) Regional Office of PPCB be asked to send the clear-cut report as to whether the project has carried out any construction at the project site and has violated the provisions of EIA notification, 14.09.2006 or not.

(ii) Project proponent shall submit the copies of NOC from Forest Department regarding approach of road and CLU from the Town and Country Planning Department.

In compliance to decision no.(i), Environmental Engineer, PPCB, Regional Office, SAS Nagar vide letter no. 488 dated 14.06.2019 was asked to send the clear-cut report. In reply, Environmental Engineer, PPCB, Regional Office, SAS Nagar vide letter no.3065 dated 18.06.2019 has sent the report which was annexed with the agenda.

In compliance to decision no. (ii) mentioned above, Additional details were sought online on 10.06.2019 to which project proponent submitted the reply

online. The copies of NOC from Forest Department regarding approach of road and CLU from the Town and Country Planning Department which were annexed with the agenda.

The case was considered by the SEAC in its 181st meeting held on 11.07.2019 and the same was attended by the following on behalf of the project proponent: -

(i) Sh.Charanjit Singh, Director of the project proponent.

(ii) Dr. Sandeep Garg, EIA-co-ordinator, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC perused the report sent by the Environmental Engineer, PPCB, Regional Office, SAS Nagar and observed that no construction activity has been carried out. However, an office building has already been constructed in the premises. It has been clarified that the said structure is a porta cabin and promoter company has not carried out construction of any RCC & company has not started any digging work. The representative of the promoter company has informed that said porta cabin was not built by them. They had purchased the land with the existing structure at site. The promotor company submitted a copy of an agreement dated 23.03.2018, wherein it has been mentioned that land measuring 11 bigha 17 biswa existing on Zirakpur-Patiala main highway, Village Nabha, has porta cabin in it. Regional Office, SAS Nagar in nutshell has mentioned that it is temporary set up and can be demolished at later stage.

SEAC perused the agreement and was not satisfied with the submission/ document submitted by the project proponent to the Regional Office, SAS Nagar. To this, the project proponent claimed that the structure has not built by them and it is an old structure. SEAC asked the project proponent to submit a concrete documentary evidence which could establish the fact that the structure is old one and has not built by the promoter company. To this, the project proponent and his environmental consultant sought time and requested to consider the case in the next meeting of SEAC.

After deliberations, SEAC decided to accept the request of project proponent, defer the case and placed the same in the next meeting of SEAC as and when scheduled.

The case was again considered by the SEAC in its 182nd meeting held on 03.08.2019 and the same was attended by the following on behalf of the project proponent:

(ix) Sh. Satish Katyal, Partner on behalf of the project proponent.

(x) Sh. Sandeep Garg, M/s Eco Laboratories & Consultants (P) Ltd., Mohali, Environment Consultant of the promoter company.

Sh. Satish Katyal submitted a copy of land Registry and affidavit of Sh. Charanjit Singh S/o Sh. Kulwant Singh to prove his contention in reference to the query raised by SEAC in the previous meeting to the effect that "land is purchased along with the porta cabin". Thus, said porta cabin was not built by the project proponent and it is an old structure. SEAC took the documents on record and was satisfied with the documentary evidence submitted by the project proponent

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

<table>
<tr><td>1.</td><td>Category/Item No. (in schedule)</td><td>8(a): 'Building & Construction Project'</td></tr>
<tr><td>2.</td><td>Name and Location of the project</td><td>Commercial project namely "Social Square" at Zirakpur-Patiala Road, VIP Road, SAS Nagar, Punjab</td></tr>
<tr><td>3.</td><td>Total Plot area, Built-up Area and Green area</td><td><table><tr><td>Total Plot Area</td><td>24,507.43 sq.m. i.e. 6.05 acres</td></tr><tr><td>Built-up Area</td><td>61,804.2 sq.m.</td></tr><tr><td>Green area</td><td>1775.43 sq.m.</td></tr><tr><td>Parking area (Proposed)</td><td>1129 ECS</td></tr></table></td></tr>
<tr><td>4.</td><td>Population</td><td>Estimated Population will be 6175 Persons.</td></tr>
<tr><td>5.</td><td>Water Requirements & source</td><td>Break up of water requirements is as under:<table><tr><td>1.</td><td colspan="2">Total domestic water demand</td><td>427 KLD</td></tr><tr><td>2.</td><td>Flushing water demand</td><td>Treated wastewater from STP</td><td>126 KLD</td></tr><tr><td>3.</td><td>Total fresh water demand(1-2)</td><td>Tubewell</td><td>301 KLD</td></tr></table></td></tr>
</table>

<table>
<tr><td>6.</td><td>Disposal Arrangement of Waste water</td><td>171 KLD of black water and 171 KLD of grey water will be generated from the project which will be treated in STP of 200 KLD capacity based on MBBR Technology (skid mounted) and WWTP of 200 KLD capacity. Treated wastewater will be used for flushing purpose and landscaping.
<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing Purpose (KLD)</th><th>For Green area (KLD)</th><th>Into sewer (KLD)</th></tr>
<tr><td>1.</td><td>Summer</td><td>126</td><td>10</td><td>198(158 KLD black water and 40 KLD gray water)</td></tr>
<tr><td>2.</td><td>Winter</td><td>126</td><td>3</td><td>205(165 KLD black water and 40 KLD gray water)</td></tr>
<tr><td>3.</td><td>Monsoon</td><td>126</td><td>1</td><td>215(175 KLD black water and 40 KLD gray water+infiltration(8 KLD)</td></tr>
</table></td></tr>
<tr><td>7.</td><td>Rain water recharging detail</td><td>16 rain water recharging pits will be provided as per CGWA norms.</td></tr>
<tr><td>8.</td><td>Solid waste generation and its disposal</td><td>During Operation Phase, about 1346 kg/day (@ 0.4 kg/capita/day for food court/restaurant and @ 0.2 kg/capita/day for floating) of solid waste will be generated. The solid waste shall be duly segregated into biodegradable and non-biodegradable components. A separate area will be earmarked for segregation of solid waste. Biodegradable waste will be composted in mechanical composter of 500 and 150 kg. Inert waste will be dumped to authorized dumping site. The recyclable waste shall be sold to resellers.</td></tr>
<tr><td>9.</td><td>Hazardous Waste and E-waste</td><td>Used oil from DG sets will be sold to registered recyclers and E-waste will be disposed off as per the E-waste (Management) Amendment Rules, 2018</td></tr>
<tr><td>10.</td><td>Energy Requirements & Saving</td><td>• Total Power requirement of 4650 kVA to be provided by Punjab State Power Corporation Limited.
• Total 6 DG Sets (i.e. 2 DG Sets of 1500 KVA and 2 DG of 1010 KVA, 1 DG of 750 KVA and 1 DG of 320 kVA respectively) has been proposed for standby use for emergency purposes.
• Solar panels have been proposed on the roof top of the tower. The total area covered by solar panels is 2185 sq.ft. (which is 30% of terrace area i.e. 7277 sq.m.) which will generate 218.5 KW of power generation.
• 24 KW of energy will be saved by using LED instead of CFLs.</td></tr>
<tr><td>11.</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>Sh. Jasbir Singh (Partner) of M/s Home & Land Planners LLP will be responsible for implementation of EMP.
For implementation of EMP, Rs. 205 lakhs as capital cost, Rs. 13.1 lakhs as recurring cost in construction phase including environmental monitoring cost, whereas in operation phase, Rs. 24 lakhs as recurring cost including environmental monitoring cost will be incurred.</td></tr>
</table>

12.	CER activities along with budgetary break up and responsibility to implement	The details of CER activities proposed by the project proponent is as under:

Sr, No.	Activities	Annual Expenditure in lakhs	Timeline (2019 to 2023)	Total expenditure in 5 years
1	Maintenance of VIP road as well as pavers in connecting roads	3.5	5	17.5
2	Maintenance of building and provision of new benches in Government Senior secondary School, Village Lohgarh	4	5	20
3	Providing solar lights on village Nabha rasta	-	One Time	20
4	Scholarship for 2 meritorious students of Village Nabha nominated by panchayat.	10	5	50
5	Adoption of animals at Chhatbir zoo for dietary requirement and Medical Treatment	2.7	5	13.5
6	Construction of Butterfly garden at Chhatbir Zoo with board and signages	-	One Time	30
7	Plantation in large size potted plants in parking areas, pedestrian pathways, etc	1	5	5
8	Provision of medicines & wheel chairs for disabled persons in Village Lohgarh	2	5	10
	Total	23.2		166 lacs

13.	Other important facts	➢ Change of Land Use (CLU) has been granted vide No. PBIP/LORC-1/1807926825 for site measuring 5.85 acres. ➢ The project proponent has submitted application no. 21-4/4671/PB/INF/2019 dated 08.01.2019 to Central Ground Water Authority (CGWA) to obtain permission for the abstraction of ground water. ➢ The ambient air, ambient noise, soil and ground water monitoring has been done for all the parameters as per the prescribed norms. The concentration of all the parameters is found within permissible limits. ➢ Municipal Council, Zirakpur has issued NOC for

		sewerage connection vide letter no. 2164 dated 13/03/2019. ➢ Municipal Council, Zirakpur has issued NOC for handling of Municipal Solid Waste vide letter no. 2177 dated 14/03/2019. ➢ Airport Authority of India issued vide letter no. WAC/S/6369/1/12W/ATS(2/19) dated 20/02/2019. ➢ PWD has issued NOC for road assess vide memo no. 196 dated 26/04/2019.

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**
26.	As to whether the permission from Deptt. of Forest under the Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 has been obtained.	Yes, NOC from the Forest Department has been obtained vide letter no. FCA/3631 dated 28/08/2018.
27.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	Application has been filed for fresh groundwater abstraction of 427 KLD and a copy of the same had already been submitted.
28.	As to whether, STP will be provided in module system considering the gradual occupancy in the project.	Yes, provision will be made to provide the STPs in module system to accommodate the gradual increase in the occupancy.
29.	As to whether, the rain water harvesting water pits are in consonance of the formula of atleast one pit per 5000 Sqm. of builtup area devised by the MoEF&CC	Yes, the total built up area of the project is 61804 Sqm. 16 no. pits have been proposed to be provided which will fulfill the requirements of MoEF&CC/CGWA.
30	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. They will get the layout plans approved from the Competent Authority for the activities / establishments proposed to be set up by them in this project for which EC applied.
31	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	Online application has been submitted on the portal of CGWA for obtaining permission for abstraction of ground water and a copy of the same has been submitted.
32	What will be the treatment proposal for the sewage expected from the labours / employees during the	Septic tank will be provided for the treatment of waste water generated during construction phase. The treated effluent

	construction phase?	will be utilized for the green area/plantation.

SEAC observed that the project proponent has provided adequate and satisfactory clarifications to the observations raised by it.

Therefore, the Committee awarded **'Silver Grading'** to the project proposal and decided that case be forwarded to SEIAA with the recommendations to grant environmental clearance for establishment of commercial project namely " Social Square" having built up area 61804.2 sqm in total land area of 24,507 sqm located at Zirakpur-Patiala Road, VIP road, Distt. SAS Nagar, Punjab as per the details mentioned in the Form 1, 1A, EMP & subsequent presentation / clarifications made by the project proponent and his consultant with, proposed measures, conditions:

Standard EC Conditions:

III. Statutory compliance:

xxix) 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.

xxx) 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.

xxxi) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

xxxii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

xxxiii) 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.

xxxiv) The project proponent shall obtain the necessary permission for drawl of ground water/ surface water required for the project from the competent authority.

xxxv) 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.

xxxvi) 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.

xxxvii) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, Construction & Demolition Waste Rules,2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.

xxxviii) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xxxix) The project site shall confirm to the suitability as prescribed under the provisions laid down under the master plan of respective city/ town. For that, the project proponent shall either to submit the NOC/ land use conformity certificate from Deptt of Town and Country Planning or other concerned Authority under whom jurisdiction, the site falls.

xl) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.

xli) The project proponent shall get the layout plans approved from the Competent Authority for the activities / establishments to be set up at project site consummate to the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

lxxix) 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.

lxxx) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

lxxxi) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

lxxxii) 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.

lxxxiii) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

lxxxiv) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

lxxxv) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

lxxxvi) Wet jet shall be provided for grinding and stone cutting.

lxxxvii) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

lxxxviii) 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 Rules 2016.

lxxxix) 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.

xc) 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.

xci) For indoor air quality the ventilation provisions as per National Building Code of lndia.

III. Water quality monitoring and preservation

cliii) The natural drain system should be maintained for ensuring unrestricted flow of water.

cliv) 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.

clv) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

clvi) The total water requirement for the project will be 427 KL/day, out of which 301 KL /day shall be met through groundwater and remaining @ 126 KLD through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

clvii) a) The total wastewater generation from the project will be 342 KL/day (171 KLD black water and 171 KLD grey water), which will be treated in STP of capacity @200 KLD on MBBR technology each for black water and grey water, within the project premises. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under:-

S.	Season	For Flushing purposes	Green Area (KLD)	Into sewer

No.		(KLD)		(KLD)
1.	Summer	126	10	198(158 KLD black water and 40 KLD gray water)
2.	Winter	126	3	205(165 KLD black water and 40 KLD gray water)
3.	Rainy	126	1	215(175 KLD black water and 40 KLD gray water)

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.

c) During construction phase, the project proponent shall ensure that the waste water being generated from the labour quarters/toilets shall be treated and disposed in environment friendly manner. The project proponent shall also exercise the option of modular bio-toilets or will provide proper and adequately design septic tanks for the treatment of such waste water and treated effluents shall be utilized for green area/plantation

clviii) The project proponent shall ensure safe drinking water supply to the habitants. Adequate treatment facility for drinking water shall be provided, if required.

clix) The waste water 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.

clx) 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.

clxi) 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.

clxii) At least 20% of the open spaces as required by the local building bye-Jaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

clxiii) 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.

clxiv) 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.

clxv) The project proponent shall also adopt the new/innovating technologies 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 and make it a part of the environmental management plans / building plans so as to reduce the water consumption/ground water abstraction in their Building Construction & Industrial projects.

clxvi) 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.

clxvii) The project proponent will provide 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 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

clxviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

clxix) 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 (16 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

clxx) 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.

clxxi) All recharge should be limited to shallow aquifer.

clxxii) No ground water shall be used during construction phase of the project. Only treated sewage/wastewater shall be used. A proper record in this regard should be maintained and available at site.

clxxiii) 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.

clxxiv) 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.

clxxv) Sewage shall be treated in the STP with tertiary treatment. STP shall be installed in phased manner viz a viz in module system designed in a such a way so as to efficiently treat the waste water with increase in its quantity due to rise in occupancy. 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.

clxxvi) No sewage or untreated effluent water would be discharged through storm water drains. xix. 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.

clxxvii) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

clxxviii) 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.

IV. Noise monitoring and prevention

xix) 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.

xx) 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.

xxi) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

xxxvii) 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.

xxxviii) Outdoor and common area lighting shall be LED.

xxxix) 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.

xl) 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.

xli) 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.

xlii) Solar power by utilizing at least 30% of the roof top area shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

lxi) 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.

lxii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

lxiii) 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.

lxiv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.

lxv) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

lxvi) 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.

lxvii) 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.

lxviii) 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.

lxix) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

lxx) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

xxxvii) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

xxxviii) 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 total project 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. The plantation should be provided as per SEIAA guidelines.

xxxix) 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.

xl) 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.

xli) 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.

xlii) 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.

VIII. Transport

xxv) 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.

y) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

z) Traffic calming measures.

aa) Proper design of entry and exit points.

bb) Parking norms as per local regulation.

xxvi) 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.

xxvii) 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.

xxviii) 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.

IX. Human health issues

xxxvii) 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.

xxxviii) For indoor air quality the ventilation provisions as per National Building Code of India.

xxxix) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HJRA) and Disaster Management Plan shall be implemented.

xl) 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xli) Occupational health surveillance of the workers shall be done on a regular basis.

xlii) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

xxvii) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility. The project proponent shall adhere to the commitments made in the proposal for CER activities for spending atleast minimum amount of Rs. 166 Lakhs (approx. 0.6%) has been kept reserved for completing the CER activities as per OM dated 01.05.2018. However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the following proposal submitted by the project proponent. The amount to be spent on CER activities shall be proportionate to the amount spent on project & such activities shall run parallel to the project execution. All the activities must be completed with the completion of the project.

xxviii) 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.

xxix) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

xxx) 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. The project proponent shall spend minimum amount of Rs 205 Lacs towards capital cost and Rs 13.10 Lacs/annum towards recurring cost in

Construction phase of the project including the environmental monitoring cost and shall spend minimum amount of Rs 24 Lacs/annum towards recurring cost in operation phase of the project including the environment monitoring cost. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Validity

vii) 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.

XII. Miscellaneous

ciii) 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.

civ) The project proponent shall comply with the conditions of CLU obtained vide letter Ref No. PBIP/LORC-1/1807926825.

cv) 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.

cvi) The copies of the 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.

cvii) 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.

cviii) 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.

cix) 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.

cx) 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.

cxi) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

cxii) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

cxiii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

cxiv) 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.

cxv) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

cxvi) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

cxvii) 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.

cxviii) 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.

cxix) 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.

The meeting ended with vote of thanks to the Chair.

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