

**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY PUNJAB**

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

No. DECC/SEIAA/2020/1713

REGISTERED

Date: 29/07/2020

To,

Sh. H.S. Sandhu, Director
M/s SIEL Industrial Estate Ltd.,
5th Floor, Kirti Mahal, 19
Rajendra Place, New Delhi-110008
Contact No. 011-25739103

Subject: Environmental Clearance under EIA notification dated 14.09.2006 for establishment of industrial estate in the revenue village of Jakhran, Khadauli, Sardargarh & Damanheri, Tehsil Rajpura, District Patiala, Punjab. (Proposal no SIA/PB/MIS/41929/2018).

This has reference to your online Proposal No. SIA/PB/NCP/41929/2018 for obtaining Environment Clearance under EIA notification, 2006 for establishment of industrial estate in an area of 462.155 acres (187.02 hectare or 18,70,283.22 m²) having 255 Industrial plots and other amenities like administrative block, commercial block, dispensary, police post, fire station etc. in the revenue estate village of Jakhran, Khadauli, Sardargarh & Damanheri, Tehsil Rajpura, District Patiala, Punjab. The proposal has been appraised as per procedure prescribed under the provisions of EIA Notification dated 14.09.2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, 1A, EIA report and the additional clarifications furnished in response to the observations of the SEAC. The salient features of the project are as under:-

Sr. No.	Particulars	Details
1)	Name and Location of the project	M/s SIEL Industrial Estate Ltd village Jakhran, Khadauli, Sardargarh & Damanheri, Tehsil Rajpura, District Patiala, Punjab
	Nature of project (Fresh/ Expansion/ Amendment/ Others)	Fresh

	Activity as per schedule appended to EIA Notification, 2006	8(b) as i) Industrial Estate having area below 500 Ha and not housing any Industry of Category A or B. ii) Covered Area is less than 500 Hectare but contains building and construction projects having built up area more than 20,000 sqm and or development area more than 50 Ha and no category A or B project is to be established in the project except covered under category 8(a)																											
	Category as per the EIA Notification, 2006	Category B1																											
2)	Total cost of the project	Rs. 377 Crores.																											
3)	Total Plot area, Built-up Area and Green area	The details of the group housing project is as under: <table border="1" data-bbox="662 831 1348 1312"> <thead> <tr> <th data-bbox="662 831 774 907">Sr. No.</th> <th data-bbox="774 831 1013 907">Description</th> <th data-bbox="1013 831 1348 907">Area</th> </tr> </thead> <tbody> <tr> <td data-bbox="662 907 774 983">1</td> <td data-bbox="774 907 1013 983">Plot Area</td> <td data-bbox="1013 907 1348 983">18,70,283.22 m² (or 462.155 acres)</td> </tr> <tr> <td data-bbox="662 983 774 1037">2</td> <td data-bbox="774 983 1013 1037">Built-up area</td> <td data-bbox="1013 983 1348 1037">2,30,226 m²</td> </tr> <tr> <td data-bbox="662 1037 774 1312">3</td> <td data-bbox="774 1037 1013 1312">Revised Green Area including 15m green belt buffer & other green areas within the premises of the project</td> <td data-bbox="1013 1037 1348 1312">437613.1074m²</td> </tr> </tbody> </table>				Sr. No.	Description	Area	1	Plot Area	18,70,283.22 m ² (or 462.155 acres)	2	Built-up area	2,30,226 m ²	3	Revised Green Area including 15m green belt buffer & other green areas within the premises of the project	437613.1074m ²												
Sr. No.	Description	Area																											
1	Plot Area	18,70,283.22 m ² (or 462.155 acres)																											
2	Built-up area	2,30,226 m ²																											
3	Revised Green Area including 15m green belt buffer & other green areas within the premises of the project	437613.1074m ²																											
4)	Coordinates of the project site	Corner	Latitude	Longitude																									
		Corner-A	30°27'45.78"N	76°32'16.20"E																									
		Corner-B	30°28'05.98"N	76°32'47.77"E																									
		Corner-C	30°27'03.20"N	76°32'36.58"E																									
		Corner-D	30°27'34.58"N	76°33'25.41"E																									
5)	Population (when fully inhabited)	25,065 persons																											
6)	Water Requirements & source	The break-up of water requirement in different seasons is as under:- <table border="1" data-bbox="327 1688 1348 2004"> <thead> <tr> <th data-bbox="327 1688 438 1832">Sr. No.</th> <th data-bbox="438 1688 582 1832">Season</th> <th data-bbox="582 1688 774 1832">Fresh water (KLD)</th> <th data-bbox="774 1688 917 1832">Reuse water (Treated water) (KLD)</th> <th data-bbox="917 1688 1204 1832">Green area Requirement (KLD)</th> <th data-bbox="1204 1688 1348 1832">Total (KLD)</th> </tr> </thead> <tbody> <tr> <td data-bbox="327 1832 438 1886">1.</td> <td data-bbox="438 1832 582 1886">Summer</td> <td data-bbox="582 1832 774 1886">1925</td> <td data-bbox="774 1832 917 1886">745</td> <td data-bbox="917 1832 1204 1886">2406.9</td> <td data-bbox="1204 1832 1348 1886">5076.90</td> </tr> <tr> <td data-bbox="327 1886 438 1939">2.</td> <td data-bbox="438 1886 582 1939">Winter</td> <td data-bbox="582 1886 774 1939">1925</td> <td data-bbox="774 1886 917 1939">745</td> <td data-bbox="917 1886 1204 1939">787.7</td> <td data-bbox="1204 1886 1348 1939">3457.7</td> </tr> <tr> <td data-bbox="327 1939 438 2004">3.</td> <td data-bbox="438 1939 582 2004">Rainy</td> <td data-bbox="582 1939 774 2004">1925</td> <td data-bbox="774 1939 917 2004">745</td> <td data-bbox="917 1939 1204 2004">218.8</td> <td data-bbox="1204 1939 1348 2004">2888.8</td> </tr> </tbody> </table>				Sr. No.	Season	Fresh water (KLD)	Reuse water (Treated water) (KLD)	Green area Requirement (KLD)	Total (KLD)	1.	Summer	1925	745	2406.9	5076.90	2.	Winter	1925	745	787.7	3457.7	3.	Rainy	1925	745	218.8	2888.8
Sr. No.	Season	Fresh water (KLD)	Reuse water (Treated water) (KLD)	Green area Requirement (KLD)	Total (KLD)																								
1.	Summer	1925	745	2406.9	5076.90																								
2.	Winter	1925	745	787.7	3457.7																								
3.	Rainy	1925	745	218.8	2888.8																								

	<p>Note : During summer season, to meet with requirement of 2406.9 KLD of green area, 869.9 KLD additional treated waste water will be taken from the SIEL Chemical Complex having common boundary with the project or STP of MC Rajupura.</p>																					
	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Description</th> <th>Source of Water</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Domestic</td> <td>Surface Water (Bhakhara Canal)</td> </tr> <tr> <td>2.</td> <td>Flushing Purpose</td> <td>Treated Waste Water</td> </tr> <tr> <td>3.</td> <td>Green Area</td> <td>Treated Waste Water</td> </tr> <tr> <td>4.</td> <td>Dust Suppression</td> <td>Treated Waste Water</td> </tr> </tbody> </table>	Sr. No.	Description	Source of Water	1.	Domestic	Surface Water (Bhakhara Canal)	2.	Flushing Purpose	Treated Waste Water	3.	Green Area	Treated Waste Water	4.	Dust Suppression	Treated Waste Water						
Sr. No.	Description	Source of Water																				
1.	Domestic	Surface Water (Bhakhara Canal)																				
2.	Flushing Purpose	Treated Waste Water																				
3.	Green Area	Treated Waste Water																				
4.	Dust Suppression	Treated Waste Water																				
7)	Treatment & Disposal arrangements of Waste water in construction Phase	Waste Water generated will be treated in Septic tank and will be utilised in green area																				
8)	Disposal Arrangement of Waste water in Operation Phase	<p>Total waste water generation will be 2282 KLD, which will be treated in the 4 Nos STPs of total capacity of 2500 KLD based on SBR technology followed by tertiary treatment. The details of breakup of utilisation of waste water are as under:-</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Season</th> <th>For Flushing purposes (KLD)</th> <th>Green Area (KLD)</th> <th>Excess water for storage reservoir (KLD)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Summer</td> <td>745</td> <td>1537 *</td> <td>--</td> </tr> <tr> <td>2.</td> <td>Winter</td> <td>745</td> <td>787.7</td> <td>749.3</td> </tr> <tr> <td>3.</td> <td>Rainy</td> <td>745</td> <td>218.8</td> <td>1318.2</td> </tr> </tbody> </table>	Sr. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Excess water for storage reservoir (KLD)	1.	Summer	745	1537 *	--	2.	Winter	745	787.7	749.3	3.	Rainy	745	218.8	1318.2
Sr. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Excess water for storage reservoir (KLD)																		
1.	Summer	745	1537 *	--																		
2.	Winter	745	787.7	749.3																		
3.	Rainy	745	218.8	1318.2																		
9)	Rain water recharging detail	170871.1 m ³ /year rain water will be recharge through 82 nos of recharging pits.																				
10)	Solid waste generation and its disposal	<p>a) 4500 kg/day b) Solid wastes will be appropriately segregated at source as Bio-degradable , Recyclable and Inert Waste c) 2475 Kg/Day Bio-degradable will be converted into Manure in compost pit d) Recyclable waste 1350 KG/day will be sold to authorised recyclers. e) Inert Waste 675 kg/Day will be disposed of to MC Rajpura as per Solid Waste Management Rule ,2016.</p>																				
11)	Hazardous Waste & E-waste	<p>1. Spent/used oil from DG sets will be sold to Approved recyclers as per EPA, 1986. 2. E-waste generated will be stored in an isolated room and will be disposed of as per the E-waste (Management) Amendment Rule 2018.</p>																				

12)	Energy Requirements & Saving	I Total load= 30,000 KVA II Distribution a) Inner Lighting Load = 7500 KVA b) Outer Lighting Load = 1500 KVA c) Power Load = 21000 KVA III Energy Saving Measures i) 6.25% (1875 KVA) energy will be saved by installing 30 W LEDs instead of 40 W tubes. ii) 5% (1500 KVA) energy will be saved by using solar energy for outer lighting. iii) 16.6% energy will be saved by installation of 5000 KVA Solar Power plant		
13)	Environment Management Plan along with Budgetary break up Phase wise and Responsibility to implement.			
a)	During the Construction Phase:			
	Sr. No.	Activity	Cost (INR)	Recurring Cost (INR)
a)		Statutory permissions	As applicable (51, 00, 000.00)	5,00,000.00
b)		STP and sewage system	7,28,00,000.00	10,00,000.00
c)		Water Supply Scheme	9,01,00,000.00	5,00,000.00
d)		Storm water management	5,00,00,000.00	10,00,000.00
e)		Road & Footbath	11,43,00,000.00	15,00,000.00
f)		Green belt development	67,00,000.00	10,00,000.00
g)		Street Light	89,00,000.00	5,00,000.00
h)		Sides of Road	20,00,00,000.00	10,00,000.00
i)		Electrical Cost	21,65,00,000.00	15,00,000.00
		Total	76,44,00,000.00	85,00,000.00
b)	During the Operation Phase:			
	Sr. No.	Activity	Capital Cost (INR)	Recurring Cost (INR)
1.		Sewage collection, treatment & disposal	40,00,000.00	5,00,000.00
2.		Waste management	16,00,000.00	2,00,000.00
3.		Environment monitoring	2,00,000.00	50,000.00
4.		Consulting & advisory services	3,00,000.00	50,000.00
5.		Miscellaneous maintenance	20,00,000.00	-
6.		Sundry	5,00,000.00	-
		Total	86,00,000.00	8,00,000.00

The case was lastly considered by the SEAC in its 187th meeting held on 26.02.2020, wherein, the Committee 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 to forward the case to the SEIAA with the recommendation to grant amendment in the Environmental Clearance to the project proponent under EIA notification dated 14.09.2006 for the project subject to certain conditions in addition to the proposed measures.

Thereafter, the case was lastly considered by the SEIAA in its 163rd meeting held on 29.05.2020. The SEIAA observed that the case stands recommended by SEAC and the Committee awarded 'Silver Grading' to the project proposal. The Authority looked into all the aspects of the project proposal in detail and was satisfied with the same. Therefore, the Authority decided to grant the Environmental Clearance for new industrial estate in an area of 462.155 acres (187.02 hectare or 18,70,283.22 m²) having 255 Industrial plots and other amenities like administrative block, commercial block, dispensary, police post, fire station etc. in the revenue estate village of Jakhran, Khadauli, Sardargarh & Damanheri , Tehsil Rajpura , District Patiala, Punjab as per the details mentioned in Form 1, 1A, EIA & subsequent presentations/ clarifications made by the project proponent and his Environmental Consultant subject to certain amended conditions as agreed by the project proponent and other conditions as proposed by SEAC in addition to the proposed measures.

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

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 bye-laws.
- ii) The approval of the Competent Authority shall be obtained for the 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 Punjab Pollution Control Board.

- 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 conform 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 whose jurisdiction, the site falls.
- xii) Besides above, the project proponent shall also comply with siting criteria / guidelines, standard operating practices, code of practice, and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of projects.
- xiii) The project proponent shall get the layout plans approved from the Competent Authority for the activities/establishments to be set up at the project site in consonance with the project proposal for which this environment clearance is applied.

II. Air quality monitoring and preservation

- i) Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- ii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii) The project proponent shall install system to carryout Ambient Air Quality monitoring for common /criterion parameters relevant-to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.
- iv) Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for

the combined capacity of all proposed DG sets. Use of low sulphur diesel should be ensured. The location of the DG sets may be decided in consultation with Punjab 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 3m height or 1/3rd of the building height and maximum upto 10m). 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) No Excavation of soil shall be carried out without adequate dust mitigation measures in place.
- vii) No loose soil or sand or construction & demolition waste or any other construction material that causes dust shall be left uncovered.
- viii) No uncovered vehicles carrying construction material and waste shall be permitted
- ix) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- x) Grinding and Cutting of building material in open area shall be prohibited. Wet jet shall be provided for grinding and stone cutting.
- xi) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- xii) All construction and demolition debris shall be stored at the site within earmarked area and road side storage of construction material and waste shall be prohibited. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
- xiii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to the standards as enumerated in the Environmental (Protection) Rules, 1986 as prescribed for air and noise emission.
- xiv) 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.
- xv) For indoor air quality the ventilation provisions as per National Building Code of India shall be followed.
- xvi) Roads leading to or at construction site must be paved and blacktopped (i.e. metallic road)
- xvii) Dust Mitigation measures shall be displayed prominently at the construction site for easy public viewing.

- xviii) Construction and Demolition Waste Processing and Disposal site shall be identified and required dust mitigation measure be notified at the site.

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 2670 KLD, out of which 1925 KLD shall be met through canal supply and remaining through recycling of treated waste water. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- v) a) The total wastewater generation from the project will be 2282 KL/day, which will be treated in 4 no. STPs of total capacity of 2500 KLD based on SBR Technology. As proposed, reuse of treated wastewater and discharge of surplus treated wastewater shall be as under: -

Sr. No.	Season	For Flushing purposes (KLD)	Green Area (KLD)	Excess water for storage reservoir (KLD)
1.	Summer	745	1537 *	--
2.	Winter	745	787.7	749.3
3.	Rainy	745	218.8	1318.2

*Note: During summer season, to meet with requirement of 2406.9 KLD of green area, 869.9 KLD additional treated waste water will be taken from the SEIL Chemical Complex having common boundary with the project or STP of MC Rajupura.

- 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 designed 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 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.
- viii) 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.
- ix) At least 20% of the open spaces as required by the local building bye-Laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- x) 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.
- xi) 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.
- xii) 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.
- xiii) 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	Colour code
a)	Fresh water	Blue
b)	Untreated wastewater from Toilets/ urinal & from Kitchen	Black
c)	Untreated wastewater from Bathing/shower area, hand washing (Washbasin / sinks) and from Cloth Washing	Grey

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
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

- xiv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xv) 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. Thus, 82 nos of rain water harvesting recharge pits shall be provided for ground water recharging as per CGWA norms. 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.
- xvi) All recharge should be limited to shallow aquifer.
- xvii) 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.
- xviii) 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.
- xix) 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.
- xx) 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 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. No treated water shall be disposed of into municipal storm water drain.
- xxi) 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.

- xxii) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxiii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed of 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 out as per the prescribed guidelines and report in this regard shall be submitted to Regional Office 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 provided as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

- i) Compliance with the Punjab Energy Conservation Building Code (PECBC) of Energy Efficiency shall be ensured.
- 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 LEDs for 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 any other Renewable Energy equipment shall be installed to meet electricity generation equivalent to at least 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.

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 neighbouring communities and be disposed of taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- iii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
- iv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed for treatment and disposal of the waste.
- v) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
- vi) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- vii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
- viii) Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- ix) Any wastes from construction and demolition activities related thereto shall be managed in such a way 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) Green belt shall be developed in an area equal to at least 33% of the plant area with native tree species in accordance with CPCB guidelines. As proposed, 15 M

green buffer as green belt around the periphery of the Industrial Estate shall be provided.

- ii) No tree shall be felled/transplanted unless extreme 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).
- iii) 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.
- iv) 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.
- v) 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.
- vi) 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.
- vii) 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 and 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 should be strictly followed.
- iii) Emergency preparedness plan based on the Hazard identification and Risk 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.
- v) 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. 226.2 Lacs (@ 0.75% of total project cost for expansion) towards following CER activities. The details are given below: -

S No.	Activity	Annual Cost	Total Cost
1	Adoption of 06 Nos Village Pond @ one pond per year	Rs 30 Lacs each pond	Rs 180 Lacs
2	CER activities viz. toilet and drinking water facilities in nearby Government School, Rain water harvesting system, Maintenance of village roads in village Khadauli and Damanheri.	Rs 6.6 Lacs per year for 7 years	Rs 46.2 Lacs
	Total		Rs 226.2 Lacs

- 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 to all 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 report 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 76.44 Crores towards capital cost and Rs 85 Lacs/annum towards recurring cost in Construction phase of the project and shall spend minimum amount of Rs 86 Lacs towards capital cost and Rs 8 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 SEIAA, Punjab.
- ii) The project proponent shall comply with the conditions of CLU granted vide Memo No. 4466 CTP(Pb)SP-432 dated 10.10.17.
- 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 MoEF&CC/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 and SEIAA.
- xi) No further expansion or modifications in the plant/project 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 SEIAA/Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiv) The SEIAA/ 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 and Punjab Pollution Control Board shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office and PPCB 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.

Additional Specific conditions: -

- i) No industry covered under Category "A" and "B" falling in the Schedule appended to the EIA notification, 2006 (as amended from time to time) shall be allowed to established except category under 8 (a) in Siel Industrial Estate Ltd. However, other industries (not covered in the EIA notification, 2006), although categorized as Red, Orange, Green and White as per the PPCB classification are allowed to be established.
- ii) Not more than 282 acres out of 462.15 acres be earmarked for the Red, Orange, Green and White category of industries.
- iii) The industry shall make an agreement with M.C Rajpura for using their treated STP water within the industrial estate in case of additional demand during summer season.
- iv) High water intensive industry like dyeing, tannery, distillery etc. shall not be established. Moreover, the Moderate water intensive units shall also have Zero Liquid Discharge Treatment based Technology.
- v) High Air Polluting industry like cement grinding units, Induction (more than 500 kgs/ heat)/ Cupola furnaces/ Reheating Rolling Mills, Brick Kilns, Siala Plants, etc. shall not be allowed to established in the Industrial Estate unless adequate pollution Control system will be provided to meet requisite norms.
- vi) All industries will adopt proper and adequate Air Pollution Control Devices to control the emissions as per prescribed norms of Punjab Pollution Control Board. Also, the DG sets shall be equipped with canopies.

- vii) Each individual industry or project will obtain mandatory permissions like consent to establish, Consent to operate and Hazardous Waste authorization under the pollution control laws from the Punjab Pollution Control Board.
- viii) The project proponent shall provide Piezometers at the project site as per the CGWA guidelines.
- ix) Individual industry/plot holder shall not install any groundwater abstraction structure without permission from the CGWA or competent authority.
- x) The industrial plots will be allotted to those Industries which will achieve Zero Liquid Discharge.
- xi) No ground water will be abstracted by M/s SIEL Industrial Estate Limited and the Industrial Units. However, in case of future requirements, industrial unit will individually obtain NOC from competent authority.
- xii) The water requirement for SIEL Industrial Estate Ltd will be met by Canal Water as per agreement of SIEL Industrial Estate along with SIEL Chemical Complex with Government of Punjab. However, in case of any enhanced requirement, industrial unit will individually obtain NOC from CGWA or Competent authority.
- xiii) The industry shall install STP based on SBR Technology followed by tertiary treatment.
- xiv) The project proponent shall make arrangement if required 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.


Member Secretary

Endst. No. _____

Through E-mail

Date _____

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

1. The Secretary to Govt. of India, Ministry of Environment and Forest, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-office Complex, East Arjun Nagar, New Delhi.
3. The Chairman, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala.
4. The Chairman, Punjab State Power Corporation Ltd, the Mall, Patiala.
5. The Deputy Commissioner, Patiala.
6. The Deputy Director General (C), Ministry of Environment, Forests & Climate Change, Northern Regional Office, Bays No. 24-25, Sector- 31-A, Chandigarh.

7. The Chief Town Planner, Department of Town & Country Planning, 6th Floor, PUDA Bhawan, Phase-8, Mohali.
8. The Joint Director, Ministry of Environment and Forest, Northern Regional Office, Bays No.24-25, Sector-31-A, Chandigarh. The detail of the authorized Officer of the project proponent is as under:
 - a) Name of the applicant : Sh. Harjeet Singh, Director
 - b) Phone Number : 011-25739103
 - c) Email Id : brajeshsrivastav@mawanasugars.com
9. Monitoring Cell, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi - 110003.


Member Secretary

163.05