**Proceedings of the 152nd meeting of State Environment Impact Assessment Authority held on 08.08.2019 at 10:30 AM in the Conference Hall No 3 (Ist Floor), Punjab State Council for Science and Technology, MGSIPA Complex, Sector-26, Chandigarh.**

The following were present:

1. Sh. Kuldip Singh, IFS (Retd.),
   Chairman, SEIAA
2. Dr. Sunil Mittal,
   Member, SEIAA
3. Sh. Tejinder Singh Dhaliwal, IAS
   Member Secretary, SEIAA

At the outset, the Member Secretary, SEIAA welcomed the members of the State Environment Impact Assessment Authority (SEIAA) in its 152nd meeting.

**Item No.01: Confirmation of the minutes of 151st meeting of SEIAA held on 05.08.2019**

SEIAA was apprised that the proceedings of 151st meeting of SEIAA held on 05.08.2019 is being prepared and same will be circulated to all concerned after the approval of SEIAA. SEIAA noted the same

**Item No.02: Action on the proceedings of 148th, 149th , 150th and 151st meetings of SEIAA held on 26.06.2019, 05.07.2019, 08.07.2019 and 05.08.2019 respectively.**

SEIAA was apprised that the action on the proceedings of 148th, 149th , 150th and 151st meetings of SEIAA held on 26.06.2019, 05.07.2019, 08.07.2019 and 05.08.2019 respectively is being taken. The action taken report will be placed in the next meeting of SEIAA. SEIAA asked to take the action on said proceedings without any further delay.

It was also apprised that there is a shortage of staff as only 01 AEE & 01 Multitask operator has been posted in the SEIAA/SEAC section of Directorate. No other support like Peon, Diary-Dispatcher, Record Keeper, Steno or Data Entry Operator, has been provided as earlier provided by the Punjab Pollution Control Department. Also Additional computers (02 Nos) with printer are urgently required to improve the efficiency.

Further, Department of Mine & Geology recently has recently auctioned quite a few mining blocks in the Punjab for the various mining sites. Before start of mining from the mining site, successful bidder is required to obtain Environment Clearance under the provision of EIA Notification, 14.09.2006. Thus, substantial quantum of work is going to be increased after 15th August,2019. New Staff will also take some time to learn things and adjust to the environment. Thus, there is urgent need to provide 02 additional AEE and 02 Date Entry Operator and 01 Record Keeper cum Multi Task Operator in the SEIAA/SEAC section so that functioning of SEIAA/SEAC can be streamlined.

After deliberations, SEIAA decided to write a D.O letter to the Director, Directorate of Environment addressing all the issues mentioned above with a request to provide additional staff on the urgent basis so as to avoid delay in granting the environmental clearance to such cases .

**Item No.152.01: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Group Housing project namely "SBP Homes Gardenia" at Village Chajjumajra, Kharar, SAS Nagar, Punjab by M/s SBP Shine Star Pvt. Ltd. (Proposal No. SIA/PB/NCP/89801/2018)**

The SEIAA observed that

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Group Housing project namely "SBP Homes Gardenia" at Village Chajjumajra, Kharar, SAS Nagar, Punjab by M/s SBP Shine Star Pvt. Ltd.

After initial scrutiny of the online application, the following EDS were sought online to which the project proponent has replied as under:

| Sr. No. | EDS | Reply given by the PP |
|---|---|---|
| 1. | KML File not attached. | Submitted |
| 2. | As Forest land is involved. Please submit the acknowledgement along with complete set of application submitted to the DFO. | No Forest land is involved. |
| 3. | a) In case(s) where land has already been purchased / acquired: Proof of ownership of land (b) in case where land is yet to be | Submitted. |

| | | |
|---|---|---|
| | purchased/acquired: Proof of ownership of land (existing owner) such as copy of latest jamabandi (not more than one month old) and credible document showing status of land acquisition w.r.t. project site as prescribed in OM dated 07.10.2014 issued by MOEF. | |
| 4. | Photograph submitted from 3 side. Please provided the 4th photograph. | Submitted. |
| 5. | Firefighting equipment not marked on the layout. | Marked on the layout. |
| 6. | Quantity of wastewater to be discharged, in the MC permission letter not mentioned. | Submitted. |
| 7. | Water balance chart for summer, rainy and winter seasons indicating critical requirements. Submitted but not as per the Table-1. | Submitted the plan and the quantity of grey and black water. |
| 8. | Drawing showing plumbing systems for use of fresh, treated and hot water submitted but not as per the annexure-1. | Revised plan submitted. |
| 9. | Cost of project not mentioned. | 50 Crore. |
| 10. | Please recheck the water balance | Corrected |
| 11. | Mark the location of public sewer | Marked on page 22 A |

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. Sahil Bansal, General Manager and Sh. Deepak Gupta, Environmental Advisor, of the project proponent.

(ii) Sh. Sital Singh, EIA-Coordinator, 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 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.

SEAC apprised that construction status report has not been received from PPCB so far inspite of the necessary follow up.

SEAC observed that Regional Office of PPCB, Mohali was requested vide email dated 20.03.2019 to send the status report of project site and again an email dated 29.03.2019. However, Regional Office, Mohali has failed to send the report well within time. Due to non-availability of the report, the Committee was unable to consider the case resulting in unnecessary wastage of time of the SEAC to SEAC and the project proponent. SEAC took serious note of the same.

After detailed deliberations, SEAC decided as under: -

a) Member Secretary, PPCB be requested to call an explanation of the concerned Regional Officer responsible for not sending the report in time in spite of the various reminders and send the action taken report.
b) Member Secretary, PPCB be requested to ask the concerned Regional Office to send the status report immediately to SEAC so that further action in the matter can be taken.

The decision of the SEAC has been conveyed to the PPCB vide letter no. 487 dated 14.06.2019.

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. Rohit Saroha, Legal Advisor and Sh. Deepak Gupta, Environmental Advisor, of the project proponent.
(ii) Sh. Sital Singh, EIA-Coordinator, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company
(iii) Sh. Sandeep Singh, FAE, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, Mohali vide letter no. 2279 dated 07.05.2019 has intimated that the site of the project was visited by the AEE of their office on 02.05.2019. It was observed that no construction work has been started by the promoter company, however, the boundary has been demarcated with iron sheets. The site is surrounded by an

upcoming commercial project which is under construction on one side. On others side Nijjar Road exists and, on the front, some temporary encroachments are there. Towards Nijjar Road opposite to the project site, a residential project i.e. SBP Homes Extension 3 exists. There are residential and commercial buildings within 250 mtrs radius of the site. There is no brick kiln/ rice sheller/ cement plant/stone crushing unit or any MAH industry within a radius of 500 m from the boundary of the project site. Furthermore, as per master plan of SAS Nagar sector 115 is meant for residential purpose. Therefore, the site of the project is conforming to the siting criteria laid down by the Govt. vide order dated 25.07.2008 as amended on 30.10.2009.

Sh. Rohit Saroha submitted an authority letter dated 11.07.2019 wherein he and Sh. Deepak Gupta, Environmental Advisor of the Company have been authorized by 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. Before taking said authority letter on record, SEAC took a serious view and made it clear to the Environmental Consultant that as per guidelines of MoEF&CC, sufficiently senior representative shall be present before the Committee but today as an exception (as the case already got delayed for want of the visit report of PPCB), they are allowed to present the case. From next time, same shall not be entertained.

SEAC allowed the project proponent to present the salient features of the project and Environmental Consultant 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. |

<table>
<tr><td>5)</td><td>Name and Location of the project</td><td>"SBP Homes Gardenia" at Village Chajjumajra, Kharar, SAS Nagar, Punjab by M/s SBP Shine Star Pvt. Ltd.</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>Rs. 50 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><td>Sr. No.</td><td>Description</td><td>Details</td></tr>
<tr><td>1.</td><td>Total Project land Area</td><td>20969 sqm.</td></tr>
<tr><td>2.</td><td>Built-up Area</td><td>44324 sqm.</td></tr>
<tr><td>3.</td><td>Green Area</td><td>3595 sqm.</td></tr>
</table></td></tr>
<tr><td>8)</td><td>Population (when fully inhabited)</td><td>2172 Persons.</td></tr>
<tr><td>9)</td><td>Water Requirements & source</td><td>
<table>
<tr><th>Break up of water requirement</th><th>Source</th></tr>
<tr><td>Total: 290 KLD in operation phase (194 KLD fresh water.<br><br>Total: 10-12 KLD in construction phase.</td><td>1. Groundwater (Main source).<br>2. Public supply (Not available but in future, it is proposed)<br>3. Treated effluent from the STP of MC.</td></tr>
</table></td></tr>
<tr><td>10)</td><td>Disposal Arrangement of Waste water</td><td>Total = 232 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>96</td><td>20</td><td>116</td></tr>
<tr><td>2.</td><td>Winter</td><td>96</td><td>06</td><td>130</td></tr>
<tr><td>3.</td><td>Rainy</td><td>96</td><td>02</td><td>134</td></tr>
</table></td></tr>
<tr><td>11)</td><td>Rain water recharging detail</td><td>9863 KL/year rainwater shall be recharged with adequate treatment as per the norms of CGWA.</td></tr>
<tr><td>12)</td><td>Solid waste generation and its disposal</td><td>a) 862 kg/day<br>b) Solid wastes will be appropriately segregated at source as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.<br>c) Chute and mechanical composter will be provided.<br>d) Non-biodegradable & recyclable waste will be sold to recyclers.</td></tr>
<tr><td>13)</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.<br>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>14)</td><td>Energy Requirements & Saving</td><td>a) 2250 KW from State Power Supply.<br>b) 1 x 500 KVA, 1x125 KVA and 1 x 240 KVA DG sets with canopy as standby arrangements will be provided.<br>c) Solar energy will be used for street lights on the road as well as in the parks in phased manner.<br>d) Use of LED will be encouraged.<br>e) Energy efficient electrical gadgets will be used.<br>f) Use of solar water heating system shall be encouraged.<br>g) 207 KWHD total energy will be saved by installing solar lights (10 Nos), replacing common area lights (300) with LED and Solar water heater for total water requirement.</td></tr>
<tr><td>15)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>General Manager Projects will be responsible for implementation of EMP during construction phase. During operational phase, Partner will be responsible for implementation of the EMP till the handing over of project to MC or Association of residents. Thereafter, Association of residents or MC who so ever takes over the project will be responsible for implementation of 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. 86 lacs</td><td>Rs.13.4 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs.17.4 Lac</td></tr>
</table>
</td></tr>
<tr><td>16)</td><td>CER activities alongwith budgetary break up and responsibility to implement</td><td>1. Director will be responsible for implementation of the CER activities.<br>2. Rs 30 Lakh will be spent for the following activities:<br>a) Tree plantation in MC, Kharar in year 2020-21.<br>b) Road repair in Vill. Chajjumajra in 2021.</td></tr>
<tr><td>17)</td><td>Other important facts</td><td>➢ CLU has been granted vide no. 23983 dated 05/12/2018.<br>➢ MC, Kharar vide its certificate no. 1679 dated 06/08/2018 has certified that the project proponent has applied for CLU for group housing project and after the approval of the same Solid Waste generated from this group housing will be</td></tr>
</table>

| | | |
|---|---|---|
| | | disposed off at the dumping site or will be collected by MC, Kharar on payment. This area falls in residential zone as per master plan of SAS Nagar.<br>➢ MC, Kharar vide its certificate no. 229 dated 14/02/2019 has certified that the project proponent has applied for CLU for group housing project and after the approval of the same MC, Kharar has no objection for discharging their 134 KLD treated sewerage into sewer system of MC, Kharar after depositing charges.<br>➢ The project is in critical zone as per the CGWA. There will be no significant impact on the groundwater as treated wastewater will be utilized for the flushing purposes and rainwater recharging will be provided within the project site.<br>➢ The project proponent has submitted copy of the application for abstraction of ground water applied to CGWA. |

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. | The project site is at distance of more than 14 kms from the Sukhna Wildlife Sanctuary. Further, there is no national park present in 10 km radius of project site. Even, there is no forest land is involved at the project site. |
| **2.** | As to whether the land use of the area is permissible for the establishment of the project for which EC has been applied as per the provisions of Master Plan of the city. | The area is permissible for the establishment of the project and CLU has been granted vide no. 23983 dated 05/12/2018. |
| **3.** | As to whether, the plans have been approved by the Competent Authority or still are Conceptual plans. If so, is there any change from the conceptual plans. | At present, they are having conceptual plan. |
| **4.** | Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA? | 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 and treated waste water shall be |

<table>
<tr><td></td><td></td><td>discharged onto land for plantation.</td></tr>
<tr><td>6.</td><td>Whether provision of module system shall be kept during installation of STP?</td><td>STP shall be installed on module basis.</td></tr>
<tr><td>7.</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>The provision has been kept for segregating grey and black water streams in the project.</td></tr>
<tr><td>8.</td><td>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?</td><td>Rs. 30 Lakhs (approx. 0.6%) has been kept reserved for completing the CER activities as per OM dated 01.05.2018. The activities shall be before the completion of the project. The activities are given below: -
<table>
<tr><th>Sr. No</th><th>Proposed CER activity</th><th>Amount (INR)</th></tr>
<tr><td>1.</td><td>Rain water harvesting in Village School, Desu majra</td><td>2,00,000/-</td></tr>
<tr><td>2.</td><td>Provision of solar panel of 20KW in Village School, Desu majra</td><td>12,00,000/-</td></tr>
<tr><td>3.</td><td>Provision of Tree plantation, toilets, water coolers in Village School, Desu majra</td><td>14,00,000/-</td></tr>
<tr><td></td><td>TOTAL</td><td>30,00,000/-</td></tr>
</table></td></tr>
</table>

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 a Group Housing project namely "SBP Homes Gardenia " having built up area 44324 sqm in total land area of 20969 sqm at Village Chajjumajra, Kharar, 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:**

**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.

## 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 290 KL/day, out of which 194 KL /day shall be met through own tubewell and remaining 96 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 232 KL/day, which will be treated in a separate STPs i.e. of capacity @210 KLD on SBR technology for black stream (60%) and of capacity 140 KLD on MBBR technology for grey stream (40%) to be installed on module system 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 | 96 | 20 | 116 |
| 2. | Winter | 96 | 06 | 130 |
| 3. | Rainy | 96 | 02 | 134 |

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) 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.

xv) 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 | White color |

| | | |
|---|---|---|
| | 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. | |
| 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 |

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

xvii) 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 (4 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xviii) 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.

xix) All recharge should be limited to shallow aquifer.

xx) 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.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) 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.

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

xxvi) 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) 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.

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 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. 30 Lacs towards following CER activities

| **Sr. No** | **Proposed CER activity** | **Amount (INR)** | Likely date of completion |
|---|---|---|---|
| 1. | Rain water harvesting in Village School, Desu majra | 2,00,000/- | March, 2021 |
| 2. | Provision of solar panel of 20KW in Village School, Desu majra | 12,00,000/- | March, 2021 |
| 3. | Provision of Tree plantation, toilets, water coolers in Village School, Desu majra | 14,00,000/- | December, 2022 |
| | **TOTAL** | **30,00,000/-** | |

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 86 Lacs towards capital cost and Rs 13.4 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 17.4 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

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 condition 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.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Rohit Saroha, Legal Advisor and Sh. Deepak Gupta, Environmental Advisor, on behalf of project proponent.

ii) Sh. Sital Singh, EIA-co-ordinator, M/s CPTL, Mohali, Environmental

Consultant of the promoter company.

Environmental Consultant of the promoter company presented the salient features of the project and requested for grant of environmental clearance.

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and the Committee has awarded **'Silver Grading'** to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same.

Therefore, the Authority decided to accept the recommendations of SEAC and grant environmental clearance for establishment of group housing project namely "SBP Homes Gardenia" having total area as 20969 sqm and built up area as 44324 sqm located at Village Chajjumajra, Kharar, SAS Nagar, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with the following amendments in the conditions as under:

**Conditions to be amended**

**Condition no. ii) of VII. Green Cover**

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.

**Condition no. ii) of XII. Miscellaneous**

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

**Item No. 152.02 Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Warehouse project located at NH-1 (New NH-44), Village Baprour, Rajpura, Distt. Patiala, Punjab by M/s Indoswift Logistics (Proposal No. SIA/PB/MIS/99617/2019).**

The SEIAA observed that

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Warehouse project located at NH-1 (New NH-44), Village Baprour, Rajpura, Distt. Patiala, Punjab by M/s Indoswift Logistics.

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. Neeraj Gupta, Partner, of the Promoter Company

(ii) Sh. Sandeep Garg, EIA-Coordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company

(iii) Ms. Simranjit Kaur, EIA Co-ordinator cum AGM, M/s Eco Laboratories Pvt. Ltd Mohali, Environment Consultant of the promoter company

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, Patiala was requested vide dated 08.05.2019 to send the report on the following:

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.

Environmental Engineer, PPCB, Regional Office, Patiala vide letter no. 1807 dated 14/05/2019 has intimated that the site of the subject cited project was visited by AEE of his office on 10.05.2019 and Sh. Yogendra Sharma, representative of the project was contacted. During visit, it was observed that the site falls on right hand side of Rajpura-Ambala Road. The site falls on the backside of another project namely M/s Indoswift Warehouse for which the report is being sent separately. On the backside of the site, the railway track exists. On left hand side of the site, the industry namely M/s JSW Vallabh Tin Plate, Village Baprour exist within 500 m. On

the right-hand site, a petrol pump of Reliance Industries exists within 500 m. Also, one playway school in the name of Angle Paradise exists at about 365 m from the site. Also, one residential house exists within 500m of the site. Across the road, a residential project namely M/s Parsavnath King City exists, Star Resorts hotel, Petrol Pump of Bharat Petroleum and Star Punjabi Dhaba exists within 500 m distance. Also another industry namely M/s Partap Industries Limited (Denim Unit), Village Baprour exists within 500 m of the site.

The pointwise reply as sought through email is given as under:-

| **Sr. No.** | **Location** | **Distance** |
|---|---|---|
| 1. | Construction status at site alongwith physical structures within 500 m radius of the site including the status of the industries if any | No construction activity has started. Only earmarking on the site has been done by using small burjis. The status of existence of physical structures is given above. The photographs of the site taken during the visit have been attached with the visit report. |
| 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. | 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 |

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

| | | |
|---|---|---|
| 1) | Activity or Item No. as per EIA Notification, 2006 (in schedule) | 8(a): Building & Construction Project.<br>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, Location of the project and Co-ordinates of the site | Warehouse project located at NH-1 (New NH-44), Vill. Baprour, Rajpura, Distt. Patiala, Punjab by M/s Indoswift Logistics.<br>Coordinates<br>Corner A- 30°25'13.27"N, 76°41'50.44"E<br>Corner B- 30°25'06.30"N, 76°42'01.83"E<br>Corner C- 30°25'11.02"N, 76°42'02.76"E<br>Corner D- 30°25'12.92"N, 76°42'02.95"E<br>Corner E- 30°25'12.93"N, 76°42'04.49"E |

<table>
<tr><td></td><td></td><td>Corner F- 30°25'15.22"N, 76°42'04.65"E<br>Corner G- 30°25'19.48"N, 76°41'53.61"E</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>26 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><td>Sr. No.</td><td>Description</td><td>Details</td></tr>
<tr><td>1.</td><td colspan="2">Total Project land Area<br>86379.15 sqm. (21.34 Acre)
<table>
<tr><th>Particulars</th><th>Area($m^2$)</th></tr>
<tr><td>Site Area</td><td>86,379.15</td></tr>
<tr><td>Permissible Ground Coverage (@ 60%)</td><td>51,827.49</td></tr>
<tr><td>Total Proposed Coverage Area (@ 45.4%)<br>• Block A<br>• Block B<br>• Block C</td><td>39,219.32<br>10,408.92<br>4,646.84<br>24,163.56</td></tr>
<tr><td>Fire Safety Tank</td><td>348.39</td></tr>
<tr><td>Toilet Block</td><td>43.47</td></tr>
<tr><td>Driver’s Block</td><td>56.25</td></tr>
<tr><td>Total Built-Up Area (3 + 4 + 5 + 6)</td><td>39,667.43</td></tr>
<tr><td>Permissible Green Area (@ 10%)</td><td>8,637.92</td></tr>
<tr><td>Proposed Green Area (@ 11.05%)</td><td>9,551.0</td></tr>
<tr><td>Permissible Parking Area (@ 15%)</td><td>12,956.87</td></tr>
<tr><td>Proposed Parking Area (@ 17.76%)</td><td>15,339.0</td></tr>
</table></td></tr>
<tr><td>2.</td><td>Built-up Area</td><td>39667.43 sqm.</td></tr>
<tr><td>3.</td><td>Green Area</td><td>9551 sqm.<br>• Green Area Required = 10% of plot area = 8,637.92 sqm<br>• Green Area Proposed = 9,551.0 sqm.(@ 11.05 % of total plot area)<br>• No. of trees required = 1 tree / 80 sqm of plot area = 1079 trees</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td></td><td>• Required Trees = 1080 nos.<br>• Proposed Trees = 1100 nos.</td></tr>
<tr><td>4.</td><td>Parking</td><td>15339 sqm.</td></tr>
</table>
</td></tr>
<tr><td>8)</td><td>Population (when fully inhabited)</td><td>100 Persons (Staff 90 & Visitors 10)</td></tr>
<tr><td>9)</td><td>Water Requirements & source</td><td>
<table>
<tr><th>Break up of water requirement</th><th>Source</th></tr>
<tr><td>Domestic purpose<br>Drinking & others: 3.0 KLD<br>Flushing purposes :1.5 KLD<br>Sub Total 4.5 KLD<br>Horticulture purpose<br>i) 51 KLD<br>ii) 2.0 KLD<br>Total: 57.5 KLD</td><td><br>Groundwater<br>Treated Water<br><br><br>Groundwater<br>Treated Water</td></tr>
</table>
</td></tr>
<tr><td>10)</td><td>Disposal Arrangement of Waste water</td><td>3.6 KLD of sewage will be generated, which will be treated in STP of 5 KLD capacity based on MBBR Technology with UF technology. The treated water @3.5 KLD shall be utilized as given below:
<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD) (Treated water + Fresh Water= Total water)</th></tr>
<tr><td>1.</td><td>Summer</td><td>1.5</td><td>2 + 51 = 53</td></tr>
<tr><td>2.</td><td>Winter</td><td>1.5</td><td>2 + 15= 17</td></tr>
<tr><td>3.</td><td>Rainy</td><td>1.5</td><td>2 + 3 =5</td></tr>
</table>
</td></tr>
<tr><td>11)</td><td>Rain water recharging detail</td><td>2859 $m^3$/hour of rain water volume will be recharged with 8 no. of rain water harvesting pits.</td></tr>
<tr><td>12)</td><td>Solid waste generation and its disposal</td><td>a) 20 kg/day<br>b) Solid wastes will be appropriately segregated as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.<br>c) Separate area will be earmarked for segregation of solid waste.<br>d) Bio-degradable waste will be composted by use of compost pit.<br>e) Recyclable waste will be sold to recyclers.<br>f) Inert waste will be dumped to authorized dumping site.</td></tr>
<tr><td>13)</td><td>Hazardous Waste</td><td>Spent Oil from operation of DG sets</td></tr>
<tr><td>14)</td><td>Energy Requirements & Saving</td><td>a) 490 KW from State Power Supply.<br>b) 2 x 250 KVA DG set with canopy as standby arrangements will be provided.<br>c) LED has been proposed to be used instead of CFL and 8 KW energy will be saved.</td></tr>
</table>

<table>
<tr><td>15)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>Mr. Yogesh Sharma of M/s Indoswift Logistics will be responsible for implementation of 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. 34 lacs</td><td>Rs.3.85 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs. 8.6 Lac</td></tr>
</table></td></tr>
<tr><td>16)</td><td>CER activities alongwith budgetary break up and responsibility to implement</td><td>1. Mr. Yogesh Sharma of M/s Indoswift Logistics will be responsible for implementation of the CER activities.<br>2. Rs 26 Lakh has been planned for the following activities:
<table>
<tr><th>Sr. No.</th><th>Activities</th><th>Annual Expenditure (in Lakh per year)</th><th>Timeline (In year)</th><th>Total Expenditure (in 5 years)</th></tr>
<tr><td>1.</td><td>Health Facilities like ambulance and health checkup camps in Subsidiary Health Centre Baprour</td><td>13</td><td>2</td><td>26</td></tr>
<tr><td></td><td>Total</td><td>13</td><td></td><td>26 Lakhs</td></tr>
</table></td></tr>
<tr><td>17)</td><td>Other important facts</td><td>➢ The project mainly comprises of 3 blocks for the storage of Non-Agro Products. The products to be stored within the warehouse project will be linked with the following:<br>i) Retail/FMCG/Consumer Durables<br>ii) Logistics & telecom<br>iii) Automobile & Industrial Automation<br>iv) Health care/media<br>v) E-commerce<br>➢ No wildlife or bird sanctuary falls within 10 km of project site.<br>➢ The project has been allotted Change in Land Use from Department of Town and Country Planning, Punjab vide Memo no. 614- STP(P)/ SP-327 dated 26.02.2019. The site falls in Mixed Land Use Zone of statutory Master Plan, Rajpura.<br>➢ Permission has been obtained from NHAI vide Letter No. 11029/NHAI/PIU/AMB/3198 dated 01.11.2018 for access</td></tr>
</table>

| | | |
|---|---|---|
| | | ➢ The project proponent has submitted application to Forest officer on 04.12.2018 for approach road.<br>➢ The project proponent has submitted copy of the application for abstraction of ground water filed to CGWA vide Application No. 21-4/4784/PB /INF/2019 dated 07.03.2019. |

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** |
|---|---|---|
| 1. | As to whether the permission under Wildlife (Protection) Act, 1972 has been obtained. | There is no national park and wildlife sanctuary present in 10 km radius of project site. As such, the same is not applicable. |
| 2. | a) 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. | a) CLU has been granted vide no. 614 dated 26/02/2019 wherein it has been mentioned that change of land use has been considered for an area 21.337 acres falling in village Baprour for warehouse (standalone) and the site falls in Mixed Land Use Zone of Statutory Master Plan, Rajpura. As per zoning regulations of Master Plan Rajpura, this activity is permissible in this land use zone. Permission is granted as CTP letter no. 1219-37 dated 27.02.2018. |
| 3. | Project proponent is proposing to allow the firms to store Non-agro products inside the premises. There is possibilities of storing hazardous waste/ hazardous goods at site. ~~and~~<br><br>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 | They shall allow the firms to store only finished goods at site and no hazardous waste / hazardous goods/ e-waste shall be allowed for storage. Further, no industrial effluent / emissions will be generated from the project except emissions from DG set. An undertaking to the above effect was submitted by the project proponent. |

| | | |
|---|---|---|
| | manufacturing process shall not be allowed since the application has been applied under 8(a) category-Building and Construction projects. | |
| 4. | 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. |
| 5. | a) Calculations of rain water harvesting pits is not in consonance with rain water to be collected. Clarify. | a) Number of pits were calculated considering peak rainfall intensity for 20 minutes time. However, considering hourly basis peak rainfall, no. of pits will be 24 in place of 08 earlier calculated. They will provide 24 pits so as to handle the peak rainfall for atleast one hour. |
| | b) No recharging shall be carried out within 50 m radius of STP to be installed so as to avoid the contamination of ground water. | b) They agreed and requested to make this a condition of environmental clearance. |
| 6. | a) Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?<br><br>b) Whether the grass or trees have been proposed in the green belt as the fresh water abstraction is too much? | a) 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.<br>b) Trees will be planted in the proposed green belt. An undertaking to the above effect was submitted by the project proponent. |
| 7. | What will be the treatment proposal for the sewage expected from the labours / employees during the construction phase? | Septic tank will be provided for the treatment of waste water generated during construction phase and treated waste water shall be discharged onto land for plantation. |
| 8. | Whether provision of module system shall be kept during installation of STP? | As the project is sort of commercial one, single STP of 5 KLD capacity shall be installed based on MBBR technology. |
| 9. | As to whether provision for segregating grey and black streams of waste water and separate | Only black water stream shall be generated in the project. |

<table>
<tr><td></td><td>treatment for both the streams and utilization has been made.</td><td></td></tr>
<tr><td>10.</td><td>Whether any Public sewer is available nearby. If not, what will be the mode of disposal?</td><td>There is no Public sewer in the area. However, sufficient green belt is available within the premises which is sufficient for meager waste water of 3.6 KLD expected from the project.</td></tr>
<tr><td>11.</td><td>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?</td><td>Rs. 26 Lakhs (approx. 0.6%) has been kept reserved for completing the CER activities as per OM dated 01.05.2018. The CER activities shall be completed before the completion of the project. The revised activities shall be carried out in the Govt. Elementary School, Shambhu Kalan and Govt. Elementary School, Baprour and details are given below: -
<table>
<tr><th>Sr. No</th><th>Proposed CER activity</th><th>Amount (INR)</th></tr>
<tr><td>1.</td><td>Rain water harvesting pit</td><td>4,00,000/-</td></tr>
<tr><td>2.</td><td>Modernizations of Kitchen Building</td><td>3,00,000/-</td></tr>
<tr><td>3.</td><td>Maintenance of School Building</td><td>13,00,000/-</td></tr>
<tr><td>4.</td><td>Renovation of Toilets</td><td>2,00,000/-</td></tr>
<tr><td>5.</td><td>Upgradation of Library</td><td>4,00,000/-</td></tr>
<tr><td></td><td>TOTAL</td><td>26,00,000/-</td></tr>
</table></td></tr>
</table>

SEAC took a copy of presentation along with additional documents & reply given by the project proponent and his environmental consultant on record. SEAC deliberated the application and Committee awarded **'Silver Grading'** to the project proposal and decided that case be forwarded to SEIAA with the recommendations to grant environmental for establishment of a Warehouse project located at NH-1 (New NH-44) having built up area 39667.43 sqm in total land area of 86,379.15 sqm at Villiage Baprour, Rajpura, Distt. Patiala, 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:**

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) 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 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 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 57.5 KL/day, out of which 54 KL /day shall be met through own tubewell and remaining 3.5 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 3.6 KL/day, which will be treated in a STP of capacity @5 KLD on MBBR technology with UF technology to be installed within the project premises. As proposed, reuse of treated wastewater @3.5 KLD and discharge of surplus treated wastewater shall be as under:

| Sr. No. | Season | For Flushing purposes (KLD) | Green Area (KLD) (Treated water + Fresh Water= Total water) |
|---|---|---|---|
| 1. | Summer | 1.5 | 2 + 51 = 53 |
| 2. | Winter | 1.5 | 2 + 15= 17 |

| | | | |
|---|---|---|---|
| 3. | Rainy | 1.5 | 2 + 3 =5 |

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) 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.

xv) 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) | 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 |
| d) | Treated wastewater (for reuse only for plantation purposes) from the STP treating black water | Green |
| e) | Treated wastewater (for reuse for flushing purposes or any other activity except plantation) from the STP treating grey water | Green with strips |
| f) | Storm water | Orange Color |

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

xvii) 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 (24 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xviii) 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.

xix) All recharge should be limited to shallow aquifer.

xx) 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.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) 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.

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

xxvi) 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) 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.

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 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 at least minimum amount of Rs. 26 Lacs towards following CER activities to be done in Govt. Elementary School, Shambhu Kalan and Govt. Elementary School, Baprour. The details are given below: -

| Sr. No | Proposed CER activity | Amount (INR) |
|---|---|---|
| 1. | Rain water harvesting pit | 4,00,000/- |
| 2. | Modernizations of Kitchen Building | 3,00,000/- |
| 3. | Maintenance of School Building | 13,00,000/- |
| 4. | Renovation of Toilets | 2,00,000/- |
| 5. | Upgradation of Library | 4,00,000/- |
| | **TOTAL** | **26,00,000/-** |

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 34 Lacs towards capital cost and Rs 3.85 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 8.6 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.

## 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 condition of CLU obtained vide memo no. 614- STP(P)/ SP-327 dated 26.02.2019.

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.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Yogesh Sharma, GM of the promoter company.

ii) Sh. Sandeep Garg, M/s Eco Laboratories & Consultants Pvt. Ltd., Mohali, Environmental Consultant of the promoter company.

Environmental Consultant of the promoter company presented the salient features of the project and requested for grant of environmental clearance.

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and the Committee has awarded **'Silver Grading'** to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same.

Therefore, the Authority decided to accept the recommendations of SEAC and grant environmental clearance for establishment of a Warehouse project located at NH-1 (New NH-44) having total area as 86379.15 sqm and built up area as 39667.4 sqm located at Village Baprour, Rajpura, Distt. Patiala, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with the following amendments in the conditions as under:

**Conditions to be amended**

**Condition no. ii) of VII. Green Cover:**

iii) 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.

**Condition no. ii) of XII. Miscellaneous**

ii) The project proponent shall comply with the conditions of CLU obtained vide memo no. 614- STP(P)/SP-327 dated 26.02.2019.

**Item No. 152.03: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Warehouse project located at NH-1 (New NH-44), Village. Baprour, Rajpura, Distt. Patiala, Punjab by M/s Indoswift Warehousing (Proposal No. SIA/PB/MIS/99620/2019).**

The SEIAA observed that

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Warehouse project located at NH-1 (New NH-44), Villiage Baprour, Rajpura, Distt. Patiala, Punjab by M/s Indoswift Warehousing.

The case was considered by the SEAC in its 181st meeting held on 11.07.2019 and same was attended by the following on behalf of the project proponent: -

(i) Sh. Neeraj Gupta, Partner, of the Promoter Company

(ii) Sh. Sandeep Garg, EIA-Coordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company

(iii) Ms. Simranjit Kaur, EIA Co-ordinator cum AGM, M/s Eco Laboratories Pvt. Ltd Mohali, Environment Consultant of the promoter company

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, Patiala was requested vide dated 08.05.2019 to send the report on the following:

1. Construction status at the site alongwith 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. 1806 dated 14/05/2019 has intimated that the site of the subject cited project was visited by AEE of his office on 10.05.2019 and Sh. Yogendra Sharma, representative of the project was contacted. During visit it was observed that the site falls on right hand side of Rajpura-Ambala Road. On the backside of another project namely M/s Indoswift Logistics for which the report is being sent separately. On the backside of the site, the railway track exists. On left hand side of the site, the industry namely M/s JSW Vallabh Tin Plate, Village Baprour exist within 500 m. On the right-hand site, a petrol pump of Reliance Industries exists within 500 m. Also, one playway school in the name of Angle Paradise exists at about 365 m from the site. Also, one residential house exists within 500m of the site. Across the road, a residential project namely M/s Parsavnath King City exists, Star Resorts hotel, Petrol Pump of Bharat Petroleum and Star Punjabi Dhaba exists within 500 m distance. Also, another industry namely M/s Partap Industries Limited (Denim Unit), Vilaleg Baprour exists within 500 m of the site.

The pointwise reply as sought through email is given as under: -

| **Sr. No.** | **Location** | **Distance** |
|---|---|---|
| 1. | Construction status at site alongwith physical structures within 500 m radius of the site including the status of the industries if any | No construction activity has started. Only earmarking on the site has been done by using small burjis. The status of existence of physical structures is given above. The photographs of the site taken during the visit have been attached. |
| 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. | 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. |

SEAC perused the report and observed that no construction work has been started.

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

<table>
<tr><td rowspan="2">1)</td><td>Activity or Item No.<br>as per EIA Notification, 2006 (in schedule)</td><td>8(a): Building & Construction Project.<br>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<br>(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, Location of the project and Co-ordinates of the project</td><td>Warehouse project located at NH-1 (New NH-44), village Baprour, Rajpura, Distt. Patiala, Punjab by M/s Indoswift Warehousing.<br>Co-ordinates<br>Corner A 30°25'28.17''N ;76°41'58.32''E<br>Corner B 30°25'24.13''N ;76°42'05.19''E<br>Corner C 30°25'19.83''N ;76°41'53.91''E<br>Corner D 30°25'15.44''N ;76°42'04.60''E</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>25.5 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 colspan="2">Total Project land Area<br>75039.79 sqm. (18.54 Acre)
<table>
<tr><th>Particulars</th><th>Area (sqm)</th></tr>
<tr><td>Total Plot area</td><td>75,039.79 (or 18.54 acres)</td></tr>
<tr><td>Permissible Ground Coverage (@ 60% of the Plot Area)</td><td>45,023.87</td></tr>
<tr><td>Total Proposed Coverage Area (@ 52.07% of the Plot Area)<br>• Block A<br>• Block B</td><td>39,079.93<br>24,883.83<br>14,196.10</td></tr>
<tr><td>Fire safety tank</td><td>232.2</td></tr>
</table></td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>Toilet Block</td><td>43.47</td></tr>
<tr><td></td><td>Built Up Area</td><td>39,355.6</td></tr>
<tr><td></td><td>Permissible Green Area (@ 10% of the Plot Area)</td><td>7,503.979</td></tr>
<tr><td></td><td>Proposed Green Area (@10.01% of the Plot Area)</td><td>7,715.41</td></tr>
<tr><td></td><td>Permissible Parking (@15% of the Plot Area)</td><td>11,255.97</td></tr>
<tr><td></td><td>Proposed Parking(@15.5% of the Plot Area)</td><td>11,634.0</td></tr>
</table>
<table>
<tr><td>2.</td><td>Built-up Area</td><td>39355.6 sqm.</td></tr>
<tr><td>3.</td><td>Green Area</td><td>7715.41 sqm.</td></tr>
<tr><td>4.</td><td>Parking</td><td>11634 sqm.</td></tr>
</table>
</td></tr>
<tr><td>8)</td><td>Population (when fully inhabited)</td><td>100 Persons (Staff 90 & Visitors 10)</td></tr>
<tr><td>9)</td><td>Water Requirements & source</td><td>
<table>
<tr><th>Break up of water requirement</th><th>Source</th></tr>
<tr><td>Domestic purpose<br>Drinking & others: 3.0 KLD<br>Flushing purposes :1.5 KLD<br>Sub Total 4.5 KLD<br>Horticulture purpose<br>i) 39 KLD<br>ii) 2.0 KLD<br>Total: 45.5 KLD</td><td><br>Groundwater<br>Treated Water<br><br><br>Groundwater<br>Treated Water</td></tr>
</table>
</td></tr>
<tr><td>10)</td><td>Disposal Arrangement of Waste water</td><td>3.6 KLD of sewage will be generated, which will be treated in STP of 5 KLD capacity based on MBBR Technology with UF technology. The treated water @3.5 KLD shall be utilized as given below:
<table>
<tr><th>S. No.</th><th>Season</th><th>For Flushing purposes (KLD)</th><th>Green Area (KLD) Treated water+ Fresh Water= Total water req.)</th></tr>
<tr><td>1.</td><td>Summer</td><td>1.5</td><td>2 + 39= 41</td></tr>
<tr><td>2.</td><td>Winter</td><td>1.5</td><td>2 + 12 = 14</td></tr>
<tr><td>3.</td><td>Rainy</td><td>1.5</td><td>2 + 2= 4</td></tr>
</table>
</td></tr>
<tr><td>11)</td><td>Rain water recharging detail</td><td>2542 $m^3$/hour of rain water volume will be recharged with 8 no. of rain water harvesting pits.</td></tr>
<tr><td>12)</td><td>Solid waste generation and its disposal</td><td>a) 20 kg/day<br>b) Solid wastes will be appropriately segregated as Bio-degradable and non- bio-degradable as per</td></tr>
</table>

<table>
<tr><td></td><td></td><td>MSW Rules, 2016.<br>c) Separate area will be earmarked for segregation of solid waste.<br>d) Bio-degradable waste will be composted by use of compost pit.<br>e) Recyclable waste will be sold to recyclers.<br>f) Inert waste will be dumped to authorized dumping site.</td></tr>
<tr><td>13)</td><td>Hazardous Waste</td><td>Spent oil from operation of DG sets</td></tr>
<tr><td>14)</td><td>Energy Requirements & Saving</td><td>a) 490 KW from State Power Supply.<br>b) 2 x 250 KVA DG set with canopy as standby arrangements will be provided.<br>c) LED has been proposed to be used instead of CFL and 8 KW energy will be saved.</td></tr>
<tr><td>15)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>Mr. Yogesh Sharma of M/s Indoswift Warehousing will be responsible for implementation of 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. 34 lacs</td><td>Rs.3.85 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs. 8.6 Lac</td></tr>
</table></td></tr>
<tr><td>16)</td><td>CER activities alongwith budgetary break up and responsibility to implement</td><td>1. Mr. Yogesh Sharma of M/s Indoswift Warehousing will be responsible for implementation of the CER activities.<br>2. Rs 26 Lakh has been planned for the following activities:
<table>
<tr><th>Sr. No.</th><th>Activities</th><th>Annual Expenditure (in Lakh per year)</th><th>Timeline (In year)</th><th>Total Expenditure (in 5 years)</th></tr>
<tr><td>1.</td><td>Construction and maintenance of toilets of Rajpura Kanan School and Govt. High School, Gadarpur.</td><td>8</td><td>1</td><td>8</td></tr>
<tr><td>2.</td><td>Scholarship to needy students in Rajpura Kanan School and Govt. High School, Gadarpur.</td><td>9</td><td>2</td><td>18</td></tr>
<tr><td></td><td>Total</td><td>17</td><td></td><td>26 Lakhs</td></tr>
</table></td></tr>
<tr><td>17)</td><td>Other important facts</td><td>➢ The project mainly comprises of 2 blocks for the</td></tr>
</table>

| | | |
|---|---|---|
| | | storage of Non-Agro Products. The products to be stored within the warehouse project will be linked with the following:<br>i) Retail/FMCG/Consumer Durables<br>ii) Logistics & telecom<br>iii) Automobile & Industrial Automation<br>iv) Health care/media<br>v) E-commerce<br>➢ No wildlife or bird sanctuary falls within 10 km of project site.<br>➢ The project has been allotted Change in Land Use from Department of Town and Country Planning, Punjab vide Memo No. 627-STP(P)/SP-337 dated 26.02.2019. The site falls in Mixed Land Use Zone of statutory Master Plan, Rajpura.<br>➢ Permission has been obtained from NHAI vide Letter No. RW/CH/PB/NH-1(44)/Km216.058/NOC/ 1310/2018/1771-73 dated 13.07.2018 for access.<br>➢ The project proponent has submitted application to Forest officer on 01.08.2018 for approach road.<br>➢ The project proponent has submitted copy of the application for abstraction of ground water filed to CGWA vide Application No. 21-4/4784/PB /INF/2019 dated 07.03.2019. |

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** |
|---|---|---|
| 1. | As to whether the permission under Wildlife (Protection) Act, 1972 has been obtained. | There is no national park and wildlife sanctuary present in 10 km radius of project site. As such, the same is not applicable. |
| 2. | a) 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. | a) CLU has been granted vide no. SP -337 dated 26/02/2019 wherein it has been mentioned that change of land use has been considered for an area 18.536 acres falling in village Baprour for warehouse (standalone) and the site falls in Mixed Land Use Zone of Statutory Master Plan, Rajpura. As per zoning regulations of Master Plan Rajpura, this activity is permissible in this land use zone. Permission is hereby granted as per the Chief Town Planner letter no. 1219-37 dated 27.02.2018. |

| | | |
|---|---|---|
| 3. | Project proponent is proposing to allow the firms to store Non-agro products inside the premises. There is possibilities of storing hazardous waste/ hazardous goods at site. ~~and~~<br><br>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 shall allow the firms to store only finished goods at site and no hazardous waste / hazardous goods/ e-waste shall be allowed for storage.<br>Further, no industrial effluent / emissions will be generated from the project except emissions from DG set. An undertaking to the above effect was submitted by the project proponent. |
| 4. | 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. |
| 5. | Calculations of rain water harvesting pits is not in consonance with rain water to be collected. Clarify. | Number of pits were calculated considering peak rainfall intensity for 20 minutes time. However considering hourly basis peak rainfall, no. of pits will be 24 in place of 08 earlier calculated. They will provide 24 pits so as to handle the peak rainfall for atleast one hour. |
| | b) No recharging shall be carried out within 50 m radius of STP to be installed so as to avoid the contamination of ground water. | b) They agreed and requested to make this a condition of environmental clearance. |
| 6. | a) Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?<br>b) Whether the grass or trees have been proposed in the green belt as the fresh water abstraction is too much? | a) 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.<br>b) Trees will be planted in the proposed green belt. An undertaking to the above effect was submitted by the project proponent. |
| 7. | What will be the treatment proposal for the sewage expected from the labours / employees during the construction phase? | Septic tank will be provided for the treatment of waste water generated during construction phase and treated waste water shall be discharged onto land for plantation. |
| 8. | Whether provision of module system shall be kept during installation of STP? | As the project is sort of commercial one, single STP of 5 KLD capacity shall be installed based on MBBR technology. |
| 9. | 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. | Only black water stream shall be generated in the project. |
| 10. | Whether any Public sewer is available nearby. If not, what will be the mode of disposal? | There is no Public sewer in the area. However, sufficient green belt is available within the premises which is sufficient for meager waste water of 3.6 KLD expected from the project. |

<table>
<tr>
<td>11.</td>
<td>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?</td>
<td>Rs. 26 Lakhs (approx. 0.6%) has been kept reserved for completing the CER activities as per OM dated 01.05.2018. The CER activities shall be completed before the completion of the project. The revised activities shall be done by adopting cremation ground in Village Baprour and in Village Ali Majra and details are given below: -
<table>
<tr><th>Sr. No</th><th>Proposed CER activity</th><th>Amount (INR)</th></tr>
<tr><td>1.</td><td>Maintenance and development of cremation ground</td><td>26,00,000/-</td></tr>
<tr><td></td><td>TOTAL</td><td>26,00,000/-</td></tr>
</table>
</td>
</tr>
</table>

SEAC took a copy of presentation along with additional documents & reply given by the project proponent and his environmental consultant on record. SEAC deliberated the application and the Committee awarded **'Silver Grading'** to the project proposal and decided that case be forwarded to SEIAA with the recommendations to grant environmental for establishment of a Warehouse project located at NH-1 (New NH-44) having built up area 39,355.6 sqm in total land area of 75039.79 sqm at Villiage Baprour, Rajpura, Distt. Patiala, 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:**

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) 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 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 m 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 45.5 KL/day, out of which 42 KL /day shall be met through own tubewell and remaining 3.5 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 3.6 KL/day, which will be treated in a STP of capacity @5 KLD on MBBR technology with UF technology to be installed within the project premises. As proposed, reuse of treated wastewater @3.5 KLD and discharge of surplus treated wastewater shall be as under:

| **Sr. No.** | **Season** | **For Flushing purposes (KLD)** | **Green Area (KLD) (Treated water + Fresh Water)** |
|---|---|---|---|
| 1. | Summer | 1.5 | 2 + 39= 41 |
| 2. | Winter | 1.5 | 2 + 12 = 14 |
| 3. | Rainy | 1.5 | 2 + 02 = 04 |

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) 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.

xv) 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) | 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 | White color |

| | | |
|---|---|---|
| | individual houses/establishment this proposal may also be implemented wherever possible. | |
| d) | Treated wastewater (for reuse only for plantation purposes) from the STP treating black water | Green |
| e) | Treated wastewater (for reuse for flushing purposes or any other activity except plantation) from the STP treating grey water | Green with strips |
| f) | Storm water | Orange Color |

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

xvii) 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 (24 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xviii) 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.

xix) All recharge should be limited to shallow aquifer.

xx) 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.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) 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.

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

xxvi) 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) 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.

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 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. 26 Lacs towards following CER activities to be done in cremation ground of Village Baprour and Village Ali Majra and details are given below: -

| Sr. No | Proposed CER activity | Amount (INR) |
|---|---|---|
| 1. | Maintenance and development of cremation ground | 26,00,000/- |
| | **TOTAL** | **26,00,000/-** |

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 34 Lacs towards capital cost and Rs 3.85 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 8.6 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

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 condition of CLU obtained vide memo no. 627- STP(P)/ SP-327 dated 26.02.2019.

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.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Yogesh Sharma, GM of the promoter company.

ii) Sh. Sandeep Garg, M/s Eco Laboratories & Consultants Pvt. Ltd., Mohali, Environmental Consultant of the promoter company.

Environmental Consultant of the promoter company presented the salient features of the project and requested for grant of environmental clearance.

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and the Committee has awarded **'Silver Grading'** to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same.

Therefore, the Authority decided to accept the recommendations of SEAC and grant environmental clearance for establishment of a Warehouse project located

at NH-1 (New NH-44) having total area as 75039.79 sqm and built up area as 39355.6 sqm located at Village Baprour, Rajpura, Distt. Patiala, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with the following amendments in the conditions as under:

**Conditions to be amended**

**Condition no. ii) of VII. Green Cover:**

iv) 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.

**Condition no. ii) of XII. Miscellaneous**

iv) The project proponent shall comply with the conditions of CLU obtained vide memo no. 627- STP(P)/SP-337 dated 26.02.2019.

**Item No. 152.04: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for Expansion of Steel Manufacturing Unit namely "Jogindra Castings Pvt. Ltd." at G.T Road, Sirhind Side, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab by M/s. Jogindra Castings Pvt. Ltd. (Proposal no SIA/PB /IND /22600 /2018)**

The SEIAA observed that

The project proponent has filed application for obtaining Environmental clearance under EIA notification, 2006 for expansion of Steel Manufacturing Unit namely "Jogindra Castings Pvt. Ltd." At G.T Road, Sirhind Side, Mandi Gobindgarh, Tehsil Amloh, Distt. Fatehgarh Sahib, Punjab. The project proponent will replace already installed two Induction Furnaces of capacity 5 TPH and 3 TPH with High Efficiency Induction Furnaces having combined capacity of 80 TPH. The project is covered under category 3(a)- Secondary Metallurgical Industries (ferrous & non-ferrous) of the Schedule appended to the said notification.

The project was earlier granted TOR vide letter no. SEIAA/2018/697

dated 25.05.2018 with Standard Terms of Reference and additional specific TORs decided during meeting of SEAC.

Now, the project proponent has submitted EIA report.

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. Sanjay Gupta, Director, of the Promoter Company

(ii) Sh. Sandeep Garg, EIA-Coordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company

(iii) Ms. Simranjit Kaur, EIA Co-ordinator cum AGM, M/s Eco Laboratories Pvt. Ltd Mohali, Environment Consultant of the promoter company

SEAC allowed the project proponent to present the salient features of the project. Environmental Consultant presented the same as under: -

- The existing industrial unit deals with the manufacturing of Billets/ Ingots/ TMT Bars/ Flats/ Structures @ 90 TPD or ERW pipes @ 200 TPD with 2 Induction Furnaces of capacity 3 TPH & 5 TPH and 1 Rolling Mill.
- Now, the industry wants to replace existing 2 IF's with 4 High Efficiency Induction Furnaces; out of which 2 IF's of capacity 15 TPH each and 2 IF's of capacity 25 TPH each. Also, there is addition of one more rolling mill along with the existing rolling mill. Hence, after expansion, production capacity of the industrial unit will become 1,000 TPD for manufacturing of Billets/ Ingots/ TMT Bars/ MS Bars/ Flats/ Structures/ HR Coils/ Pipes/ Wire Rods.
- Earlier the area of the project was 14,344.79 sq.m (or 3.54 acres). However, for expansion adjoining additional land of 27,351.28 sq.m (or 6.75 acres) has been purchased and 2,509.29 sq.m (or 0.62 acres) has been acquired on lease basis. Thus, total area of the project becomes 44,205.3 sq.m (or 10.92 acres).
- Project falls in the Industrial Zone as per the Master Plan of Mandi Gobindgarh.
- Letter has been obtained from District Town Planner stating that project falls in the notified Industrial Zone.
- The Current Directors of the company are as under:
  1. Sh. Adarsh Garg
  2. Sh. Sanjay Gupta
- Total cost of project after expansion: Rs. 43.34 Crores i.e. Cost of existing project: Rs. 20.5 Crores & Cost of proposed project: Rs. 22.77 Crores.
- Project Approvals/ Agreement

| Description | Details |
|---|---|
| Letter from DTP | Obtained from District Town Planner vide Memo No. 604 dated 24.05.2019. |
| CTO from PPCB | Varied Consent to Operate has been obtained from PPCB under Water (Prevention & Control of Pollution) Act, 1974 vide Letter No. CTOW/Varied/FGS/2018/7568126 dated 30.08.2018; valid till 30/09/2022 and Air (Prevention & Control of Pollution) Act, 1981 vide Letter No. CTOA/Varied/FGS/2018/7568312 dated 30/08/2018; valid till 30/09/2022. |
| Authorization for Hazardous Waste | Authorization for Hazardous waste has been obtained from PPCB vide Authorization No. HWM/Fresh/FGS/2017/4624864 dated 12.01.2017 and valid till 31.03.2021. |
| Agreement for disposal of APCD dust | Agreement done with M/s Madhav Alloys Pvt. Ltd. for disposal of APCD dust vide dated 01.02.2019. |
| Agreement for disposal of slag | Agreement done with M/s Khanna Cement Products for utilization of slag for manufacturing of Concrete Blocks/ Paver Tiles/ Road Gullies/ Manholes etc. vide dated 08.01.2019 |
| Approval for Power load | Obtained vide Memo No. 216 dated 10.01.2019 for additional load of 20.3 MW. |
| Certified Compliance Report from RO, PPCB | Obtained from RO, PPCB vide Letter No. 76 dated 10.01.2019. |
| NOC from Sarpanch for Pond adoption | a) NOC obtained from Sarpanch of the Village Roorki, Block Sirhind, Distt. Fatehgarh Sahib, Punjab vide dated 27.02.2019.<br>b) NOC obtained from Sarpanch of the Village Harbanspura, Block Sirhind, Distt. Fatehgarh Sahib, Punjab vide dated 01.05.2019.<br>c) NOC obtained from Sarpanch of the Village Wazirabad, Block Sirhind, Distt. Fatehgarh Sahib, Punjab vide dated 01.05.2019. |
| CGWA Approval | Application has been submitted vide application No. 21-4/5000/PB/IND/2019 dated 28.03.2019. |

- Co-ordinates of the Project

| | |
|---|---|
| A 30°39'21.72"N and 76°18'42.26"E | B 30°39'17.59"N and 76°18'46.26"E |
| C 30°39'18.55"N and 76°18'47.62"E | D 30°39'16.26"N and 76°18'50.06"E |
| E 30°39'20.22"N and 76°18'55.49"E | F 30°39'22.58"N and 76°18'53.21"E |
| G 30°39'22.29"N and 76°18'52.91"E | H 30°39'22.94"N and 76°18'52.30"E |
| I 30°39'23.46"N and 76°18'53.07"E | J 30°39'23.96"N and 76°18'52.70"E |
| K 30°39'21.49"N and 76°18'49.00"E | L 30°39'24.14"N and 76°18'46.09"E |

- Brief of the Project

| Details | Existing | Proposed | Total (After Expansion) |
|---|---|---|---|
| Plot Area | 14,344.79 sq.m.<br>(or 3.54 acres) | • Land on lease 2,509.29 sq.m. ( or 0.62 acres)<br>• Land Purchased 27,351.28 sq.m. (or 6.75 acres) | 44,205.3 sq.m.<br>(or 10.92 acres) |
| Production Capacity | 90 TPD of Billets/ Ingots/ TMT Bars/ Flats/ Structures or 200 TPD of ERW pipes | 910 TPD of Billets/ Ingots/ TMT Bars/ Flats/ MS Bars Structures / HR Coil/ Pipes/ Wire Road | 1,000 TPD of Billets/ Ingots/ TMT Bars/ Flats/ MS Bars/ Structures / HR Coil/ Pipes/ Wire Road |
| Induction Furnace | 2 Induction Furnaces of capacity 5 TPH & 3 TPH,<br>rolling mill | Replacement of existing 2 IF's and addition of 2 IF's & rolling mill | 2 no's Induction Furnaces of capacity 25 TPH each and 2 no's Induction Furnaces of capacity 15 TPH each<br>and two rolling mill |
| Raw Materials | Scrap: 95 TPD<br>Ferro Alloys: 1 TPD | Scrap: 980 TPD<br>Ferro Alloys: 24 TPD | Scrap: 1075 TPD<br>Ferro Alloys: 25 TPD |
| Manpower | 110 (both technical & non-technical);<br>5 workers are residing within project premises | 250; out of which 20 will be residing within project premises | 360 (both technical & non-technical); out of which, 25 workers will be residing within project premises |
| Project Cost (in Crores) | Rs. 20.5 Cr. | Rs. 22.9 Cr. | Rs. 43.4 Cr. |
| Total Water Demand (KLD) | 25 | 139 | 164 |
| Domestic Water Demand (KLD) | 5 | 13 | 18 |
| Cooling Water Demand (KLD) | 18 | 48 | 66 |
| Green Area demand (KLD) | 3 | 77 | 80 |
| Source of water supply | Ground water | | |
| Power Load | 9,698 KW | 20,302 KW | 30 MW |
| Source of Power | Punjab State Power Corporation Limited (PSPCL) | | |

| | | | |
|---|---|---|---|
| Power Back up | 1 DG set of 320 KVA | Replacement of existing DG set with 2 DG sets of 500 KVA | 2 DG sets of capacity 500 KVA each |

- Area Breakup of the project

| Sr. No. | Description | Area (in sq.ft.) |
|---|---|---|
| 1. | Total shed Covered area<br>a) Existing shed covered area<br>b) Proposed shed covered area | 1,81,065<br>a) 92,242<br>b) 88,823 |
| 2. | Green area (@ 33.73 %) | 1,60,400 |
| 3. | Road area | 79,600 |
| 4. | Parking area | 28,173 |
| 5. | Open area & Grid area | 15,539 |
| 6. | Office block covered area | 4,324 |
| 7. | Stores/ lab/ canteen/ office etc | 6,149 |
| 8. | Proposed RCC covered area (hazardous waste storage area) | 400 |
| Total area of the project | | 47,56,50 sq.ft. or 44,205.39 $m^2$ |
| 1. | Raw Material storage area | 55,000 |
| 2. | Finished good area | 52,000 |
| 3. | Slag storage area | 3,375 |
| 4. | Working area/Furnace room /other shed area | 70,690 |
| Total covered area of the project | | 1,81,065 sq.ft. |

- There is no use of the chemicals during the manufacturing process. Only small quantities of lab chemicals are used for in-house laboratory testing. Storage sheds have been provided for raw materials and products storage. The details of material quantities & storage capacities are given below:

| Sr . No. | Particulars | Quantity which can be stored | No. of Days for storage |
|---|---|---|---|
| 1. | Raw materials | 74,250 T | 68 Days |
| 2. | Finished Goods | 28,080 T | 28 Days |
| 3. | Slag | 1,687.5 T | 51 Days |
| 4. | APCD dust | 20 T | 7 Days |

- The details of emissions are given below:

| Source | Description | Capacity | APCD | Stack Height |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Furnaces | Existing | 5 TPH- 1 IF & 3 TPH- 1 IF | Common APCD (wet scrubber) | 22 m |
| | After Expansion | 25 TPH- 2 IF<br>15 TPH – 2 IF | Side suction hood followed by Pulse Jet Bag Filter | 18 m |
| DG Set | Existing | 1 No. 320 KVA | ----- | 5 m |
| | After Expansion | 2 No. 500 KVA | ----- | |

- Details of Effluent & Hazardous Waste

| Details | Existing | After Expansion | Remarks |
|---|---|---|---|
| Industrial Effluent | Nil | Nil | No industrial effluent generated. |
| Domestic Effluent | 4.0 KLD | 14.4 KLD | Wastewater generated from the project is being treated in the Septic tank. After expansion, wastewater will be treated in proposed STP of capacity 20 KLD. |

- Details Hazardous Waste

| Hazardous Waste Category | Existing | After Expansion | Disposal |
|---|---|---|---|
| Cat. 35.1 – Exhaust air or Gas cleaning Residue | 10.8 TPA | 962.5 TPA (2.75 TPD) | Agreement done with M/s Madhav Alloys Pvt. Ltd. |
| Cat. 5.1 – Used Oil | 0.01 KL per annum | 0.080 KL per annum | To authorized vendor |

- Details of Water Requirement

| Description | Water Requirement (KLD) | |
|---|---|---|
| | Existing | After Expansion |
| Cooling water demand | 18 | 66 |
| Drinking water demand | 5 | 18 |
| Green area | 3 | 80 |
| Total water demand | 25 | 164 |
| Source of water | Ground Water (bore well) | |

- List of Machinery

| Sr. No. | Machinery | Existing | After expansion |
|---|---|---|---|
| 1. | Induction Furnace | 02<br>(3 TPH & 5 TPH) | 04<br>(2* 25 TPH & 2 *15 |

| | | | |
|---|---|---|---|
| | | | TPH each) |
| 2. | Pipe Plant | 1 | 2 |
| 3. | Rolling Mill | 1 | 2 |
| 4. | APCD | 1 | 4 |
| 5. | DG set | 1 (320 KVA) | 2 (500 KVA) |
| 6. | Shearing Machine | 2 | 6 |
| 7. | Magnets | 7 | 12 |
| 8. | Overheard Cranes | 12 | 30 |
| 9. | Bailing Press | 1 | 3 |
| 10. | Continues Casting Machine (CCM) | 1 | 2 (2 strands each) |
| 11. | Weighbridge | 1 | 3 |

- The detail of the capacity of furnace and total production at different stages is as under:

| Year of Establishment | Installed Capacity | Power Load | Total Production Capacity | Whether covered under EIA Notification or Not |
|---|---|---|---|---|
| 27.03.1997 | 3 TPH | 1985 KW | 40 TPD | The industry does not require EIA vide notification 1994 because industry is secondary metallurgical & not having EAF. SAC -cum - CSA approval dated 21.05.1993 has been obtained (copy submitted). However, the industry was established on 27.03.1997. |
| 31.03.1999 | 3 TPH | 2128 KW | 40 TPD | The industry does not require EIA vide notification 1994 because industry is secondary metallurgical & not having EAF. Consent to operate was obtained from PPCB.(copy submitted) |
| 03.09.2003 | 3 TPH & 5TPH | 5898 KW | 40 TPD | The industry does not require EIA vide notification 1994 because industry is secondary metallurgical & not having EAF. |
| 01.01.2016 | 3 TPH & 5 TPH | 9698 KW (Including Rolling) | 90 TPD | The industry does not require EIA vide notification S.O. 1533(E) DTD 14.09.2006 because the production capacity is < 30,000 TPA. A copy of the valid consent has been |

| | | | | |
|---|---|---|---|---|
| | | | | submitted. |

- Environmental Status
  - The climate of the district is characterized by dryness except a brief spell of monsoon season in a very hot summer and a bracing winter. Temperature starts increasing rapidly after February. May and June are the hottest months with daily average temperature going up to 41.2°C and minimum average daily temperature as 24.2°C. Hot scorching dust laden winds blow during the summer season and on individual day, the temperature sometimes goes upto 45°C to 47°C.
  - The average annual rainfall is in the range of 660-700 mm. The annual number of rainy days on an average is about 51 days in a year, out of which, about 34 days falls in the monsoon period of July to September.
  - In summer months of April, May and June, which is the driest part of the year, the afternoon humidity comes down to 23% while the relative humidity during monsoon months goes up-to about 81%.
  - Annual trend indicates mean wind speed to be highest in the months of March, April, May, June and July (7.8-15.5 km/hour) and lowest in the month of October, November and December (2.5-3.5 km/hour).

- Ambient Air Quality in the Study Area:

1. P-98 of $PM_{10}$ and $PM_{2.5}$ respectively are outside the NAAQ standards of 100 and 60 $\mu g/m^3$ respectively.
2. The levels of $SO_2$ are much below the desired limits of 80 $\mu g/m^3$. P98 is 12.74 $\mu g/m^3$.
3. The levels of $NO_x$ are also below the desired limits of 80 $\mu g/m^3$. P98 is 29.96 $\mu g/m^3$.
4. The CO level at all the sampling points is less than 1.5 $\mu g/m^3$.
5. The lead (Pb) level in Particulate Matter at all the sampling points is less than 0.04 $\mu g/m^3$ which is less than the desired limit of 1.0 $\mu g/m^3$.
6. The Arsenic (As) level in Particulate Matter at all the sampling points is less than 0.01 $ng/m^3$ which is less than the desired limit of 6.0 $ng/m^3$
7. The Nickel (Ni) in Particulate Matter at all the sampling points is less than 10 $ng/m^3$ which is less than the desired limit of 20.0 $ng/m^3$.
8. Aermod Model has been used to plot Wind Rose Diagram. The wind rose diagram indicates that the most predominant winds are mainly flowing from North West, with the secondary wind direction being from the South-East.
9. PM10- The maximum incremental pollutant concentration near sources and within 1000 m is 0.8 $\mu g/m^3$, within 2000 m decreases to 0.3 $\mu g/m^3$ and beyond which the pollutant rapidly decreasing to the ambient value.
10. PM2.5- The maximum incremental pollutant concentration near sources and within 500 m is 0.5 µg/m3, within 1000 m decreases to 0.4 µg/m3 and beyond which the pollutant slowly settles down to the ambient value. All values are much below the CPCB limits.
11. SO2- The maximum incremental pollutant concentration near pollution sources decreases to 1.0 $\mu g/m^3$ beyond it the pollutant rapidly disperses to 0.5 $\mu g/m^3$.
12. CO- The maximum incremental pollutant concentration near sources and within 1000 m is 4.0 $\mu g/m^3$, within 2000 m decreases to 2.0 $\mu g/m^3$ and beyond that, the pollutant rapidly decreasing to 0.04 $\mu g/m^3$. All values are much below the CPCB limits.

13. NOX- The maximum incremental pollutant concentration rapidly gets diffused to 0.90 µg/$m^3$ and further drops down to 0.4 µg/$m^3$.

- Results of Surface Water Monitoring-
  a. The results of Bhakra Canal show that BOD is less than 20 mg/l & pH is nearly 7.
  b. Similarly, for Amloh Minor canal, BOD is about 20 mg/l & pH is nearly 7.
  c. For Sirhind choe canal, BOD is around 20 mg/l & pH is nearly 7.
  d. For IR Distributary canal, BOD is less than 20 mg/l & pH is nearly 7.
  Water is fit for irrigation as well as industrial cooling.

- Ground Water Quality Results

1. pH varies from 7.21 -7.52 which is in between the acceptable limits i.e. 6.5 to 8.5 for potable water.
2. Calcium varies from 44.0 to 56.0 mg/l. The highest value was observed at Salana, which is less than the acceptable & permissible limits i.e. 75 and 200 mg/l respectively.
3. Magnesium varies from 17 to 24 mg/l. The highest value was observed at Taksus Steels which is located at distance of about 4.0 km from the Project location, which is less than the acceptable & permissible limits i.e. 30 and 100 mg/l respectively.
4. Chloride concentration which is also one of the important parameters varies from 47 to 66 mg/l. It was found maximum at Lohar Majra and minimum at Taksus Steels, which is less than the acceptable & permissible limits i.e. 250 and 1000 mg/l respectively.
5. Heavy metals like Cadmium, Chromium, Lead and Zinc were much below the permissible limit in all the samples.
6. Iron varies from 0.36 to 0.58 mg/l, which is more than the acceptable limit i.e. 0.3 mg/l.
7. Sulphate vary from 60 to 95 mg/l, which is less than the acceptable & permissible limits i.e. 200 and 400 mg/l respectively.

   As per report of CGWA, Fatehgarh Sahib, the ground water of Mandi Gobindgarh is suitable for domestic, drinking & Irrigation purposes.

- Noise Monitoring Results

  Minimum and maximum noise levels recorded during the day time were from 52.6 dB(A) and 68.4 dB(A) respectively during day and minimum and maximum level of noise during night time were 42.1 dB(A) and 57.6 dB(A) respectively. This may be attributed to the presence of machineries and vehicular movement nearby the project location.

- Traffic Study

  - Project is located at a distance of 0.5 km from NH-1. The National Highway NH-1 connecting New Delhi to Amritsar is well designed to withstand the large vehicles count & heavy vehicles. However, vehicles passing on the road in front of the project are mainly trucks which are used for the transportation of raw materials & final products.
  - Traffic study was conducted on 10$^{th}$ Jan, 2019 as well as 21$^{st}$-23$^{rd}$ May, 2019 by team members of Eco along with employees of industry so as to assess the impact on local transport infrastructure due to proposed increased production of Jogindra Castings Pvt. Ltd. and adjoining projects who have proposed expansion.
  - As per the traffic study, the road can take the increased load of expansion.

- Existing Traffic Scenario & LOS at different locations

| Locations | V (Volume in PUC/day) | C (Capacity in PUC/day)* | Existing V/C ratio | LOS |
|---|---|---|---|---|
| A | 243 | 1,900 | 0.12 | A |
| B | 727 | 1,900 | 0.38 | B |

- LOS values in comparison to V/C:

| **V/C** | **LOS** | **Performance** |
|---|---|---|
| 0.0-0.2 | A | Excellent |
| 0.2-0.4 | B | Very Good |
| 0.4-0.6 | C | Good/ Average/ Fair |
| 0.6-0.8 | D | Poor |
| 0.8-1.0 | E | Very Poor |

- Details of trucks used for transportation of raw materials and final products of the industries located on road wherein traffic study was conducted

| **Sr. No.** | **Industry's Name** | **Details** | **Description** | **Production capacity** | **No. of trucks per day** |
|---|---|---|---|---|---|
| 12. | Jogindra Castings Pvt. Ltd. | Existing | Raw Materials | 96 TPD | 5 |
| | | | Final Products | 90 TPD | 5 |
| | | Proposed | Raw Materials | 904 TPD | 46 |
| | | | Final Products | 910 TPD | 46 |
| **Additional traffic load due to industries** | | | | | 92 x 3/4[a] = 69 |
| [a] Considering an average capacity of truck as 20 MT and considering that few trucks carrying raw materials will also carry finished products. | | | | | |

- Additional traffic load of nearby industries due to proposed expansion

| Sr. No. | Vehicles Distribution | Number of Vehicles Distribution/Day | Passenger Car Unit (PCU) | Number of Vehicles Distribution/Day |
|---|---|---|---|---|
| | | Road Connecting the project | | Road Connecting the project |
| 1. | Trucks | 69+4[b] | 3 | 219 |
| 2. | Two-wheelers | 40 | 0.5 | 20 |
| | Total | | | 239 |

- Modified Traffic Scenario & LOS at different locations (after expansion)

| Locations | V (Volume in | C (Capacity in PUC/day) | Existing V/C ratio | LOS |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| | PUC/day) | | | |
| A | 243 + 239 = 482 | 1900 | 0.25 | B |
| B | 727 + 239 = 966 | 1900 | 0.50 | C |

- Inference for the Traffic Study conducted on 8th Jan 2019
  The V/C ratio is found to be between 0.2-0.4 for location A which means that the performance of road will be Very good.
- The V/C ratio at location B is between 0.4-0.6 which means that the performance of road will be good.
- Similarly, Traffic Study was conducted on 21st -23rd May 2019 & Inference is as under:
- The V/C ratio is found to be between 0.2-0.4 for location A which means that the performance of road will be Very good.
- The V/C ratio at location B is between 0.4-0.6 which means that the performance of road will be good.
  The LOS in both one day and three-day study are same which means that the carrying capacity of road is adequate to handle future load.

➢ Parking Details

- Maximum No. of Trucks required as per production capacity: 15 trucks per hour
- Total 48 trucks can be parked within the industry. Out of which 20 trucks can parked in designated parking area and 28 trucks can be parked under sheds.
- Approx. 5 no. of trucks per day are used to carry raw materials for the existing unit. After expansion. approx. 55 no. of trucks per day will be used to carry raw materials. Since, the existing road is sufficient to cater to this meager increase in transportation; therefore, there will be less impact

➢ Air Pollution

- Major sources of air pollution will be provided with air pollution control systems to limit the air pollutant emissions within the permissible norms.
- Fugitive emissions of smoke, gases in and around the furnace will be removed by adequate ventilation systems.
- For adequate dispersion of gases, stack of adequate height will be provided that conforms to statutory requirements.
- For heat dissipation in the work zones arising from furnaces, adequate ventilation systems will be provided.
- Effective pollution control system i.e., Bag Filter, I.D. Fan & stack of adequate height has been provided for controlling the emissions from Induction Furnace.

➢ General Mitigation Measures

- Haulage roads are sprinkled with water at regular intervals for which water tankers with sprinkler arrangement are deployed.
- Trucks carrying raw materials are having valid PUC Certificate.
- No pressure horns will be permitted to control noise pollution.
- Face masks are provided for the people working dust generating locations.
- All internal roads in the premise are paved/ tarred.
- Speed limit of 10 km/hr. is enforced for vehicles within the plant premises to prevent

road dust emission.

- Regular sweeping of roads is being practiced with regular sprinkling (in future with treated water) to minimize dust emissions.

➢ Measures for fugitive emission control are given below:

- Pucca roads within premises, water sprinkling in dusty areas
- Greenbelt/plantation to arrest fugitive dust emission.
- Trucks carrying raw materials shall be covered with tarpaulin to prevent spreading of dust during transportation.
- Water sprinkling shall be practiced at loading-unloading locations.
- The conveyors shall be suitably covered to control fugitive emissions
- All internal roads in the premises are paved /tarred.

➢ After expansion, hazardous waste produced from the industrial unit is estimated to be 2.75 TPD in the form of Exhaust Air or Gas cleaning residue (APCD ash) under Category 35.1 and 0.08 KL/annum of spent oil under Category 5.1 of Schedule I. Used oil generated will be sold to Authorized vendor of PPCB. APCD dust is being given to M/s Madhav Alloys Pvt. Ltd., where metals such as zinc & lead is recovered.

➢ As there will be only construction of foundation for the Induction Furnace hence, there will be utilization of fly ash as per Fly Ash Notification, 2009.Fly ash-based cement i.e. Portland Pozzolana Cement (PPC) will be used for construction of foundation.

➢ The existing green area within the project premises is 604.08 sq.m. and 14,302.97 sq.m. is the proposed green area. Thus, total green area of the project becomes 14,907.06 sq.m. (or 33.73%).12 trees are existing within the industry premises of Neem, Guava, Ashoka trees, etc. In addition to this, 553 trees are proposed overall after expansion. Details of proposed plantation along with Landscape plan have been submitted. Green Area A: 1,02,634 sq.ft. Green Area B: 46,166 sq.ft. Green Area C: 5,900 sq.ft Green Area D:3,700 sq.ft Green Area E:990 sq.ft Green Area F:6,10 sq.ft Green Area G:400 sq.ft

➢ No. of trees required as per guidelines = 44205.39/80 = 553 Trees

➢ Rain Water Harvesting

- Three ponds have been adopted for artificial rain water in the Sirhind block.

| **Pond location** | **Area of the pond (in sq.m)** | **Depth of the pond** | **Volume/Storage capacity ($m^3$ per annum)** |
|---|---|---|---|
| Village Roorki | 10,117.14 | 3 | 30,351 |
| Village Harbanspura | 8,093.71 | 3 | 24,281 |
| Village Wazirabad | 8,093.71 | 3 | 24,281 |
| **Total** | **26,304.56** | - | **78,913** |

- No. of fillings = 3 (max no. of fillings = 3)
- Total recharge in the pond (in cubic meter annually) = 78,913*3= 2,36,739 $m^3$

- Total quantity of water recharge is 50 % of the volume of water available in the pond after de-silting i.e. 65 % of 2,36,739 $m^3$ per annum = 1,18,370 $m^3$ per annum
- Thus, as per the CGWA Guidelines, recharging of ground water is double of the ground water withdrawal. NOC has been obtained from the Sarpanches of respective Villages.

➢ Before disposing off the slag, metal is recovered. The quantity of slag is estimated to be 33 TPD after expansion of project. Out of this, approx. 16.5 TPD of metal will be recovered. After metal recovery, remaining will be sold to Khanna Cement Product for manufacturing for manufacturing of Concrete Blocks/ Paver Tiles/ Road Gullies/ Manholes, etc.

➢ APCD dust is being disposed off to M/s Madhav Alloys Pvt. Ltd., wherein metals such as zinc & lead are recovered. Agreement has been done with M/s Madhav Alloys Pvt. Ltd. for disposal of APCD dust.

➢ 1 lakh will be allocated per year to ensure health & safety of all contract and casual workers.

➢ Details of the amount to be spent on EMP is given below:

| Sr. No | Environmental Protection Measures | Capital Cost (Rs. in Lakhs) | Recurring Cost (Rs. in Lakhs/year) |
|---|---|---|---|
| 1. | Air Pollution Control (Installation of APCD) | 130 | 1.0 |
| 2. | Water Pollution Control (STP) | 20 | 2.5 |
| 3. | Noise Pollution Control (Including cost of landscaping & green belt) | 5.0 | 1.5 |
| 4. | Solid Waste Management | 3.0 | 1.0 |
| 5. | Environment Monitoring & Management | 3.0 | 5.0 |
| 6. | Health, Safety & Risk Assessment | 3.0 | 0.5 |
| 7. | Rain Water Recharging outside the project premises | 1.5 | 1.0 |
| 8. | Miscellaneous | 1.0 | 0.5 |
| Total | | 166.5 | 13 |

➢ Corporate Social Responsibility

- Mr. Sanjay Gupta (Director) of M/s Jogindra Castings Pvt. Ltd. will be responsible for implementation of CER (Corporate Environment Responsibility) within 1 year of time. The cost of proposed expansion is Rs. 22.77 Crores. Thus, Rs. 23 lakhs (@ 1% of expansion cost) is required for C.E.R activities as per Office Memorandum vide F.No. 22-65/ 2017-IA.III dated 01.05.2018. However, Rs. 19 Lakhs have been planned to be reserved for CER. The details of the activities proposed to be covered under CER are as under:

| Sr. No. | CER Activities | Total Expenditure | Timeline (Starting from date of grant of EC) | Total Expenditure in 1 Year (in lakhs) |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1. | Education<br>Providing toilets in Government Girl School, Village Ajnali | 2,00,000 | 1 year | 2,00,000 |
| 2. | Providing medicines or ambulance to the Govt. Hospital located in the Mandi Gobindgarh | 17,00,000 | 1 year | 17,00,000 |
| Total | | Rs. 19,00,000 | | Rs. 11,50,000 |

- Public Hearing

- Action Plan

- ✓ STP has been proposed of capacity 20 KLD to treat the wastewater generated after expansion. The treated water will be used for horticulture purpose within project premises.
- ✓ Agreement has already been done with M/s Madhav Alloys Pvt. Ltd. for disposal of APCD dust.
- ✓ Interlocking tiles has been provided in few parking area and same will be completely developed once EC is granted to the project.
- ✓ For air pollution control, pulse jet bag filters will be installed along with side hood suction as per the design provided by PSPCT, Chandigarh. Thus, there will be no air pollution from the project after expansion of industry. Further, online monitoring system will be installed on the APCD as per the guidelines of PPCB.
- ✓ Floor of the school will be made pucca, playground will be constructed for children and uniforms will be distributed to the poor and needy students. All above said activities are part of CER and will be done once EC is granted to the project. Jobs will be provided to handicapped persons of village Talwara.
- ✓ Amount of Rs. 4 lakhs will be spent on action plan of Public Hearing.

- The details of the activities proposed to be covered under public hearing action plan are as under:

| Sr. No. | Expenditure on Public Hearing Action Plan | Total Expenditure | Timeline (Starting from date of grant of EC) | Total Expenditure in 1 Year (in lakhs) |
|---|---|---|---|---|
| 1. | Floor of the Govt. School made pucca | 1,00,000 | 1 Year | 1,00,000 |
| 2. | Construction of playground for children in Govt. School | 2,00,000 | 1 year | 2,00,000 |
| 3. | Distribution of uniform to poor and needy students | 1,00,000 | 1 year | 1,00,000 |
| Total | | Rs. 4,00,000 | | Rs. 4,00,000 |

SEAC asked the project proponent and environmental consultant to clarify the following observations to which they replied as under:

Observation 1

**It has been proposed to add additional land to accommodate 33% green belt. As to whether this additional land also confirms to the provision of Master Plan.**

Reply of Project Proponent

The company has also obtained CLU from District Town Planner vide Memo No. 604 dated 24.05.2019 for 10.91 acre and the said area is outside the MC limit of Mandi Gobindgarh but falls in designated zone i.e. in the industrial zone as per the provision of master plan. Further, the land of the adjoining units namely Arihant Rolling Mills and Arihnat Pipes which are in operation from 1999, have been incorporated in the said letter. The said area being industrial before the issuance of CLU policy i.e. 17.08.2007 do not require CLU. However, the industry shall get its building plan approved from the Competent Authority.

Observation 2

**Proposed CER activities are not in line with the OM dated 01.05.2018**

Reply of Project Proponent

The project proponent submitted the revise CER activities along with amount to be spent (1 % of the total proposed expansion i.e. Rs.23 lac, as under:

| Sr. No. | CER Activities | Annual Expenditure (in Rs.) |
|---|---|---|
| 1. | Adoption of Parbhatpuri Charitable hospital located at Mandi Gobindgarh to improve its infrastructure & providing basic facilities and solar system | 23,00,000/- |
| | Total | Rs.23,00,000 |

Observation 3

**Further, the details of activities to be undertaken as per the commitment made during public hearing of the industry be provided.**

Reply of Project Proponent

The company has made commitment of Rs. 4.0 lacs/- during Public Hearing and the details of same are as under:

| Sr. No. | Expenditure on Public Hearing Action Plan | Expenditure (in Rs.) |
|---|---|---|
| 1. | To make pucca floor in the Govt. School | 1,00,000 |
| 2. | Construction of playground for children in Govt. School | 2,00,000 |
| 3. | Distribution of uniform to poor and needy students | 1,00,000 |
| | Total | Rs.4,00,000/- |

Observation 4

**As to whether the project site is located in the notified area/ overexploited area of the central Ground Water Authority. If yes, then how, the project proponent will meet the requirement of water intake for project**.

Reply of Project Proponent

Sirhind Block is non-notified area. However, they had already applied to the CGWA for the necessary permission for abstraction of ground water for the project.

Observation 5

**As to whether the industry has installed side suction hood as per design given by PSCST.**

Reply of Project Proponent

The work of providing side suction hood is under progress and shall be installed and commissioned by 31st July 2019 as per the feasibility report approved by the PSCST. After the completion of said work, completion certificate from PSCST shall be taken for submitting the same to SEIAA, Punjab at the earliest.

Observation 6

**a) How many truck can be parked inside the premises.**

**b) Slag storage area is located near the office area, which not be seem practical feasible.**

**c) Time period of lease for the additional land taken by the industry.**

**d) Submit the revised layout map after incorporating parking area and green area.**

Reply of Project Proponent

a) 28 trucks can be parked inside the premises. No truck is to be allowed to park outside the industry.
b) Slag storage area can be shifted near to the parking area as lot of space is available after considering the requirement of parking.
c) Lease land is for 99 years. After considering the additional land, total area of 10.91 acres is sufficient for incorporating parking as well as 33% green area & other utilities.
d) Copy of the revised layout plan was submitted which was taken on record.

Observation 7

**Whether any proposal has been made for paving the approach road to the gate and weighing bridge area for the vehicle movement within the premises to reduce the dust emissions.**

Reply of Project Proponent

The area within the premises for vehicle movement as well as approach road to the gate and weighing bridge area has already been paved.

Observation 8

**There are chances of contamination of underground water upon recharging of rainwater due to probable deposition of pollutants on rooftop due to highly dense air polluting industrial cluster in adjoining area.**

Reply of Project Proponent

Rain water harvesting shall be done outside the premises and shall adopt 3 ponds for harvesting of total rain water @ 1,18,370 m3 per annum with details given in the table below:

| **Pond location** | **Area of the pond (in sq.m)** | **Depth of the pond** | **Volume/Storage capacity ($m^3$ per annum)** |
|---|---|---|---|
| Village Roorki | 10,117.14 | 3 | 30,351 |
| Village Harbanspura | 8,093.71 | 3 | 24,281 |
| Village Wazirabad | 8,093.71 | 3 | 24,281 |
| **Total** | **26,304.56** | - | **78,913** |

SEAC took the reply and copy of presentation 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 clearance for expansion of unit in the existing premises as well as additional land taken on lease and purchased located at G.T Road, Sirhind Side, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab, Punjab, as per the details mentioned in the EIA study & subsequent presentation / clarifications made by the project proponent and his consultant with following salient features after expansion, proposed measures, conditions:

<table>
<tr><td>1</td><td>Name and Location of the project</td><td colspan="3">M/s Jogindra Castings Pvt. Ltd.,<br>G.T Road, Sirhind Side, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab</td></tr>
<tr><td>2.</td><td>Nature of project (Fresh/Expansion Amendment/Others)</td><td colspan="3">Expansion project</td></tr>
<tr><td>3.</td><td>a) Category<br>b) Activity<br>(as per schedule appended to EIA Notification, 2006 as amended time to time.)</td><td colspan="3">a) B-1<br>b) 3(a)<br>Metallurgical Industries<br>(Ferrous &Non Ferrous Alloys).</td></tr>
<tr><td>4.</td><td colspan="4">Area Details
<table>
<tr><th>Details</th><th>Existing</th><th>Additional Land</th><th>After Expansion</th></tr>
<tr><td>Plot Area</td><td>14,344.79 sq.m.<br>(or 3.54 acres)</td><td>• Land on lease 2,509.29 sq.m. ( or 0.62 acres)<br>• Land Purchased 27,351.28 sq.m. (or 6.75 acres)</td><td>44,205.3 sq.m.<br>(or 10.92 acres)</td></tr>
</table></td></tr>
</table>

<table>
<tr><td>4.</td><td>Co-ordinates of the project site</td><td>A 30°39'21.72"N and 76°18'42.26"E<br>B 30°39'17.59"N and 76°18'46.26"E<br>C 30°39'18.55"N and 76°18'47.62"E<br>D 30°39'16.26"N and 76°18'50.06"E<br>E 30°39'20.22"N and 76°18'55.49"E<br>F 30°39'22.58"N and 76°18'53.21"E<br>G 30°39'22.29"N and 76°18'52.91"E<br>H 30°39'22.94"N and 76°18'52.30"E<br>I 30°39'23.46"N and 76°18'53.07"E<br>J 30°39'23.96"N and 76°18'52.70"E<br>K 30°39'21.49"N and 76°18'49.00"E<br>L 30°39'24.14"N and 76°18'46.09"E</td></tr>
<tr><td>5.</td><td>Project Cost (After expansion)</td><td>Rs. 43.34 Crores</td></tr>
<tr><td>6.</td><td>Raw Material requirement (After expansion)</td><td>Scrap@ 1075 TPD & Ferro Alloys @25 TPD</td></tr>
<tr><td>7.</td><td>Production Capacity (After expansion)</td><td>1000 TPD of Ingots/Billets/Flats/Structures/ TMT Bars/M.S Bars/H.R Coils</td></tr>
<tr><td>8</td><td>Details of major productive machinery/plant (After expansion)</td><td>2 no’s Induction Furnaces of capacity 25 TPH each and 2 no’s Induction Furnaces of capacity 15 TPH each and two rolling mill</td></tr>
<tr><td>9.</td><td>Manpower(After expansion)</td><td>360 persons</td></tr>
<tr><td>10.</td><td>Water Requirements & its source (After expansion)</td><td>Total Water Demand:164 KLD<br>i) Domestic: 18 KLD<br>ii) Cooling: 66 KLD<br>iii) Green Area: 80 KLD<br>Water demand shall be met through existing tubewells after obtaining permission from CGWA. In case permission is not granted, then alternative sources like treated sewage water or surface water shall be used.</td></tr>
<tr><td>11.</td><td colspan="2">Details of Effluent(After expansion)
<table>
<tr><th>Sr. No.</th><th>Details</th><th>Quantity (After Expansion)</th><th>Remarks</th></tr>
<tr><td>i)</td><td>Industrial Effluent</td><td>Nil</td><td>No industrial effluent generated except purge water which shall confirmed to the prescribed standards before discharge onto land for plantation.</td></tr>
<tr><td>ii)</td><td>Domestic Effluent.</td><td>14.4 KLD</td><td>Wastewater generated from the project will be treated in the STP of capacity 20 KLD and same shall be utilized onto green area or recirculated through cooling tower.</td></tr>
</table></td></tr>
<tr><td>12.</td><td colspan="2">Details of Emissions(After expansion)
<table>
<tr><th>Sr. No.</th><th>Source</th><th>Capacity</th><th>Chimney Height (m)</th><th>Air Pollution Control Device</th></tr>
<tr><td>i)</td><td>Induction Furnace</td><td>25 TPH- 2 IF<br>15 TPH-2 IF</td><td>18 m</td><td>Side suction hood followed by Pulse Jet Bag Filter</td></tr>
<tr><td>ii)</td><td>DG sets</td><td>2 X 500 KVA</td><td>5.0 m each</td><td>Equipped with Canopy</td></tr>
</table></td></tr>
</table>

13. Details of Hazardous waste and its disposal(After expansion)

| Sr. No. | Hazardous Waste Category | Quantity (After expansion) | Disposal |
|---|---|---|---|
| i) | Cat.35.1 – Exhaust air or Gas cleaning Residue | 962.5 TPA | Shall be reprocessed through M/s Madhav Alloys, Fatehgarh Sahib, for recovery of metal. In case non acceptance by the reprocessor, the hazardous waste to be given CSTDF, Nimbua |
| ii) | Cat.5.1 – Used Oil | 0.080 KL per annum | Shall be reprocessed through authorized recyclers of waste oil |

14. Solid waste generation and its disposal (After expansion)

| Sr. No. | Solid Waste | Quantity (After Expansion) | Disposal |
|---|---|---|---|
| (i) | Slag | 33 TPD | Shall be reprocessed through M/s Khanna Cement Products |

| | | |
|---|---|---|
| 15. | Energy Requirements(After expansion) | i) Power load 30000 KW through PSPCL.<br>ii) Two Silent DG sets of capacity 500 KVA as stand-by arrangement. |

16. Environment Management Plan

Environment Management Cell (EMC) shall be responsible for implementation of EMP which consists of Director of the company, representative of management, process-in-charge, in-charge maintenance and a representative of environmental consultant. The budgetary requirement for implementation of EMP is as under:-

| Sr. No | Environmental Protection Measures | Capital Cost (Rs. in Lakhs) | Recurring Cost (Rs. in Lakhs/year) |
|---|---|---|---|
| 1. | Air Pollution Control (Installation of APCD) | 130 | 1.0 |
| 2. | Water Pollution Control (STP) | 20 | 2.5 |
| 3. | Noise Pollution Control (Including cost of landscaping & green belt) | 5.0 | 1.5 |
| 4. | Solid Waste Management | 3.0 | 1.0 |
| 5. | Environment Monitoring & Management | 3.0 | 5.0 |
| 6. | Health, Safety & Risk Assessment | 3.0 | 0.5 |
| 7. | Rain Water Recharging outside the project premises | 1.5 | 1.0 |
| 8. | Miscellaneous | 1.0 | 0.5 |
| Total | | 166.5 | 13 |

## EC Conditions for Induction/ Electric Arc Furnace & Rolling Mills

## 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. 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. In case of non- grant of permission by CGWA for ground water abstraction, the industry shall make alternative arrangements by using surface water or treated city sewage effluent after obtaining permission from competent authority.

vi. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

vii. 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.

viii. 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.

ix. The project proponent shall comply with conditions imposed by the District Town Planner, Fatehgarh Sahib vide Memo No. 479 dated 28.04.2015.

## II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31$^{st}$ March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and S02 and NOx in reference to S02 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous).

iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality/ fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six monthly monitoring report.

v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.

vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

viii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

ix. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

x. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.

xi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

xii. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

## III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 3151 March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7$^{th}$ December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

iv. Adhere to 'Zero Liquid Discharge'.

v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

vii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off

viii. 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

ix. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge with in plant premises to avoid underground contamination due to deposition of pollutants on roof top being highly dense industrial area. However, industry may adopt some village pond for rain water harvesting. As committed, the industry shall adopt 3 ponds for harvesting of total rain water @ 1,18,370 m3 per annum with details given in the table below:

| **Pond location** | **Area of the pond (in sq.m)** | **Depth of the pond(in meters)** | **Volume/Storage capacity ($m^3$ per annum)** |
|---|---|---|---|
| Village Roorki | 10,117.14 | 3 | 30,351 |
| Village Harbanspura | 8,093.71 | 3 | 24,281 |
| Village Wazirabad | 8,093.71 | 3 | 24,281 |
| **Total** | **26,304.56** | - | **78,913** |

The stream carrying waste water of the village shall be first treated in the septic tank of adequate capacity to be constructed beside pond and the over flow of the septic tank will be sent to the pond. Pond water will percolate through natural strata (without injection) to augment the ground water and remaining water shall be used for irrigation purposes by pumping method in the nearby fields

x. The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

**IV. Noise monitoring and prevention**

i. 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.

ii. 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. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.

ii. Practice hot charging of slabs and billets/blooms as far as possible.

iii. Ensure installation of regenerative type burners on all reheating furnaces.

iv. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.

v. Provide the project proponent for LED lights in their offices and residential areas.

**VI. Waste management**

i. Used refractories shall be recycled as far as possible.

ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces

iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.

iv. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

v. Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)

**VII. Green Belt**

i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species (having canopy type structure and especially trees not grass) in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant as assured during the presentation. The industry shall ensure that most of the periphery shall be provided with green belt by removing the unwanted/non-productive structures already provided in the existing project near the boundary wall. Canopy trees shall also be planted around the parking area to provide shade to the parked vehicles.

ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

## VIII. Public hearing and Human health issues

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

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

iii. 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.

iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

v. The project proponent shall carry out the following activities and spent an amount as committed during the Public Hearing:

| **Sr. No.** | **Expenditure on Public Hearing Action Plan** | **Expenditure (in Rs.)** |
|---|---|---|
| 1. | To make pucca floor in the Govt. School | 1,00,000 |
| 2. | Construction of playground for children in Govt. School | 2,00,000 |
| 3. | Distribution of uniform to poor and needy students | 1,00,000 |
| | Total | Rs.4,00,000/- |

## 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 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.23 Lacs towards following CER activities:

| **Sr. No.** | **CER Activities** | **Annual Expenditure (in Rs.)** |
|---|---|---|
| 1. | Adoption of Parbhatpuri Charitable hospital located at Mandi Gobindgarh to improve its infrastructure & providing basic facilities and solar systaem | 23,00,000/- |
| | Total | Rs.23,00,000 |

However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the 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 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.

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 166.5 Lacs towards capital cost and Rs 13 Lacs / annum towards recurring cost. The entire cost of the environmental management plan will continue to be borne by the project proponent. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

v. 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.

vii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.

## 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 shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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 monitor the criteria pollutants level namely; PM10, 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.

v. 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.

vi. 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.

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.

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.

viii. 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).

ix. 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.

x. The SEIAA/Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

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

xii. 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.

xiii. 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.

xiv. 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.

**ADDITIONAL SPECIFIC CONDITIONS DECIDED DURING MEETING OF SEAC**

i. The project proponent shall provide STP for treatment of waste water & reutilization of the treated water for core/non-core activities so as to achieve the Zero Liquid Discharge Condition as per the III (iv) of OM dated 09/08/2018 issued by the MoEF&CC for such units.

ii. The project proponent shall reuse of cooling tower blow down, simultaneously ensuring the standards prescribed for such purge waters. If required, necessary arrangements shall be made to keep this waste stream within the parameters required for reuse.

iii. The project proponent shall reserve adequate land for loading or unloading of raw material, products, slag, hazardous waste as well as for storage of these materials and the area to be reserved for parking. The area to be reserved by considering the time required for loading and unloading of vehicles for respective activities and minimum/maximum period for which storage of the above material is required in the premises. The areas for the respective activities to be marked on the layout plan.

iv. The project proponent shall comply with the standard operating procedures and upgrade the suction and treatment arrangement for the secondary emissions as prescribed by the State Pollution Control Board or by CPCB/MoEF&CC.

v. Whole of the vehicle movement area as well as approach road to the gate /weighing bridge shall be paved with pucca / metalled / cement concrete road to control the dust emissions expected from the vehicle movement.

vi. The vehicles to be used for loading / unloading purpose shall not be parked along roadside so as to avoid the traffic congestion and dedicated parking place to be provided for the same.

vii. The project proponent shall adopt green technologies to conserve the water and energy including shearing / cutting / bundling machines. Also to provide abrasive resistant fire bricks in the crucibles to reduce the periodic maintenance & disposal of discarded fire bricks.

viii. The project proponent shall use natural gas (if available) as substitute fuel wherever possible in the existing industry/ for expansion project.

ix. The project proponent shall obtain mandatory clearances under Pollution Control laws.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Sanjay Gupta, Director of the project.

ii) Sh. Sandeep Garg, M/s Eco Laboratories & Consultants Pvt. Ltd., Mohali, Environmental Consultant of the promoter company.

SEIAA queried to the project proponent as to whether Mandi Gobindgarh falls in the critically polluted zone as notified by the CPCB. To this, project proponent replied that Mandi Gobindgarh does not fall in the critically polluted zone as notified by the CPCB.

To prove his contention, project proponent presented Hon'ble NGT order dated 10.07.20.19 passed in the OA No. 1038/2018 titled " News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" On the basis of the study jointly carried out by the CPCB and State PCBs in 2009-10. 88 industrial clusters were notified as Polluted Industrial Areas (PIAs). These PIAs were ranked as 'critically polluted area' (CPA), 'severely polluted area' (SPA) and 'other polluted areas' (OPAs), depending upon the CEPI scores of each of these industrial areas. Where the CEPI score crossed 70, the areas are designated as CPAs, where the index was between 60-70, they are designated as SPAs and those below 60 as OPAs.

It was informed that as per the table captioned "The CEPI Scores in descending order for Industrial Areas/Clusters monitored during 2018" in para no 11 of the said order, CEPI Score of Mandi Govindgarh (Punjab) is 53.91 and thus, it may be concluded that at present, Mandi Gobindgarh does not fall in the Critical Polluted Area (CPA).

The SEIAA perused the said NGT order and was not satisfied from the reply of the project proponent due to the following

verdict passed by the Hon'ble NGT, which is reproduced as under:-

- **Para No 12**

  Question for consideration is whether mere making of action plans obviates the requirement of enforcing the law. Continued polluting activities are criminal offences under the law of the land. The rule of law requires prohibiting such activities to safeguard the environment and the innocent victims

- **Para No 24**

  CPCB has compiled data of industrial clusters which are polluting in terms of air, water and other norms…… . The fact that such pollution is taking place is evidenced by there being acknowledged pollution in the form of 351 polluted river stretches 24 and 102 non-attainment cities*.

- **Para No:28.**

  NGT direct the CPCB in coordination with all State PCBs/PCCs to take steps in exercise of statutory powers under the Air (Prevention and Control of Pollution) Act, 1981, Water (Prevention and Control of Pollution) Act, 1974, Environment (Protection) Act, 1986 or any other law to prohibit operation of polluting activities in the said CPAs and SPAs within three months and furnish a compliance report to this Tribunal. The Central Pollution Control Board, in coordination with the State Boards/PCBs may make assessment of compensation to be recovered from the said polluting units for the period of last 5 years, taking into account the cost of restoration and cost of damage to the public health and environment and the deterrence element. The scale of deterrence may be related to the period and the frequency of defaults. Such other factors as may be found relevant may also be taken into account. ***No further industrial activities or expansion be allowed with regard to 'red' and 'orange' category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms***.

Pending assessment of compensation, interim compensation be recovered at the scale adopted by this Tribunal in the case of Vapi Industrial area as mentioned in para 22 above.

- **Para No 31**

  It is made clear that white and green or non-polluting industries which are not causing any pollution will not be affected by this order except that the parameters thereof may be monitored with a view to see that under the garb of label of white/green or otherwise, the polluting activity is not continued.

- SEIAA was further apprised that 09 cities of Punjab out of 102 cities namely DeraBassi, Naya Nangal, Patiala, Amritsar, Khanna, Ludhiana, Jalandhar, Dera Baba Nanak and Mandi Gobindgarh were declared non-attainment cities by Central Pollution Control Board (CPCB) on the basis of Ambient air data for the period of 2011-2015 for not meeting the annual average of 60 µg/m3 for PM10. Directions were issued to the Board by CPCB to prepare action plans for the above stated non-attainment cities of Punjab. SEIAA observed that on one hand cities like Ludhiana, Mandi Gobindgarh, Jalandhar are falling in the list of non-attainment cites and other hand CEPI score of City Mandi Gobindgarh & Jalandhar is less than 70.

After detailed deliberations, SEIAA decided as under: -

i) to ask clarification from the CPCB and PPCB in reference to NGT order dated 10.07.20.19 (as mentioned above) or any subsequent order of NGT or Hon'ble Supreme Court as to whether Mandi Gobindgarh and other industrial area/ cluster namely Jalandhar, Ludhiana and Batala areas of Punjab fall in the critically polluted zone as notified by the CPCB or not and whether new units/expansion of existing units of 'red' and 'orange' category are allowed in these areas.

ii) to defer the matter till the clarification is received from CPCB or PPCB.

**Item No. 152.05: Application for obtaining Environmental clearance under EIA notification dated14.09.2006 for Expansion of Steel Manufacturing Unit namely "Oasis Enterprises Pvt. Ltd." at Village Talwara, Talwara Road, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab by M/s. Oasis Enterprises Pvt. Ltd. (Proposal no SIA/PB/IND/22227 /2018)**

The SEIAA observed that

The project proponent has filed application for obtaining Environmental clearance under EIA Notification, 2006 for expansion of Steel Manufacturing Unit namely "Oasis Enterprises Pvt. Ltd." at Village Talwara, Talwara Road, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab. The project proponent will replace already installed two Induction Furnaces of capacity 12 TPH each and one Ladle Refining Furnace of capacity 20 TPH with High Efficiency Induction Furnaces having combined capacity of 80 TPH. The project is covered under category 3(a)- Secondary Metallurgical Industries (ferrous & non ferrous) of the Schedule appended to the said notification.

The project was earlier granted TOR vide letter no. SEIAA/2018/720 dated 24.05.2018 with Standard Terms of Reference and additional specific TORs decided during meeting of SEAC.

Now, the project proponent has submitted EIA report.

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. Sanjay Gupta, Director, of the Promoter Company

(ii) Sh. Sandeep Garg, EIA-Coordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company

(iii) Ms. Simranjit Kaur, EIA Co-ordinator cum AGM, M/s Eco Laboratories Pvt. Ltd Mohali, Environment Consultant of the promoter company

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

**Introduction of the Project-**

- The existing production capacity of the industrial unit is 260 TPD with 2 no's of Induction Furnaces having capacity 12 TPH each, one ladle refining furnace of capacity 20 TPH and rolling mill. The industry wants to increase their production capacity by replacing the existing 2 no's Induction Furnaces with 4 no's of High Efficiency Induction Furnaces of capacity 20 TPH each. Thus, after expansion, production capacity of the industrial unit will become 1,000 TPD for manufacturing of Ingots/Billets/Flats/Structures/TMT Bars/M.S Bars/H.R coils by 4 no's of High Efficiency Induction Furnaces of capacity 20 TPH each along with existing one Ladle Refining Furnace of capacity 20 TPH and rolling mill.
- For expansion, no additional land is required as the expansion has been proposed within the project premises. However, adjoining land for green belt development has been acquired. Project falls in the Industrial Zone as per the Master Plan of Mandi Gobindgarh.
- Letter has been obtained from District Town Planner stating that project falls in the notified Industrial Zone.
- The Current Directors of the company are as under:
  1. Sh. Adarsh Garg
  2. Sh. Sanjay Gupta
- Total cost of project after expansion: Rs. 48.0 Crores i.e. Cost of existing project: Rs. 17.0 Crores & Cost of proposed project: Rs. 31.0 Crores.

**Project Approvals/ Agreement**

| Description | Details |
|---|---|
| SCA-Cum-SAC approval | Obtained from State Competent Authority vide letter No. CSA/05/0-10/12470 dated 31.08.2005 |
| Letter from DTP | Obtained from District Town Planner vide Memo No. 479 dated 28.04.2015 for owned land. |
| CTO from PPCB | Varied Consent to Operate has been obtained from PPCB under Water (Prevention & Control of Pollution) Act, 1974 vide Letter No. CTOW/Varied/FGS/2017/4755162 dated 14/03/2017; valid till 31/03/2021 and Air (Prevention & Control of Pollution) Act, 1981 vide Letter No. CTOA/Varied/FGS/2017/4767285 dated 14/03/2017; valid till 31/03/2021. |
| Authorization for Hazardous Waste | Authorization for Hazardous waste has been obtained from PPCB vide Authorization No. HWM/Fresh/FGS/2017/4773681 dated 14.03.2017 and valid till 30.06.2021. |
| Agreement for disposal of APCD dust | Agreement done with M/s Madhav Alloys Pvt. Ltd. for disposal of APCD dust vide dated 14.12.2017. |
| Agreement for disposal of slag | Agreement done with M/s Khanna Cement Products for utilization of slag for manufacturing of Concrete Blocks/ Paver Tiles/ Road Gullies/ Manholes etc. vide dated 08.01.2019 |
| Approval for | Obtained vide Memo No. 217 dated 10.01.2019 for |

| | |
|---|---|
| Power load | additional load of 14 MW. |
| Certified Compliance Report from RO, PPCB | Obtained from RO, PPCB vide Letter No. 157 dated 17.01.2019. |
| NOC from Sarpanch for Pond adoption | NOC obtained from Sarpanch of Village Talwara, Block Bassi Pathania vide dated 18.02.2019 |
| CGWA Approval | Application has been submitted vide application No. 21-4/4994/PB/IND/2019 dated 28.03.2019. |

- Co-ordinates of the Project

  A: 30°39'13.56"N and 76°19'34.74"E B: 30°39'15.01"N and 76°19'32.19"E

  C: 30°39'14.60"N and 76°19'23.27"E D: 30°39'11.52"N and 76°19'23.19"E

  E: 30°39'11.48"N and 76°19'32.14"E

- Brief of the Project

| Details | Existing | Proposed | Total (After Expansion) |
|---|---|---|---|
| Plot Area | 5.40 acres (or 21,875.55 $m^2$) | | |
| Production Capacity | 260 TPD of Billets/TMT bars/Flats/Structure | 740 TPD of Ingots/Billets/Flats/ Structures/TMT Bars/ M.S Bars/H.R Coils | 1000 TPD of Ingots/Billets/Flats/Structures/ TMT Bars/M.S Bars/H.R Coils |
| Induction Furnace | 2 Induction Furnaces of capacity 12 TPH each, One ladle furnace of capacity 20 TPH and rolling mill | Replacement of existing 2 IF's (12 TPH to 20 TPH) and addition of 2 IF's of 20 TPH each. | 4 no's Induction Furnaces of capacity 20 TPH each One ladle furnace of capacity 20 TPH and rolling mill |
| Raw Materials | Scrap: 277 TPD Ferro Alloys: 9 TPD | Scrap: 798 TPD Ferro Alloys: 16 TPD | Scrap: 1075 TPD Ferro Alloys: 25 TPD |
| Manpower | 95 (both technical & non-technical); 5 workers are residing within project premises | 265; out of which 20 will be residing within project premises | 360 (both technical & non-technical); out of which, 25 workers will be residing within project premises |
| Project Cost (in Crores) | Rs. 31 Cr. | Rs. 17 Cr. | Rs. 48 Cr. |
| Total Water Demand (KLD) | 25 | 99 | 124 |
| Domestic Water Demand (KLD) | 2 | 16 | 18 |

| | | | |
|---|---|---|---|
| Cooling Water Demand (KLD) | 21 | 45 | 66 |
| Green Area demand (KLD) | 2 | 38 | 40 |
| Source of water supply | Ground water | | |
| Power Load | 16 MW | 14 MW | 30 MW |
| Source of Power | Punjab State Power Corporation Limited (PSPCL) | | |
| Power Back up | 1 DG set of 500 KVA | 1 DG set of 500 KVA | 2 DG sets of capacity 500 KVA each |

- Area Breakup of the project

| Sr. No. | Description | Area (in sq.ft.) |
|---|---|---|
| 1. | Covered area | 84,172 |
| 2. | Green area (@ 33.42 %) | 78,684 |
| 3. | Road area | 37,192 |
| 4. | Parking area | 2,200 |
| 5. | Open area & Grid area | 23,157 |
| 6. | Covered area Store / lab / canteen / office etc. | 9,976 |
| Total area of the project | | 2,35,381 sq.ft. or 21,875.55 $m^2$ |
| 1. | Raw Material storage area | 30,000 |
| 2. | Finished good area | 20,000 |
| 3. | Slag storage area | 2,400 |
| 4. | Working area/Furnace room /other shed area | 31,772 |
| Total covered area of the project | | 84,172 sq.ft. |

- There is no use of the chemicals during the manufacturing process. Only small quantities of lab chemicals are used for in-house laboratory testing. Storage sheds have been provided for raw materials and products storage. The details of material quantities & storage capacities are given below:

| Sr. No. | Particulars | Quantity which can be stored | No. of Days for storage |
|---|---|---|---|
| 1. | Raw materials | 40,500 T | 39 Days |
| 2. | Finished | 10,800 T | 11 Days |

| | | | |
|---|---|---|---|
| | Goods | | |
| 3. | Slag | 1,200 T | 37 Days |
| 4. | APCD dust | 9.65 T | 4 Days |

- The details of emissions are given below:

| Source | Description | Capacity | APCD | Stack Height |
|---|---|---|---|---|
| Furnaces and Ladle Refining Furnace | Existing | 12 TPH- 1 IF & LRF of 20 TPH | Common APCD (Spark arrestor, Twin Cyclone followed by Bag Filter) | 22 m |
| | | 12 TPH – 1 IF | Wet Scrubber | |
| | After Expansion | 20 TPH- 1 IF & LRF of 20 TPH | Side suction hood followed by Pulse Jet Bag Filter | 22 m |
| | | 20 TPH – 3 IF's | Side suction hood followed by Pulse Jet Bag Filter | 18 m |
| DG Set | Existing | 1 No. 500 KVA | ----- | 5 m |
| | After Expansion | 2 No. 500 KVA | ----- | |

- Details of Effluent & Hazardous Waste

| Details | Existing | After Expansion | Remarks |
|---|---|---|---|
| Industrial Effluent | Nil | Nil | No industrial effluent generated. |
| Domestic Effluent | 1.6 KLD | 14.4 KLD | Wastewater generated from the project is being treated in the Septic tank. After expansion, wastewater will be treated in proposed STP of capacity 20 KLD. |

- Details Hazardous Waste

| Hazardous Waste Category | Existing | After Expansion | Disposal |
|---|---|---|---|
| Cat. 35.1 – Exhaust air or Gas cleaning Residue | 12 TPA | 962.5 TPA (2.75 TPD) | Agreement done with M/s Madhav Alloys Pvt. Ltd. |
| Cat. 5.1 – Used Oil | 0.020 KL per annum | 0.040 KL per annum | To authorized vendor |

- Details of Water Requirement

| Description | Water Requirement (KLD) |
|---|---|

| | Existing | After Expansion |
|---|---|---|
| Cooling water demand | 21 | 66 |
| Drinking water demand | 2 | 18 |
| Green area | 2 | 40 |
| Total water demand | 25 | 124 |
| Source of water | Ground Water (bore well) | |

- List of Machinery

| Sr. No. | Machinery | Existing | After expansion |
|---|---|---|---|
| 1. | Induction Furnace | 02<br>(12 TPH each) | 04<br>(20 TPH each) |
| 2. | Ladle Furnace | 01 No. of 20 TPH | 01 No. of 20 TPH |
| 3. | APCD | 2 | 4 |
| 4. | DG set | 1 (500 KVA) | 2 (500 KVA) |
| 5. | Scrap Processing Unit, Shearing Machine & Bundling Press | 1 + 2 | 3 + 3 |
| 6. | Magnets | 8 | 11 |
| 7. | Overheard Cranes | 14 | 30 |
| 8. | Rolling Mill | 1 | 1 |
| 9. | Continues Casting Machine (CCM) | 1 | 1 (4 strands) |
| 10. | Mobile cranes | - | 4 |
| 11. | Weighbridge | 1 | 2 |

- The detail of the capacity of furnace and total production at different stages is as under:

| **Year of Establishment** | **Capacity of Furnace** | **Total Production** | **Whether covered Under EIA notification or not?** |
|---|---|---|---|
| 2005 | 12 TPH- 2 (Induction Furnace) | 260 TPD | The Industry does not cover under EIA notification 1994 because industry is secondary metallurgical & not having Electric Arc Furnace. SAC-cum-SCA approval has been obtained vide Letter No. CSA/05/0-10/12470 dated 31.08.2005 is enclosed as Annexure 8(a). |
| 2006 | 12 TPH (Induction Furnace) | 160 TPD | The Industry does not cover under EIA notification S.O. 1533(E) dated 14.09.2006 because the project was issued NOC before 14th Sept., 2006.Clearance Certificate has been obtained from PPCB vide Letter No. EE(P)/2006 /FGS/LM/12 9 dated |

| | | | |
|---|---|---|---|
| | | | 04.10.2006. is enclosed as Annexure as 8(a). |
| 2012 | 12 TPH- 2 (Induction Furnace) | 260 TPD | Revalidation of SACcum-SCA approval has been obtained vide Letter No. CSA/2012/0/3049 dated 12.07.2012. is enclosed as Annexure 8(a). |
| 2015 | 12 TPH | 160 TPD | The Industry does not cover under EIA notification S.O. 1533(E) dated 14.09.2006 because the project was issued NOC before 14th Sept., 2006. Consent to Operate has been obtained dated 17.07.2015; valid till 31.03.2020 is enclosed as Annexure 8(a). |
| 2017 | 12 TPH- 2 (Induction Furnace) | 260 TPD | Varied Consent to Operate has been obtained vide dated 14.03.2017; valid till 31.03.2021 is enclosed as Annexure 8(a). |
| The actual production for financial year 2016-17 was 66,529 MT against the approved capacity of 85,800 @ 330 days | | | |

- Environmental Status
  - The climate of the district is characterized by dryness except a brief spell of monsoon season in a very hot summer and a bracing winter. Temperature starts increasing rapidly after February. May and June are the hottest months with daily average temperature going up to 41.2°C and minimum average daily temperature as 24.2°C. Hot scorching dust laden winds blow during the summer season and on individual day, the temperature sometimes goes upto 45°C to 47°C.
  - The average annual rainfall is in the range of 660-700 mm. The annual number of rainy days on an average is about 51 days in a year, out of which, about 34 days falls in the monsoon period of July to September.
  - In summer months of April, May and June, which is the driest part of the year, the afternoon humidity comes down to 23% while the relative humidity during monsoon months goes up-to about 81%.
  - Annual trend indicates mean wind speed to be highest in the months of March, April, May, June and July (7.8-15.5 km/hour) and lowest in the month of October, November and December (2.5-3.5 km/hour).

- Ambient Air Quality in the Study Area:
  - P-98 of $PM_{10}$ and $PM_{2.5}$ respectively are outside the NAAQ standards of 100 and 60 µg/$m^3$ respectively.
  - The levels of $SO_2$ are much below the desired limits of 80 µg/$m^3$. P98 is 11.38 µg/$m^3$.
  - The levels of $NO_x$ are also below the desired limits of 80 µg/$m^3$. P98 is 26.4 µg/$m^3$.
  - The CO level at all the sampling points is less than 1.5 µg/$m^3$.
  - The lead (Pb) level in Particulate Matter at all the sampling points is less than 0.04 µg/$m^3$ which is less than the desired limit of 1.0 µg/$m^3$.

- The Arsenic (As) level in Particulate Matter at all the sampling points is less than 0.01 ng/$m^3$ which is less than the desired limit of 6.0 ng/$m^3$
- The Nickel (Ni) in Particulate Matter at all the sampling points is less than 10 ng/$m^3$ which is less than the desired limit of 20.0 ng/$m^3$.
- Aermod Model has been used to plot Wind Rose Diagram. The wind rose diagram indicates that the most predominant winds are mainly flowing from North West-West, with the secondary wind direction being from the South-East.
- PM10- The maximum incremental pollutant concentration near sources and within 500 m is 0.5 µg/$m^3$, within 1500 m decreases to 0.5 µg/$m^3$ and beyond which the pollutant rapidly decreasing to the ambient value.
- PM2.5- The maximum incremental pollutant concentration near sources and within 200m is 1.0 µg/m3, within 1000 m decreases to 0.5 µg/m3 and beyond which the pollutant slowly settles down to the ambient value. All values are much below the CPCB limits.
- SO2- The maximum incremental pollutant concentration near pollution sources and within 500 m is 1.77 µg/$m^3$, and within 1 km decreases to 0.5 µg/$m^3$ beyond it the pollutant rapidly disperses to 0.3 µg/$m^3$.
- CO- The maximum incremental pollutant concentration near sources and within 500 m is 0.01 µg/$m^3$, within 2000 m decreases to 0.007 µg/$m^3$ and beyond 2000 m, the pollutant rapidly decreasing to below detection level. All values are much below the CPCB limits.

➢ Results of Surface Water Monitoring-

- The results of Bhakra Canal show that BOD is less than 20 mg/l & pH is nearly 7.
- Similarly, for Amloh Minor canal, BOD is about 20 mg/l & pH is nearly 7.
- For Sirhind choe canal, BOD is around 20 mg/l & pH is nearly 7.
- For IR Distributary canal, BOD is less than 20 mg/l & pH is nearly 7.
- Water is fit for irrigation as well as industrial cooling.

➢ Ground Water Quality Results

- pH varies from 7.21 -7.52 which is in between the acceptable limits i.e. 6.5 to 8.5 for potable water.
- Calcium varies from 44.0 to 56.0 mg/l. The highest value was observed at Sirhind City and Salana, which is less than the acceptable & permissible limits i.e. 75 and 200 mg/l respectively.
- Magnesium varies from 17 to 24 mg/l. The highest value was observed at Taksus Steels which is located at distance of about 3.8 km from the Project location, which is less than the acceptable & permissible limits i.e. 30 and 100 mg/l respectively.
- Chloride concentration which is also one of the important parameters varies from 47 to 59 mg/l. It was found maximum at Lohar Majra and minimum at Taksus Steels, which is less than the acceptable & permissible limits i.e. 250 and 1000 mg/l respectively.
- Heavy metals like Cadmium, Chromium, Lead and Zinc were much below the permissible limit in all the samples.

- Iron varies from 0.38 to 0.58 mg/l, which is more than the acceptable limit i.e. 0.3 mg/l.
- Sulphate vary from 60 to 95 mg/l, which is less than the acceptable & permissible limits i.e. 200 and 400 mg/l respectively.
- As per report of CGWA, Fatehgarh Sahib, the ground water of Mandi Gobindgarh is suitable for domestic, drinking & Irrigation purposes.

➢ Noise Monitoring Results

Minimum and maximum noise levels recorded during the day time were from 52.6 dB(A) and 70.6 dB(A) respectively during day and minimum and maximum level of noise during night time were 42.1 dB(A) and 60.0 dB(A) respectively. This may be attributed to the presence of machineries and vehicular movement nearby the project location.

➢ Traffic Study

- Project is located at a distance of 1 km from NH-1. The National Highway NH-1 connecting New Delhi to Amritsar is well designed to withstand the large vehicles count & heavy vehicles. However, vehicles passing on the road in front of the project are mainly trucks which are used for the transportation of raw materials & final products.
- Traffic study was conducted on 8th Jan, 2019 as well as 21st-23rd May, 2019 by team members of Eco along with employees of industry so as to assess the impact on local transport infrastructure due to proposed increased production of Oasis Enterprises Pvt. Ltd. and adjoining projects who have proposed expansion.
- As per the traffic study, the road can take the increased load of expansion.
- Existing Traffic Scenario & LOS at different locations

| Locations | V (Volume in PUC/day) Per day count | C (Capacity in PUC/day)* | Existing V/C ratio | LOS |
|---|---|---|---|---|
| A (In front of project location) | 434 | 1,900 | 0.22 | B |
| B (At the Intersection of approach road and NH-1 ) | 753 | 1,900 | 0.39 | B |

- LOS values in comparison to V/C:

| V/C | LOS | Performance |
|---|---|---|
| 0.0-0.2 | A | Excellent |
| 0.2-0.4 | B | Very Good |
| 0.4-0.6 | C | Good/ Average/ Fair |
| 0.6-0.8 | D | Poor |
| 0.8-1.0 | E | Very Poor |

- Details of trucks used for transportation of raw materials and final products of the industries located on road wherein traffic study was conducted

| Sr. No. | Industry's Name | Details | Description | Production capacity | No. of trucks per day |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1. | K.L Alloys Pvt. Ltd. | Existing | Raw Materials | 33 TPD | 2 |
| | | | Final Products | 31 TPD | 2 |
| | | Proposed | Raw Materials | 280 TPD | 14 |
| | | | Final Products | 290 TPD | 15 |
| 2. | Oasis Enterprises Pvt. Ltd. | Existing | Raw Materials | 286 TPD | 14 |
| | | | Final Products | 260 TPD | 13 |
| | | Proposed | Raw Materials | 814 TPD | 41 |
| | | | Final Products | 740 TPD | 37 |
| **Additional traffic load due to industries** | | | | | (14+15+41+37) x 3/4[a] = 81 |
| [a] Considering an average capacity of truck as 20 MT and considering that few trucks carrying raw materials will also carry finished products. | | | | | |

- Additional traffic load of nearby industries due to proposed expansion

| Sr. No. | Vehicles Distribution | Number of Vehicles Distribution/Day | Passenger Car Unit (PCU) | Number of Vehicles Distribution/Day |
|---|---|---|---|---|
| | | Road Connecting the project | | Road Connecting the project |
| 1. | Trucks | 81+4[b] | 3 | 255 |
| 2. | Two-wheelers | 40 | 0.5 | 20 |
| | Total | | | 275 |

- Modified Traffic Scenario & LOS at different locations (after expansion)

| Locations | V (Volume in PUC/day) | C (Capacity in PUC/day) | Existing V/C ratio | LOS |
|---|---|---|---|---|
| A | 434 + 275 = 709 | 1900 | 0.37 | B |
| B | 753 + 275 = 1028 | 1900 | 0.54 | C |

- Inference for the Traffic Study conducted on 8th Jan 2019
  The V/C ratio is found to be between 0.2-0.4 for location A which means that the performance of road will be Very good.
- The V/C ratio at location B is between 0.4-0.6 which means that the performance of road will be good.
- Similarly, Traffic Study was conducted on 21st -23rd May 2019 & Inference is as under:
- The V/C ratio is found to be between 0.2-0.4 for location A which means that the performance of road will be Very good.
- The V/C ratio at location B is between 0.4-0.6 which means that the performance of road will be good.
  The LOS in both one day and three-day study are same which means that the

carrying capacity of road is adequate to handle future load.

- Parking Details
  - Maximum No. of Trucks required as per production capacity: 15 trucks per hour
  - Total 25 trucks can be parked within the industry. Out of which 5 trucks can parked in designated parking area and 20 trucks can be parked under sheds.
  - Approx. 14 no. of trucks per day are used to carry raw materials for the existing unit. After expansion. approx. 55 no. of trucks per day will be used to carry raw materials. Since, the existing road is sufficient to cater to this meager increase in transportation; therefore, there will be less impact
- Air Pollution

- Major sources of air pollution will be provided with air pollution control systems to limit the air pollutant emissions within the permissible norms.
- Fugitive emissions of smoke, gases in and around the furnace will be removed by adequate ventilation systems.
- For adequate dispersion of gases, stack of adequate height will be provided that conforms to statutory requirements.
- For heat dissipation in the work zones arising from furnaces, adequate ventilation systems will be provided.
- Effective pollution control system i.e., Bag Filter, I.D. Fan & stack of adequate height has been provided for controlling the emissions from Induction Furnace.

- General Mitigation Measures

- Haulage roads are sprinkled with water at regular intervals for which water tankers with sprinkler arrangement are deployed.
- Trucks carrying raw materials are having valid PUC Certificate.
- No pressure horns will be permitted to control noise pollution.
- Face masks are provided for the people working dust generating locations.
- All internal roads in the premise are paved/ tarred.
- Speed limit of 10 km/hr. is enforced for vehicles within the plant premises to prevent road dust emission.
- Regular sweeping of roads is being practiced with regular sprinkling (in future with treated water) to minimize dust emissions.

- Measures for fugitive emission control are given below:

- Pucca roads within premises, water sprinkling in dusty areas
- Greenbelt/plantation to arrest fugitive dust emission.
- Trucks carrying raw materials shall be covered with tarpaulin to prevent spreading of dust during transportation.
- Water sprinkling shall be practiced at loading-unloading locations.
- The conveyors shall be suitably covered to control fugitive emissions
- All internal roads in the premises are paved /tarred.

- After expansion, hazardous waste produced from the industrial unit is estimated to be 2.75 TPD in the form of Exhaust Air or Gas cleaning residue (APCD ash) under Category 35.1 and 0.020 KL/annum of spent oil under Category 5.1 of Schedule I. Used oil generated will be sold to Authorized vendor of PPCB. APCD dust is being given to M/s Madhav Alloys Pvt. Ltd., where metals such as zinc & lead is recovered.
- As there will be only construction of foundation for the Induction Furnace hence,

there will be utilization of fly ash as per Fly Ash Notification, 2009.Fly ash-based cement i.e. Portland Pozzolana Cement (PPC) will be used for construction of foundation.

- The existing green area within the project premises is 297.39 sq.m. and 7,015.24 sq.m. is the proposed green area. Thus, total green area of the project becomes 7,312 sq.m. (or 33.42%).7 trees are existing within the industry premises of Neem, Guava, Ashoka trees, etc. In addition to this, 144 trees are proposed overall after expansion. Details of proposed plantation along with Landscape plan have been submitted. Green Area A: 71,604 sq.ft. Green Area B: 6,000 sq.ft. Green Area C: 1,080 sq.ft No. of trees required as per guidelines = 21,875.55/80 = 273 Trees
- Rain Water Harvesting
- Pond located in the Village Talwara, Block Bassi Pathania, Mandi Gobindgarh has been adopted for artificial rain water.
- Area of the pond = 12,140.56 sq.m. (or 3 acres)
- Average Depth of the Pond = 3.5 m
- Volume/Storage capacity of Pond = 42,492 $m^3$
- No. of fillings = 3 (max no. of fillings = 3)
- Total recharge in the pond (in cubic meter annually) = 1,27,476 $m^3$
- Total quantity of water recharge is 65% of the volume of water available in the pond after de-silting i.e. 65 % of 1,27,476 $m^3$ per annum = 82,859 $m^3$ per annum
- Thus, as per the CGWA Guidelines, recharging of ground water is double of the ground water withdrawal. NOC has been obtained from the Sarpanch of Village Talwara.
- Before disposing off the slag, metal is recovered. The quantity of slag is estimated to be 33 TPD after expansion of project. Out of this, approx. 16.5 TPD of metal will be recovered. After metal recovery, remaining will be sold to Khanna Cement Product for manufacturing for manufacturing of Concrete Blocks/ Paver Tiles/ Road Gullies/ Manholes, etc.
- APCD dust is being disposed off to M/s Madhav Alloys Pvt. Ltd., wherein metals such as zinc & lead are recovered. Agreement has been done with M/s Madhav Alloys Pvt. Ltd. for disposal of APCD dust.
- 1 lakh will be allocated per year to ensure health & safety of all contract and casual workers.
- Details of the amount to be spent on EMP is given below:

| Sr. No. | Environmental Protection Measures | Capital Cost (Rs. in lakhs) | Recurring Cost (Rs. in lakhs/year) |
|---|---|---|---|
| 1. | Air Pollution Control (Installation of APCD) | 130.0 | 1.0 |
| 2. | Noise Pollution Control (Including cost of landscaping & green belt) | 5.0 | 1.5 |
| 3. | Solid Waste Management | 3.0 | 1.0 |
| 4. | Water Pollution Control (STP) | 20 | 2.5 |
| 5. | Environment Monitoring & Management | 3.0 | 5.0 |

| | | | |
|---|---|---|---|
| 6. | Health, Safety & Risk Assessment | 3.0 | 0.5 |
| 7. | Rain Water Recharging outside the project premises | 1.0 | 0.1 |
| 8. | Miscellaneous | 1.0 | 0.5 |
| Total | | 166.0 | 12.1 |

- Corporate Social Responsibility

- Mr. Sanjay Gupta (Director) of M/s Oasis Enterprises Pvt. Ltd. will be responsible for implementation of CER (Corporate Environment Responsibility) within 1 year of time. The cost of proposed expansion is Rs. 17.0 Crores. Thus, Rs. 17 lakhs (@ 1% of expansion cost) is required for C.E.R activities as per Office Memorandum vide F.No. 22-65/ 2017-IA.III dated 01.05.2018. However, Rs. 11.5 Lakhs have been planned to be reserved for CER. The details of the activities proposed to be covered under CER are as under:

| Sr. No. | CER Activities | Total Expenditure | Timeline (Starting from date of grant of EC) | Total Expenditure in 1 Year (in lakhs) |
|---|---|---|---|---|
| 1. | Education<br>RO system in Government Girl School, Mandi Gobindgarh and Government Elementary School, Mandi Gobindgarh | 6,00,000 | 1 year | 6,00,000 |
| 2. | Plantation in community<br>Tree Plantation along road side and in the village of Talwara. | 3,00,000 | 1 year | 3,00,000 |
| 3. | Public health camps in the nearby villages | 2,50,000 | 1 year | 2,50,000 |
| Total | | Rs. 11,50,000 | | Rs. 11,50,000 |

- Public Hearing (Action Plan)
    - Expansion of the project will generate more employment which will be given to the local unemployed youth once EC is granted to the expansion project.
    - APCD's will be installed as soon as EC is granted. Thus, controlling the air pollution.
    - No domestic effluent will be discharged from the project. Treated water from STP will be reused in green area development after expansion. Also, pond in Village Talwara has been adopted for its maintenance.
    - Rs. 3 lakhs have been reserved for providing winter uniforms, provision of interlocking tiles as well as maintenance of Govt. School in Village Talwara.
    - Rs. 2 lakhs have been reserved for installation of CCTV cameras & lights near the under bridge of Village Talwara. Also, Rs. 50,000 has been reserved for air ticket for girl child of Village Talwara.
    - All these activities are reserved under CER and will be done after getting EC to the project.

- ✓ Rs. 5.5 Lakhs will be spent on the action plan of Public Hearing.

- The details of the activities proposed to be covered under public hearing action plan are as under:

| Sr. No. | Expenditure on Public Hearing Action Plan | Total Expenditure | Timeline (Starting from date of grant of EC) | Total Expenditure in 1 Year (in lakhs) |
|---|---|---|---|---|
| 1. | Provision of winter uniforms, interlocking tiles as well as maintenance of Govt. School in Village Talwara. | 3,00,000 | 1 year | 3,00,000 |
| 2. | Provide air ticket to the girl child of Talwara village. | 50,000 | 1 year | 50,000 |
| 3. | Installation of CCTV camera & Lights near the under bridge of the village Talwara. | 2,00,000 | 1 year | 2,00,000 |
| Total | | Rs. 5,50,000 | | Rs. 5,50,000 |

SEAC asked the project proponent and environmental consultant to clarify the following observations to which they replied as under:

Observation 1
**As to whether the site of the project confirms to the provision of Master Plan.**

Reply of Project Proponent

The company has also obtained CLU from District Town Planner vide vide Memo No. 479 dated 28.04.2015 land and the site falls outside MC limit but in the designated use zone i.e. industrial zone as per Master Plan of Mandi Gobindgarh.

Observation 2
**Proposed CER activities are not in line with the OM dated 01.05.2018.**

Reply of Project Proponent

The project proponent submitted the revise CER activities along with amount to be spent (1 % of the total proposed expansion i.e. Rs.17 lac, as under:

| **Sr. No.** | **CER Activities** | **Annual Expenditure (in Rs.)** |
|---|---|---|
| 1. | Adoption of Govt. Primary School and Govt. Middle School in the Village Talwara to improve its education quality and infrastructure in the form of Library, soalr system, drinking water RO system, washrooms & badminton court etc. | 17,00,000/- |
| | Total | Rs.17,00,000 |

Observation 3

**Further, the details of activities to be undertaken as per the commitment made during public hearing of the industry be provided.**

Reply of Project Proponent

The company has made commitment of RS. 5.5 lacs/- during Public Hearing and the details of same are as under:

| **Sr. No.** | **Expenditure on Public Hearing Action Plan** | **Expenditure (in Rs.)** |
|---|---|---|
| 1. | Provision of Winter uniforms, interlocking tiles as well as maintenance of Govt. School in Village Talwara | 3,00,000/- |
| 2. | Air ticket already provided to the girl child of Talwara village (certificate from Sarpanch has been submitted) | 50,000/- |
| 3. | Installation of CCTV camera & lights near the under bridge of the village Talwara | 2,00,000/- |
| | Total | Rs.5,50,000/- |

Observation 4

**As to whether the project site is located in the notified area/ overexploited area of the central Ground Water Authority. If yes, then how, the project proponent will meet the requirement of water intake for project.**

Reply of Project Proponent

Amloh is a notified area by the CGWA. They will obtain the necessary permission from the regulatory authority for abstraction of ground water for the project for which application has been submitted . If they will not be able to get the permission for the same then either they will be utilizing surface water or treated waste water from nearby STPs after obtaining permission from competent authority.

Observation 5

**There are chances of contamination of underground water upon recharging of rainwater due to probable deposition of pollutants on rooftop due to highly dense air polluting industrial cluster in adjoining area.**

Reply of Project Proponent

Rain water harvesting shall be done outside the premises i.e. pond shall be adopted in the Village Talwara, Block Bassi Pathania, Mandi Gobindgarh. Total quantity of water recharge is 82,859 m3 per annum against the annual pumpage of 40,920 m3 per annum which is double the rate of abstraction.

Observation 6

**Whether any proposal has been made for paving the approach road to the gate and weighing bridge area for the vehicle movement within the premises to reduce the dust emissions.**

Reply of Project Proponent

The area within the premises for vehicle movement as well as approach road to the gate and weighing bridge area has already been paved.

Observation 5

**As to whether the industry has installed side suction hood as per design given by PSCST.**

Reply of Project Proponent

The work of providing side suction hood is under progress and shall be installed and commissioned by 31st July 2019 as per the feasibility report approved by the PSCST. After the completion of said work, completion certificate from PSCST shall be taken for submitting the same to SEIAA, Punjab at the earliest.

SEAC took the reply and copy of presentation 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 clearance for expansion of unit in the existing premises located in the revenue estate of Village Talwara, Talwara Road, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab, as per the details mentioned in the EIA study & subsequent presentation / clarifications made by the project proponent and his consultant with following salient features after expansion, proposed measures, conditions:

| | | |
|---|---|---|
| 1 | Name and Location of the project | M/s. Oasis Enterprises Pvt. Ltd.<br>at Village Talwara, Talwara Road, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab |
| 2. | Nature of project (Fresh/Expansion Amendment/Others) | Expansion project |
| 3. | a) Category<br>b) Activity<br>(as per schedule appended to EIA Notification, 2006 as amended time to time.) | a) B-1<br>b) 3(a)<br>Metallurgical Industries<br>(Ferrous &Non Ferrous Alloys). |
| 4. | Area Details | |

| Details | Existing | Additional Land | After Expansion |
|---|---|---|---|
| Plot Area | 5.40 acre | Nil | 5.40 acre |

| | | |
|---|---|---|
| 4. | Co-ordinates of the project site | A: 30°39'13.56"N and 76°19'34.74"E<br>B: 30°39'15.01"N and 76°19'32.19"E<br>C: 30°39'14.60"N and 76°19'23.27"E<br>D: 30°39'11.52"N and 76°19'23.19"E<br>E: 30°39'11.48"N and 76°19'32.14"E |
| 5. | Project Cost (After expansion) | Rs. 31.0 Crores |
| 6. | Raw Material requirement (After expansion) | Scrap@ 1075 TPD & Ferro Alloys @25 TPD |
| 7. | Production Capacity (After expansion) | 1000 TPD of Ingots/Billets/Flats/Structures/ TMT Bars/M.S Bars/H.R Coils |
| 8 | Details of major productive machinery/plant (After expansion) | (i) 4 no's Induction Furnaces of capacity 20 TPH each<br>(ii) One ladle furnace of capacity 20 TPH and rolling mill |
| 9. | Manpower(After expansion) | 360 persons |
| 10. | Water Requirements & its source (After expansion) | Total Water Demand:124 KLD<br>i) Domestic: 18 KLD<br>ii) Cooling: 66 KLD<br>iii) Green Area: 40 KLD<br>Water demand shall be met through existing tubewells after obtaining permission from CGWA. In case permission is not granted, then alternative sources like treated sewage water or surface water shall be used. |

11. Details of Effluent(After expansion)

| Sr. No. | Details | Quantity (After Expansion) | Remarks |
|---|---|---|---|
| iii) | Industrial Effluent | Nil | No industrial effluent generated except purge water which shall confirmed to the prescribed standards before discharge onto land for plantation. |
| iv) | Domestic Effluent. | 14.4 KLD | Wastewater generated from the project will be treated in the STP of capacity 20 KLD and same shall be utilized onto green area or recirculated through cooling tower. |

12. Details of Emissions(After expansion)

| Sr. No. | Source | Capacity | Chimney Height (m) | Air Pollution Control Device |
|---|---|---|---|---|
| i) | Induction Furnace & LRF | 4 x 20 TPH each & 1 x 20 TPH | 18 m with 3 IF of 20 TPH each But 22 m with one IF of 20 TPH and one LRF of | Side suction Hood followed by Bag Filter with one IF of 20 TPH IF & one LRF of 20 TPH Side suction hood |

| | | | | | |
|---|---|---|---|---|---|
| | | | | 20 TPH | followed by Pulse Jet Bag Filter with 3 IF of 20 TPH |
| | ii) | DG sets | 500 KVA | 5.0 m each | Equipped with Canopy |

13. Details of Hazardous waste and its disposal(After expansion)

| Sr. No. | Hazardous Waste Category | Quantity (After expansion) | Disposal |
|---|---|---|---|
| i) | Cat.35.1 – Exhaust air or Gas cleaning Residue | 962.5 TPA | Shall be reprocessed through M/s Madhav Alloys, Fatehgarh Sahib, for recovery of metal. In case non acceptance by the reprocessor, the hazardous waste to be given CSTDF, Nimbua |
| ii) | Cat.5.1 – Used Oil | 0.040 KL per annum | Shall be reprocessed through authorized recyclers of waste oil |

14. Solid waste generation and its disposal (After expansion)

| Sr. No. | Solid Waste | Quantity (After Expansion) | Disposal |
|---|---|---|---|
| (i) | Slag | 33 TPD | Shall be reprocessed through M/s Khanna Cement Products |

15. Energy Requirements(After expansion)

iii) Power load 30000 KW through PSPCL.
iv) Two Silent DG sets of capacity 500 KVA as stand-by arrangement.

16. Environment Management Plan

Environment Management Cell (EMC) shall be responsible for implementation of EMP which consists of Director of the company, representative of management, process-in-charge, in-charge maintenance and a representative of environmental consultant. The budgetary requirement for implementation of EMP is as under:-

| Sr. No. | Environmental Protection Measures | Capital Cost (Rs. in lakhs) | Recurring Cost (Rs. in lakhs/year) |
|---|---|---|---|
| 1. | Air Pollution Control (Installation of APCD) | 130.0 | 1.0 |
| 2. | Noise Pollution Control (Including cost of landscaping & green belt) | 5.0 | 1.5 |
| 3. | Solid Waste Management | 3.0 | 1.0 |
| 4. | Water Pollution Control (STP) | 20 | 2.5 |
| 5. | Environment Monitoring & Management | 3.0 | 5.0 |
| 6. | Health, Safety & Risk Assessment | 3.0 | 0.5 |
| 7. | Rain Water Recharging outside the project premises | 1.0 | 0.1 |
| 8. | Miscellaneous | 1.0 | 0.5 |
| Total | | 166.0 | 12.1 |

## Standard EC Conditions for Induction/ Electric Arc Furnace & Rolling Mills

## 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.

i. 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. In case of non- grant of permission by CGWA for ground water abstraction, the industry shall make alternative arrangements by using surface water or treated city sewage effluent after obtaining permission from competent authority.

v. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

vi. The project proponent shall comply with conditions imposed by the District Town Planner, Fatehgarh Sahib vide Memo No. 479 dated 28.04.2015.

vii. 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.

viii. 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 preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31$^{st}$ March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and

connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and S02 and NOx in reference to S02 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous).

iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality/ fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six monthly monitoring report.

v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.

vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

viii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

ix. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

x. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.

xi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

xii. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

## III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 3151 March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier

specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

iv. Adhere to 'Zero Liquid Discharge'.

v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

vii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

viii. 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

ix. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge with in plant premises to avoid underground contamination due to deposition of pollutants on roof top being highly dense industrial area. However, industry may adopt some public place like educational institutions, religious place or monuments for underground recharging or may store and use the rain water within premises or may adopt some village pond for rain water harvesting. As committed, the industry shall adopt pond having 3 acre area located in the Village Talwara, Block Bassi Pathania, Mandi Gobindgarh for harvesting of total rain water @ 82,859 m3 per annum. The stream carrying waste water of the village shall be first treated in the septic tank of adequate capacity to be constructed beside pond and the over flow of the septic tank will be sent to the pond. Pond water will percolate through natural strata (without injection) to augment the ground water and remaining water shall be used for irrigation purposes by pumping method in the nearby fields

x. The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

## IV. Noise monitoring and prevention

i. 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.

ii. 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. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.

ii. Practice hot charging of slabs and billets/blooms as far as possible.

iii. Ensure installation of regenerative type burners on all reheating furnaces.

iv. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.

v. Provide the project proponent for LED lights in their offices and residential areas.

## VI. Waste management

i. Used refractories shall be recycled as far as possible.

ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces

iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.

iv. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

v. Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)

## VII. Green Belt

i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species (having canopy type structure and especially trees not grass) in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant as assured during the presentation. The industry shall ensure that most of the periphery shall be provided with green belt by removing the unwanted/non-productive structures already provided in the existing project near the boundary wall. Canopy trees shall also be planted around the parking area to provide shade to the parked vehicles.

ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

## VIII. Public hearing and Human health issues

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

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

iii. 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.

iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

v. The project proponent shall carry out the following activities and spent an amount as committed during the Public Hearing:

| Sr. No. | Expenditure on Public Hearing Action Plan | Expenditure (in Rs.) |
|---|---|---|
| 1. | Provision of Winter uniforms, interlocking tiles as well as maintenance of Govt. School in Village Talwara | 3,00,000/- |
| 2. | Air ticket provided to the girl child of Talwara village | 50,000/- |
| 3. | Installation of CCTV camera & lights near the under bridge of the village Talwara | 2,00,000/- |
| | Total | Rs.5,50,000/- |

## 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 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.17 Lacs towards following CER activities:

| Sr. No. | CER Activities | Annual Expenditure (in Rs.) |
|---|---|---|
| 1. | Adoption of Govt. Primary School and Govt. Middle School in the Village Talwara to improve its education quality and infrastructure in the form of Library, soalr system, drinking water RO system, washrooms & badminton court etc. | 17,00,000/- |
| | Total | Rs.17,00,000 |

However, CER activities shall strictly be in accordance with the activities listed out in the OM dated 01.05.2018 and as per the 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 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.

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 166 Lacs towards capital cost and Rs 12.1 Lacs / annum towards recurring cost. The entire cost of the environmental management plan will continue to be borne by the project proponent. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

v. 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.

vii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.

## XIII. 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

## XIV. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in

addition this shall also be displayed in the project proponent's website permanently.

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 monitor the criteria pollutants level namely; PM10, 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.

v. 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.

vi. 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.

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.

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 ElA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

viii. 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).

ix. 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.

x. The SEIAA/Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

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

xii. 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.

xiii. 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.

xiv. 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.

**ADDITIONAL SPECIFIC CONDITIONS DECIDED DURING MEETING OF SEAC**

i. The project proponent shall provide STP for treatment of waste water & reutilization of the treated water for core/non-core activities so as to achieve the Zero Liquid Discharge Condition as per the III (iv) of OM dated 09/08/2018 issued by the MoEF&CC for such units.

ii. The project proponent shall reuse of cooling tower blow down, simultaneously ensuring the standards prescribed for such purge waters. If required, necessary arrangements shall be made to keep this waste stream within the parameters required for reuse.

iii. The project proponent shall reserve adequate land for loading or unloading of raw material, products, slag, hazardous waste as well as for storage of these materials and the area to be reserved for parking. The area to be reserved by considering the time required for loading and unloading of vehicles for respective activities and minimum/maximum period for which storage of the above material is required in the premises. The areas for the respective activities to be marked on the layout plan.

iv. The project proponent shall comply with the standard operating procedures and upgradation of suction and treatment arrangement for the secondary emissions as prescribed by the State Pollution Control Board or by CPCB/MoEF&CC.

v. Whole of the vehicle movement area as well as approach road to the gate /weighing bridge shall be paved with pucca / metalled / cement concrete road to control the dust emissions expected from the vehicle movement.

vi. The vehicles to be used for loading / unloading purpose shall not be parked along roadside so as to avoid the traffic congestion and dedicated parking place to be provided for the same.

vii. The project proponent shall adopt green technologies to conserve the water and energy including shearing / cutting / bundling machines. Also to provide abrasive

resistant fire bricks in the crucibles to reduce the periodic maintenance & disposal of discarded fire bricks.

viii. The project proponent shall use natural gas (if available) as substitute fuel wherever possible in the existing industry/ for expansion project.

ix. The project proponent shall obtain mandatory clearances under Pollution Control laws.

x. The project proponent shall submit the proof of amount spent towards the commitment made during the public hearing i.e. 2 lakhs have been reserved for installation of CCTV cameras & lights near the under bridge of Village Talwara and Rs. 50,000 has been reserved for air ticket for girl child of Village Talwara

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Sanjay Gupta, Director of the project.

ii) Sh. Sandeep Garg, M/s Eco Laboratories & Consultants Pvt. Ltd., Mohali, Environmental Consultant of the promoter company.

SEIAA observed that case is similar to the previous item (152.04) placed before it. As such, SEIAA decided to defer the case and asked to take similar action as decided in the previous item (152.04).

**Item No. 152.06: Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Group Housing project namely "Royal Residency" located at 66 ft. Road, Vill. Kadianwali (HB No. 292), Jalandhar, Punjab by M/s Triworld Developers (Proposal No. SIA/PB/MIS/101630/2019).**

The SEIAA observed that

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Group Housing project namely "Royal Residency" located at 66 ft. Road, Vill. Kadianwali (HB No. 292), Jalandhar, Punjab by M/s Triworld Developers.

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. Joginder Singh, Managing Director of the Promoter Company

(ii) Sh. Sandeep Garg, EIA-Coordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Mohali, Environment Consultant of the promoter company

(iii) Ms. Simranjit Kaur, EIA Co-ordinator cum AGM, M/s Eco Laboratories Pvt. Ltd Mohali, Environment Consultant of the promoter company

SEAC was apprised that Environmental Engineer, PPCB, Regional Office, Jalandhar was requested vide email dated 08.05.2019 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, Jalandhar vide return email dated 13.05.2019 has intimated that the site of M/s Triworld Developers in the revenue estate of Village Qadianwali, Tehsil & Distt. Jalandhar, Punjab was visited by AEE of their office on 10.05.2019 and the point wise reply to the queries raised vide e-mail dated 08.05.2019 is as under:-

1. During visit, it was observed that the boundary wall of the colony has been done. Apart from office block & a sample flat, no other construction activity has been carried out. There exists 2 no. cold storage, 1 no. filling station, 1 no. Govt. High School and 1 no. menthe plant within the radius of 500 mtr from the boundary of project site. The menthe plant was not in operation during visit and the physical condition of the mentha plant suggests that it has not been operated since long. The owner of the menthe plant was contacted telephonically and he informed that menthe plant is in scrap condition and they do not wish to operate it in foreseeable future.
2. It is requested that the details w.r.t queries raised regarding certain points to be checked from 5 KM radius of project site, may be obtained from revenue authorities.

2. There is no MAH industry/Rice sheller/ saila plants/ stone crushers/brick kilns/ cement plants/ cement grinding units/ hot mix plants within 500 meter of the site. Hence the site is suitable for establishment of residential colony. Moreover, the project proponent, during visit, has produced the CLU obtained for an area measuring 10.61 Acre issued vide STP letter no. 2462 dated 04.10.2017 for establishment of residential colony.

SEAC perused the visit report and observed that boundary wall of the colony has been done and Office Block & sample flat has been constructed. SEAC asked the project proponent to clarify as to why the project may not be dealt as violation case as per the provisions of EIA notification,14.03.2017 amended on 08.03.2018. To this query, project proponent replied that initially in the conceptual plan, the project was initially planned for development of 67 residential plots and 10 commercial plots with laying of all the basis amenities in plot area of 10.68 acres. The layout plan was approved by Senior Town Planner, Jalandhar vide no. 643 dated 01/03/2018.Copy of the same was submitted. Consent to establish has been obtained from Board vide certificate no. 7495138 dated 24/03/2018 till 23/05/2019.To give picture of the project to the client, a sample house and site Office was constructed. The plot bearing no. 30 for construction of sample house has been marked on the layout plan. However, after detailed planning and market assessment, the project proponent realized more demand for independent floors rather than plots. Accordingly, the development strategy was revised to ensure the sale of project facilities and fulfilling the housing requirement of larger spectrum of clientele in the region. Layout plan was again revised and was approved by Senior Town Planner, Jalandhar vide no.2946 dated 21/12/2018 for development of 65 residential plots (260 independent floors) and 10 commercial plots within total area of 10.68 acres. Copy of the revised layout plan has been submitted. The sample house has been constructed as per the previous layout plan will be dismantled and the proposed planning shall be put into place after the grant of environmental clearance. Moreover, this house was constructed only after getting the layout plan of this house approved from the competent authority and exhibited the plans and approvals accorded to the earlier project. In light of the above contentions, Project proponent requested the SEAC not to consider the project as violation case and also requested to allow them to present the salient features of the project.

SEAC after taking aforesaid submissions alongwith documentary evidence on record and perusing the application form wherein the project proponent has mentioned that earlier layout plan was approved for residential colony and later on same was revised for making flats, accepted the request of project proponent to the effect that the case shall not be dealt as per the provisions of EIA notification dated 14.03.2017 as amended on 08.03.2018. SEAC further allowed the project proponent and his environmental consultant to present the salient features of the project.

<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.<br>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>Group Housing project namely "Royal Residency" located at 66 ft. Road, Vill. Kadianwali (HB No. 292), Jalandhar, Punjab by M/s Triworld Developers</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>67.33 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>43220.42 sqm. (10.68 Acre)</td></tr>
<tr><td>2.</td><td>Net Plot Area</td><td>42937.147 sqm. (10.61 Acre)</td></tr>
<tr><td>3.</td><td>Built-up Area</td><td>83340.99 sqm.</td></tr>
<tr><td>4.</td><td>Green Area</td><td>3712.91 sqm.</td></tr>
<tr><td>5.</td><td>Parking</td><td>581 ECS (Residential Stilt Parking)<br>40 ECS (Commercial Surface Parking)</td></tr>
</table></td></tr>
<tr><td>8)</td><td>Population (when fully inhabited)</td><td>1490 Persons</td></tr>
<tr><td>9)</td><td>Water Requirements & source</td><td><table><tr><th>Break up of water requirement</th><th>Source</th></tr></table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>Total: 192 KLD in operation phase (149 KLD fresh water.</td><td>Groundwater</td></tr>
</table>
Treated wastewater from private water tanker will be used in construction phase.
</td></tr>
<tr><td>10)</td><td>Disposal Arrangement of Waste water</td><td>Total waste water @153.6 KLD out of which 76.8 KLD of sewage (Black Water) will be generated, which will be treated in STP of 125 KLD capacity and 76.8 KLD of wastewater (Grey Water) will be generated, which will be treated in WWTP of 125 KLD.
<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>43</td><td>20.5</td><td>90.7</td></tr>
<tr><td>2.</td><td>Winter</td><td>43</td><td>6.68</td><td>104.5</td></tr>
<tr><td>3.</td><td>Rainy</td><td>43</td><td>1.8</td><td>109.4</td></tr>
</table>
</td></tr>
<tr><td>11)</td><td>Rain water recharging detail</td><td>1385.574 $m^3$/hour of rain water volume will be recharged with 8 no. of rain water harvesting pits.</td></tr>
<tr><td>12)</td><td>Solid waste generation and its disposal</td><td>a) 575 kg/day<br>b) Solid wastes will be appropriately segregated as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.<br>c) Separate area will be earmarked for handling Bio-degradable waste including segregation.<br>d) Mechanical composter will be provided for composting Bio-degradable waste.<br>e) Recyclable waste will be sold to recyclers.<br>f) Inert waste will be dumped to authorized dumping site.</td></tr>
<tr><td>13)</td><td>Hazardous Waste</td><td>No details given.</td></tr>
<tr><td>14)</td><td>Energy Requirements & Saving</td><td>a) 1763 KW from State Power Supply.<br>b) 1 x 500 KVA and 1 x 320 KVA DG sets with canopy as standby arrangements will be provided.<br>c) Solar street lighting facilities will be proposed.<br>d) 16.64 KW shall be saved by using CFL instead of LEDs.<br>e) 31% of terrace area will be covered by Solar Panels to generate 493 KW of power.</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. 525 lacs</td><td>Rs.4.85 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs.11 Lac</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td>16)</td><td>CER activities alongwith budgetary break up and responsibility to implement</td><td>1. Mr. Joginder Singh of M/s Triworld Developers will be responsible for implementation of the CER activities.<br>2. Rs 134 Lakh has been planned for the following activities:
<table>
<tr><th>Sr. No.</th><th>Activities</th><th>Annual Expenditure (in Lakh per year)</th><th>Timeline (In year)</th><th>Total Expenditure (in 5 years)</th></tr>
<tr><td>1.</td><td>Ambulance donation to SHC (Subsidiary Health Centre) and local Govt. Hospital near Kadianwali.</td><td>4</td><td>5</td><td>20</td></tr>
<tr><td>2.</td><td>Construction and maintenance of toilets of Government High School, Kadianwali.</td><td>9</td><td>5</td><td>45</td></tr>
<tr><td>3.</td><td>Maintenance of Village Roads</td><td>4</td><td>5</td><td>20</td></tr>
<tr><td>4.</td><td>Providing solar lights on village rasta.</td><td>6</td><td>5</td><td>30</td></tr>
<tr><td>5.</td><td>Books and Annual Scholarship to needy students in government high school, near Kadianwali</td><td>1.8</td><td>5</td><td>9</td></tr>
<tr><td>6.</td><td>Installation and maintenance of domestic water purification systems in village Kadianwali.</td><td>2</td><td>5</td><td>10</td></tr>
<tr><td></td><td>Total</td><td>26.8</td><td></td><td>134 Lakhs</td></tr>
</table></td></tr>
<tr><td>17)</td><td>Other important facts</td><td>➢ The project was initially planned for development of 65 residential plots and 10 commercial plots with laying out of all basic amenities and planning in plot area of 10.68 acres. The layout has been approved vide letter No. 643, STP(J) 1- 114(10) A dated 01/03/2018 from Senior Town Planner, Jalandhar. CTE was obtained from PPCB, vide Certificate No. CTE/ Fresh/ JAL/ 2018/7495138</td></tr>
</table>

| | | |
|---|---|---|
| | | dated 24/03/2018 valid till 23/05/2019. Consequently, development works for laying of roads, sewerage and storm water system, community centre/ club, Nursery school was initiated after obtaining CTE in April 2018.<br>➢ However, after detailed planning and market assessment, the project proponent realized more demand for Independent floors rather than Plots and thus revised its development strategy, to ensure sale of its project facilities and fulfill housing requirement of a larger spectrum of clientele in the region.<br>➢ Thus, the layout plan has been revised and therefore, the layout plan was again approved by Senior Town Planner, Jalandhar, vide letter No. 2946, STP (J) 1-114-10 (A) dated- 21/12/2018 for development of 65 residential plots (260 Independent floors) and 10 commercial plots within the total plot area of 10.68 acres.<br>➢ The project comprises of Residential plots, EWS area, Commercial area, Club / Community Centre, Nursery School etc.<br>➢ The CLU has been obtained for net plot area i.e. 10.61 acre or 42947.26 sqm (after leaving the area for road widening from 10.68 acre) vide no. 2460/STP(J)/CLU(J) dated 04/10/2017 for residential purpose.<br>➢ MC, Jalandhar has granted NOC regarding disposal of sewage treated water into main sewer Municipal Corporation and disposal of solid waste at main solid waste collection center of MC vide memo no. 1021/SE/O&M dated 10/01/2018 with certain conditions including one of the conditions that project proponent will obtain actual demand notice before starting disposal of treated water into sewer.<br>➢ The project proponent has also submitted an undertaking stating that excess treated wastewater after recycling will be disposed of to Municipal sewer or disposed on to 1.37 acre of adjoining land, which will be developed under Karnal Technology till sewer is connected to the project site. It is further mentioned in the undertaking that we will not use this patch of land for any other purpose till Municipal sewer is |

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| | | connected.<br>➢ The project proponent has submitted an affidavit from Ritu Kumari, stating that having land adjoining to the proposed land for residential colony "Royal Residency" developed by M/s Triworld Developers have no objection in allotting land of 1 Acre to M/s Triworld Developers on lease, which will be developed under Karnal Technology for disposing excess treated wastewater from the project.<br>➢ The project proponent has submitted copy of application for abstraction of ground water filed to CGWA vide application no. 21-4/5326/PB/INF/2019 dated 08.04.2019.<br>➢ The project proponent submitted a copy of license granted vide license no. JDA-2018/26 dated 06.02.2018 valid upto 05.02.2023. |

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 under Wildlife (Protection) Act, 1972 has been obtained. | There is no national park and wildlife sanctuary present in 10 km radius of project site. As such, the same is not applicable. |
| **2.** | As to whether the land use of the area is permissible for the establishment of the project for which EC has been applied as per the provisions of Master Plan of the city. | The CLU has been obtained for net plot area i.e. 10.61 acre or 42947.26 sqm (after leaving the area for road widening from 10.68 acre) vide no. 2460/STP(J)/CLU(J) dated 04/10/2017 for residential purpose. |
| **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. | The layout plan has been approved by the Senior Town Planner vide no. vide letter No. 2946, STP (J) 1-114-10 (A) dated- 21/12/2018 for development of 65 residential plots (260 Independent floors) and 10 commercial plots within the total plot area of 10.68 acres |
| **4.** | a) Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?<br>b) On perusal of CGWA application, it has been observed that there are three borewells which are existing at site. As to whether these borewells have been made during making of sample house or thereafter.<br>c) Existing borewells cannot be used for | a) 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.<br>b) The borewell area existing at site prior to the purchase of land as the earlier land was used for agricultural purpose. They have not constructed any borewell.<br>c) They submitted an undertaking to the |

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| | any activity till the permission is obtained by the promoter company from CGWA. | effect that no ground water from the project site will be extracted without obtaining NOC/permission from CGWA for 3 no. of bore wells which was taken on record by SEAC. |
| **5.** | a) What will be the treatment proposal for the sewage expected from the labours / employees during the construction phase?<br>b) Sewer is located at an distance of 1 km from the project site and connectivity is yet to be established. As such, in absence of sewer, how the treated waste water shall be managed? | a) Septic tank will be provided for the treatment of waste water generated during construction phase and treated waste water shall be discharged onto land for plantation.<br>b) Treated waste water shall be managed by disposing the same in a scientific manner by adopting any of the following strategies for the same:<br>I. Treated water shall be discharged into Municipal Sewer as allowed in the NOC granted by Municipal Corporation Jalandhar Vide Memo No. - 1021/SE/O&M Date 10-01-2018.<br>II. In case, the MC sewer is not connected with the project site at the operational stage of the project than the project proponent will lay down the sewer line connecting to main MC Sewer which is only 1.5 km (approx.) from project site at its own cost arrangement.<br>III. Alternatively, project proponent would purchase, adjacent agricultural land or obtain land of 1.5 acre on lease for 10 years if required, in case of delay in connection with MC sewer for disposal of treated sewage through Karnal Technology (to utilize maximum 110 KLD of treated wastewater @ 80 KLD/ acre) on purchase land.<br>IV. In case of lack of arrangement of disposal of treated sewage, project proponent will not sell any flat to occupants under the project. |
| **6.** | Whether provision of module system shall be kept during installation of STP? | Both the STPs shall be installed on module basis and initially STPs with capacity 50 % of the proposed shall be installed and another 50 % shall be enhanced on 100 % occupancy in the project. However, the civil work of whole STP shall be done before taking it to full operating efficiency. |
| **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. | Provision has been kept and separate STPs have been proposed for treatment of black water and grey water. |
| **8.** | The project has 83340.99 sqm built up area. As to whether 8 no. of rain water harvesting pits will fulfill the MoEF&CC/ CGWA criteria. | Considering one recharge bore per 5,000 square meters of built up area, 17 No. Pits will be provided. |
| **9.** | Whether the project proponent is | Rs. 134 Lakhs (approx. 0.6%) has been kept |

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| | 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? | reserved for completing the CER activities as per OM dated 01.05.2018. The activities shall be completed before the completion of the project. The details area as under: |

| Sr. No. | Activities | Timeline for completion | Amount reserved in Lacs |
|---|---|---|---|
| 1. | Adoption of school by providing its library, computer, furniture and girls toilets as well as repair of complete building as per the requirement | Jan. 2020 - Feb. 2021 | 40 |
| 2. | Modification and repair of Cremation ground. | Mar 2021 – Jan. 2022 | 24 |
| 3. | Installation of rain water harvesting system and water cooler in local government hospital. | Feb. 2022 – Mar 2024 | 70 |
| | **Total** | | 134 |

SEAC took a copy of presentation along with additional documents & undertaking given w.r.t the submissions made in the reply given by the project proponent and his environmental consultant on record.

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 for establishment of a Group Housing project namely "Royal Residency" having built up

area 83,340.99 sqm in total land area of 43,220.42 sqm with net plot area 42,937.147 sqm located at 66 ft. Road, Villiage. Kadianwali (HB No. 292), Jalandhar, 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 not use existing three borewells till the permission for ground water abstraction is obtained from CGWA.

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) 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 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 192 KL/day, out of which 149 KL /day shall be met through own tubewell and remaining 43 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 153.6 KL/day, which will be treated in a separate STPs i.e. of capacity @125 KLD for black stream (50%) and of capacity 125 KLD for grey stream (50%) to be installed on module system 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 | 43 | 20.5 | 90.7 |
| 2. | Winter | 43 | 6.68 | 104.5 |
| 3. | Rainy | 43 | 1.8 | 109.4 |
| Note-*In case, the MC sewer is not connected with the project site at the operational stage of the project than the project proponent will lay down the sewer | | | | |

line connecting to main MC Sewer which is only 1.5 km (approx.) from project site at its own cost arrangement as undertaken. Alternatively, project proponent shall purchase, adjacent agricultural land of 1.5 acre, in case of delay in connection with MC sewer for disposal of treated sewage through Karnal Technology (to utilize maximum 110 KLD of treated wastewater) on purchase land as undertaken by Project Proponent.
In case of lack of arrangement of disposal of treated sewage as proposed above, project proponent will not sell any flat to occupants under the project

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) 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.

xv) 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 |

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

xvii) 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 (17 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xviii) 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.

xix) All recharge should be limited to shallow aquifer.

xx) 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.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) 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.

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

xxvi) 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) 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.

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 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. 134 Lacs towards following CER activities:

| Sr. No. | Activities | Timeline for completion | Amount reserved in Lacs |
|---|---|---|---|
| 1. | Adoption of school by providing its library, computer, furniture and girls toilets as well as repair of complete building as per the requirement | Jan. 2020 - Feb. 2021 | 40 |
| 2. | Modification and repair of Cremation ground. | Mar 2021 – Jan. 2022 | 24 |
| 3. | Installation of rain water harvesting system and water cooler in local government hospital. | Feb. 2022 – Mar 2024 | 70 |
| | **Total** | | 134 |

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 525 Lacs towards capital cost and Rs 4.85 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 11 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

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 condition 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.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Joginder Singh, Partner.

ii) Sh. Sandeep Garg, M/s Eco Laboratories & Consultants Pvt. Ltd., Mohali, Environmental Consultant of the promoter company.

Environmental Consultant of the promoter company presented the salient features of the project and requested for grant of environmental clearance.

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and the Committee has awarded **'Silver Grading'** to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same.

Therefore, the Authority decided to accept the recommendations of SEAC and grant environmental clearance for establishment of group housing project namely "Royal Residency" having total land area of 43,220.42 sqm with net plot area 42,937.147 sqm and built up area 83,340.99 sqm located in located at 66 ft. Road, Villiage Kadianwali (HB No. 292), Jalandhar, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with the following amendments in the conditions as under:

**Conditions to be amended**

**Condition no. ii) of VII. Green Cover:**

v) 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.

**Condition no. ii) of XII. Miscellaneous**

iv) The project proponent shall comply with the conditions of CLU obtained vide letter no 2460/STP(J)/CLU(J) dated 04/10/2017.

**Item No. 152.07 Application for obtaining Environmental Clearance (EC) under EIA notification dated 14.09.2006 for establishment of a Logistic Park located in revenue estate of Vill. Shambu Khurd, Rajpura, Distt. Patiala, Punjab by M/s Erisha Infratech Pvt. Ltd. (Proposal No. SIA/PB/NCP/85629 /2018).**

The SEIAA observed that

The project proponent has filed an application for obtaining Environment Clearance under EIA notification, 2006 for establishment of a Logistic Park located in revenue estate of Vill. Shambu Kalan, Rajpura, Distt. Patiala, Punjab, by M/s Erisha Infratech Pvt. Ltd.

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. Vishal Goyal, CEO and Sh. Deepak Gupta, Environmental Advisor, of the project proponent.

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

(iii) Sh. Sandeep Singh, FAE, M/s CPTL Pvt. Ltd., Mohali, Environment Consultant of the promoter company.

SEAC was apprised that the Environmental Engineer, PPCB, Regional Office, Patiala was requested vide dated 10.04.2019 to send the report on the following:

i. Construction status at the site alongwith physical structures within 500 mt radius of the site including the status of industries if any
ii. 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
iii. 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 return email dated 16.04.2019 intimated that the site of the subject cited project was visited by AEE of their office on 11.04.2019 and Sh. Neeraj Gupta, representative of the project was contacted. As per the e-mail the site falls in village Shambhu Kalan, Tehsil Rajpura, but on visit it was observed that the site falls in village Shambhu Khurd. The location of the site is latitude 30.439927 and longitude 76.672683. During visit it was observed that the site falls on right hand side of Rajpura-Ambala Road. Near the site the railway track exists. On left hand side of the site private plantation exists. In front side across the road and on back side beyond the railway track only agricultural land exists. One industry namely M/s Jai Shri Oil Mills, Village Bhari Majra, Tehsil Rajpura exists at about 500 meter from the boundary of the site. The said unit is a cattle and poultry feed unit and was granted consent to operate by the Board under the Water Act, 1974 vide no. ZO-I/PTA/WPC/2013-18/F-204 dated 9.12.2013 and under the Air Act, 1981 vide no. ZO-I/PTA/APC/2013-18/F-200 dated 9.12.2013 for the production of poultry feed/ cattle feed @ 65000 TPA, both of which had expired on 30.09.2018.

No construction activity has been started till date. The distance of the site from various parameter as per visit of AEE are given as under:

| **Sr. No.** | **Location** | **Distance** |
|---|---|---|
| 1. | Protected Areas notified | As per enquiry from local area no protected |

| | | |
|---|---|---|
| | under the Wild Life (Protection) Act, 1972. | areas notified under the Wild Life (Protection) Act, 1972 fall within 5 KM, but detailed report in this regard may be obtained from the Department of Forest and Wild life Preservation. |
| 2. | Critically Polluted areas as notified by the Central Pollution Control Board from time to time. | As per list notified by the CPCB (list attached herewith) two no. critically polluted areas i.e. Ludhiana and Mandi Gobindgarh and two no. severely polluted area i.e. Batala and Jalandhar have been notified in State of Punjab. |
| 3. | Notified Eco-sensitive areas. | As per enquiry from local area no notified eco-sensitive area fall within 5 KM, but detailed report in this regard may be obtained from the Department of Forest and Wild life Preservation. |
| 4. | Inter-State boundaries and international boundaries falls within 5 km radius from the boundary of the project site | The Haryana Punjab Boundary falls within 5 KM of the site. A detailed report in this regard may be obtained from the revenue authorities (SDM Rajpura). |
| 5. | 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. | 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. |

SEAC perused the report and observed that no construction work has been started.

Thereafter, Sh. Vishal Goyal submitted an authority letter wherein it has been mentioned that he and Sh. Deepak Gupta working as Environmental Advisor, have been authorized by 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. SEAC took authority letter on record.

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

| | | |
|---|---|---|
| 1) | Activity or Item No.<br>as per EIA Notification, 2006 (in schedule) | 8(a): Building & Construction Project.<br>Area less than 50 ha or /and built up area less than 1,50,000 sqm |
| | Category as per EIA Notification, 2006<br>(in schedule) | Category B2 |
| 2) | Requirement of Public | Not required being Building Construction Project |

<table>
<tr><td></td><td>consultation</td><td>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>Logistic Park located in revenue estate of Vill. Shambu Kalan, Rajpura, Distt. Patiala, Punjab</td></tr>
<tr><td>6)</td><td>Total cost of the project</td><td>29 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><td>Sr. No.</td><td>Description</td><td>Details</td></tr>
<tr><td>1.</td><td>Total Project land Area</td><td>82252 sqm.</td></tr>
<tr><td>2.</td><td>Built-up Area</td><td>33736 sqm.</td></tr>
<tr><td>3.</td><td>Green Area</td><td>9383 sqm.</td></tr>
<tr><td>4.</td><td>Parking</td><td>16760 sqm.</td></tr>
</table></td></tr>
<tr><td>8)</td><td>Population (when fully inhabited)</td><td>200 Persons.</td></tr>
<tr><td>9)</td><td>Water Requirements & source</td><td><table>
<tr><th>Break up of water requirement</th><th>Source</th></tr>
<tr><td>Total: 4.5 KLD in operation phase. Further, treated waste water from nearby STP shall be taken for green area.</td><td>Groundwater</td></tr>
</table></td></tr>
<tr><td>10)</td><td>Disposal Arrangement of Waste water</td><td>3.6 KLD of sewage will be generated, which will be treated in septic tank. The entire treated waste water shall be discharged onto green area in all the seasons.</td></tr>
<tr><td>11)</td><td>Rain water recharging detail</td><td>49580 cum/year of rain water volume will be recharged with the help of 14 no. rain water harvesting pits.</td></tr>
<tr><td>12)</td><td>Solid waste generation and its disposal</td><td>a) 50 kg/day<br>b) Solid wastes will be appropriately segregated as Bio-degradable and non- bio-degradable as per MSW Rules, 2016.<br>c) Separate area will be earmarked for segregation of solid waste.<br>d) Bio-degradable waste will be composted by use of mechanical composter.<br>e) Recyclable waste will be sold to recyclers.</td></tr>
<tr><td>13)</td><td>Hazardous Waste & e -waste</td><td>The spent oil from the D.G. sets (defined as hazardous waste) will be sold to approved recyclers as per E.P.A. The e-waste generated will be stored in an isolated room and will be sent to the manufacturers and will follow EPA Rules.</td></tr>
<tr><td>14)</td><td>Energy Requirements & Saving</td><td>a) 700 KW from State Power Supply.<br>b) 1 x 240 KVA and 1 x 125 KVA DG sets with</td></tr>
</table>

<table>
<tr><td></td><td></td><td>canopy as standby arrangements will be provided.<br>c) 10 nos. Solar lights and 200 no. LED lights have been proposed to be used instead of CFL and total 123 KW /day energy will be saved.</td></tr>
<tr><td>15)</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>Director of the Company shall be responsible for implementation of 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. 46.5 lacs</td><td>Rs.11.60 Lacs</td></tr>
<tr><td>Operation</td><td>-</td><td>Rs. 12.9 Lac</td></tr>
</table></td></tr>
<tr><td>16)</td><td>CER activities alongwith budgetary break up and responsibility to implement</td><td>i. Director of the Company shall be responsible for implementation of the CER activities.<br>ii. Total Fund for CER is Rs. 18 Lacs and will be spend as per given below activities<br>• Widening of road in the vicinity of the project.<br>• A fund of Rs 10 Lac has been earmarked for Government senior secondary school at village Shambu kalan Ghanour. Facilities for the school as per there requirement. ( The activity will be started after 8 months from the project construction is undertaken.<br>• Providing solar lights in the Village Shambu kalan.<br>• 15 solar lights @ Rs 15000/ light = Rs 225000/-<br>• Solar Lights will be provided to the village in the year February 2020<br>• Ambulance will be donated to the near by Government Dispensary by December 2020</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 permission under Wildlife (Protection) Act, 1972 has been obtained.<br>b) As to whether application has been filed with the Forest Department for access to the site. | a) There is no national park and wildlife sanctuary present in 10 km radius of project site. As such, the same is not applicable.<br>b) Online Application has been filed and copy of the same has been submitted. |
| **2.** | a) 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 | a) CLU has been granted vide no. 2688 dated 01/08/2018 for 14.88 acres wherein it has been mentioned that change of land use has been considered for an area 14.88 acres |

| | | |
|---|---|---|
| | Plan of the city<br><br>b) How the project proponent ensures that for rest of the land, they will obtain CLU as the environmental clearance application is 20.324 acres.<br>c) It is apprehended that Project proponent might allow the firms to store hazardous waste/ hazardous goods at site and even the process of the firms might include generation of industrial effluent/ emissions. As such, 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. | falling in village Shambhu Khurd for warehouse and the site falls in Mixed Land Use Zone of Statutory Master Plan, Rajpura. As per zoning regulations of Master Plan Rajpura, this activity is permissible in this land use zone. Permission is hereby granted as CTP letter no. 1219-37 dated 01.08.2018. However, the proposal is for 20.324 acres out of which for 5.444 acres land, they have agreement.<br><br>b) An undertaking to the effect that they will get revised CLU after getting the registry of remaining area in own hands was submitted<br><br>c) They submitted that they shall allow the firms to store only finished goods at site and no hazardous waste / hazardous goods/ e-waste shall be allowed for storage. Further, no industrial effluent / emissions will be generated from the project except emissions from DG set. An undertaking to the above effect was submitted by the project proponent. |
| **3.** | As to whether, the plans have been approved by the Competent Authority or still are Conceptual plans. If so, is there any change from the conceptual plans. | At present, they are having conceptual plan. |
| **4.** | The application is made for Logistic Park located in revenue estate of Vill. Shambu Kalan, Rajpura, Distt. Patiala, whereas as per field report and CLU granted, it is located in Vill. Shambu Khurd. Clarify. | Site is located in in Vill. Shambu Khurd but inadvertently mentioned in Shambhu Kalan. It may be considered as Shambu Khurd. |
| **5.** | a) Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?<br><br>b) Whether the grass or trees have been proposed in the green belt as the fresh water abstraction is too much? | a) 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.<br>b) Trees will be planted in the proposed green belt. An undertaking to the above effect was submitted by the project proponent. |
| **6.** | What will be the treatment proposal for the sewage expected from the labours / employees during the construction phase? | Septic tank will be provided for the treatment of waste water generated during construction phase and treated waste water shall be discharged onto land for plantation. |
| **7.** | Whether provision of module system shall be kept during installation of STP? | As the project is sort of commercial one, single STP of 5 KLD capacity shall be installed based on MBBR technology. |

<table>
<tr><td>8.</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>Only black water stream shall be generated in the project.</td></tr>
<tr><td>9.</td><td>c) Calculations of rain water harvesting pits is not in consonance with rain water to be collected. Clarify.<br>d) No recharging shall be carried out within 50 m radius of STP to be installed so as to avoid the contamination of ground water.</td><td>c) Number of pits will be 22 as by typographical error, it has been mentioned as 14.<br><br>d) They agreed and requested to make this a condition of environmental clearance.</td></tr>
<tr><td>10.</td><td>Solar power plant shall be installed on the roof top so as to save energy at the maximum side.</td><td>They agreed to install 5KW solar power plant on the roof top and requested to make this condition in environmental clearance letter.</td></tr>
<tr><td>11.</td><td>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?</td><td>Rs. 18 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 before the completion of the project. The revised activities shall be done in Govt. Senior Secondary School, Shambhu Kalan, Ghanour and details are as under:
<table>
<tr><th>Sr. No</th><th>Proposed CER activity</th><th>Amount (INR)</th></tr>
<tr><td>1.</td><td>Solar power generation plant of capacity 12 KW shall be installed</td><td>8,00,000/-</td></tr>
<tr><td>2.</td><td>Water cooler, toilets, rain water harvesting pits</td><td>10,00,000/-</td></tr>
<tr><td></td><td>TOTAL</td><td>18,00,000/-</td></tr>
</table>
</td></tr>
</table>

SEAC took a copy of presentation along with additional documents & undertaking to the submissions given by the project proponent and his environmental consultant on record.

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 for establishment of a Logistic Park for ware house having built up area 33,736 sqm in total land area of 82,252 sqm located in revenue estate of Vill. Shambu Kalan, Rajpura, Distt. Patiala, 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:**

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 Proponent has been granted Change of land use vide no. 2688 dated 01/08/2018 for 14.88 acres against the proposal of 20.324 acres. The Project Proponent shall obtain and submit CLU for remaining land immediate after getting the registry of remaining area.

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.

## 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 lndia.

**III. Water quality monitoring and preservation**

i) Recharging within 50 m radius of the STP shall be avoided by the project proponent.

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

iii) 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.

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

v) The total water requirement for the project will be 4.5 KL/day which shall be met through own tubewell. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

vi) a) The total wastewater generation from the project will be 3.6 KL/day, which will be treated in a septic tank and treated waste water shall be utilized onto green area.

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.

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

viii) 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.

ix) 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.

x) 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.

xi) 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.

xii) 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.

xiii) 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.

xiv) 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.

xv) 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.

xvi) 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) | 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 |
| d) | Treated wastewater (for reuse only for plantation purposes) from the STP treating black water | Green |
| e) | Treated wastewater (for reuse for flushing purposes or any other activity except plantation) from the STP treating grey water | Green with strips |
| f) | Storm water | Orange Color |

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

xviii) 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 (22 Nos) /storage tanks shall be provided for ground water recharging as per the CGWB norms.

xix) 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.

xx) All recharge should be limited to shallow aquifer.

xxi) 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.

xxii) 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.

xxiii) 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.

xxiv) Sewage shall be treated in the septic tank. The treated effluent from septic tank 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.

xxv) 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.

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

xxvii) 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) Solar power plant of capacity 5 KW as undertaken shall be installed on the roof top at site.

ii) 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.

iii) Outdoor and common area lighting shall be LED.

iv) 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.

v) 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.

vi) 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.

vii) 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) 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.

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 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. 18 Lacs towards following CER activities to be done in Govt. Senior Secondary School, Shambhu Kalan, Ghanour. The details are given below: -

| Sr. No | Proposed CER activity | Amount (INR) |
|---|---|---|
| 1. | Solar power generation plant of capacity 12 KW shall be installed | 8,00,000/- |
| 2. | Water cooler, toilets, rain water harvesting pits | 10,00,000/- |
| | **TOTAL** | **18,00,000/-** |

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 40.5 Lacs towards capital cost and Rs 11.60 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 12.9 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

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 condition of CLU obtained vide memo no. 2688 dated 01.08.2018.

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.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. Vishal Goyal, CEO of the promoter company.

ii) Sh. Sital Singh, EIA-co-ordinator, M/s CPTL, Mohali, Environmental Consultant of the promoter company.

Environmental Consultant of the promoter company presented the salient features of the project and requested for grant of environmental clearance.

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and the Committee has awarded **'Silver Grading'** to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same.

Therefore, the Authority decided to accept the recommendations of SEAC and grant environmental clearance for establishment of a Logistics Park located having total area as 82252 sqm and built up area as 33736 sqm located at Village Shambu Khurd, Rajpura, Distt. Patiala, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with the following amendments in the conditions as under:

**Conditions to be amended**

**Condition no. ii) of VII. Green Cover:**

vi) 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.

**Condition no. ii) of XII. Miscellaneous**

v) The project proponent shall comply with the conditions of CLU obtained vide memo no. 2688 dated 01.08.2018.

**Item No.152.08: 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 SEIAA observed that

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

## 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<br>• Vehicular traffic<br>• Transportation of construction material | • Dust Emission<br>• Stacking of construction material may block the road<br>• Air pollution due to transportation<br>• 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<br>• Excavated material | • Public health concern due to wastewater<br>• Soil contamination<br>• Storm water with sediments from excavated material |
| Land Quality | • Land Preparation and construction activity | • Change in Land Use pattern<br>• Overburden & Construction waste may pollute the soil |
| Ecology (Terrestrial & Aquatic) | • Land Preparation for construction of TPP | • Generation of Noise<br>• Clearing of ground flora, if any |
| Socioeconomic | • Construction of TPP | • No adverse impact |
| Environmental Hazards | • Construction activities | • No much Environmental Hazards identified<br>• Air pollution may create breathing difficulties |
| Air Quality | • Vehicular movement<br>• Plant Operation<br>• Operation of Boiler | • Air pollution due to dust emission<br>• Air pollution from burning of fuel<br>• Traces of odor may be produced<br>• Cumulative emission generation from the stack of boiler |
| Noise Level | • Pumps, Fans, Generator and Vehicles<br>• Vehicular movement | • Some amount of increase in Noise level |
| Water Quality | • Transpiration of Raw Effluent<br>• 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<br>• Ash handling | • No impact due to proper management<br>• Proper disposal of other solid waste |
| Ecology (Terrestrial & Aquatic) | • Operation of TPP<br>• Disposal of effluent<br>• Handling of Ash | • No impacts due to insignificance emission through air<br>• 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<br>• 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) <u>Year wise plantation planning</u>**

| Description | End of 2018 | End of 2019 | End of 2020 | End of 2021 |
|---|---|---|---|---|
| Number of Plants | • 1000 Nos.<br>• (Tree-600)<br>• (Shrubs-400) | • Additional 1500 Nos.<br>• (Tree-1000)<br>• (Shrubs-500) | • Additional 1000 Nos.<br>• (Tree-600)<br>(Shrubs-400) | • Additional 500 Nos.<br>• (Tree-300)<br>• (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, Village Dal Singh Wala, District Faridkot | 1. How many bailers are there with the industry.<br>2. How the bailers will be distributed to village wise.<br>3. What charges will be taken by the industry from the farmers for taking bundles of rice | The representative of the company informed that:-<br>1. The industry has hired 50 bailer machines for its Sedha Singh Wala project.<br>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. | The industry has hired 50 bailer machines for its Sedha Singh Wala project.<br><br>The bailer machines will be distributed village wise in the nearby area for which a list shall be |

| | | | | |
|---|---|---|---|---|
| | | straw (bailes). | 3. No charges will be taken by the industry from the farmers for taking bundles of rice straw (bailes). | prepared and same will be shared with the farmers.<br><br>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.<br><br>Company will purchase their paddy straw at mutually agreed rates. Therefore, farmer don't need to burn the paddy straw and create the pollution.<br><br>Two bailers wiil be provided to each village within a radius of 25km of the project.<br><br>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.<br><br>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%.<br><br>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.<br><br>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 & 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** |

## 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.<br>▪ Ministry has also prescribed standardize conditions vide OM dated 19.11.2018 for Thermal Power Plants.<br>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.<br>✓ Clarify, as to whether the proposed APCD will be adequate for the emissions being excepted from the power plants.<br>✓ Whether the proposal is in line with the EIA manuals issued by MoEF&CC.<br>✓ What will be the pollution control arrangements at various stages of combustion.<br>✓ 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.<br>▪ 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.<br>▪ Maintenance plan for APCD not submitted | ▪ 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.<br>▪ For rest of the queries like the consonance of proposal with the EIA manual / MoEF&CC notifications, sometime is required.<br>▪ Stage wise requirement / proposal of pollution control device will also be submitted in due course.<br>▪ Details with respect to compatibility of bag filters to stand high temperatures will be submitted in due course.<br>▪ Will be submitted. |
| 3. | a. Is there any proposal to abstract | a. No there is no such proposal. Only |

| | | |
|---|---|---|
| | ground water?<br>b. Whether permission from the Department of Irrigation or Drainage regarding allowing the industry to use the canal water has been obtained. | canal water shall be utilised for meeting the daily water requirement.<br>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.<br>(b) Weather, the Project Proponent has explored other alternatives like recovery of silica powder from the fuel ash.<br>(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.<br>(b). Some time is required to explore the proposal.<br>(c). Will be submitted in due course. |
| 7. | Biomass plant have huge fire hazard.<br>a) What kind of arrangement has | Some time is required to submit the details . |

| | | |
|---|---|---|
| | been made to control the fire.<br>b) How many water hydrants have been proposed on the site with other type of fire extinguishers?<br>c) How much quantity of water shall be stored for extinguishing the fire? | |
| 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 $m^3$.<br>The average rain water available per day is 5324/365=14.59$m^3$. | | | | | |

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

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

xix) 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.

xx) 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).

xxi) 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.

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

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

xxiv) 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.

xxv) 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.

xxvi) 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 case was considered by the SEIAA in its 152nd

meeting held on 08.08.2019, which was attended by the following: -

i) Sh. S. Das , Sr. Vice President.
ii) Sh. Vivek Kumar Singh, representative of Environment Consultant of the promoter company.

Before allowing the presentation, SEIAA asked as to whether the person who is presenting the EIA report accredited in the category of project and on the list of EIA Consultant Organizations accredited with the Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET) or any other agency as may be notified by the Ministry of Environment, Forest and Climate Change from time to time as per the requirement of Notification dated 03.03.2016 & OM dated 31.12.2010. In reply to this, project proponent replied that EIA Co-ordinator /FAE is not available due to some urgent work. However, requested to present the case before SEIAA without EIA Co-Ordinator and FAE.

SEIAA observed that as per the EIA Notification, 2006 and amendment made time to time, no person/consultant whose name does not figure in the accredited list would be permitted to appear before SEAC/SEIAA or EAC or certify any document.

After deliberation, SEIAA decided to reject the request of the project proponent as same was not in-line with the MoEF&CC Notification dated 03.03.2016 & OM dated 31.12.2010. SEIAA also decided to defer the case and asked the project proponent to attend the next meeting of SEIAA along with their EIA Co-ordinator / FAE who are accredited with the QCI or NABET.

**Item No. 152.09 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 facts of the case are 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,<br>14M:3,4,5,6,7,8,13,14,15,16,17,18,23,24,25,2 ,9,12,<br>15M:1,10/1,11/1,21/1,20/2 19M:1,2,3,4,5,6,7,8,9,10<br>20M:1,2,3,4,5,6,7,8,9,12,13,14,15,17,18,19 21M:5/1<br>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<br>Indirect:1500<br>(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/$m^3$<br>PM10: 34.9 to 37.3µg/$m^3$<br>SOx : 14.5 to 18.2 µg/$m^3$<br>NOx : 9.4 to 15.3 µg/$m^3$ | PM2.5 : 60 µg/$m^3$<br>PM10 : 100 µg/$m^3$<br>SOx : 80 µg/$m^3$<br>NOx : 80 µg/$m^3$ |
| Noise Level | 8 Location | Day: 64.1- 72.2 dB(A)<br>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<br>TDS : 823.0 to 1670 mg/l<br>TH : 104.0 to 396.0 mg/l. | 6.5 to 8.5<br>2000 mg/l |
| | Surface Water: 4 Location (Two samples from 1000 m distance) | pH : Slightly alkaline<br>TDS : US: 180.0 mg/l, DS: 169 mg/L<br>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<br>• Vehicular traffic<br>• Transportation of construction material | • Dust Emission<br>• Stacking of construction material may block the road<br>• Air pollution due to transportation<br>• 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<br>• Excavated material | • Public health concern due to wastewater<br>• Soil contamination<br>• Storm water with sediments from excavated material |
| Land Quality | • Land Preparation and construction activity | • Change in Land Use pattern<br>• Overburden & Construction waste may pollute the soil |
| Ecology (Terrestrial & Aquatic) | • Land Preparation for construction of TPP | • Generation of Noise<br>• Clearing of ground flora, if any |
| Socioeconomic | • Construction of TPP | • No adverse impact |
| Environmental Hazards | • Construction activities | • No much Environmental Hazards identified<br>• Air pollution may create breathing difficulties |
| Air Quality | • Vehicular movement<br>• Plant Operation<br>• Operation of Boiler | • Air pollution due to dust emission<br>• Air pollution from burning of fuel<br>• Traces of odor may be produced<br>• Cumulative emission generation from the stack of boiler |
| Noise Level | • Pumps, Fans, Generator and Vehicles<br>• Vehicular movement | • Some amount of increase in Noise level |
| Water Quality | • Transpiration of Raw Effluent<br>• 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<br>• Ash handling | • No impact due to proper management<br>• Proper disposal of other solid waste |
| Ecology (Terrestrial & Aquatic) | • Operation of TPP<br>• Disposal of effluent<br>• Handling of Ash | • No impacts due to insignificance emission through air<br>• 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<br>• 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.<br>• (Tree-600)<br>• (Shrubs-400) | • Additional 1500 Nos.<br>• (Tree-1000)<br>• (Shrubs-500) | • Additional 1000 Nos.<br>• (Tree-600) (Shrubs-400) | • Additional 500 Nos.<br>• (Tree-300)<br>• (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.<br>The ash generated after burning of rice straw would be stored in Silos and sent to the farmer (for manure) and brick manufacturing industries.<br>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.<br>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. |

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| 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.<br>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 | 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).<br>Therefore, there would not be any discharge of treated effluent from the premises. Already mentioned at Point-1.<br>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 |

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| | | has not provided any bailer 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 | 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 | 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. |

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| | | effluent underground. The project 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. | projects are water polluting units and this project is not such type of project. He 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, | He stated that the company has | No need any comment. | Employment will be provided to local persons based on their |

| | | | | |
|---|---|---|---|---|
| | Channu | given employment to the local people in its Channu project. | | 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.
- 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 & 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 & | 20 | 12 | 8 | 6 | 4 | 50 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Electrification | | | | | | |
| **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.<br>▪ Ministry has also prescribed standardize conditions vide OM dated 19.11.2018 for Thermal Power Plants.<br>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 | ▪ It is true that ESPs are commonly used as pollution control device in power plants. They |

| | | |
|---|---|---|
| | often, electrostatic precipitator(ESP) are used to arrest the fine / ionized particulate matter from power plants.<br>✓ Clarify, as to whether the proposed APCD will be adequate for the emissions being excepted from the power plants.<br>✓ Whether the proposal is in line with the EIA manuals issued by MoEF&CC.<br>✓ What will be the pollution control arrangements at various stages of combustion.<br>✓ 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.<br>▪ 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.<br>▪ Maintenance plan for APCD not submitted | 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.<br>▪ For rest of the queries like the consonance of proposal with the EIA manual / MoEF&CC notifications, sometime is required.<br>▪ Stage wise requirement / proposal of pollution control device will also be submitted in due course.<br>▪ Details with respect to compatibility of bag filters to stand high temperatures will be submitted in due course.<br><br>▪ Will be submitted. |
| 3. | c. Is there any proposal to abstract ground water?<br>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.<br>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 | (d). This issue will be re-examined. |

| | | |
|---|---|---|
| | 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.<br>(e) Weather, the Project Proponent has explored other alternatives like recovery of silica powder from the fuel ash.<br>(f) Details of ash storage and its disposal shall be provided. Submit the Concrete proposal for storage and utilization of ash in scientific manner. | (e). Some time is required to explore the proposal.<br>(f). Will be submitted in due course. |
| 7. | Biomass plant have huge fire hazard.<br>d) What kind of arrangement has been made to control the fire.<br>e) How many water hydrants have been proposed on the site with other type of fire extinguishers?<br>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 $m^3$.<br>The average rain water available per day is 8193/365=22.45$m^3$. | | | | | |

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

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

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

xxviii) 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.

xxix) 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).

xxx) 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.

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

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

xxxiii) 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.

xxxiv) 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.

xxxv) 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 case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

i) Sh. S. Das , Sr. Vice President.
ii) Sh. Vivek Kumar Singh, representative of Environment Consultant of the promoter company.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

iii) Sh. S. Das , Sr. Vice President.
iv) Sh. Vivek Kumar Singh, representative of Environment Consultant of the promoter company.

Before allowing the presentation, SEIAA asked as to whether the person who is presenting the EIA report accredited in the category of project and on the list of EIA Consultant Organizations accredited with the Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET) or any other agency as may be notified by the Ministry of Environment, Forest and Climate Change from time to time as per the requirement of Notification dated 03.03.2016 & OM dated 31.12.2010. In reply to this, project proponent replied that EIA Co-ordinator /FAE is not available due to some urgent work. However, requested to present the case before SEIAA without EIA Co-Ordinator and FAE.

SEIAA observed that as per the EIA Notification,2006 and amendment made from time to time, no person/consultant whose name does not figure in the accredited list would be permitted to appear before SEAC/SEIAA or EAC or certify any document.

After deliberation, SEIAA decided to reject the request of the project proponent as same was not in-line with the MoEF&CC Notification dated 03.03.2016 & OM dated 31.12.2010. SEIAA also decided to defer the case and asked the project proponent to attend the next meeting of SEIAA along with their EIA Co-ordinator / FAE who are accredited with the QCI or NABET.

**Item No. 152.10: 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 SEIAA observed 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, Environmental 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>
</table>

| | | |
|---|---|---|
| 4. | New/Expansion/Modernization | New |
| 5. | Area | 10 Kanal (1.25 acres) of the land has been designated for setting up the proposed common biomedical waste treatment facility (CBWTF). |
| 6. | 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) | 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.<br><br>Further, Consent to Establish (NOC) has been granted to the project proponent by PBIP vide Ref. no. PBIP/LORC1/1807909861. |
| 7. | Latitude, Longitude of site | A- 31° 6'46.61"N, 75°30'35.00"E<br>B- 31° 6'50.23"N, 75°30'35.00"E<br>C- 31° 6'49.37"N, 75°30'36.59"E<br>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.<br>Construction phase: 10<br>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.<br>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.<br>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.<br>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:<br>• CollectionTank<br>• Chemical Dosing tank/ disinfectiontank<br>• EqualizationTank<br>• Primary SettlingTank<br>• Aerationtank<br>• Secondary SettlingTank<br>• CollectionTank<br>• 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.<br>➢ Incinerator ash will be generated as waste after the treatment of Bio medical waste and will be disposed throughTSDF Nimbua, |

| | | |
|---|---|---|
| | | Derabassi.<br>➢ Used plastic bottles will be shredded and resulting plastic will be sold to authorizedrecyclers.<br>➢ 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.<br>➢ The project proponent has obtained CLU from Department of Town & Country Planning, vide no. PBIP/CAPA(HUD)/2019/26 dated 18.01.2019.<br>➢ 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.<br>➢ The project proponent has obtainbed permission for water connection for drinking purpose from PWSSB vide no. 190 dated 22.03.2019.<br>➢ 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 Per Day. |
| | = 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 (@40%) | 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

| Sr 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 groundwater recharge. | Govt. High School at Village Bir Pind | 2.5 |
| 3. | Plantation of trees in construction with Village Panchayat., | In and around 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.<br>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 | The project proponent submitted that it |

<table>
<tr><td></td><td>obtaining NOC for abstraction of ground water has been applied CGWA?</td><td>will not provide any tube well for the abstraction of groundwater. Thus, it has not applied for obtaining permission from CGWA.</td></tr>
<tr><td>4.</td><td>How the project proponent will obtain the freshwater for domestic use and industrial purpose?</td><td>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.</td></tr>
<tr><td>5.</td><td>The activities under the CER are general and not specific.</td><td>The project proponent submitted revised CER plan and the components of which are given as under:</td></tr>
<tr><td></td><td colspan="2"><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></td></tr>
<tr><td>6.</td><td>The project proponent has not</td><td>The project proponent has submitted</td></tr>
</table>

<table>
<tr><td></td><td>submitted calculations for rainwater harvesting on per hour basis.</td><td>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:</td></tr>
<tr><td>7.</td><td colspan="2"><table>
<tr><td>S. No.</td><td>Particulars</td><td>Catchment Area in m2 (A)</td><td>Runoff Coefficient (C)</td><td>Rainfall Intensity in mm (I)</td><td>Discharge (m3/hr)</td></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></td></tr>
<tr><td>8.</td><td>What will be the total parking area for vehicles.</td><td>As per the layout plan, total parking area for vehicles will be 1225 sq ft. which is sufficient for their vehicles.</td></tr>
<tr><td>9.</td><td>What kind system to be installed for online monitoring of CBWTF</td><td>1) CCTV Camera linked with web site of PPCB<br>2) Online Continuous Emission Monitoring System for stack emission and waste water to be linked with web site of CPCB<br>3) Bar coding system to be followed.<br>4) GPS system on vehicles to be used followed.</td></tr>
</table>

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.

The case was considered by SEIAA in its 152nd meeting held on 08.08.2019 and the same was attended by the following on behalf of the project proponent:

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

Environmental Consultant of the promoter company presented the salient features of the project and requested for grant of environmental clearance.

To a query of SEIAA, the project proponent replied as under:

| Sr. No. | Queries | Reply |
|---|---|---|
| 1. | The project proponent has proposed biological treatment based ETP scheme, however, there must be antibiotics in the wastewater, which may hamper the operation of biological process and the ETP must include the chemical precipitation arrangement followed by | The project proponent agreed to amend the ETP scheme. Chemical precipitation system followed by settling tank has been proposed before the biological process. The said scheme has been submitted as |

| | | |
|---|---|---|
| | settling tank before the biological process. | amendment in the hard copy of the presentation. |
| 2. | Whether any bore well to be installed in the industrial premises. Further, what is the quantity of rainwater to be harvested in the pit proposed to be set up at Govt. High School at village Bir Pind? | No bore well to be installed within the premises of the project. Being over exploited area, twice the quantity of water required shall be harvested. The details of the quantity of the rain water to be harvested is as under:<br>2 x 1.2 KLD x 365 days = 876 KL/ annum |

SEIAA took the reply on record.

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and the Committee has awarded **'Silver Grading'** to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same.

Therefore, the Authority decided to accept the recommendations of SEAC and grant revised Environmental Clearance for establishment of a Common Bio Medical Waste Treatment Facility in an area of 1.25 acres land bearing Khasra Nos. 20/19/2, 22/1, 25//2/1/1, located in the revenue estate of Village Bir Pind, Tehsil Nakodar, District Jalandhar, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with the following additional conditions/ amendment in the conditions as under:

**Conditions to be added/ amended**

**Condition no. ii) of III. Water Quality Monitoring and Preservation:**

vii) Waste water generated from the facility shall be treated in the ETP having arrangements for Chemical precipitation system followed by settling before the biological process 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.

**Additional Condition of III. Water Quality Monitoring and Preservation**

x) The project proponent shall not install any bore well in the premises of the project.

xi) The project proponent shall provide rain water harvesting structure designed for harvesting minimum 876 KL per annum in the Govt. High School at Village Bir Pind.

**Item No.152.11: Application for amendment in Environmental Clearance under EIA Notification Dated 14.09.2006 for establishment of Integrated Industrial Estate namely "Super Mega Industrial Estate" located in the revenue estate of Village Chamaru & Mehtabgarh, Tehsil Rajpura, and Distt- Patiala, Punjab M/s Vividha Infrastructure Pvt. Ltd..**

The SEIAA observed as under:-

The project proponent has already obtained Environmental Clearance from SEIAA, Punjab for setting up of Integrated Industrial Estate namely "Super Mega Industrial Estate" vide Letter No. SEIAA/2018/643 dated 24.05.2018 with one of condition that only the projects covered under category 8(b) like warehousing will be allowed in the proposed project premises.

Thereafter, Sh. Ravindra R. Dhupkar, Senior Regional Counsel, Freudenberg Regional Corporate Center India Pvt. Ltd.1$^{st}$Floor, Silver Jubilee Block, 3rd Cross, Mission Road, Bangalore 560 027, Karnataka, India has sought a clarification through email dated 23.05.2019 wherein it has been mentioned that the Freudenberg Group, are evaluating some plots offered by M/s. Vividha Infrastructure Pvt. Ltd. in their 'Township and Area Development Project' in Rajpura for setting up our 'Red category' industrial operations. During the techno-legal, due diligence certain observations were made and queries raised relating to approvals and eligibility of the said land for their industrial operations. They wanted to have clarity on these issues and thought of approaching SEIAA directly and obtaining a written confirmation from the office of SEIAA. He has attached herewith a letter, signed by Mr. Georg Graf - Regional Representative of the Freudenberg Group, detailing the observations and our queries. He has requested to the SEIAA to go through the same and respond to them in writing. Based on SEIAA communication and

confirmations, they will take the next steps. The contents of letter are reproduced as under:

"Freudenberg Group is a German conglomerate engaged in diverse industrial activities and having presence in India across multiple locations. They are already present in Punjab through our group companies viz. Vibracoustic India Pvt. Ltd. and Freudenberg-NOK India Pvt. Ltd. Their manufacturing processes fall under Red Category Industry as per the Pollution Board categorization involving processes of metal treatment such as pickling, galvanizing, finishing, phosphating, rubber mixing and molding etc. Therefore, we intend to buy industrial plot/s falling within the 'Red category' under the pollution control norms. We have been offered some plots by M/s. Vividha Infrastructure Pvt. Ltd. ('Vividha') in their captioned project being developed between villages Chamaru and Mehtabgarh, Rajpura. We are currently in the process of completing the legal, regulatory and technical due diligence for the said plots. Vividha has shared with us the captioned EC approval letter that has been issued to them under the EIA notification dated 14th September 2006.While doing the Techno-Legal due-diligence of the various approvals acquired by Vividha for the said Project, we observed that: -

> ***The EC approval granted to the captioned project is under category 8(b) - Township & Area Development project and not under category 7(c) -'Industrial Estates / Parks'. The said approval letter also specifically mentions that 'No industry either Category "A" or "B" covered under the Schedule I of the EIA Notification, 14.09.2006 Notification, 2006 will be allowed in the proposed project premises. Only the projects covered under category 8-B like warehousing etc. will be allowed'***.

Other comparable Industrial Parks in Punjab like the PSIEC Nabha, PSIEC Ludhiana etc. where industries, including 'Red category' industries have been established have the EC approval under category 7(c) and not category 8(b).The SEAC, Punjab in its meeting dated March 25, 2011 has specifically mentioned that only 'Green and Orange category of industries as per the Board's categorization shall be established' in this project being developed by Vividha. The Vividha Project falls in the Flood

Prone Area as per the Rajpura Master Plan report and is within urbanisable limits. The Vividha Project contains within the development area an Archaeological Protected Monument called Kos Minar. Given the nature of these observations and contents of the approval issued by your office, our understanding is that no 'Red category' industry can be located in the said project.

Please confirm if our understanding is correct. In order to move forward with our due diligence process we also needed the following clarifications and confirmations from your office: -

a) Can the project be re-classified under category 7(c) if activities under the said category are permitted to be carried out in the said project as is the case with other comparable Industrial Parks e.g. PSIEC Nabha, PSIEC Ludhiana etc.?
b) Can a 'Red category' industrial activity (including metal treatment process such as pickling, galvanizing, finishing, phosphating, rubber mixing and molding etc.) be carried under the Vividha 'Township & Area Development project' and, in order to avoid any ambiguity, can a revised EC be issued to Vividha under 8(b) with no restricting condition as to warehousing and mentioning "All Category Industries, including 'Red category' (except those under the ambit of EIA notification dated 14.09.2006) are allowed under the said Project?
c) Can such 'Red category' industrial activity be established and operated in the vicinity of a heritage monument (Kos Minar)? Does the SEIAA approval be helpful to us in getting the desired approval permission from the concerned authority under the Central Government?"

Further, the Member Secretary, Punjab Pollution Control Board, Patiala has endorsed a copy of letter no 18078 dated 15.06.2019 to the Member Secretary, SEIAA wherein clarification about permission of Red category industrial activities in the Township & Area development project of M/s Vividha Infrastructures Pvt. Ltd. in Rajpura with regard to the Environmental Clearance & its interpretation on behalf of PPCB, has been mentioned and copy of the same was annexed with the agenda.

The matter was considered by SEIAA in its 148th meeting held on 26.06.2019 which was attended by Sh. Ravindra Dhupkar, Senior Regional Counsel,

M/s Freudenberg Group. SEIAA queried to the representative as to which type of industry their Group want to establish in the site of M/s Vividha Infrastructure Pvt. Limited. He replied that the units having manufacturing process involving metal treatment such as pickling, galvanizing, finishing, phosphating, rubber mixing and moulding for different type of products (seals, vibration control components, nonwovens, filters and other mechatronic products) shall be set up in the site of M/s Vividha Infrastructure Pvt Limited. These types of industries fall under Red category as per categorization of the PPCB. He further stated that their Company's apprehension after going through the contents of environmental clearance is that red category industries are not allowed to be established in the aforesaid site. As such before purchasing a plot and making a huge investment, the Company wanted to have a clarity on this issue &therefore, they have approached Regulatory Authority (SEIAA) being custodian of granting Environmental clearance.

SEIAA observed as under:

a) The environmental clearance was granted to M/s Vividha Infrastructure Pvt Limited vide no. 643 dated 24.05.2018 for establishment of Integrated Industrial Estates namely "Super Mega Industrial Estate" in the revenue estate of Village Chamaru & Mehtabgarh, Tehsil Rajpura, Distt. Patiala under activity 8(b): Township & Area development project with the condition that
    i) No industry either Category "A" or "B" covered under the Schedule I of the EIA Notification, 14.09.2006 will be allowed in the proposed project premises and *only the projects covered under category 8-B like warehousing etc will be allowed*.
    ii) The total water requirement for domestic purposes in the project will be 700 KL/day (excluding green area requirement), out of which 280 KL /day shall be met through own tubewell and remaining 420 KL/day through recycling of treated wastewater.
b) As per the contents of EIA report and submissions made by the project proponent during the entire process of issuing environmental clearance, *M/s Vividha Infrastructure Pvt Ltd. has taken only domestic consumption into account and nowhere process water has been made a part of EIA report* due

to the reason of proposing only warehouse type of industries to be established which do not require process water.

c) Before allowing any red category type of industries by M/s Vividha Infrastructure Pvt Limited, they will have to assess the impacts of the same on the surroundings (largely air& ground water impacts) and shall have to submit revised EIA report. As such, the promoter company is required to obtain revised environmental clearance.

After detailed deliberations, SEIAA decided that M/s Freudenberg Group be informed that as per the conditions of environment clearance, red category industries are not permitted in the area. For permitting red category industry, M/s Vividha Infrastructure Pvt Ltd. is required to obtain revised environmental clearance, considering all the impacts (largely air and ground water) of red category unit / any other units of polluting nature on its surroundings. It was also decided that a copy of the clarification be also endorsed to M/s Vividha Infrastructure Pvt Limited for information and strict compliance.

The decisions of SEIAA were conveyed to M/s Freudenberg Group and M/s Vividha Infrastructure Pvt Ltd. vide letter no. 546 and 547 dated 18.07.2019, respectively.

Accordingly, the project proponent wants to go for amendment in EC for inclusion of Red and Orange category industries (as per PPCB categorization) other than water intensive industry. Also, no industry either of Category "A" or "B" covered under the Schedule I of the EIA Notification, 2006 will be allowed within the project premises.

It is pertinent to mention here that Director of Directorate of Environment and Climate Change (DECC) vide letter no SPL /PA/101 dated 06/08/2019 informed that the officers from Punjab Bureu of Investments Promotion (PBIP) has brought to his knowledge that M/s Vividha Infrastructure Pvt. Ltd. had earlier obtained environmental clearance from the SEIAA on 24.5.2018 for establishment of Integrated Industrial Estate namely "Super Mega Industrial Estate" Village Chamaru & Mehtabadgarh at Rajpura Distt. Patiala.

With reference to a specific quarry by one of the prospective investor M/s Frudenberg Group, a German Conglomerate as to whether their project can be

established in the above premises, SEIAA, Punjab has advised that M/s ViVidha Infrastructure Pvt. Ltd. is required to obtain amended environment clearance for red category unit /any other unit of polluting nature. However, due to the above clarification raised by the SEIAA, Punjab, most of the investors including M/s Frudenberg Group are now looking towards other states for setting up of their units. This will be a great loss to the State of Punjab.

In response to the directions issued by the SEIAA, Punjab, the promoter company has now applied for the amendment with the SEIAA. However, it has also been informed that Chairman, SEIAA is proceeding for Ex-India Leave for about 2 months. In absence of amended environmental clearance the prospective investors in the State of Punjab will be discouraged and are planning for establishing their projects to other States .

Therefore, it has been requested by Director, DECC to hold special meetings of SEAC and SEIAA at the earliest with view to consider the revised application of M/s Vividha Infrastructure Pvt. Ltd.

Moreover, web portal of SEIAA/SEAC, Punjab on the web site of MoEF& CC is temporarily not in operation for 15 days as transition phase for new portal namely PARVISEH is under process and complete transition may take more than 15 days.

In light of above and taking into consideration of the urgency of the matter, off-line application of project proponent has been accepted and a special meeting has been scheduled on short notice.

M/s Vividha Infrastructure Pvt. Ltd. has, now applied for amendment in Environmental Clearance under EIA Notification Dated 14.09.2006 for establishment of Integrated Industrial Estate namely "Super Mega Industrial Estate" located in the revenue estate of Village Chamaru & Mehtabgarh, Tehsil Rajpura, and Distt- Patiala, Punjab. The project is covered under category 8 (b): Township & Area development Project of the Schedule appended to the said notification.

The case was considered by the SEAC in its 182nd meeting held on 07.08.2019, which was attended by the following: -

c) Sh. Rajesh Sharma, C.O.O, from the promotor company

d) Sh. Sandeep Garg, ECO Lab, Mohali, Environmental Consultant of Promoter Company

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

<table>
<tr><td>1.</td><td>Category/Item No. (in schedule)</td><td colspan="4">8(b) 'Township & Area development Project'</td></tr>
<tr><td>2.</td><td>Name and Location of the project</td><td colspan="4">"Super Mega Industrial Estate" located in the revenue estate of Village Chamaru & Mehtabgarh, Tehsil Rajpura, and Distt-Patiala, Punjab by M/s Vividha Infrastructure Pvt. Ltd.</td></tr>
<tr><td>3.</td><td>Cost of the project</td><td colspan="4"><table><tr><td>EC Accorded</td><td>Proposed amendment</td><td>Total after amendment</td></tr><tr><td>Rs. 170 crore</td><td>0</td><td>Rs. 170 crore</td></tr></table></td></tr>
<tr><td>4.</td><td>Total Plot area, Built-up Area and Green area</td><td colspan="4">The details of the area development project are as under:<table><tr><td>Particulars</td><td>EC Accorded</td><td>Proposed amendment</td><td>Total after amendment</td></tr><tr><td>Total Plot Area (acres)</td><td>255.28</td><td>0</td><td>255.28</td></tr><tr><td>Area Under Plots (acres)</td><td>138.879 (54.40%)</td><td>0</td><td>138.879 (54.40%)</td></tr><tr><td>Area For Green (acres)</td><td>18.11 (7.09%)</td><td>0</td><td>18.11 (7.09%)</td></tr><tr><td>Area Under Recreation (acres)</td><td>18.073 (7.08%)</td><td>0</td><td>18.073 (7.08%)</td></tr><tr><td>School Site (acres)</td><td>10.397 (4.07%)</td><td>0</td><td>10.397 (4.07%)</td></tr><tr><td>Dispensary (acres)</td><td>6.943 (2.72%)</td><td>0</td><td>6.943 (2.72%)</td></tr><tr><td>Industrial Training Centre (acres)</td><td>7.033 (2.75%)</td><td>0</td><td>7.033 (2.75%)</td></tr><tr><td>Exhibition Area Cum Parking (acres)</td><td>6.965 (2.73%)</td><td>0</td><td>6.965 (2.73%)</td></tr><tr><td>Road & Paved (acres)</td><td>33.159 (12.99%)</td><td>0</td><td>33.159 (12.99%)</td></tr><tr><td>Open</td><td>15.721</td><td>0</td><td>15.721</td></tr></table></td></tr>
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<tr><td></td><td></td><td>
<table>
<tr><td>Service Area (acres)</td><td>(6.16%)</td><td></td><td>(6.16%)</td></tr>
</table>
</td></tr>
<tr><td>5.</td><td>Population</td><td>
<table>
<tr><th>S. No.</th><th>Details</th><th>EC Accorded</th><th>Proposed amendment</th><th>Total after amendment</th></tr>
<tr><td>1.</td><td>Industrial population</td><td>13900</td><td>0</td><td>13900</td></tr>
<tr><td>2.</td><td>Recreational centre/School / Training Center & Industrial Exhibition Population</td><td>5003</td><td>0</td><td>5003</td></tr>
</table>
</td></tr>
<tr><td>6.</td><td>Water Requirements & source</td><td>
<table>
<tr><th>Break up of requirement</th><th>EC Accorded</th><th>Proposed amendment</th><th>Total after amendment</th></tr>
<tr><td>Total water demand</td><td>1128 KLD</td><td>0</td><td>1128 KLD</td></tr>
<tr><td>Domestic water demand</td><td>700 KLD</td><td>0</td><td>700 KLD</td></tr>
<tr><td>Fresh water demand</td><td>280 KLD domestic + 344 KLD for green area</td><td>0</td><td>280 KLD domestic + 344 KLD for green area</td></tr>
<tr><td>Flushing water demand</td><td>420 KLD</td><td>0</td><td>420 KLD</td></tr>
<tr><td>Green area demand</td><td>428 KLD (Reuse after treatment 84 KLD treated waste water +344 KLD Rain Harvested/ fresh water in an area on 19.23 acres)</td><td>0</td><td>428 KLD (Reuse after treatment 84 KLD treated waste water +344 KLD Rain Harvested/fresh water in an area on 19.23 acres)</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>Disposal Arrangement</td><td>Total = 560 KLD at intlet of STP & 504 KLD at outlet of STP. The wastewater generated will be treated in the STP of capacity</td></tr>
</table>

<table>
<tr><td></td><td>of<br>Waste water</td><td>600 KLD based on SBR technology out of which STP of 400 KLD has ben installed and 420 KLD treated domestic water will be utilized for flushing and 84 KLD onto land for plantation</td></tr>
<tr><td>8.</td><td>Rain water recharging detail</td><td>Adequate rainwater harvesting will be provided. Total 7825 KLD (three tanks of 2625 KLD each) will be provided for collection of rain water. Artificial recharging will be carried out for the storm water with the help of Artificial Recharge Tanks (five in nos) with Raw Earthen Base</td></tr>
<tr><td>9.</td><td>Solid waste generation and its disposa</td><td><table><tr><td>EC Accorded</td><td>Proposed amendment</td><td>Total after amendment</td></tr><tr><td>3000 kg/day</td><td>0 kg/day</td><td>3000 kg/day</td></tr></table><br>Solid wastes will be segregated as Bio-degradable, non-biodegradable waste and Hazardous Waste. Solid waste will be managed as per the Solid waste Management Rules, 2016 and its amendments. The non-biodegradable waste will be sold to recyclers and Hazardous waste to the approved vendor.</td></tr>
<tr><td>10.</td><td>Hazardous Waste and E-waste</td><td>Used Oil from the D.G. set will be sold to the CPCB approved recyclers. Used oil will be stored in HDPE drums in isolated covered facility. Hazardous waste, if generated, by industry will be handled by individual plot owner as per guidelines of PPCB.</td></tr>
<tr><td>11.</td><td>Energy Requirements & Saving</td><td>Agency: PSPCL (Punjab State Power Corporation Limited)<br>Power Load = 2.5 MW<br>The power backup will be provided by 1 DG set of 125 kVA capacity with low sulphur HSD.<br>Solar power plant of 10 KW has already been installed within the project premises</td></tr>
<tr><td>12.</td><td>Environment Management Plan along with Budgetary break up phase wise and responsibility to implement</td><td>Environment Management Cell will be responsible for implementation of the Environment Management Plan.<table><tr><th>Description</th><th>Capital Cost</th><th>Recurring Cost (per annum)</th></tr><tr><td>Construction</td><td>289 lacs</td><td>14.5 lacs</td></tr><tr><td>Operation</td><td>-</td><td>17.5 lacs</td></tr><tr><td>Monitoring of Air, Noise water in both phases.</td><td>1.4 lacs</td><td>0.80 lacs</td></tr></table></td></tr>
<tr><td>12.</td><td>CSR activities alongwith budgetary break up and responsibility to implement</td><td>Rs. 2.5 Cr has been planned to be reserved for CER.<table><tr><th>EC Accorded</th><th>Proposed amendment</th><th>Total after amendment</th></tr><tr><td>1 Cr.</td><td>1.5 Cr</td><td>2.5 Cr</td></tr></table><table><tr><th>S.No.</th><th>Activities</th><th>Annual Expenditur</th><th>Timeline</th><th>Total Expenditur</th></tr></table></td></tr>
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| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | **e (in crore)** | **(2019 to 2023)** | **e in 5 Years (in crore)** |
| | | 1. | Adoption of Village Chamaru<br>• Proper sanitation facility<br>• Treatment of wastewater collected in village pond<br>• Maintenance of pond<br>• Outdoor gym around pond | - | One Time | 1.25 |
| | | 2. | Adoption of Village Mehtabgarh<br>• Proper sanitation facility<br>• Treatment of wastewater collected in village pond<br>• Maintenance of pond<br>• Outdoor gym around pond | - | One Time | 1.25 |
| | | | **Total** | | | **2.5** |
| 13. | Other important facts | ➢ The area of the site falls in Industrial Use Zone of Statutory Master Plan, Rajpura.<br>➢ About 73,288.57 sqm area has been earmarked for green area development in the site.<br>➢ Mr. Rajesh Sharma (COO) of M/s Vividha Infrastructure Pvt Limited will be responsible for implementation of CER (Corporate Environmental Responsibility) within 5 years of time. | | | | |

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. | What type of industries the project proponent is proposing to be installed? | No industry covered under Category "A"/ "B" falling in the Schedule appended to the EIA notification, 2006 (as amended from time to time) except category 8 (a) and 8(b), shall be established. Apart from above, other industries of Red, Orange, Green and White as per the PPCB classification are proposed to be established. |
| 2. | What will be the environmental impacts of the industries being proposed above, considering the over exploited area? | As already committed in the EIA study report, no water intensive industry like water packaging, dying, tannery, distillery etc. shall be established. Moreover, the lesser intensive units shall also be Zero Liquid Discharge Treatment based Technology. Hence, there will be no significant impact on the environment, as only make up water is to be required and no effluent is to be discharged through any mode. |
| 3. | a. How the fresh water demand of each industry will be met with? | The freshwater for drinking and domestic requirement of individual industry or project will be supplied by the project proponent itself. However, to meet with the freshwater requirement of each industry/ project, every project will make their own arrangements and shall individually obtain permission from the CGWA/ other competent authority. |
| | b. No ground water abstraction structure will be installed by any of the individual project without any permission from the CGWA or any other competent authority. | No individual industry shall install any groundwater abstraction structure without permission from the CGWA or competent authority. |
| | c. The project proponent shall provide piezometers at the project site as per the CGWA guidelines. | It was agreed by the PP and the Environmental Consultant. |

| | | |
|---|---|---|
| 4. | Each individual industry or project will obtain mandatory permissions like consent to establish/ operate and authorizations under the pollution control laws from the Punjab Pollution Control Board individually. | It was agreed by the PP and the Environmental Consultant. |
| 5. | a. What type of Air Polluting industries are likely to be established ? | As, the industries covered under Category "A"/ "B" falling in the Schedule appended to the EIA notification, 2006 (as amended from time to time) except category 8 (a) and 8(b) are proposed not to be established in the project, therefore, most of the severely Air Polluting Industries automatically excluded from the project. Further, no severely Air Polluting industry like cement grinding units, Induction (more than 500 kgs/ heat)/ Electric ARC steel furnaces/ Cupola furnaces/ Reheating Rolling Mills, Brick Kilns, Saila Plants, Dying, Packaged Drinking water/ soft drink/ beverages units , tannery, distillery, pharmaceutical etc . shall be allowed to be set up. He further submitted that only lesser Air Polluting having electric heating or cleaner fuels like LPG, CNG, boiler (not more than 2 ton/hr steam generation capacity) and other furnaces having only liquid fuel or solid fuel (Lesser than 150 Kg/hr consumption) shall only be allowed to be set up. |
| | b. What will be the proposal of treatment of fuel burning and process emissions? | All industries will adopt proper and adequate treatment arrangements to control the fuel burning and process emissions. Also, the DG sets will be equipped with canopies. |
| 6. | As to whether, whole of the area is now earmarked for Red and Orange Category ? | As already mentioned in the EIA report and the presentation, about 100 acres out of 255.28 acres is earmarked for the Red & Orange category of industries. |
| 7. | There is one historical structure namely KOS MINAR within the | As per the conditions stipulated in the CLU, 100 m green belt towards the |

| | | |
|---|---|---|
| | project site. What measures, the PP has proposed for the Environmental safeguard of this structure? | KOS MINAR has been proposed. Further, all the conditions of the Archaeological Survey of India/ any other competent authority in this regard w.r.t the construction activities/ establishment of polluting industries will be complied with. |
| 8. | Now, CER activities are required as per 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. | CER activities w.r.t OM dated 01.05.2018 are submitted alongwith the time frame. |
| 9. | How will the project proponent assure the compliance of the above commitments from the industries / plot owners? | The PP submitted that all the commitments mentioned above will be incorporated in the allotment letters issued to the individual plot owners. |
| 10 | The project will allow the polluting industry to be set up. What is the proposal of the green area to be developed by the project? | Green belt in the industrial pocket reserved for polluting industries, shall be developed in an area of 33% of the area earmarked for such activities. For rest of the area, the guidelines for green belt as approved by the competent authority approving layout plan shall be applicable. |

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

SEAC after deliberating the amendment application and decided that case be forwarded to SEIAA with the recommendations to amend the environmental clearance earlier granted vide no SEIAA/2018/643 dated 24.05.2018 to M/s Vivdha Infrastructure Pvt. Ltd. for its project namely "Super Mega Industrial Estate located in the revenue estate of village Chmaru & Mehtabgarh, Tehsil Rajpura, Distt. Patiala, 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, to the following extent with following additional conditions:

1) No industry covered under Category "A"/ "B" falling in the Schedule appended to the EIA notification, 2006 (as amended from time to time) except category 8 (a) and 8(b), shall be allowed to establish Apart from this, other industries (not covered in the EIA notification, 2006) categorised as Red, Orange, Green and White as per the PPCB classification shall be allowed to establish.

2) As assured by the project proponent vide undertaking dated 07/08/2019, the project proponent shall comply with following:-

i) No water intensive industry like water packaging, dying, tannery, distillery etc. shall be established. Moreover, the lesser intensive units shall also have Zero Liquid Discharge Treatment based Technology. Hence, there will be no trade/industrial effluent discharge from the industries.

ii) Only freshwater for drinking and domestic requirement of individual industry or project will be supplied by the project proponent. However, to meet with the freshwater requirement of each industry/ project, every project will make their own arrangements and shall individually obtain permission from the CGWA/ other competent authority.

iii) Individual industry/plot holder shall not install any groundwater abstraction structure without permission from the CGWA or competent authority.

iv) The project proponent shall provide piezometers at the project site as per the CGWA guidelines.

v) Each individual industry or project will obtain mandatory permissions like consent to establish/ operate and authorization under the pollution control laws from the Punjab Pollution Control Board.

vi) All industries will adopt proper and adequate treatment arrangements to control the fuel burning and process emissions. Also, the DG sets shall be equipped with canopies.

vii) No severely Air Polluting industry like cement grinding units, Induction (more than 500 kgs/ heat)/ Electric ARC steel furnaces/ Cupola furnaces/ Reheating Rolling Mills, Brick Kilns, Saila Plants, Dying, Packaged Drinking water/ soft drink/ beverages units , tannery, distillery, pharmaceutical etc . shall be allowed to be set up in the project. Only lesser Air Polluting having electric heating or cleaner fuels like LPG, CNG, boiler (not more than 2 ton/hr steam generation capacity) and other furnaces having only liquid fuel or solid fuel (Lesser than 150 Kg/hr consumption) shall only be allowed to be set up.

viii) Only about 100 acres out of 255.28 acres can be earmarked for the Red & Orange category of industries.

ix) As per the conditions stipulated in the CLU, 100 m green belt around the KOS MINAR (historic monuments located in the project site) shall be provided . Further, all the conditions of the Archaeological Survey of India/ any other competent authority in this regard w.r.t the construction activities/ establishment of polluting industries shall be complied with.

x) The project proponent shall carry out the CER activities w.r.t OM dated 01.05.2018 as per the proposal submitted.

3) Green belt in the industrial pocket reserved for polluting industries, shall be developed in an area of 33% of the area earmarked for such activities. For rest of the area, the guidelines for green belt as approved by the competent authority approving layout plan, shall be applicable

4) The project proponent shall provide all the above conditions in the allotment letter to be made with the individual plot owner for ensuring compliance.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by the following: -

a) Sh. Rajesh Sharma, C.O.O, from the promotor company.

b) Sh A.S Rathore, C.L.O from the promotor company.

c) Sh. Sandeep Garg, ECO Lab, Mohali, Environmental Consultant of Promoter Company

SEIAA allowed the project proponent to present the salient features of the project. Environmental Consultant of the project proponent presented the same as under:

- M/s. Vividha Infrastructure Pvt. Ltd. is developing an Integrated Industrial Estate Project namely "Super Mega Industrial Estate" at Village Chamaru & Mehtabgarh, Tehsil Rajpura, Distt. Patiala, Punjab.
- Project falls under Schedule 8(b): Township & Area Development project.
- Environmental clearance has already been obtained from SEIAA, Punjab vide Letter no. SEIAA/2018/643 dated 24.05.2018 for plot area of 255.28 acres. With one of the condition that no industry either Category "A" or "B" covered under the Schedule I of the EIA Notification, 2006 will be allowed in the proposed project premises. Only the projects covered under Category 8-B like warehousing etc. will be allowed.
- **The project proponent has now submitted an application for amendment in the Environmental Clearance.** As per the said application, there is requirement of amendment in EC for inclusion of Red and Orange category industries (as per PPCB categorization) only on 100 acres of land excluding water intensive industry and no industry either of Category "A" or "B" covered under the Schedule I of the EIA Notification, 2006 will be

allowed within the project premises. As per the amended application, it has been proposed as under:

- Further, there will be no change in the project site area, water consumption, wastewater generation, solid waste etc. due to EC amendment.
- Individual industry/ project will obtain mandatory permissions like consent to establish/ operate and authorizations under pollution control laws from the Punjab Pollution Control Board.

➢ The following project approvals have already been obtained:

| Sr. No. | Name of approvals | Status |
|---|---|---|
| 1. | Earlier EC Letter | Obtained vide Letter no. SEIAA/2018/643 dated 24.05.2018. |
| 2. | Change in Land use | Obtained vide Letter No. PBIP/STP/2016/658 dated 19.09.2016. |
| 3. | Consent to Establish from PPCB | Obtained vide Certificate no. PBIP/PPCB/2018/CTE-235 dated 17.01.2018 and valid upto 16.01.2019 and further extended upto 16.01.2020. |
| 4. | Completion of Trunk Infrastructure by GMADA | Certificate obtained vide letter No. 33615 dated 13.06.2019 |
| 5. | NOC from Forest Department | Obtained vide letter No. 9-PBB448/2016-CHA dated 11.04.2018 for diversion of forest land |
| 6. | Approved Layout Plan | Approved by Chief Town Planner vide No. 4531 CTP(Pb)SP-454 dated 13.07.2018. |
| 7. | NHAI Approval | Obtained vide Letter no. EW/CH/PB/NH-1(44)/Km 224.650/NOC/585/2016/101-03 dated 13.04.2016 |
| 8. | Letter Regarding Approval of Service Plans | Obtained vide Memo No. GMADA/CE/2019/45341 dated 02.08.2019. |

Key Features of the project presented as under:

| Sr. No. | Description | Details as per EC Accorded & after Amendment |
|---|---|---|
| 1. | Total Site area | 10,33,081.51 sq.m ( 255.28 acres) |
| 2. | Estimated Population | 18,903 persons |
| 3. | Total Water Demand | 1128 KLD (Fresh water = 280 KLD) |
| 4. | Wastewater generated | 560 KLD |
| 5. | STP | Proposed STP of 600 KLD (Out of which, 400 KLD has been installed) |
| 6. | Solid Waste Generation | 3000 kg/day |
| 7. | Power Requirement | 2.5 MW from PSPCL |
| 8. | DG Set | 1 DG of 125 KVA capacity |
| 9. | Rain water recharging Pits | 3 Rain water harvesting tanks of 2625 KLD each |
| 10. | Cost of Project | Rs. 170 Crores |

- Following additional Air Pollution Mitigation Measures were suggested:
  - Both Red and Orange Category Industry will come up in the Industrial Estate which will also comprise of air polluting industry.
  - No severely air polluting industry like cement grinding units, Induction Furnaces (>500 Kg/Heat)/Electric Arc Furnaces/Cupola Furnaces/Reheating Furnaces/Rolling Mills, Brick Kilns, Saila Plant, Dyeing, Packaged Drinking water/soft drink/Beverages units, Tannery, Distillery etc. shall be allowed to be set up within the project premises.
  - That only lesser Air Polluting industry having electric heating or cleaner fuels like CNG/LPG, boiler (not more than 2 ton/hr steam generation capacity) and other furnaces having only liquid fuel or solid fuel (Lesser than 150 Kg/hr consumption) shall only be allowed to be set up.
  - The existing ambient air quality as per baseline study done earlier is well within the permissible limits. The $P_{98}$ levels of various pollutants are as follows:

- $PM_{2.5}$ is 60 µg/$m^3$; $PM_{10}$ is 80 µg/$m^3$; $SO_2$ is 12 µg/$m^3$; $NO_2$ is 28 µg/$m^3$ and CO is 0.62 mg/$m^3$. However, to ensure compliance to CPCB/PPCB guidelines, following mitigation measures are proposed:
- All industries of category Red/Orange/Green/White will make adequate arrangements to control the fuel burning and process emissions. Also, the DG sets will be equipped with canopies.
- Air polluting industry will install APCD's as per PPCB guidelines.
- Condition of maintaining two rows of plantation all along the boundary of project will be incorporated in the allotment letter.
- Green belt in the industrial pocket reserved for polluting industries, shall be developed in an area of 33% of the area earmarked for such activities. For rest of the area, the guidelines for green belt as approved by the competent authority approving layout plan, shall be followed.
- Quarterly monitoring will be carried out by Red Category Industry and six monthly monitoring will be carried out by Orange Category Industry as per PPCB guidelines.
- Fugitive emissions such as smoke, gases and heat in and around the air polluting industries will be removed by adequate ventilation systems. For proper dispersion of gases, stack of adequate height will be provided that conforms to statutory requirements.
- Trucks carrying raw materials are being covered with tarpaulin to prevent spreading of dust during transportation.
- Vehicles will be checked for PUC certificate.
- All internal roads in the premises will be paved.

➢ With respect to the drainage pattern of the area, it was presented as under:

- The details of the nearby water bodies

| | |
|---|---|
| Banur Canal | Approx. 4.2 km; E |
| Rajpura Distributary | Approx. 9.7 km; NW |
| Narwana Canal | Approx. 9 km; SW |
| Ghaggar River | Approx. 10 km; E |
| Bhagna Nadi | Approx. 10 km; E |

- The overall slope of the area is towards Ghaggar River.

- The project will not have any boundary wall, thus, no hindrance will be there to the natural flow.
- In addition, storm water network is being provided to ensure proper discharge.
- To avoid any contamination from chemical storage, the industry will be required to make the storage area on height so that there is no chance of leaching or contamination of soil and ground water. This condition will be incorporated in the allotment letter.

➢ **Water and Wastewater Management**

- The project proponent will only provide the fresh water for drinking and domestic requirement to the individual industries.
- The total domestic water requirement of the project is 700 KLD; out of which; 280 KLD is the fresh water requirement.
- The fresh water requirement will be met through 2 nos. of bore wells.
- Application has been filed to CGWB for abstraction of ground water. As per CGWA classification, project falls in non-notified area - over exploited zone. Thus, double recharge as per CGWA guidelines will be provided and no water intensive industry like package drinking water, tannary, distillery, dying unit etc. will be allowed in the Industrial Estate.
- The individual owners of the industrial plots will make their own arrangement for industrial water requirement for which the requisite approvals will be obtained separately from CGWA or other competent authority.
- No individual industry shall install any groundwater abstraction structure without permission from the CGWA or competent authority.
- Piezometers as per CGWA guidelines will be installed within the project premise.
- All the industries will follow Zero Liquid Discharge (ZLD) treatment scheme.

- The wastewater generated will be treated in the STP of capacity 600 KLD, out of which, STP of 400 KLD has already been installed within the project premises and treated waster will be used within the project premises for flushing and irrigation.
- Thus, no change in domestic water requirement and wastewater generation is proposed in EC amendment

➢ **Corporate Environmental Responsibility**

| **Sr. No.** | **Activities** | **Annual Expenditure (in Lakhs)** | **Timeline (2019 to 2023)** | **Total Expenditure in 5 Years (in crores)** |
|---|---|---|---|---|
| 1. | Adoption of Village Chamaru<br>• Proper sanitation facility<br>• Treatment of wastewater collected in village pond<br>• Maintenance of pond<br>• Outdoor gym around pond | - | One Time | 1.25 |
| 2. | Adoption of Village Mehtabgarh<br>• Proper sanitation facility<br>• Treatment of wastewater collected in village pond<br>• Maintenance of pond<br>• Outdoor gym around pond | - | One Time | 1.25 |
| | **Total** | | | **Rs. 2.5** |

Following queries were raised by SEIAA to which the project proponent replied as under:

| S.No. | Observations | Reply |
|---|---|---|
| 1. | Whether the category of the project has been changed in the proposed amendment. What amendments have been sought? | No, the category of the project has not been changed. The project has been applied under category 8(b) mentioned in the Schedule appended to the EIA notification, 2006. The project area is less than 500 hectares and does not cover any industry of category "A" / "B". However, the project contains |

| | | |
|---|---|---|
| | | construction projects having built up area more than 20,000 sq.m.<br>The following amendments have been sought:<br>i) to delete the condition "only the projects covered under category 8(b) like warehousing will be allowed in the proposed project premises" in the earlier granted EC to the project vide no./SEIAA/2018/643 dated 24/05/2018.<br>ii) to allow the establishment of other industries (not covered in the EIA notification, 2006) categorised as Red, Orange, Green and White as per the PPCB classification in the project. |
| 1. | There is sensitive receptor i.e "KOS MINAR" in the project site. What kind of mitigation measures have been adopted? | i) 100 m green belt towards the KOS MINAR has been proposed and all the conditions of the Archaeological Survey of India/ any other competent authority in this regard w.r.t the construction activities/ establishment of polluting industries will be complied with.<br>ii) As the prominent wind direction of the area is North-West to South-East. Thus, there will be minimal impact of air pollution on the existing structure.<br>To this SEIAA felt that minimum 100 m green belt or the distance prescribed by the Archaeological Department, whichever is more, around the Kos Minar is required to be provided by the project proponent. This was agreed by the project proponent. |
| 2. | Whether the site of the project falls under the Flood prone area or not? If yes, what kind of | i) The site lie in the Eastern Upland Plain and not in the Flood Plain of the Ghaggar |

| | | |
|---|---|---|
| | mitigation measures have been proposed? | River. (Reference- Master Plan 2011-2031- Rajpura; Article 1.3 (Physiography).<br>ii) Although, the site is not in the flood plain of Ghaggar river, but, still to avoid contamination from chemical storage, the industry shall make arrangement to store chemicals a height, so that there is no chance of leaching or contamination of soil and ground water. This condition will also be incorporated in the allotment letter.<br>iii) The project proponent has submitted an undertaking in this regard which was taken on record by SEIAA. |
| 3. | Who is responsible to develop 33% of the green area in the 100 acres land reserved for the polluting industries? | Both, M/s Vividha Infrastructure Pvt. Ltd. and the individual industry to whom the plot allotted, will be jointly responsible to develop 33% of the green area in the 100 acres land. |

During discussions, representative of the promoter company agreed to comply with fully all the conditions as mentioned by SEAC.

The SEIAA observed that the case stands recommended by SEAC and looked into the details of the case and was satisfied with the same.

After detailed deliberations, SEIAA decided to accept the recommendations of SEAC and approved the amendment in the earlier granted environmental clearance vide no SEIAA/2018/643 dated 24.05.2018 to M/s Vivdha Infrastructure Pvt. Ltd. for its project namely "Super Mega Industrial Estate located in the revenue estate of village Chmaru & Mehtabgarh, Tehsil Rajpura, Distt. Patiala, 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, to the following extent with :

1) The condition imposed in earlier granted EC to the project vide no./SEIAA/2018/643 dated 24/05/2018 i.e "only the projects covered under

category 8(b) like warehousing etc will be allowed in the proposed project premises" stands deleted.

2) No industry covered under Category "A"/ "B" falling in the Schedule appended to the EIA notification, 2006 (as amended from time to time) except category 8 (a) and 8(b), shall be allowed to establish. Whereas other industries (not covered in the EIA notification, 2006), although categorised as Red, Orange, Green and White as per the PPCB classification are allowed to be established.

3) As agreed by the project proponent vide undertaking dated 07/08/2019, the project proponent shall comply with following:-

i) No water intensive industry like water packaging, dying, tannery, distillery etc. shall be established. Moreover, the lesser intensive units shall also have Zero Liquid Discharge Treatment based Technology. Hence, there will be no trade/industrial effluent discharge from the industries.

ii) Only freshwater for drinking and domestic requirement of individual industry or project will be supplied by the project proponent. However, to meet with the freshwater requirement of each industry/ project, every project will make their own arrangements and shall individually obtain permission from the CGWA/ other competent authority.

iii) Individual industry/plot holder shall not install any groundwater abstraction structure without permission from the CGWA or competent authority.

iv) The project proponent shall provide piezometers at the project site as per the CGWA guidelines.

v) Each individual industry or project will obtain mandatory permissions like consent to establish/ operate and authorization under the pollution control laws from the Punjab Pollution Control Board.

vi) All industries will adopt proper and adequate treatment arrangements to control the fuel burning and process emissions. Also, the DG sets shall be equipped with canopies.

vii) No severely Air Polluting industry like cement grinding units, Induction (more than 500 kgs/ heat)/ Electric ARC steel furnaces/ Cupola furnaces/ Reheating Rolling Mills, Brick Kilns, Saila Plants, Dying, Packaged Drinking water/ soft drink/ beverages units , tannery, distillery, pharmaceutical etc. shall be allowed to be set up in the project. Only lesser Air Polluting having electric heating or cleaner fuels like LPG, CNG, boiler (not more than 2 ton/hr steam generation capacity) and other furnaces having only liquid fuel or solid fuel (Lesser than 150 Kg/hr consumption) shall be allowed to be set up.

viii) Not more than 100 acres out of 255.28 acres be earmarked for the Red & Orange category of industries.

ix) As per the conditions stipulated in the CLU, minimum 100 m green belt or the distance prescribed by the Archaeological Department, whichever is more, around the Kos Minar (historic monuments located in the project site) shall be provided. Further, all the conditions of the Archaeological Survey of India/ any other competent authority in this regard w.r.t the construction activities/ establishment of polluting industries shall be complied with.

x) The project proponent shall carry out the CER activities w.r.t OM dated 01.05.2018 as per the proposal submitted.

xi) The project proponent shall make arrangement to store chemicals at adequate height, in consultation with Drainage Division, Department of Irrigation, Punjab, so that there is no chance of leaching or contamination of soil and ground water. This condition will also be incorporated in the allotment letter.

4) Green belt in the industrial pocket reserved for polluting industries, shall be developed in an area of 33% of the area earmarked for such activities. For rest of the area, the guidelines for green belt as approved by the competent authority approving layout plan, shall be applicable.

5) The project proponent shall incorporate all the above conditions in the allotment letter to be issued to the individual plot owners for ensuring compliance.

6) The project proponent shall comply with the commitment made in the proposal for CER activities and shall provide a minimum amount of Rs. 2.5 crore for the following CER activities:

| **Sr. No.** | **Activities** | **Annual Expenditure (in Lakhs)** | **Timeline (2019 to 2023)** | **Total Expenditure in 5 Years (in crores)** |
|---|---|---|---|---|
| 1. | Adoption of Village Chamaru<br>• Proper sanitation facility<br>• Treatment of wastewater collected in village pond<br>• Maintenance of pond<br>• Outdoor gym around pond | - | One Time | 1.25 |

| | | | | |
|---|---|---|---|---|
| 2. | Adoption of Village Mehtabgarh<br>• Proper sanitation facility<br>• Treatment of wastewater collected in village pond<br>• Maintenance of pond<br>• Outdoor gym around pond | - | One Time | 1.25 |

**Item No. 152.12 Clarification regarding applicability of EIA notification for Sports Hub at Burlton park.**

The facts of the case are as under: -

Municipal Corporation Jalandhar vide letter no. 2nd July, 2019 has sought clarification regarding requirement of Environment Clearance for the proposed project at Burlton park i.e. "Development of Sports Hub". The detail of the proposed project is annexure as Annexure-A of the Agenda.

The case was considered by the SEIAA in its 152nd meeting held on 08.08.2019, which was attended by Sh. Ravi Singh, Environment Expert from M/s ICT Pvt. Ltd, New Delhi on behalf of Municipal Corporation Jalandhar

Sh. Ravi Singh, Environment Expert informed that after taking clarification from SEIAA regarding development of proposed sports hub in 8.3 acres of land, the area planned tor development of the 'Sports Hub' has been changed in the proposal and additional land (around 7.15 acres) adjoining earlier 8.3 acres of land, is now being considered for development of more facilities/amenities in the Sports Hub. The revised total area of the project is now 15.45 acres(approx.). Under the changed plan, the total built-up area would be around 30,000 sqm. He requested to clarify as to whether proposed project falls under the ambit of EIA notification dated 14th September 2006 being an area development project. To this, SEIAA observed as under:-

i) Though the area of the proposed project is 15.45 aces but built up area is more than 20,000 sqm.

ii) MoEF&CC vide their office letter no.22-8/2019-IA-III dated 25.03.2019 has clarified that as on date, projects with land area less than 50 ha but built-up area more than 20,000 sqm may be appraised as per the provisions of schedule 8(a) of the EIA notification,2006 as amended from time to time.

From the above, SEIAA concluded that the built -up area of the present case is more than 20,000 sqm and thus, it attracts the provisions of EIA notification,2006 as amended from time to time with activity listed at 8(a)- Building & Construction projects.

After detailed deliberations, SEIAA decided that the Project proponent be informed as above and asked to submit online application on the web site of "https://parivesh.nic.in" for obtaining environment clearance (EC) under EIA Notification, 14.09.2006 with activity listed at category 8(a) for the proposed project of development of the 'Sports Hub'at Burlton Pak located in Jalandhar, Punjab.

**Item No.152.13: Request regarding amendment in TORs issued by SEIAA, Punjab for carrying out study for obtaining environmental clearance for development of SEIL Industrial Estate at Rajpura.**

The SEIAA observed that :-

SEIL vide its letter dated 25.06.2019.2019 has informed that vide letter no SEIAA/2019/279 dated 22.2.2019 on March 10, 2019 for Term of Reference (ToRs) for carrying out EIA study for obtaining Environmental Clearance under EIA notification dated 14.09.2006 for establishment of new Industrial estate in village Jakharan, Khadauli, Sardargarh & Damanheri Tehsil Rajpura District Patiala, Punjab.

The project proponent has requested to kindly amend the Zero Discharge condition mentioned in TOR letter and be allowed to discharge after getting prescribed norms of treated effluent into Siphon below the Narwana Branch Canal connecting to Patiala Wali Nadi.The representation of SEIL is annexed as Annexure-B of the Agenda.

The matter was considered by SEIAA in its 152nd meeting held on 08.08.2019 which was attended by Sh. Sital Singh, Environment Consultant on

behalf of the promoter company. He requested to amend the Zero Discharge condition mentioned in TOR letter and be allowed to discharge after getting prescribed norms of treated effluent into Siphon below the Narwana Branch Canal connecting to Patiala Wali Nadi for which they have obtained permission from the Drainage Department.

SEIAA queried to the representative as to why a special permission be granted to the industry by which there may be chance of increase in pollution level in Patiala Wali Nadi, when a state of the art project of rejuvenation of Badi Nadi, Chotti Nadi and Other Water Bodies of Patiala is coming up the in Patiala. To this, he replied that they had obtained the permission from the Drainage Department but he also agrees with the contention of SEIAA. After careful consideration of actual conditions of the drain of the Punjab, he requested to allow him to withdraw his request made to amend the Zero Discharge condition mentioned in TOR letter.

After deliberations, SEIAA accepted the request of the promoter company and allowed the project proponent to withdraw his application.

Meeting ended with vote of thanks to the Chair.

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