

Proceedings of the 150th meeting of State Level Environment Impact Assessment Authority (SEIAA) held on 08.07.2019 at 10:30 AM in Conference Hall-II (Ist Floor) of MGSIPA in the building of Punjab State Council for Science & Technology, MGSIPA Complex, Sector 26, Chandigarh

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 150th meeting.

Item No.150.01: Confirmation of the minutes of 149th meeting of SEIAA held on 05.07.2019.

The SEIAA was apprised that the proceedings of 149th meeting of SEIAA held on 05.07.2019 are being prepared and shall be circulated after the finalization and approval of the same.

Item No.150.02: Action on the proceedings of 148th meeting & 149th meetings of SEIAA held on 26.06.2019 & 05.07.2019 respectively.

SEIAA was apprised that the action on the proceedings of 148th meeting of SEIAA held on 26.06.2019 is being taken. The action taken report will be placed in the next meeting of SEIAA. Also, the proceedings of 149th meeting of SEIAA held on 05.07.2019 are being prepared. Action shall be taken after the finalization and approval of the proceedings of 149th meeting of SEIAA held on 05.07.2019.

SEIAA decided that action taken report of both the meetings be placed in next meeting of SEIAA.

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

The SEIAA observed as under:

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

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

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

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

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

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

- (i) Sh. Sandeep Sehgal, Vice President (Projects)

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

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

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

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

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

iii	Construction spoils, including bituminous material and other hazardous material, must not be allowed to contaminate watercourses. The dump sites for such material must be secured, so that they should not leach into the groundwater.	Not Complied: The solid waste and bituminous material and other hazardous materials are being managed during construction as per MSW rules, 2016 and as per Hazardous Wastes (Management and Handling) Rules, 2016 as submitted. PP was directed to submit monitoring reports of ground water in support of "water course is not contaminated.	There is no bituminous material being generated at site, all solid waste and hazardous material if any is being managed as per proper process and MSW rules, 2016. Most of the construction waste is being reused at site in external development works.
PART C – GENERAL CODITIONS:			
I. Pre-construction Phase.			
ii	The PP should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the PPCB. The advertisement should be made within seven days from the day of issue of the clearance letter and a copy of the same should be forwarded to the RO, MOEF, Chandigarh and SEIAA, Punjab.	Not Complied: Advertisements have been made in the newspapers about the granting of the environment clearance letter to the project by SEIAA, Punjab. However, clause of seven days was not followed (both published on 06.07.2016). Condition is, therefore, considered as not complied.	Advertisement was published on 6th of July 2016 after receipt of Environmental Clearance.
V	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local body and he local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall	Not Complied: Copy of EC letter was not found on the website of the company as per condition.	Screenshot of website has been attached. The link to website has been submitted for reference. http://www.herohomes.in/herohomes/project-mohali.php

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

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

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

- Grass Roots Research and Creation India (P) Ltd., F-375, Sector-63, Noida has got the certificate of accreditation from QCI-NABET with certificate no. NABET/EIA/1619/RA 0064 dated 02.08.2017 valid upto 04.12.2019 and is approved for Sector Township and Area Development Projects.
- The expansion of "Hero Homes" shall be done at the existing site i.e. in Sector 88, District-SAS Nagar (Mohali), Punjab. The project comprises of following facilities Residential Towers, Community Building, Convenient Shopping, Swimming Pool & Kids Pool.

1. Site Connectivity:

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

2. Details of area is given below:

Sr.No.	Descriptions	EC Accorded (in m ²)	Expansion (in m ²)	Total (EC Accorded + Expansion) (in m ²)
1	Total Plot area	46,861.50 (11.50 Acres)	27,964.7565 (6.99 Acres)	74,826.2565 (18.49 Acres)
2	Permissible Ground Coverage	14,058.45 (@ 30% of plot area)	8,389.427	22,447.877 (@30% of plot area)
3	Proposed Ground Coverage	5,154.765 (@ 11% of plot area)	7381.127	12535.892 (@ 16.75% of plot area)
4	Permissible FAR	1,17,153.75 (@ 2.5% of plot area)	69,911.891	1,87,065.641 (@ 2.5% of plot area)
5	Proposed FAR	1,08,504.65 (@ 2.3154% of total plot area)	76,177.074	1,84,681.724 (@ 2.4681% of total plot area)
	a) Residential Tower (T1 to T16)	1,08,130.55 (T1 to T9)	73,569.097	1,81,699.647
	b) Community Building	-	2,610.753	2,610.753
	c) Convenient Shopping	374.10	-2.776	371.324
6	Non-Far Area Basement Area (2 Nos.) (including Lobby+Service+Balconies)	33,383.51 (T1 to T9)	52,154.4650	85,537.975
7	Stilt Area	562.72	-562.72	-
8	Total Built-up Area	1,42,449.97	1,27,769.729	2,70,219.699
9	Permissible Green Area	11,715.375 (@ 25% of plot area)	6,991.189	18,706.564

				(@ 25% of plot area)
10	Proposed Green Area	11,748.178 (@ 25.07% of plot area)	7,016.168	18,764.346 (@ 25.07% of plot area)

3. Details of Tower is given below:

Sr. No.	Tower Name	Tower Height from Internal Road (m)	No. of Floors	Type of Flats	DW	FAR (Sq.M)	Ground Coverage (Sq.M)
1.	Tower (T1)	80	G+24	3.5 BHK, 4 BHK, PH	92	18001.469	902.679
2.	Tower (T2)	80	G+24	3.5 BHK, PH	94	14590.138	616.50
3.	Tower (T3)	44.5	G+14	2.5 BHK, 3 BHK	88	10318.318	712.023
4.	Tower (T4)	44.5	G+14	2.5 BHK	58	6035.276	477.475
5.	Tower (T5)	44.5	G+14	2 BHK	73	6470.783	442.527
6.	Tower (T6)	44.5	G+14	3 BHK	58	7244.467	508.44
7.	Tower (T7)	44.5	G+14	2.5 BHK, 3 BHK	88	10318.318	712.02
8.	Tower (T8)	44.5	G+14	2.5 BHK, 3 BHK	88	10318.318	712.02
9.	Tower (T9)	80	G+24	3.5 BHK, 4 BHK, PH	92	18001.469	905.679
10.	Tower (T10)	59.45	G+19	3BHK+3T+STORE	78	9819.926	552.838
11.	Tower (T11)	59.45	G+19	3BHK+3T+STORE	78	9819.926	552.838
12.	Tower (T12)	62.4	G+20	3BHK+2T+STORE	124	13686.644	686.298
13.	Tower (T13)	62.4	G+20	3BHK+2T+STORE	124	13686.644	686.298
14.	Tower (T14)	62.4	G+20	3BHK+3T+STORE, 3.5 BHK	82	11129.497	591.507
15.	Tower (T15)	62.4	G+20	3BHK+3T+STORE, 3.5 BHK	82	11129.497	591.507

16	Tower (T16)	62.4	G+20	3BHK+3T+ STORE, 3.5 BHK	82	11129.497	591.507
	TOTAL				1381	1,81,699.647	10244.644
17	Community Building	-	G+1	-	-	2610.753	1764.411
18	Convenient Shopping	-	G	-	-	371.324	526.837
	TOTAL					1,84,681.724	12,535.892

4. Details of the Population break up:

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

5. Comparative calculation for Water requirement

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

6. Water Demand Calculation

Sr. No.	Unit type	Occupancy	Rate of demand (LPCD)		Total water requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total (KLD)
1	Main Dwelling Units:						

(a)	Residents	6905	90	45	621.4	310.7	932.1
(b)	Visitors	690	5	10	3.4	6.9	10.3
(c)	Staff	110	20	25	2.2	2.8	5
2	Community Building:						
(a)	Visitors	4,351	5	10	21.75	43.51	65.26
3	Convenient Shopping:						
(a)	Visitors	124	5	10	0.62	1.24	1.86
Total Domestic Water Requirement					650 KLD	365 KLD	1,014.52 Say 1015 KLD
4	Horticulture (18,764.346 m ²)		5 l/sqm				94 KLD
5	Swimming Pools						30 KLD
Total Water Requirement							1,139 KLD

7. Waste Water Calculation

Total Water Requirement	1,139 KLD
Total Domestic Water Requirement	1,015 KLD
Total Fresh Water: Fresh Water Make-up water for Swimming Pools	680 KLD 650 KLD 30 KLD
Flushing Water	365 KLD
Wastewater Generated (80% Fresh Water + 100% Flushing)	520 365 = 885 KLD

8. Rain water Harvesting

- i) Rain water harvesting system will be designed as per CGWA guidelines.
- ii) 11 RWH pits will be provided considering peak hourly rainfall has been considered as 45 mm/hr.
- iii) The recharge pit of effective Length of 6.8 m and width of 4 m and depth of 2.5 m is constructed for recharging the water. Inside the recharge pit, a recharge bore is constructed having adequate diameter.
- iv) Storm water load calculations are presented as under:

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

9. Rain Water Maintenance Plan

- i) Surroundings of the tank shall be kept clean and hygienic
- ii) Algae will be removed from the roof tiles and asbestos sheets before the monsoon.
- iii) Tank will be drained completely and cleaned from inside thoroughly before the monsoon.
- iv) Water channels (gutters) will be cleaned often during rainy season and definitely before the first monsoon rain.
- v) First 20 minutes of rainfall will be avoided depending on the intensity of rain. First flush arrangement will be used to drain off this first rain water.
- vi) Filter media will be changed every rainy season.
- vii) All inlet and outlet pipes will be covered with closely knit nylon net or fine cloth or cap during non-rainy season to avoid entry of insects, worms and mosquitoes.
- viii) Water will be withdrawn from the system at the rate of 5 l/head/day. This will ensure availability of water throughout the water scarcity period.
- ix) Leakage of cracks in the ferrocement storage tank will be immediately attended to by cement plastering. This will avoid major repairs due to the propagation of cracks.
- x) Heavy loads will not be applied on the lid.

- xi) Water will not be allowed to stagnate in the collection pit.
- xii) The filter materials will be washed thoroughly before replacing in the filter bucket

10. Solid Waste Management (Construction Phase)

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

11. Solid Waste Generation

11.1 Details

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

Sr. No.	Category	Waste generated (kg/Capita/day)	Total (EC Accorded + Expansion) Waste generated (kg/day)
A	Main Dwelling Units		
(a)	Resident	6,905 @ 0.5	3,452.5
(b)	Visitors	690 @ 0.15	103.5
(c)	Staff	110 @ 0.25	27.5
Total			3,583.5
B	Community Building		
(a)	Visitors	4,351 @ 0.15	653
C	Convenient Shopping		
(a)	Visitors	124 @ 0.15	19
D	Landscape Waste	0.2 (kg/acre/day)	0.92
Total (A+B+C+D)			4,256 kg/day

11.2 Management

Sr. No.	Likely Impact	Management / Mitigative Measures
1. 2.	Approx. 4,256 kg/day of solid waste would be generated (@0.5 kg per capita per day for residents, @0.15 kg per capita per day for the visitor, @0.25 kg per capita per day for the staff members and landscape waste @0.2 kg/acre/day and STP Sludge). Hazardous Waste	<ol style="list-style-type: none"> 1. The solid waste will be collected then segregated at source. 2. Adequate number of colored bins (green, blue & dark grey) separate for bio-degradable and non-biodegradable are proposed to be provided. 3. STP sludge is proposed to be used for horticultural purpose as manure. 4. Horticultural Waste/Biodegradable waste will be composted by Organic Waste Converter-300. 5. Spent oil from DG sets will be disposed through CPCB authorized recyclers.

12. Parking Details

12.1 Parking required as per MoEF&CC

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

12.2 Parking required as per law

Sr. No.	Particulars	Area in sqm	Parking in ECS
1	1 ECS per DU having area upto 90 sqm	= 1 ECS X DU = 1 X 221	221 ECS
2	1.5 ECS per DU having area above 90 sqm upto 120 sqm	= 1.5 ECS X DU = 1.5 X 756	1134 ECS
3	2 ECS per DU having area above 120 sqm upto 300 sqm	= 2 ECS X DU = 2 X 388	776 ECS
4	3 ECS per DU having area above 300 sqm	= 3 ECS X DU = 3 X 16	48 ECS
5	Additional 10% for visitors		218 ECS
Total Parking required as per bye laws = 2,397 ECS			

12.3 Parking Proposed

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

13. Landscape Details

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

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

I. Study period: December 2018 to February 2019

II. Project, Proponent & Land Details

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

III. PROJECT FEATURES

- Plot area and area under present development.
- Built-up area.
- Ground coverage.
- Permissible floor area and ground coverage.
- Building height (actual & permitted).
- Area utilization (residential, parking & services).
- Parking facilities (required & provided).
- Power requirement, source and power backup facilities.

- Estimated population.
- Energy conservation measures.
- Water requirement & source along with calculation.
- Sewage generation, treatment & disposal.
- Connectivity of the site with surrounding area.
- Type of building materials to be used.
- Environmental liability of the site

IV. Project Drawings

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

V. Mapping of Study Area

- Vicinity map of 2 km from the project boundary delineating major features such as existing buildings, topography, land-use, drainage, habitats, roads, railways, pipelines, transmission lines etc.
- Map of the study area of 2 km from the project boundary showing location of monitoring stations (air, water, soil and noise)
- A map of 15 km aerial distance from the project boundary delineating environmental sensitive areas like National Park, Sanctuary, Protected Forest, Wetland, Historical Site etc.
- Land-use map of the study area based on Google imagery delineating the forest, agricultural land, water bodies, settlements, and important places.
- Contour map of the project area showing contours and highest & lowest levels.
- Study Area: 2 km from the project boundary.
- Primary data generation: On-site monitoring of air, water, soil & noise
- Secondary data collection: Data collection of landuse, topography, geological setting, meteorology, flora & fauna and socio-economic environment.

VI. Monitoring of Environmental Parameters

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

VII. Environmental Monitoring during Construction & Operation Phase

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

VIII. Environmental Management Plan (EMP):

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

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

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

Sr. No.	Observations	Reply submitted by the project proponent and his Environmental Consultant
1.	As to whether the project proponent has sent any mail prior to the start of carrying out monitoring for collecting the baseline data for the said project?	The hard copy of the letter dated 30.11.2018 regarding intimation for carrying out monitoring for collecting baseline data for the expansion project from December 2018 to February 2019 was submitted on 30.11.2018 in the secretariat Office of SEIAA-SEAC at Patiala and he showed the copy of the receipt of the aforesaid letter with stamp on it. A copy of the same was taken on record.
2.	As to whether the land use of the area is permissible for the	The area is permissible for the establishment of the project as the

	establishment of the project for which EC has been applied as per the provisions of Master Plan of the city.	allotment letter has been issued by GMADA vide Memo no. 31342 dated 03.08.2015.
3.	As to whether, the plans have been approved by the Competent Authority or still are Conceptual plans. If so, is there any change from the conceptual plans.	At present, they are having conceptual plan.
4.	Whether online application for obtaining NOC for abstraction of ground water has been applied CGWA?	As per allotment letter, GMADA shall provide the domestic water connection and tertiary treated effluent to the allottee for use in flushing & gardening purpose. The allottee shall also be entitled for the sewer and storm connection in the main sewer and storm network developed by GMADA. As such, GMADA will provide the water supply and sewerage connection.
5.	What will be the treatment proposal for the sewage expected from the labours / employees during the construction phase?	Septic tank will be provided for the treatment of waste water generated during construction phase and treated waste water shall be discharged onto land for plantation.
6.	Whether provision of module system shall be kept during installation of STP?	The waste water shall be discharged in to GMADA sewer which will be treated in the STP installed by GMADA. However, sewer line has yet to be laid by GMADA. The company will install its own STP on module basis to treat the waste water generated from the project if till the commissioning, the sewer line is not laid by GMADA.
7.	As to whether provision for segregating grey and black streams of waste water and separate treatment for both the streams and utilization has been made.	The provision has been kept for segregating grey and black water streams in the project.
8.	Whether the project proponent is proposing CER activities in accordance to the OM dated 01.05.2018. If yes, then how much % has been kept reserved for the proposed activities as per the said OM?	Sufficient amount shall be kept for completing the CER activities as per OM dated 01.05.2018 and detail will be submitted in EIA report.

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

request of the project proponent and his environmental consultant to consider the study carried out from December 2018 to February 2019 for collecting the baseline study and decided that additional 01 months study shall be carried out with immediate effect i.e. 02.05.2019.

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

Special Condition:

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

A. Construction stage

1. The project falls under category B-1 under item 8(b) Township and Area Development projects and shall carry out an Environmental Impact Assessment Study for period of 01 months with immediate effect for the entire site area (core zone) and an area of 10 kms radius around the project site (buffer zone) shall be conducted in addition to study already carried out from December 2018 to February 2019.
2. Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
3. Examine and submit the details of the environmental impacts due to change of land use and land cover including aspects such as hydrological characteristics, imperviousness of land and drainage pattern being altered.
4. Examine and submit the details of the environmental impacts at the stage of construction of boundaries & fencing including its impact on the pattern of natural drainage and flooding pattern and barriers being constructed for restricting wildlife movement into project area.
5. Examine and submit the details of the environmental impacts due to leveling and landscaping including aspects such as excavation & filling of soil, clearing of vegetation, change of topography, development of plantation, green belt, lawns & parks and development of impervious areas.

6. Examine and submit the details of the environmental impacts due to excavation, transportation and filling of earth including aspects such as excavation, filling, sourcing, transportation and disposal of soil.
7. Examine and submit the details of the construction material to be used at the construction stage including aspects such as quarries and transportation, stone crushing and screening, mining & transportation of sand, soil excavation, transportation and filling.
8. Examine and submit the impacts being caused due to transportation of construction materials and men such as increase in traffic and load on public transportation facility, destruction and damage of transportation infrastructure, increase of risk due to road accident, pollution caused due to dust and tail pipe emissions and consumption of fuel by transport vehicles.
9. Examine and submit the details of the temporary housing and amenities to be created and used by the work force including aspects such as water supply, electrical energy and fuel supply.
10. Examine and submit the details of the environmental impacts at the stage of creation of roads, transportation facility and other physical infrastructure including aspects such as use of construction materials, excavation and /or filling of soil, generation of construction waste, creation of impervious surfaces, noise & suspended dust pollution and accidental risk.
11. Examine and submit the details of the noise pollution, air pollution, consumption of fuel and generation of scrap being caused due to operation and maintenance of construction machinery and equipment.
12. Examine and submit the details of the source and supply of water for construction activity.
13. Examine and submit the details of the source and quantity of power for construction activity.
14. Examine and submit the details of the fuel consumption, noise pollution, emissions of the exhaust gas, engine & coolant oil and batteries being discarded due to captive and emergency power generation.
15. Examine and submit the details of the handling of wastewater during construction including the domestic wastewater being generated from amenities.
16. Examine and submit the details of the environmental impacts at the stage of development of residential buildings, commercial, institutional and industrial infrastructure including aspects such as construction materials to be used, earth work (excavation and/or soil filling), generation of construction waste, lighting, HVAC units, waste generation from packaging, residual paints and chemicals and their cans, Generation of wooden, glass, metal and other scrap materials, plumbing and sanitary waste generation, creation of impervious surfaces, noise pollution, suspended dust pollution and risk of accidents.
17. Examine and submit the details of the environmental impacts due to the laying of the water supply system including aspects such as use of piping, fittings ad pumps, water pumping stations, earth work and water treatment plant.

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

B. Operation stage

1. Examine and submit the details of the environmental impacts due to the residential, commercial, institutional, industrial, recreational, social, cultural & religious activities to be carried out.
2. Examine and submit the details of the environmental impacts due to the facilities to be provided such as water supply, electrical power supply, fuel supply & consumption including LPG, transportation and communication.
3. Examine and submit the details of the environmental impacts due to the coming up of the activities such as urban agriculture and animal husbandry.
4. Examine and submit the details of the environmental impacts due to the sewerage & sewage treatment and its disposal systems and storm water & its drainage system.

5. Examine and submit the details of the environmental impacts caused due to the generation of captive power & emergency power.
6. Submit the details of the management & handling of municipal solid waste, e-waste, hazardous waste, scrap, estate management, and construction and demolition waste management. The proposal of MSW should include the bio-composting of the organic waste.
7. Submit the details of the socio-economic impact due to the employment to be generated from the household activities.

C. General

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

11. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
12. Does the Environment policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
13. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
14. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
15. Does the company have a system of reporting of non compliances / violations of environmental norms to the Board of Directors of the Company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
16. Delineate the concrete proposal regarding activities to be undertaken under Corporate Social Responsibility programme as per OM dated 01.05.2018, which should be long lasting in nature and should be as per the needs of a particular Village/area/ local habitats/ stakeholders to be adopted by the promoter company, which can be done by involving a person having knowledge and experience of socio-economic activities.

Additional TOR

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

Sr. No	Nature of the Stream	Color code
a)	Fresh water	Blue Color
b)	Untreated wastewater from Toilets/ urinal & from Kitchen	Black color
c)	Untreated wastewater from Bathing/shower area, hand washing (Washbasin / sinks) and from Cloth Washing	Grey color
d)	Reject water streams from RO plants & AC condensate (this is to be implemented wherever centralized AC system and common RO has been proposed in the Project). Further, in case of individual houses/establishment this proposal may also be implemented wherever possible.	White color
e)	Treated wastewater (for reuse only for plantation purposes) from the STP treating black water	Green
f)	Treated wastewater (for reuse for flushing purposes or	Green with

	any other activity except plantation) from the STP treating grey water	strips
g)	Storm water	Orange Color

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

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

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

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

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

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

SEIAA looked into the details of the case and was satisfied with the same. Therefore, the Authority decided to accept the recommendations of SEAC and approved

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

Item No.150.04: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for expansion of steel manufacturing unit by replacement/addition of induction furnaces in Village- Mullanpur Kalan, Tehsil- Sirhind, District- Fatehgarh Sahib, Punjab by M/s Salasar Castings (Proposal no SIA/PB/IND2/30880/ 2018)

The SEIAA observed as under:

Earlier, the industry was issued TOR vide letter no.512 dated 10.04.2018in compliance to the decision taken in 129th meeting of SEIAA held on 23.03.2018.

The project proponent has now submitted EIA report. Following Essential Details were sought online to which the project proponent replied as under:-

Sr. No.	Observations	Reply
1.	The EIA report shall be presented in the format of points of TOR compliance and be to the point.	The EIA report has been prepared following the general structure of EIA document. However, the same shall be presented in the format of points of TOR compliance
2.	As per condition no. (iii) of Part D. Expansion / Modernizations proposals, the project proponent was required to obtain permission from CGWA for abstraction of ground water but the same has not been attached,	Applied to CGWA for groundwater abstraction vide application no. 21-4/4623/PB/IND/2018 and permission waited. Copy of application for obtaining permission already enclosed.

3.	As per condition no. (v) of Part D. i.e. Expansion / Modernizations proposals, the project proponent was required to provide STP whereas in most of the pages of EIA report, Septic tank has been mentioned.	STP of 20KLD capacity will be installed within the premises instead of Septic Tank which has been inadvertently mentioned in the EIA report.
4.	SOPs of PPCB be mentioned and accordingly how the industry will ensure to follow the same, Details be provided.	<p>SOP Titled 'Air Pollution Control in the Induction Furnace unit (s)' issued by PPCB vide office order no.- GPC/Guidelines/RS/SP/F-/2018/290 dated 15.06.2018 shall be followed.</p> <p>During Charging & melting</p> <ul style="list-style-type: none"> - Scrap will be segregated for explosives and closed containers. - The segregated scrap will be freed from oil, paint and grease by charging the same to I.F. maintained at 300°C and passing the volatile emission through bag filter via suction hood with adequate suction. - The scrap will be cut to size less than the size of crucible. - No overcharging of furnace will be practiced and dense charge as far as practicable will be charged. <p>Air Pollution Control</p> <ul style="list-style-type: none"> - Bag filters with pulse jet filtration will be used. - Rotator air lock will be operated for collection of dust from hopper. <p>Maintenance of bag filter</p> <ul style="list-style-type: none"> - The pressure drop across the bags will be maintained. with U- tube manometer and maintained 3-6" (76-152mm). - Maintained schedule shall be strictly followed and remained maintained. <p>Temperature</p> <ul style="list-style-type: none"> - The temperature of flue gas will be maintained between 100-120°C by proper cooling. <p>Compressor</p> <ul style="list-style-type: none"> - For pulse jet of air, a compressor capable of delivering compressed air of pressure 6-7 kg/cm² shall be provided. The air will be free of oil and moisture. Recommendation of manufacturer should be followed. <p>Fan Maintenance</p>

		- Shall be carried out as per the maintenance schedule.
5.	Is traffic study enough for one day to give representative image of the actual impact on traffic due to expansion of the industry. Clarify.	Yes, the traffic study of one day is enough to ascertain the LOS & performance of road w.r.t. to additional traffic due to expansion. The repetition of census operation is limited to trunk routes e.g. National Highways, State Highways and Major District Roads. Since, Ambey Majra road does not come under the provisions of trunk routes, one day traffic study as considered adequate has been conducted. (Ref.- IRC-9-1972 Scope)
6.	Details of CER activities be provided in compliance to the provisions of OM dated 01.05.2018.	As per item no. - 6 (iii) of OM dated 01.05.2018, the environmental issues have been addressed in EMP, the issue of employment to locals has been agreed by proponent. The details of other activities as per clause no. 6 (v) has been submitted.
7.	As per condition no.(vi) of Part E. Site Details, the project proponent was required to attach the photographs of the existing green belt and proposed green belt but the same has not been attached.	The photographs of the existing green belt have been submitted. The remaining area will be developed in due course. The total area under Green belt is 4691.6m ²
8.	List of industries falling within 10 km radius be provided as condition no. (viii) of Part E. Site Details.	List of Major Industries have been submitted.
9.	Details of Areas to be identified for disposal of slag as per condition no.(xiv) b) of Impact Assessment and EMP	The existing slag is being used for low lying area. But after expansion, the slag will be supplied to Brick manufacturing units or brick pavers or cement plants.
10.	Layout map shall be legible clearly indicating the utilities as per condition no. (v) of Part E. Site Details.	1. Storage Area- 111.48m ² 2. Plant Area- 14214 m ² 3. Green belt area- 4692m ² Layout Map has been submitted. The illegible portion of layout is elaborated separately.
11.	Action plan as per condition no. (ix) and (x) of Part H. impact Assessment and EMP be provided.	Green Belt At present, 25 trees are already there. The remaining area will be developed by planting trees of Jamun, Amla, Arjun, Scholar Tree, Champa & Mulberry species will be planted. Along the boundary of plot area, green belt of 4m will be developed and two rows, first 1.5m from wall and the other 2.5m from the 1 st row will be developed.

		<p>The distance between the two trees will be kept 3.0m.</p> <p>Rain Water Harvesting Average Annual Rainfall—0.690m Covered area- $4992.59 \times 0.69 \times 0.0690 = 3100.39 \text{m}^3$ Storage area - $3255.77 \times 0.90 \times 0.0690 = 2021.83 \text{m}^3$ Office block- $78.02 \times 0.80 \times 0.690 = 46.06 \text{m}^3$ Open area- $767.25 \times 0.080 \times 0.690 = 423.52 \text{m}^3$ Green area- $4691.60 \times 0.10 \times 0.690 = 323.72 \text{m}^3$ Total = $5915.52 \text{m}^3 = 5916 \text{m}^3$</p> <p>Therefore, the total water available for recharge per year will be 5916m^3.</p> <p>Maintenance:-</p> <ul style="list-style-type: none"> - The surface material will be removed during the dry season but well before the onset of rains - The mud cake will be periodically removed. - The bore well will be cleaned once in two years by mechanical means and pumping. - The roof tops contributing to RWH will be cleaned twice a year. - The filter media will be charged every rainy season.
12.	Scheme of treatment be provided as per condition no. iv of H. impact Assessment and EMP be provided.	<p>No additional waste water is generated from the manufacturing process. However, the domestic waste water will be treated in the proposed STP of 20KLD. The treated water shall be used for gardening and or Cooling tower make up. The schematic diagram of STP is</p> 
13.	Compliance of specific TORs be provided i.e. as to whether instruments were purchased and installed in the premises for continuous / real time monitoring data.	The instrument was purchased and installed within the premises for real time monitoring data. The results have been submitted.

The case was considered by the SEAC in its 180th meeting held on 10.05.2019, which was attended by the following: -

- Sh. Prince Chopra, Director, on behalf of promoter company
- Sh. Sital Singh EIA Co-ordinator cum CEO, M/s CPTL, Chandigarh, Environment consultant of the promoter company.
- Sh. R.S. Rana and Sh. Sandeep Singh (FAE), M/s CPTL, Chandigarh, 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: -

1) Introduction

- a) M/s Salasar Castings is already manufacturing Steel ingots etc. at Village-Mullanpur Kalan, Sirhind Side, Near Power House, Mandi Gobindgarh, District-Fatehgarh Sahib, Punjab having approved capacity of 29,400 TPA and has proposed to install three Induction furnaces having capacity 1X10 TPH and 2X15TPH each. The capacity of the unit after expansion will be 1,55,000TPA of Steel Ingots/Billets.
- b) Chandigarh Pollution Testing Laboratory (CPTL)-EIA Division was incorporated in 1997. The Registered office of CPTL is at Plot no. E-126, Industrial Area, Phase-7, Mohali, Punjab. NABET Accreditation: Certificate No. NABET/EIA/1619/SA 057 dated 16th January, 2018.

2) Project at Glance

Type of the Project	Steel Manufacturing Unit		
Finished product	Steel Ingots/Billets		
Raw material	MS Scrap & Ferro Alloys.		
Capacity (TPA)	EXISTING	PROPOSED	TOTAL
Steel Ingots/ Billets	(-) 29,400	(+) 1,55,000	1,55,000
Induction Furnace	1X7TPH (To be replaced)	1X10TPH 2X15TPH, Concast	1X10TPH 2X15TPH, Concast
Land area (m ²)	8090	6124	14,214
Cost of the project (Crores)	6.44	11.10	17.54
Source of Electricity	P.S.P.C.L.		
Total Load (KW)	Existing	Additional	Total
	4000	12,000	16,000
No. of Workers	Existing	Additional	Total

	70	150	220
Quantity of Water required	Existing (KLD)	Proposed (KLD)	Total (KLD)
Domestic	5.0	15.0	20.0
Cooling	6.0	24.0	30.0
Total	11.0	39.0	50.0
Source of water	Ground water (Existing Tube well)		

3) Project Approvals

APPROVAL/ PERMISSIONS	Details
CTO from PPCB	Consent to Operate has been obtained from PPCB under the Water (Prevention & Control of Pollution) Act, 1974 vide Letter No. CTOW/Varied/FGS/2019/8931790 dated 09.01.2019; valid till 31.03.2021 and the Air (Prevention & Control of Pollution) Act, 1981 vide Letter No. CTOA/varied/FGS/2019/8931805 dated 09.01.2019; valid till 31.03.2021.
Authorization for Hazardous Waste	Authorization for Hazardous waste has been obtained from PPCB vide Authorization No. HWM/Fresh/FGS/2017/5297915 dated 20.03.2017 and valid till 31.06.2021.
CGWA Approval	Application has been submitted vide application No. 21-4/4623/PB/IND/2018 dated 21.11.2018 and is in process.
Letter from DTP	Obtained from District Town Planner vide Memo No. 6398 dated 12.08.2009.
Certified compliance report from RO, PPCB	Obtained from PPCB, R.O Fatehgarh Sahib vide Letter No. 1472 dated 18.04.2019.

4) TOR compliance

- i) **Information about the project proponent**
 - M/s Salasar Castings is a Private firm. The current Directors of the company are Mr. Krishan Lal Chopra, Mr. Prince Chopra and Mr. Pardeep Kumar
 - All the promoters are well versed with the process involved & can handle the project efficiently.
- ii) **Benefits of project are given below:**
 - Economic upliftment of suppressed class.
 - Employment for the local people.
 - Infrastructure development of area.
 - To fulfill the demand – supply gap in the National market.
- iii) **Cost of the Project and time of completion.**
 - Cost of existing project: Rs. 6.44 Cr.

- Cost of proposed project: Rs. 11.10 Cr
 - Total cost of project after expansion: Rs. 17.54 Cr
 - Time of Completion: The proposed expansion will be completed within one year after grant of EC.
- iv) Additional land of area 6124.33 sq.m has been acquired for Green belt and Parking. Thus, total land of the project after expansion becomes 14,219.33 sq.m.
- v) List of raw materials required and their source along with mode of transportation.

Sr. No.	Description	Raw Materials	Quantity (in TPA)	Source	Mode
1.	Existing	MS Scrap, Ferro Alloys, Sponge Iron etc	(-) 32,634	Mostly from Local Market	By road through trucks No. of trucks required: 5 trucks per day
2.	After Expansion	MS Scrap, Ferro Alloys, Sponge Iron etc	(+) 1,72,050	Mostly from Local Market	By road through trucks No. of trucks required: 25 trucks per day

- vi) Other chemicals and materials required with quantities and storage capacities.
- No chemicals are used in the manufacturing process. However, analytical grade chemicals/reagents are required in small quantities in the laboratory for quality control. These chemicals don't require much storage are except a small almirah beneath the working table.

Sr.No.	Particulars	Quantity which can be stored	No. of Days for storage
1.	Raw material	3500-4000	8-10
2.	Products	2500	5-7
3.	Slag	75 ton	2-3
4.	APCD Dust	200kg/day	1 month

- vii) Details of Emission, effluents, hazardous waste generation and their management.

Sr. No.	Source	Capacity	Chimney Height (m)	APCD
Existing				
1.	Induction Furnace	1 * 7 TPH	22 m	Side suction Hood followed by Wet Scrubber
2.	DG sets	125 KVA	2.5 m	

After Expansion				
3.	Induction Furnace	1 * 10 TPH	22 m each	Side suction Hood followed by Bag Filter
		2 * 15 TPH		
4.	DG sets	125 KVA	2.5 m	

viii) Effluents

Sr. No	Details	Existing	After Expansion	Remarks
1.	Industrial Effluent	Nil	Nil	No industrial effluent generated
2.	Domestic Effluent	4 KLD	16 KLD	Wastewater generated from the project is being treated in the STP installed having capacity 20 KLD. After expansion, STP will be sufficient to cater load.

ix) Hazardous Waste

Sr. No.	Hazardous Waste Category	Existing	After Expansion	Disposal
1.	35.1 – Gas cleaning Residue	3.0 T/Annum	7.0 T/Annum	Sold to M/s Madhav alloys for metal recovery.
2.	5.1 – Used Oil	0.02 KL per annum	0.04 KL per annum	Authorized Recyclers/ Lubricant within the Industry

x) Water requirement:

- Source: Ground water
- Total water requirement: 50 KLD.
- Application to CGWA for ground water abstraction is applied

Sr. No.	Description	Existing (KLD)	Proposed (KLD)	After expansion (KLD)
1.	Domestic Water Demand	5	15	20
2.	Cooling Water Demand	6	24	30
Total Water Demand		11	39	50

- xi) Power with source of supply: Punjab State Power Corporation Limited (PSPCL)
- Existing Power Demand: 4000 KVA
 - Proposed Demand: 12000 KVA
 - Total: 16000 KVA
 - Manpower requirements:
 - Existing manpower: 70;
 - Proposed manpower: 150;
 - Total manpower after expansion: 220

xii) List of machinery

Sr. No.	Equipments / Machinery	Existing	Proposed	After Expansion
1.	Induction Furnaces	1 x 7 TPH (To be replaced)	1 x 10 TPH & 2 * 15 TPH	3 No.'s -1 x10 TPH & 2 x 15 TPH
2.	LRF	----	01 No.	01 No.
3.	Concast Machine	----	01 No.	01 No.
4.	EOT Cranes	1	1	02
5.	D.G sets	125 KVA	125 KVA	02 No.- 125 KVA each

xiii) Hazard identification and details of proposed safety systems / Risks involved in the furnace are:

Risk	Causes	Mitigation Measures
Steam Explosions	<ul style="list-style-type: none"> ➤ Moisture containing MS Scrap, alloys ➤ Heavily oxidized or rusted materials 	<ul style="list-style-type: none"> ➤ Moisture free usage of raw materials ➤ Preheating of raw materials ➤ Use of moisture free Alloys
Chemical Explosions	<ul style="list-style-type: none"> ➤ Presence of chemicals or explosive substances in the metal scrap ➤ Accidental mixing of oxidizing substances, like paints and varnishes, oil containing scrap. 	<ul style="list-style-type: none"> ➤ Effective raw material segregation and storage ➤ Using safe raw material

Fire breakouts	<ul style="list-style-type: none"> ➤ Sparking in electrical substations or cable networks ➤ Accidental ignition of oil in equipment such as transformers ➤ Infiltration of water, failure of core insulation, or exterior fault currents 	<ul style="list-style-type: none"> ➤ Taking care while designing the electrical substation ➤ Transformers shall be located away from other buildings
Noise	<ul style="list-style-type: none"> ➤ Due to noise from machinery 	<ul style="list-style-type: none"> ➤ Proper protective measures will be provided to workers.
Mechanical Hazards	<ul style="list-style-type: none"> ➤ Accidental fall of heavy equipment 	<ul style="list-style-type: none"> ➤ Personal Protective Equipment for the workers shall be provided to avoid the accidents. ➤ Proper training for the employees to use the equipment properly.
Heat Stress Heat stroke Discomfort Rashes	<ul style="list-style-type: none"> ➤ Heat from furnace ➤ Seasonal factors including high air temperature and relative humidity, or low air movement ➤ Excessive or unsafe clothing 	<ul style="list-style-type: none"> ➤ Shielding radiant heat emissions from plant ➤ Installing spot coolers, blowers, fans or air-conditioning to relieve heat and circulation of air ➤ Using ventilation to draw in cooler air ➤ Automating tasks where practicable ➤ Providing respite areas for workers
Burns Damage of skin	<ul style="list-style-type: none"> ➤ Touching hot surfaces ➤ Splashing of molten metal 	<ul style="list-style-type: none"> ➤ Separating workers not directly involved in casting operation from the casting area ➤ Automating machinery to minimize risks ➤ Designing and controlling processes to prevent unexpected reactions occurring ➤ Providing protective barriers to prevent exposure to heat and splashes ➤ Providing task-specific PPE

<p>Electrocution May cause serious burn injuries or can be fatal</p>	<ul style="list-style-type: none"> ➤ Exposure to electricity ➤ 'flashover" or 'arc' can electrocute when close to a line conductor without any actual contact. ➤ Excessive sweating ➤ Strong electromagnetic fields which can be hazardous to people with heart pacemakers or other medical implants. 	<ul style="list-style-type: none"> ➤ The sources of electrical risk eliminated ➤ The machinery shall be de-energized before maintenance starts ➤ The safety switches shall be installed and tested regularly ➤ The damaged coils shall be replaced before the operation of the furnace. ➤ The workers shall be provided task-specific protective clothing in the industry.
---	---	---

- xiv) The application for the permission from CGWA for abstraction of ground water has been submitted.
- xv) Separate Suction Hoods shall be provided with Ladle Furnace and the Vacuum Degasser and the same will be routed to Bag Filter House.
- xvi) With the increase in manpower the existing Septic Tank will be dispensed with and the waste water will be treated through STP of 20 KLD capacity within the premises.
- xvii) The project site covered under Toposheet No. 53B/2 & 53 B/6; Scale 1: 50,000 covering 10 km of the study area.
- xviii) Co-ordinates of all five corners of the project location are:
A: 30°37'43.59"N and 76°18'56.12"E B: 30°37'43.88"N and 76°19'01.60"E C: 30°37'40.15"N and 76°19'03.51"E D: 30°37'39.79"N and 76°18'58.52"E
- xix) Google Earth Image showing project location and its surroundings within 500 m has been shown.
- xx) Layout showing existing and proposed features have been shown. Project is located within the industrial zone.
- xxi) The general Geological features and Geo-hydrological status of the study area is given below:
 - Sub surface geological formation comprises of fine to coarse grained sand, silt, clay & kankar.
 - Soils in the area are sandy loam at the surface.
 - Sub surface geological formation shows the existence of top layer of 10-15m of clay, kankar with sand lenses. This layer is followed by granular zones of 20 to 30m in thickness. At a depth of 90 to 120m another clay bed of 25 to 30m in thickness exists.

- Depth to water level ranges between 10-20m bgl. The ground water flows from North East to South West direction.
 - Total thickness of alluvium is expected to be more than 550m as bed rock has not been encountered upto that depth.
- xxii) There is no major river situated within 1 km of site. Drainage map of the study area is provided in next slide.
- xxiii) The existing area of the project is 8090 sq.m However, in addition to this, area of 6129 sq.m has been acquired.
- xxiv) The project doesn't involve any displacement of population and subsequent Rehabilitation & Resettlement.
- xxv) No forest land is involved, hence no forest clearance required.
- xxvi) The project site is located in sub -tropical region characterized by four seasons:
- Winter: November to February
 - Summer: March to June
 - Monsoon: July to Mid September
 - Post Monsoon: Mid September to Mid November
 - May & June are the hottest months, daily maximum & minimum temperature in the region 38.6°C& 23.1°C respectively. December & January are the coldest months with maximum & minimum temperature 20.4°C & 6.1°C respectively
 - The annual average rainfall in the region is 654 mm
 - The maximum-minimum temperature at site are observed as 36.3°C & 10.2°C
 - The RH(%) at site varies from 42 to 88
 - The maximum/minimum wind speed at site is 18 & 0 m/sec
 - The dominant wind direction at site is observed as NW-SE.
- xxvii) Monitoring has been done as per CPCB guidelines.
- P-98 of PM₁₀ is 90.10µg/m³ and is well within the NAAQ standards of 100µg/m³.
 - P-98 of PM_{2.5} is 47.00µg/m³ which is well within the NAAQ standards.
 - The levels of SO₂ are much below the desired limits of 80µg/m³ P98 is 15.9µg/m³.
 - The levels of NO_x are also below the desired limits of 80µg/m³ P98 is 45.2µg/m³.
 - The levels of CO are also below the desired limits of 4.0mg/m³ P98 is 0.65mg/m³.
 - The overall AQI w.r.t. criteria pollutant for all the stations lies between (51-100) which is satisfactory.

- xxviii) Pavanaarekh has been used to plot Wind Rose Diagram. The wind rose diagram shows the predominant winds are mainly flowing from North- West to South-East.
- xxix) The maximum contribution in GLC's, with units operation are $0.28\mu\text{g}/\text{m}^3$ for PM10 at 707 m NW [315°] direction from stack.
- xxx) The site does not fall near to polluted stretch of river identified by the CPCB/ MoEF & CC. One surface water body has been tested from nearby Bhakra Canal. Results of Bhakra Canal shows that BOD is $<10 \text{ mg/l}$ & pH is nearly 7. Other parameters like Magnesium, Chloride and Sulphate are also present, but in less quantity.
- xxxii) Ground water quality has been measured at 8 locations. All the above parameters at the various locations in the study area are within permissible and tolerable limits for drinking purpose. The underground water in the area satisfy the drinking water standards w.r.t the tested parameters. In the study area since the samples have been collected from different sites at isolated places, the level of concentration of different elements vary quite considerably which may be due to small aquifers. However, the levels of the various constituents are within permissible norms for drinking water. The parameters of surface water are also within permissible norms for drinking water except e-coli. So, it is not potable but can be useful for other purposes.
- xxxiii) Noise level monitoring has been measured at 8 locations Highest noise level was observed at project location.
- xxxiiii) Soil Samples have been collected from 8 locations and the texture of the soil is sandy loam having light brown to dark brown colour.
- xxxv) Adequate parking for 25 trucks has been provided within the project premises. Traffic study has been conducted on 2 points. Detailed traffic study is shown and increase in traffic due to proposed project shall be taken care by acquiring additional land. Traffic study measurement was performed at two points: Ambey Majra- Mullanpur Kalan Road near Suvida Kendra as well as Ambey Majra-Mullanpur Kalan Road (road turn between Suvida Kendra & M/s Salasar Castings to assess the impact on local transport infrastructure due to the expansion of the project M/s Salasar Castings located at Village-Mullanpur Kalan, Sirhind Side, Near Power House Mandi Gobindgarh, District- Fatehgarh Sahib, Punjab. The project is connected to NH-1 (Ambala-Gobindgarh-Ludhiana).Traffic study was done for three days.
- Point 'A'- Ambey Majra-Mullanpur Kalan Road (near Suvida Kendra)
 - Point 'B'- Ambey Majra-Mullanpur Kalan Road (road turn between Suvida Kendra & M/s Salasar Castings)
 - From the traffic analysis, it has been observed that due to additional transportation of raw materials & products, the LOS will be insignificantly affected as the LOS on the studied stretch of road will remain the same.
 - However, this stretch of road has structurally failed and is full of pot holes throughout its entire length and breath, a problem to be addressed by the concerned authorities.
- xxxvi) Parking Area Details

- Parking Area = 538.83 m²
 - No. of trucks which can be parked inside the premises = $538.83 / 37.5 = 14.3$
 - Trucks per hour = $14.3 / 8 = 1.7$ trucks say 2 Trucks
- xxxvi) There is no reserve or protected forest in the area and vegetation is restricted along road side and other open areas only. The vegetation in the area is mixed type and in the canal banks and gullies, the vegetation is evergreen and semi-evergreen type. No rare & endangered plant species were observed.
- xxxvii) The salient observations recorded during socio economic survey in the study areas are depicted below:
- Livelihood of the villagers is primarily based on agriculture sector. Majority of main workforce are engaged as cultivators or agriculture labourers.
 - Most of the villages have Primary School (PS) while in some villages it is extended up to Middle School (MS). For higher education reputed educational institutes are available in 20- 25 km stretch of project area.
 - The main source of drinking water supply is through hand pumps and bore wells in addition to the Government water supply.
 - The Government medical facilities in the form of primary health sub- center and private medical practitioners are available in the villages. Villagers expressed satisfactory opinion regarding the facilities are available at the center. ANM (Auxiliary Nurse Midwife) frequently visits all the villages and regular vaccination and health checkups camps are organized by the health center.
 - Two wheelers, auto rickshaws & bus facility are the main mode of transportation used by natives in the study area.
 - Power supply was available in all the villages in study area. Street lights are also available in all villages but frequent power cut/ load shedding problem is experienced by the people in the area LPG is a major fuel used for cooking purpose. Post office and banking facilities are available in the study area.
 - Majority of surveyed population opened positively regarding the proposed project as most of the local population will be given preference in employment and the activity will help in development.
 - The people were optimistic about the employment opportunity in Government sector and other welfare schemes to be implemented by the state Government.
 - There was complete communal harmony and none reported violation of human rights.
 - The agricultural operations in the study area were mostly mechanized. No migrant labour is employed.
- xxxviii) For predicting the impacts of proposed expansion, the contribution to the existing air quality from the ongoing operation of industry has been taken into account by

monitoring the stack emission. Post expansion forecasting has been done using the AERMOD view & the local meteorology to ensure the compliance of the air quality standards. Based on the perusal of modeling results, it is seen that the resultant PM10 concentration after the implementation of project will be 90.88µg/m³ at 707m (NW) from project site. Due to the implementation of adequate & appropriate control measures like pollution control devices, tree plantation & dust suppression, and the adverse impacts are likely to be insignificant.

- xxxix) As 25 trucks @ 20 ton/truck will be used daily for the transportation of RM, finished products & slag. Based on the traffic stud, this increase will not affect the existing carrying capacity of concerned road and the LOS.
- xl) No waste water is generated from the industrial operations. However, 16 KLD domestic waste water will be treated is 20 KLD STP and used in landscaping and plantation.
- xli) Action Plan for Emission Control
Specific Measures:
- The I.F's shall be provided with APCS comprising side suction hood, spark arrestor, bag filter & ID fan will be provided.
 - The APCS will be operated and monitored as per SOP prescribed by the board.
 - Dispersal of gases & particulate through adequate stack height.
 - Fugitive emission during process operation will be controlled by ventilation system.
 - Heat dissipation in work zone will be effected by exhaust ventilation
- General Mitigation Measures:
- Regular sweeping and sprinkling of roads.
 - Speed level for vehicles.
 - Unnecessary blowing of horns and idling of vehicles will be prohibited.
 - Vehicles meeting the vehicular emission norms will be employed.
 - All internal roads are paved.
- xlii) For fugitive emissions during furnace charging side suction hood have been provided. Fugitive emission like smoke, gas and heat around the furnace will be taken care of by proper exhaust ventilation.
- xliii) After expansion, there will be three induction furnaces of 1*10 TPH & 2*15 TPH capacity in addition to existing Induction Furnace of capacity 7 TPH. Thus, slag will be generated after expansion @ 24.5TPD (approx.5.0%). Agreement has been done with M/s. Madhav Alloys Pvt. Ltd. regarding the Hazardous Waste Offtake.

Hazardous Waste Category	Existing	After Expansion	Disposal
35.1 – Exhaust air or Gas cleaning Residue	3.0 T/Annum	7.0 T/Annum	To M/s Madhav alloys pvt. Ltd. for metal recovery
5.1 – Used Oil	0.02 KL per annum	0.04KL per annum	Authorized Recyclers/Lubricant within the Industry

xliv) No fly ash is either generated in the unit no it will be generated after expansion. However, during construction, wherever required fly ash based cement and other products such as blocks, pavers, bricks & tiles will be used.

xlv) Green area has been kept to maximum extent i.e. approx. 4693.33 sq. m (i.e. 33%) within the project premises.

xlvi) 50 trees are approx. provided within the industry premises such as Neem, Guava, Ashoka trees etc. In addition to this, 200 trees like Jamun, Amla, Arjun, Scholar tree, Champa & Mulberry species will be planted.

xlvii) Average Annual Rainfall—0.690m

Covered area	- 4992.59×0.69×0.0690	=3100.39m ³
Storage area	- 3255.77×0.90×0.0690	= 2021.83m ³
Office block	- 78.02×0.80×0.690	= 46.06 m ³
Open area	- 767.25 × 0.080×0.690	= 423.52m ³
Green area	- 4691.60 × 0.10×0.690	= 323.72 m ³
Total	= 5915.52m³	= 5916 m³

Therefore, the total water available for recharge per year will be 5916 m³

xlviii) Details of the amount to be spent on EMP after expansion is given below:

Sr. No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1.	Pollution Control during construction stage	5.0	---
2.	Air Pollution Control (Installation of APCD)	35.0	5.0
3.	Water Pollution Control/ septic tank upgradation	10.0	0.5
4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	5.0	2.5
5.	Solid Waste Management	5.0	0.5
6.	Environment Monitoring and Management	5.0	0.5

7.	Occupational Health, Safety and Risk Management	5.0	0.5
8.	RWH	5.0	0.5
9.	Miscellaneous	5.0	---
Total		80.0	10.0

- xlix) Around 24.5Ton slag will get generate daily which contains 60% iron. The slag will be grinded and the iron recovered magnetically will be recycled. Presently, slag is being disposed off in low lying areas within the premises. However, with coming into being of proposed expansion, the same shall be utilized in making cement concrete blocks, pavers & tiles by supplying the same to such facility under proper MOU/agreement.
- l) An amount of Rs. 5.0 lacs have been provided for the occupational health & safety of workers. This includes Routine health check-up of workers which is being carried out at Nirmal Hospital. The medical histories of all the employees will be maintained in a standard format.
Frequency of Periodical Examination will be done as per below:
For employees <30 Years, once in five years
Between 31-50 Years, once in four years
Between 41-50 Years, once in two years
Above >50 years once a year
- li) The industry has well defined Environmental policy and the same is executed by EMC. The main objections of policy are:
- Waste minimization, recycling, energy conservation and use of alternative material which are practicable and cost effective.
 - Training, education and information to employees.
 - Compliance of provisions of applicable environmental laws.
- lii) Environment Management Cell will be responsible to deal with all the environmental issues:
- liii) Representative of Management (Head of Environment Cell).
- a) Process In-charge
 - b) In-charge Maintenance Department
 - c) A representative of Environmental Consultants
- liv) Environment Management Cell will be responsible for all Environment related activities.

lv) Workers, casual labour and truck drivers have already been provided basic amenities like toilets, drinking water, canteen and the restroom/change room and the same will be available for construction workers.

lvi) An amount of Rs. 11.0 Lakhs has been earmarked for CER. The details of the activities proposed to be covered under CER are given on next slide.

Sr.No.	Name of Village	Activity	Environmental Aspects	Cost (Rs. Lac)	*Tentative Date of Start	Date of Completion
1.	Mullanpur Kalan	Providing Solar Lights (20 Nos)	Energy Saving	2.50	October, 2019	November, 2019
2.	Wazir Nagar	Construction of drains along the village streets	Sanitation	3.0	November, 2019	February, 2019
3.	Govt. School Dadheri	Construction of RWH Structure	Water Conservation	1.50	September, 2019	October, 2019
4.	Common land of Village Mughal Majra	Tree plantation	Aesthetic and Improvement of Environment	1.0	July, 2019	August, 2019
5.	Village Salani, Chatarpura, Harbanspur & Malakpur	Awareness Campaign regarding Soil Moisture Conservation & Crop Yield, Free of cost distribution of Bio-Fertilizers	Soil Conservation	3.0	October, 2019	To be continued for three years

lvii) As per layout plan, the area details are as under: -

DESCRIPTION	AREA (m ²)	%
Total Plot area	14219.33	--

Shed Covd. Area	3094.79	21.76
Stores/Lab./Meter RM./Check Rm./ etc Covd. Area	100.65	0.70
Plantation Area	4693.30	33.00
Road/Passage Area	2276.95	16.01
Transporting Area	539.03	3.79
Open Space, Grid & Other Area	1759.01	12.37
Proposed Shed	1570.63	10.20
Proposed Office Covd. Area	184.94	1.30
Shed Covered area		
Total Shed covered Area	4665.42	--
Raw(Scrap) material area	2409.38	
Finished Good area	724.90	
Slag Storage area	111.52	
Hazardous waste storage area	18.58	
Working area/Furnace room/CCM plant, Passage & other shed area	1419.60	

lviii) The existing unit is disposing APCD dust to TSDF at DeraBassi. However, in future the same shall be supplied to M/s Madhav Alloys for recovery of Zinc. The used oil is partly used as lubricant within the industry & the balance sold to authorized recyclers.

lix) Detail on requirement of raw materials is given as:

Raw Material	Existing (TPA)	Proposed (TPA)	Source	Mode of transportation
MS Scrap, Ferro Alloys, Sponge Iron	(-) 32,634	(+) 1,72,050	Mainly local market	By road in covered trucks

lx) As per CPCB slag is not a hazardous waste. It will be used in the manufacturing of cement, concrete blocks, pavers & tiles under proper MOU/Agreement.

lxi) Action Plan to address the issues raised in the Public Hearing:

Sr. No.	Action Plan

1.	The industry is in the process of making a contract with a reputed firm for the installation of dedicated APCS comprising a swiveling hood, spark arrestor, bag filter, ID Fan & stack of adequate height as per design approved by Punjab State Council for Science & Technology. The same will be operated and maintained as per PPCB will be operational with the coming into being of proposed expansion. A secondary fume extraction system with adequate side suction will be operational a/w the APCS for the prevention of fugitive emissions during charging of IF.
2.	The corporate responsibility towards village- Mullanpur Kalan for constructing one room in primary school and one side of boundary wall of High School will be fulfilled within very first year of grant of EC.
3.	<p>The issue regarding air pollution will be addressed as per query no. 1: The industry is well aware of its responsibility for water conservation for which the entire C.W will be recirculated. Also the C.T will be operated at higher cycle of concentration. The domestic waste will be treated in STP of 20 KLD capacity. The treated waste water will be used for plantation within the industry of which 4691.60 sq.m has been earmarked. The issue regarding the condition of approach road has been taken up with Distt. Administration by the concerned industries.</p> <p>As regards employment most of the employees already working in the unit are from the surrounding villages. The manpower requirement for expansion will also be met from the nearby villages except for experts who may be requested from outside. The recruitment will be made in line with the stages of execution and in all it will be completed with the commissioning of project.</p>

- lxii) Common monitoring was carried out in the buffer zone and separate monitoring was carried out in the core zone for the purpose of collecting baseline data to prepare EIA report of both the industries M/s Salasar Castings, Village-Mullanpur Kalan, Tehsil-Sirhind, District-Fatehgarh Sahib, Punjab & M/s Bhawani Castings Pvt. Ltd., Village Ambey Majra, Tehsil-Sirhind, District Fatehgarh Sahib, Punjab.

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

Observation 1)	The industry has proposed to add additional land to accommodate 33% green belt. As to whether this additional land also conforms to the provision of Master Plan.
Reply 1)	The change of land use has been given by the DTP, Fatehgarh Sahib vide letter no. 6398 dated 12.08.2009 for an area@2.087 acre having khasra nos. 346/322/1 falling in the village Mullanpur Kalan, Tehsil & Distt. Fatehgarh Sahib for industrial purposes. As per the provision of master plan, whole of the land including newly proposed part for green belt falls in the industrial zone.
Observation 2)	Proposed CER activities are not in line with the OM dated 01.05.2018.

Reply 2)	<p>The project proponent submitted the revise CER activities along with amount to be spent, as under:</p> <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Name of Village</th> <th>Activity</th> <th>Environmental Aspects</th> <th>Cost (Rs. Lac)</th> <th>*Tentative Date of Start</th> <th>Date of Completion</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Mullanpur Kalan</td> <td>Providing Solar Lights (30 Nos)</td> <td>Energy Saving</td> <td>3.60</td> <td>November, 2019</td> <td>December, 2019</td> </tr> <tr> <td>2.</td> <td>Wazir Nagar</td> <td>Construction of drains along the village streets</td> <td>Sanitation & Health</td> <td>3.0</td> <td>January 2020</td> <td>April, 2020</td> </tr> <tr> <td>3.</td> <td>Common land of Village Mughal Majra</td> <td>Tree plantation</td> <td>Aesthetic and Improvement of Environment</td> <td>1.0</td> <td>July, 2019</td> <td>September, 2019</td> </tr> <tr> <td>4.</td> <td>Civil Hospital, Mandi Gobindgarh</td> <td>Providing beds (03 nos)</td> <td>Health</td> <td>3.40</td> <td>April 2020</td> <td>-</td> </tr> <tr> <td colspan="4">Total</td> <td colspan="3">Rs.11.0</td> </tr> </tbody> </table>	Sr. No	Name of Village	Activity	Environmental Aspects	Cost (Rs. Lac)	*Tentative Date of Start	Date of Completion	1.	Mullanpur Kalan	Providing Solar Lights (30 Nos)	Energy Saving	3.60	November, 2019	December, 2019	2.	Wazir Nagar	Construction of drains along the village streets	Sanitation & Health	3.0	January 2020	April, 2020	3.	Common land of Village Mughal Majra	Tree plantation	Aesthetic and Improvement of Environment	1.0	July, 2019	September, 2019	4.	Civil Hospital, Mandi Gobindgarh	Providing beds (03 nos)	Health	3.40	April 2020	-	Total				Rs.11.0		
Sr. No	Name of Village	Activity	Environmental Aspects	Cost (Rs. Lac)	*Tentative Date of Start	Date of Completion																																					
1.	Mullanpur Kalan	Providing Solar Lights (30 Nos)	Energy Saving	3.60	November, 2019	December, 2019																																					
2.	Wazir Nagar	Construction of drains along the village streets	Sanitation & Health	3.0	January 2020	April, 2020																																					
3.	Common land of Village Mughal Majra	Tree plantation	Aesthetic and Improvement of Environment	1.0	July, 2019	September, 2019																																					
4.	Civil Hospital, Mandi Gobindgarh	Providing beds (03 nos)	Health	3.40	April 2020	-																																					
Total				Rs.11.0																																							
Observation 3)	The industry has to provide the detail of the activities to be undertaken as per the commitment made during public hearing.																																										
Reply 3)	The industry has made commitment of Rs 2.0 lacs during Public Hearing and has spent an amount of Rs 2.02 lacs (cheque no. 880621 dated 10.11.2018 amounting to Rs. 1,41,000/- and cheque no. 437731 dated 10.12.2018 Rs.61,000/- handover to the school) for the construction of classrooms and toilet in the Govt. Elementary School Mullanpur Kalan as committed during public hearing.																																										
Observation 4)	Details of water balance incorporating the blow down water be submitted.																																										
Reply 4)	<p>The industry submitted the details of revised water balance as under: -</p> <ul style="list-style-type: none"> i) Fresh water Requirement is 50 KLD which includes domestic requirement @20 KLD and cooling requirement @ 30 KLD. ii) Cooling tower requirement is 100 KLD out of which recirculated water is 70 KLD and make up water is 30 KLD iii) Total waste water generation is 16.7 KLD which includes 16 KLD from domestic and 0.7 KLD blow down from cooling of furnace. iv) STP of 20 KLD capacity shall be installed to treat the waste water and same shall be utilised for green belt. 																																										
Observation 5)	Whether existing APCD has been upgraded as per the design of PSCST, Chandigarh?																																										

Reply 5)	The industry submitted a certificate issued by PSCST, Chandigarh vide no. 684 dated 25.10.2018 wherein it has been mentioned that M/s Salasar Castings Vill. Mullanpur Kalan, Sirhind side, Mandi Gobindgarh, District Fatehgarh Sahib has installed APCD in form of Pulsejet bag filter (offline cleaning) for induction furnace having capacity up to 7 T/heat as per the Technology provided by PSCST. Further, the industry is advised to follow SOP as laid by PPCB to achieve prescribed emission norms.
Observation 6)	For how many days, traffic study has been carried out?
Reply 6)	Traffic study have been carried out for three days and details have already been mentioned in the presentation as there is very less traffic on the roads as dedicated parking has been proposed to be provided for the trucks within premises, therefore, no significant impact on the roads leading to industry will be there.
Observation 7)	a) Whether permission to abstract groundwater for industrial use has been obtained from CGWA. b) In case, no permission will be granted by CGWA for expansion project, what will be the alternate plan to fulfil the additional water requirement.
Reply 7)	a) The application for obtaining permission to abstract groundwater for industrial use has been submitted online to CGWA and the same is under process. b) The industry will utilize alternative sources like treated city sewage effluent or surface water for full filling the requirements of expansion project.
Observation 8)	a) Green belt area as been proposed on the three sides of the industry whereas in compliance to TOR condition, the industry has to provide green belt all along the periphery of the plant. As such, revised lay out plan by incorporating the green belt along the periphery be submitted. b) Clarify the difference in area at the time of obtaining Terms of Reference and submission of EIA report. c) Is Parking space adequate in the premises after expansion.
Reply 8)	a) The industry submitted that being existing industrial unit, it is not possible to develop green belt all along the periphery of the plant. However, revised layout plan showing green belt area to be developed along the periphery to the maximum extent has been prepared and a copy of same has been submitted. Further, there was land adjoining to the industry and owned by the promoter industry. The industry will consult his architect & process engineer to remove the unproductive construction built along the boundary wall so as to accommodate the green belt along whole of the boundary wherever possible to the maximum extent. b) The difference in area is due to the reason that the industry was not aware of the fact at the time of obtaining TOR that 33% green belt area is to be developed. As such, to fulfil the condition, they have proposed to develop green belt in their adjoining land. Due to which difference has arisen in the area. On adjoining land, only green belt shall be developed and it shall not be used for any other purpose.

	<p>c) The parking area@622.95 m² inside the premises is sufficient for parking of 16 trucks considering area covered by each truck @37.5 m². An undertaking has been submitted in the matter.</p> <p>Further, the area details after revising the plan is given below:</p> <table border="1"> <thead> <tr> <th>Sr.no.</th> <th>DESCRIPTION</th> <th>AREA (m²)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Total Plot area</td> <td>14219.33</td> </tr> <tr> <td>2.</td> <td>Shed Covered. Area</td> <td>3094.79</td> </tr> <tr> <td>3.</td> <td>Stores/Lab./Meter RM./Check Room/ Covered. Area</td> <td>100.65</td> </tr> <tr> <td>4.</td> <td>Plantation Area</td> <td>5138.768</td> </tr> <tr> <td>5.</td> <td>Road/Passage Area</td> <td>2276.95</td> </tr> <tr> <td>6.</td> <td>Transporting Area / Parking Area</td> <td>622.95</td> </tr> <tr> <td>7.</td> <td>Open Space, Grid & Other Area</td> <td>1336.52</td> </tr> <tr> <td>8.</td> <td>Proposed Shed</td> <td>1570.63</td> </tr> <tr> <td>9.</td> <td>Proposed Office Covered. Area</td> <td>78.06</td> </tr> </tbody> </table>	Sr.no.	DESCRIPTION	AREA (m ²)	1.	Total Plot area	14219.33	2.	Shed Covered. Area	3094.79	3.	Stores/Lab./Meter RM./Check Room/ Covered. Area	100.65	4.	Plantation Area	5138.768	5.	Road/Passage Area	2276.95	6.	Transporting Area / Parking Area	622.95	7.	Open Space, Grid & Other Area	1336.52	8.	Proposed Shed	1570.63	9.	Proposed Office Covered. Area	78.06
Sr.no.	DESCRIPTION	AREA (m ²)																													
1.	Total Plot area	14219.33																													
2.	Shed Covered. Area	3094.79																													
3.	Stores/Lab./Meter RM./Check Room/ Covered. Area	100.65																													
4.	Plantation Area	5138.768																													
5.	Road/Passage Area	2276.95																													
6.	Transporting Area / Parking Area	622.95																													
7.	Open Space, Grid & Other Area	1336.52																													
8.	Proposed Shed	1570.63																													
9.	Proposed Office Covered. Area	78.06																													
Observation 9)	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 9)	<p>Consultant presented the detail of expected roof top rain water contribution (2690 cum), green area contribution (403 cum) and waste water contribution (552 cum). He added that the total contribution will be of 3645 cum and this is 175% of total underground water withdrawal.</p> <p>The industry may make additional provision for filtration system before entering of rain water into the recharging pit to avoid the underground water contamination. However, SEAC member were of the view that this area is predominantly of steel industries and roof top may contain various metallic constituents, air born from the process activity as well as from the stacks of various industries. Therefore, it is risky to allow recharging of underground strata. The 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 twice to rainwater recharging requirement. To this, the project proponent proposed to adopt a nearby village pond to meet with the annual recharge.</p>																														
Observation 10	Existing hazardous waste generation is mentioned as 3.0 TPA from 7 TPA induction furnace whereas in the proposed project, only 7.0 TPA of hazardous waste is projected from 40 TPA induction furnaces.																														
Reply 10.	As the melting capacity will increase, we can go for bulk purchase of good quality scrap. Further, all the 03 furnaces may not be operative simultaneously. However, the quantities may be read as 17 TPA which were wrongly mentioned as 7.0 TPA due to typographically error.																														
Observation 11)	Whether the stack of height 22 m is sufficient with the APCD. Further, what kind of APCD shall be provided with induction furnace and LRF and as to																														

	whether common stack shall be provided or separate stack shall be provided with the induction furnace and LRF.
Reply 11)	Common Stack of height 30 m shall be provided with induction furnace and LRF. Common APCD i.e. Bag filter shall be provided with induction furnace as well as LRF but with separate suction system.

SEAC took the reply and copy of presentation on record.

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 expansion of unit in the existing premises located in the revenue estate of Amloh Road, Village Mullanpur Kalan, Tehsil- Sirhind, District- 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 and conditions:

1	Name and Location of the project	M/s Salasar Castings, Village- Mullanpur Kalan, Tehsil- Sirhind, District- Fatehgarh Sahib		
2.	Nature of project (Fresh/Expansion Amendment/Others)	Expansion project		
2.	a) Category b) Activity (as per schedule appended to EIA Notification, 2006 as amended time to time.)	a) B-1 b) 3(a) Metallurgical Industries (Ferrous & Non Ferrous Alloys).		
3.	Area Details			
	Details	Existing	Additional Land	After Expansion
	Plot Area	8090 Sqm (2.087 acre)	6124 sqm land for green belt adjoining to the existing unit	14214 sqm
4.	Co-ordinates of the project site	A: 30°37'43.59"N and 76°18'56.12"E B: 30°37'43.88"N and 76°19'01.60"E C: 30°37'40.15"N and 76°19'03.51"E D: 30°37'39.79"N and 76°18'58.52"E		
5.	Total Project Cost (After expansion)	Rs. 17.54 Crores		
6.	Raw Material requirement (After expansion)	Scrap & Ferro Alloys @172050 TPA		

7.	Production Capacity (After expansion)	Steel Ingots/ Billets@1,55,000 TPA			
8	Details of major productive machinery/plant (After expansion)	(i) 3 Nos Induction furnaces (1 x 10 TPH, 2 x 15 TPH each) (ii) 1 Nos Continuous Casting Machine (CCM) (iii) 1 Nos Laddle Refining furnace Note : -Existing induction furnace of 7.0 TPH shall be removed after installation of new furnaces			
9.	Manpower(After expansion)	220persons			
10.	Water Requirements & its source(After expansion)	Total Water Demand:50 KLD i) Domestic: 20 KLD ii) Cooling: 30 KLD 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	
	i)	Industrial Effluent	Nil	No industrial effluent generated	
	ii)	Domestic Effluent.	16 KLD	Wastewater generated from the project will be treated in the STP of capacity 20 KLD and same shall be utilized onto green area of 4691.60 sqm 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	1 x 10 TPH and 2 x 15 TPH each	30 m each	Side suction Hood followed by Bag Filter
	ii)	DG sets	125 KVA	2.5 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	17 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	0.04KL 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	24.5 TPD	Shall be reprocessed through M/s Vohra Industries for manufacturing of building material like cement tiles, block, brick etc.
15.	Energy Requirements (After expansion)	i) Power load 16000 KW through PSPCL. ii) Single silent DG set of capacity 125 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	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1.	Pollution Control during construction stage	5.0	---
2.	Air Pollution Control (Installation of APCD)	35.0	5.0
3.	Water Pollution Control / septic tank upgradation	10.0	0.5
4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	5.0	2.5
5.	Solid Waste Management	5.0	0.5
6.	Environment Monitoring and Management	5.0	0.5
7.	Occupational Health, Safety and Risk Management	5.0	0.5
8.	RWH	5.0	0.5
9.	Miscellaneous	5.0	---
	Total	80.0	10.0

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.
- 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 proponent shall comply with the siting criteria, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of units.
- viii. The change of land use has been given by the DTP, Fatehgarh Sahib vide letter no. 6398 dated 12.08.2009 for an area@2.087 acre having khasra nos. 346/322/1 falling in the village Mullanpur Kalan, Tehsil & Distt. Fatehgarh Sahib for industrial purposes. However, the industry shall ensure that whole of the land (14214 sqm) including the additional land added for accommodating green belt shall conforms to the provisions of Master plan of the area for which it will provide a certificate from the competent authority. Alternatively, it will submit the CLU certificate from the Competent Authority for the additional area.

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 31stMarch 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. PMIO and PM25 in reference to PM emission, and SO2 and NOx in reference to SO2 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 31st 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) 31stMarch 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. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge within 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.

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 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.
- ii. The additional land of 6124 sqm proposed to be added for the expansion project to fulfill the 33% requirement of green belt shall not be used for any other purpose.
- iii. The project proponent shall prepare GHG emissions inventory for the plant 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 strictly adhere to the commitments made during Public Hearing and shall spend the amount proposed as under:

Sr. No	Name of School	Activity	Environmental Aspects	Cost (Rs. Lac)
1.	Govt. Elementary School Mullanpur Kalan	Construction of classrooms and toilet as committed during PH	Sanitation	Rs.2.02 lacs

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 1stMay 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. 11 Lacs towards following CER activities:

Sr. No.	Name of Village	Activity	Environmental Aspects	Cost (Rs. Lac)	*Tentative Date of Start	Date of Completion
1.	Mullanpur Kalan	Providing Solar Lights (30 Nos)	Energy Saving	3.60	November, 2019	December, 2019
2.	Wazir Nagar	Construction of drains along the village streets	Sanitation & Health	3.0	January 2020	April, 2020
3.	Common land of Village Mughal Majra	Tree plantation	Aesthetic and Improvement of Environment	1.0	July, 2019	September, 2019
4.	Civil Hospital, Mandi Gobindgarh	Providing beds (03 nos)	Health	3.40	April 2020	-
Total				Rs.11.0		

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 80 Lacs towards capital cost and Rs 10 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, SO₂, NO_x (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 minimize the water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
- ii. 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.
- iii. The project proponent shall reuse 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.
- iv. The project proponent shall reserve 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.

- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. The project proponent shall use natural gas (if available) as substitute fuel wherever possible in the existing industry/ for expansion project.
- x. The project proponent shall take necessary action w.r.t. the following :-
 - i) Recovery of iron from slag before disposing it off.
 - ii) Identify the areas for utilization of slag in scientific manner and its usage in cement / construction industry / road laying etc.
 - iii) Recovery of precious metals like Zinc, lead and iron etc. from the APCD dust (Hazardous waste) through authorized re-processor.
- xi. The project proponent shall obtain mandatory clearances under Pollution Control laws.

The case was considered by the SEIAA in its 150th meeting held on 08.07.2019, which was attended by the following: -

- Sh. Prince Chopra, Director, on behalf of promoter company
- Sh. Sital Singh EIA Co-ordinator cum CEO, M/s CPTL, Chandigarh, Environment consultant of the promoter company.
- Sh. R.S. Rana and Sh. Sandeep Singh (FAE), M/s CPTL, Chandigarh, Environment consultant of the promoter company.

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

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 conditions imposed by SEAC and observed that Sub condition

no. viii of standard Condition III. Water quality monitoring and preservation, Sub-condition no. i of the standard condition VII. Green Belt are required to be amended by incorporating the details proposed/agreed by the project proponent.

Therefore, the Authority decided to accept the recommendations of SEAC and grant Environmental Clearance for the expansion of steel manufacturing unit namely M/s Salasar Castings, located in the revenue estate of Amloh Road, Village Mullanpur Kalan, Tehsil- Sirhind, District- Fatehgarh Sahib, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with amendments / additions as given below:

Amendment in Sub condition no. viii of standard Condition III. Water quality monitoring and preservation

- viii. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge within plant premises to avoid underground contamination due to deposition of pollutants on roof top being highly dense industrial area. As committed, the industry shall adopt village pond having 7023 sqm located in the Village Mullanpur Kalan, Mandi Gobindgarh, District Fatehgarh Sahib for harvesting of rain water@37924 KL per annum. As an additional safety measure, the stream carrying waste water of the village shall be diverted in one corner of Phytoid plants trench (designed based on the technology developed by CSIR-NEERI's) divided in different parts, the overflow of each chamber shall be allowed to enter into another chamber which will ultimately lead to purification of water and collected into pond to avoid any contamination of ground water aquifer. 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.

Amendment in Sub condition no. i of standard Condition 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 Wide 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. Wide canopy trees shall also be planted around the parking area to provide shade to the parked vehicles.

Item No. 150.05: Application for issuance of TOR for carrying out EIA study for obtaining environmental clearance under EIA notification dated 14.09.2006- Expansion of Residential Mega Township at Village Salamatpur, DhodeMajra, Rasulpur, Saini Majra and Ghandauli in Mullanpur Planning Area, District SAS Nagar (Mohali), Punjab being developed by M/s. Greater Punjab Officers Corporative House Building Society and M/s. Altus Space Builders Pvt. Ltd.(In Joint Venture) Proposal no.(SIA/PB/NCP/30232/2018)

The SEIAA observed as under:

- The Residential Mega Township is being developed by M/s. Greater Punjab Officers Corporative House Building Society and M/s. Altus Space Builders Pvt. Ltd. (In Joint Venture) and located at Village Salamatpur, Dhode Majra, Rasulpur, Saini Majra and Ghandauli in Mullanpur Planning Area, District SAS Nagar (Mohali), Punjab. The project is covered under category-8(b) of the schedule appended to EIA notification,2006. The project consists of Residential plots, EWS, Commercial, Group Housing and other Amenities.
- Project has already obtained Environmental Clearance from SEIAA, Punjab vide Letter No. SEIAA/2015/175 dated 16.01.2015 for the site measuring scheme area of 287.90 acres; net planned area of 204.30 acres, residential area of 3,93,880.53 sq.m, EWS area of 64,304.548 sq.m, commercial area of 42,977.615 sq.m. and area under public buildings such as schools, dispensary, community Centre, post office, religious place etc. of 43,989.329 sq.m. Copy of earlier Environmental Clearance is enclosed with the application. Further, Consent to Establish (Ext.) has also been obtained from PPCB vide Certificate No. CTE/Ext/SAS/2018/7018004 dated 06.04.2018 which is valid till 31.01.2019. Approx. 90% development work has been done at the site on the earlier EC accorded portion. Also, application has been filed to Regional office, MoEF&CC for verified compliance report of earlier EC. The additional land of 112.1 acres has been purchased for which CLU has also been obtained; copy of CLUs has been submitted.

Now, total scheme area becomes 396.08 acres and net planned area of 317.52 acres, out of which residential plotted area is of 138.37 acres, Group Housing of 8.27 acres, commercial area of 15.82 acres, area under Public Buildings of 24.76 acres, area under roads, pavements, open spaces & parking etc. of 111.20 acres

and area under parks of 19.10 acres. Approved Layout Plan and superimposed layout plan highlighting expansion part as per revision in earlier EC have been submitted. Accordingly, the case has been filed issuance of TORs for expansion in Residential Mega Township.

- The case was considered by the SEAC in its 180th meeting held on 10.05.2019, which was attended by the following: -
 - i) Sh. Natraj Singh, Senior Officer, on behalf of promoter company
 - ii) Sh. Sandeep Garg, EIA Co-ordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.
 - iii) Ms. Simranjit Kaur, AGM cum FAE, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.

Sh.Natraj Singh submitted an authority letter dated 10.05.2019 wherein he has been authorized by Sh. Partap Singh, M/s Greater Punjab Co-op House Building Society Ltd to sign, execute and submit the required documents for issuance of TORs. Any commitment made / statement / given by him during the presentation / meeting will be binding / acceptable to the Society. The same was taken on record by the SEAC.

SEAC noticed that the present case is for issuance of TOR for expansion of Residential Mega Township and certified compliance report from the Northern Regional Office of MoEF&CC is required as per circular dated 07.09.2017 before proceeding in the matter.

To this, the project proponent requested the Committee to allow them to make presentation before the SEAC and thereafter refer the matter to Northern Regional Office of MoEF&CC for obtaining certified compliance report. Project proponent added that in case any noncompliance is noticed by the MoEF& CC w.r.t of condition of EC earlier granted, same will considered as part of TOR. SEAC agreed to the request of project proponent and took the copy of presentation and reply on record.

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

1. Project Background

- Residential Mega Township is being developed by M/s Greater Punjab Officers Corporative House Building Society and M/s Altus Space Builders Pvt. Ltd. (In Joint Venture) at Village Salamatpur, Rasulpur, DhodeMajra, Saini Majra, Ghandauli& Bhagat Majra in Mullanpur Planning Area, District SAS Nagar (Mohali), Punjab.

- The project comprises of Residential plots, EWS, Commercial, Group Housing and other Amenities such as Schools, dispensary, religious building, etc.
- Project has already obtained Environmental Clearance from SEIAA, Punjab vide Letter No. SEIAA/2015/175 dated 16.01.2015 for the site measuring scheme area of 287.90 acres.
- Consent to Establish (Ext.) has also been obtained from PPCB vide Certificate No. CTE/Ext/SAS/2018/7018004 dated 06.04.2018 which is valid till 31.01.2019 and renewal has been applied for.
- Approx. 55 % development work has been done at the site on the earlier EC accorded portion. Also, application has been filed to Regional office, MoEF&CC for verified compliance report of earlier EC.
- The additional land of 112.1 acres has been purchased for which CLU has been obtained. Now total scheme area becomes 396.08 acres for which application has been filed for expansion in earlier granted EC.

1. Project Approvals

Sr. No.	Description	Status
i)	Change of Land use	<ul style="list-style-type: none"> ○ Obtained vide Memo No. 8198 CTP (PB) SP-432(M) dated 17.11.2011 ○ Obtained vide Memo No. 2042 CTP (PB) SP-432(M) dated 14.05.2012 ○ Obtained vide Memo No. 3480 CTP(PB) SP-432(M) dated 25.06.2013 ○ Obtained vide Memo No. 669 CTP (PB) SP-432(M) dated 07.02.2018 ○ Obtained vide Memo No. 1562 CTP (PB) SP-432(M) dated 07.03.2018
ii)	NOC for Water and Sewerage Connection, Collection of Solid Waste	Obtained vide Memo. No. GMADA-D.E(PH-1)-2014/2210 dated 23.05.2014
iii)	CGWB Recommendation letter	Obtained vide letter No. 4(172)A-PB/HB/society/NWR/S&I/2014-74 dated 08.01.2015
iv)	Earlier Environmental Clearance from SEIAA, Punjab	Obtained vide Letter No. SEIAA/2015/175 dated 16.01.2015 for the site measuring scheme area of 287.90 acres.
v)	NOC from Airport Authority	Obtained vide Letter No. HQ/S.17726/4/ATS(PC-MDCLXXVII) Dy.No.125/F/D(Air-II) dated 11.02.2015
vi)	Extension in validity of 'Consent to Establish' (NOC)	Obtained vide Certificate No. CTE/Ext/SAS/2018/7018004 dated

		06.04.2018; valid upto 31.01.2019. Application has been filed for renewal.
vii)	Application for Verified compliance to MoEF&CC	Submitted vide Letter No. ASB/MAE-1/2018/082 dated 08.08.2018

2. Key Features of Project

Description	Existing (EC accorded)	Proposed	Total (After Expansion)
Center Coordinates	30°48'15"N and 76°43'07"E		
Total Scheme Area	287.9 acres	108.18 acres	396.08 acres
Net Planned Area	204.30 acres	113.22 acres	317.52 acres
Estimated Population	28,839 Persons	19,604 Persons	48,443 Persons
Total Water Requirement	4,100 KLD	2,740 KLD	6,840 KLD
Fresh water Demand	3,032 KLD	1,968 KLD	5,000 KLD
STP capacity	Proposed STP of 3.5 MLD capacity	Additional STP of 2.5 MLD capacity	Proposed overall STP of 6 MLD capacity
Solid waste generation	11.1 MT/day	7.46 MT/day	18.56 MT/day
Rain water recharging Pits	100 Recharge Pits	Additional 92 Recharge pits	Total 192 Recharge Pits i.e. 155 pits by individual plot owners and 37 recharge pits by developer
Power Load	9,598 KW	402 KW	10,000 KW
DG sets	5 DGs of 120 kVA capacity each		
Project Cost	Rs. 825 Crores	Rs. 203 Crores	Rs. 1,028 Crores

3. Co-ordinates of the project

A: 30.474202 N76.424680 EB: 30.475056 N76.414548 E
C: 30.475808 N76.424604 ED: 30.480549 N76.4331.57 E
E: 30.483324 N76.432115 EF: 30.483335 N76.430096 E
G: 30.480550 N76.423675 EH: 30.482910 N76.424718 E
I: 30.480319 N76.421853 E

4. Area Details

Sr. No.	Description	E.C Accorded		Difference	Total area after expansion	
		Area (in sq.m.)	Area (in acres)	Area (in acres)	Area (in sq.m.)	Area (in acres)
1.	Total CLU	11,32,836.51	279.93	112.1	15,86,489.12	392.03
2.	Area of CLU not taken in layout	13,435.56	3.32	2.47	23,431.29	5.79
3.	Area of CLU utilized (1-2)	11,19,400.95	276.61	109.63	15,63,057.82	386.24
4.	Area under Govt. Acquisition	24,604.9	6.08	-4.22	7,527.16	1.86
5.	Area under Revenue Rasta	21,084.12	5.21	2.77	32,293.94	7.98
6.	Total Scheme Area (3+4+5)	11,65,089.96	287.9	108.18	16,02,880.31	396.08
7.	Area Under EWS	64,304.55	15.89	3.98	80,411.1082	19.87
8.	Area under Sector Road	83,203.40	20.56	1.48	89,192.79	22.04
9.	Reserved Area	1,46,213	36.13	9.32	1,08,496.32	26.81
10.	Net Planned Area [6-(4+5+7+8+9)]	8,26,772.76	204.03	113.49	12,84,958.98	317.52
11.	Area Under Residential	3,93,880.53	97.33	41.04	5,59,964.02	138.37
12.	Area Under Commercial	42,977.61	10.62	5.2	64,021.32	15.82 (@ 5%)
13.	Area under Amenities / Public Buildings	43,989.33	10.87	13.89	1,00,200.25	24.76
14.	Area under Group Housing	31,079.85	7.68	0.59	33,467.53	8.27
15.	Total Saleable Area (incl. EWS) (7+11+12+14)	--	-		7,37,863.98	182.33 (@ 54.04%)
16.	Area under Parks	24,362.07	6.02	13.08	77,294.96	19.10
17.	Area under roads, paved open spaces	83,203.37	20.56	90.64	4,50,010.43	111.2

5. Pocket Wise Details

Pocket	No. of Residential plots	Area (in acres)								
		Residential Plots	Residential G.H.	Parks Area	Amenities	EWS	Commercial	Reserved Area	Area not taken in Layout	Proposed Govt. Acquisition
A	351	31.29	0	6.40	5.86	0	1.74	3.18	3.11	0.69
B	528	43.00	0	9.30	5.78	0	0	7	0.57	0.36
C	430	23.14	0	1.21	3.64	0	0.69	2.6	1.97	0
D	612	29.81	0	1.88	2.2	0	3.2	4.56	0.14	0.27
E	260	11.13	8.27	0.31	6.03	0	10.19	3.35	0	0
F	0	0	0	0.00	1.25	19.87	0	6.12	0	0.54
Total	2,181	138.37	8.27	19.10	24.76	19.87	15.82	26.81	5.79	1.86

6. Break Up of Net Planned Area

Sr. No.	Description	Area (in acres)	Net Planning Area (in %)
1	Area under Residential Development	138.37	43.58
2	Group Housing	8.27	2.6
3	Area under Commercial Development	15.82	5
4	Area under Parks	19.10	6.02
5	Area under Public Buildings	24.76	7.79
6	Area under Roads, Pavements, open	111.20	35.01
Total		317.52	100

7. Population Details

Sr. No	Description	Norms	EC Accorded		Proposed	Total (After Expansion)	
			Total Plots / Area	No. of Persons	No. of Persons	Total Plots / Area	No. of Persons
1.	Residential	15 persons per plot	1,202 Plots	18,030	14,685	2,181 Plots	32,715
2.	Group Housing	450 persons per acre	5.12 acres	2,304	1,418	8.27 acres	3,722
3.	Commercial	100 persons per acre	10.62 acres	1,062	520	15.82 acres	1,582
4	Amenities	100 persons per acre	10.87 acres	1,087	1,389	24.76 acres	2,476

5	EWS	400 persons per acre	15.89 acres	6,356	1,592	19.87 acres	7,948
Total Estimated Population				28,839 Persons	19,604 Persons		48,443 Persons

8. Comparison of Water Demand & Wastewater Generation Details

Sr. No.	Description	EC Accorded	Difference	Total (After Expansion)
1.	Total Water Demand	4,100 KLD	2,740 KLD	6,840 KLD
2.	Fresh Water Demand	3,032 KLD	1,968 KLD	5,000 KLD
3.	Wastewater Generated	3,280 KLD	2,586 KLD	5,866 KLD
4.	STP capacity	STP of 3.5 MLD capacity	Additional STP of 2.5 MLD capacity	Proposed overall STP of 6 MLD capacity

9. Calculations for Water Requirement

Sr. No.	Description	Water Consumption (in lpcd)	EC Accorded		Total (After Expansion)	
			Population	Total Water Requirement	Population	Total Water Requirement
1.	Floating population	45	2,149	96,705 L/day	4,058	1,82,610 L/day
2.	Residential Population	150	26,690	40,03,500 L/day	44,385	66,57,750 L/day
Total				4,100 KLD		6,840 KLD

10. Calculations for Total Flushing Water Requirements

Sr. No	Description	Flushing Requirement (lpcd)	Total (After Expansion)	
			Population	Total Water Requirement
1.	Floating population	16	4,058	65 KLD
2.	Residential Population	40	44,385	1,775 KLD
Total				1,840 KLD

11. Water Balance

Total water req. (@ 150 lpcd for residential & @ 45 lpcd for floating)		6,840 KLD
--	--	-----------

Flushing water req. (@ 40 lpcd for residential & 16 lpcd for floating)		1,840 KLD
Flow to sewer (@ 80%)		5,472 KLD
Treated water (@ 98%)		5,363 KLD
Green area req.	19.1 acres (or 77,295 sqm.)	
• Summer (@ 5.5 lt./m ² /day)		425 KLD
• Winter (@ 1.8 lt./m ² /day)		139 KLD
• Monsoon (@ 0.5 lt./m ² /day)		39 KLD

12. Comparison of Rain Water Recharging Pits

- For Residential Plots having plot size area of 400 sq.m. or above; shall have roof top rain water recharging system to recharge the ground water as per the specific design.
- Comparison between earlier EC accorded as well as total (after expansion) is shown below:

Rain water Recharging Pits	EC Accorded	Proposed	Total (After Expansion)
	100 Recharge Pits	Additional 92 Recharge pits	Total 192 Recharge Pits i.e. 155 pits by individual plot owners and 37 recharge pits by developer

- Individual plot owners will be responsible for provision of rain water recharging within their plot itself. While, for other areas, rain water recharging will be done by the proponent.

13. Calculations of Rain Water Recharging Pits

Sr. No.	Type of Surface	Catchment Area (in m ²) (A)	Run off Coeff. (C)	Peak Hourly Rainfall Intensity (I)	Discharge (Run off) (in m ³ /hr)
1.	Green Area	77,295	0.2	0.045	695
2.	Paved Area	4,50,010.43	0.7	0.045	14,175
3.	Roof Area	1,97,688.94	0.9	0.045	8,006
Total Run-off					22,876 m ³ /hr
Taking 15 minutes retention time, total volume of run-off = 22,876 / 4 = 5,719 m ³					
Considering size of Recharge Pit – Diameter is 6 m and Depth is 5.5 m					
Volume of single recharging pit = 155.43 m ³					
No. of recharge pits reqd. = 5,719/155.43 = 37 pits					

155 plot nos. are having plot size more than 400 sq.m. thus, 155 recharge pits will be constructed by individual plot owners.

Thus, total 192 rain water recharging pits will be constructed within the project. Out of which, 155 pits will be constructed by individual plot owners and 37 recharge pits will be constructed by the project proponent.

As per MoEF&CC notification, 1 bore is to be provided for 5000 m² of area. Therefore, total 260 bores will be provided out of which, 68 pits will be having dual bore and 124 pits will have single bore.

15. Power Load and Backup Details

Total Load Required	10,000 KW (9,598 KW as per EC accorded)
Demand to be met by	PSPCL (Punjab State Power Corporation Limited)
Power Back up	5 DG sets of 120 kVA capacity each

Sr. No.	Description	EC Accorded	Difference	Total (After Expansion)
1.	Power Load	9,598 KW	402 KW	10,000 KW
2.	DG sets	5 DG sets of 120 kVA capacity each		

16. Solid Waste Generation & Handling

GENERATION	
Total Solid Waste	18.56 MTD of solid waste (0.40 kg/capita/day for residential & 0.20 kg/capita/day for Staff) will be generated from the project after full occupancy.
HANDLING	
<ul style="list-style-type: none"> ➤ Segregation of waste: Primary collection of solid waste will be done and then it will be transferred manually using covered trolleys to common solid waste segregation area. Two separate areas of land having area of 17,431.58 m² and 7,329.49 m² is earmarked for segregation and management of solid waste. ➤ The municipal solid waste will be managed as per the guidelines of Municipal Solid Wastes (Management and Handling) Rules, 2016 & its amendments. ➤ The biodegradable waste will be converted into Manure using mechanical composters to be installed within the project. ➤ Non-biodegradable waste including recyclable waste shall be handed over to authorized waste pickers. ➤ The hazardous waste such as used oil from DG sets shall be collected and annually disposed off with authorized recyclers registered by PPCB. 	

17. Solid Waste Generation Details

Solid waste Generation	EC Accorded	Proposed	Total (After Expansion)
------------------------	-------------	----------	-------------------------

	11.11 MT/day	7.45 MT/day	18.56 MT/day
--	--------------	-------------	--------------

Solid waste calculations of Project for EC accorded & Total (After Expansion)

Sr. No	Description	Solid Waste Generation (kg/person/day)	EC Accorded		Total (After Expansion)	
			Population	Total Solid Waste Generation (MT/day)	Population	Total Solid Waste Generation (MT/day)
1.	Floating population	0.2	2,149	0.43	4,058	0.81
2.	Residential Population	0.4	26,690	10.68	44,385	17.75
Total				11.11 MT/day		18.56 MT/day

18. Baseline Monitoring

- Submission of Online application = 11th December, 2018.
- Resubmission of Proposal against query = 7th March, 2019
- Date of Acceptance by SEIAA, Punjab = 17th March, 2019.
- Date of Acceptance by SEAC, Punjab = 4th April, 2019.
- Schedule of monitoring = October to December, 2017 already done for Hyde Park Estate and additional study of one month i.e. May, 2019. Hyde park Estate is in the core zone of Our project location.

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

Sr. No.	Observation raised by SEAC	Reply by the project proponent and Environmental Consultant
1.	<p>a) Details of occupancy in the project at present.</p> <p>b) Up to what extent, sewer has been laid in the project site?</p> <p>c) Whether the provision of providing separate lines for segregation of grey and black water has been made?</p> <p>d) SEAC observed that calculation of the water are based upon 150 LPCD for residential purposes. SEAC queried what are the parameter considered to calculate the capacity of STP.</p>	<p>a) At present, occupancy is nil.</p> <p>b) Sewer work@ 55-60% has been completed at site.</p> <p>c) As work of providing sewer is under progress. Therefore, the provisions of providing the separate lines shall be made where ever sewer is yet to be laid.</p> <p>The capacity of STP is 80 % of the total water consumption considering water requirement 150 LPCD. To this, SEAC asked the project proponent, STP shall be designed 80 % of the Water consumption@ 200LPCD on module basis so as to effectively handle the waste water generation with the growing</p>

		occupancy of the Society. Project Proponent agreed and requested to make it a special TOR.
2	For how much quantity of water, approval has been obtained from GMADA.	Approval has been obtained for 3870 KLD fresh water from GMADA.
3.	Whether any area of the project falls under PLPA. If no, NOC from the concerned Authority be submitted.	Project proponent assured that they will check the issue and obtain the necessary permission in the matter.
4	Details of impact on ground water level w.r.t abstraction of water being huge in quantity be studied and shall be incorporated in EIA report.	Project proponent assured to make it part of EIA report.
5.	Details of rain water harvesting as per CGWA guidelines shall be incorporated in EIA report.	Project proponent assured to make it part of EIA report.
6.	Details of eco-sensitive areas falling within 10 kms radius of project site be submitted.	Project proponent assured to make it part of EIA report.

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

Special Condition:

Northern Regional Office, MOEF&CC, Chandigarh has not yet verified the compliance of conditions of earlier EC granted to the project. Thus, the observations to be made by MOEF&CC w.r.t compliances of previous EC, will be considered as additional TORs for this expansion project. Further, the application for grant of Environment Clearance for the expansion project will be considered only after the confirmation of compliance of conditions of Environmental Clearance of the existing project.

Construction stage

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

drainage and flooding pattern and barriers being constructed for restricting wildlife movement into project area.

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

their cans, Generation of wooden, glass, metal and other scrap materials, plumbing and sanitary waste generation, creation of impervious surfaces, noise pollution, suspended dust pollution and risk of accidents.

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

B. Operation stage

1. Examine and submit the details of the environmental impacts due to the residential, commercial, institutional, industrial, recreational, social, cultural & religious activities to be carried out.
2. Examine and submit the details of the environmental impacts due to the facilities to be provided such as water supply, electrical power supply, fuel supply & consumption including LPG, transportation and communication.

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

C. General

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

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

Additional TOR

- 1) The project proponent shall rework on the proposal to install STP considering waste water generation 80 % of the total water consumption@ 200 LPCD on module basis so as to effectively handle the waste water as per generation from the Society.
- 2) The project proponent shall submit the details of rain water harvesting as per CGWA guidelines and green belt as per guidelines of MoEFCC/ SEIAA, Punjab in the EIA report.
- 3) The project proponent shall submit the details of impact of ground water abstraction being huge in quantity and shall be incorporated in EIA report.
- 4) The project proponent shall examine as to whether any area of the project is involved under PLPA. If not then NOC from the concerned Authority be submitted alongwith EIA report.
- 5) The project proponent shall submit revised application for obtaining permission from CGWA in the EIA report.
- 6) Plumbing system for reuse of treated wastewater for flushing/ HVAC/ other purposes etc. and colour coding of different pipe lines carrying water/wastewater from different sources / treated wastewater shall be provided as follows:

Sr. No	Nature of the Stream	Color code
i)	Fresh water	Blue Color
ii)	Untreated wastewater from Toilets/ urinal & from Kitchen	Black color
iii)	Untreated wastewater from Bathing/shower area, hand washing (Washbasin / sinks) and from Cloth Washing	Grey color
iv)	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
v)	Treated wastewater (for reuse only for plantation purposes) from the STP treating black water	Green
vi)	Treated wastewater (for reuse for flushing purposes or any other activity except plantation) from the STP treating grey water	Green with strips
vii)	Storm water	Orange Color

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

The case was considered by the SEIAA in its 150th meeting held on 10.05.2019, which was attended by the following: -

- i) Sh. Narinder Singh, Authorized Signatory on behalf of promoter company
- ii) Sh. Sandeep Garg, EIA Co-ordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.
- iii) Ms. Simranjit Kaur, AGM cum FAE, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.

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

To query of SEIAA, the project proponent submitted a letter issued by PCCF, Punjab vide no. 236 dated 19/04/2010 wherein DFO, Ropar has mentioned that area of the site falling in the revenue estate of Village Salamepur, Dhodhe Majra, Rasoolpur, Saini Majra neither fall under the PLPA,1900 nor any forest area of Forest

Department is affected. However, user agency has not submitted the site plan of the project site and it has not been cleared that from where approach road will be taken for the project site. In reply to this, project proponent submitted a copy of approved lay out plan and Khasra super imposed plan on 15.06.2018 for obtaining NOC to DFO, SAS Nagar and copy of the receipt of the same, has been taken on record. It was further apprised that as per the Master plan, Mullanpur, proposed sector grid road are to be constructed by GMADA. SEIAA also observed that the project proponent submitted in the application form that project proposal does not involve the approval/clearance under the Forest (Conservation) Act, 1980 and Wild life protection Act, 1972.

To another query of SEIAA, the project proponent submitted an undertaking to the effect that the site of the project is more than 14 km from Sukhna Wildlife Sanctuary, which was taken on record by SEAC.

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

SEIAA looked into the details of the case and was satisfied with the same. Therefore, the Authority decided as under:

- (i) To accept the recommendations of SEAC and approved Terms of Reference for undertaking detailed EIA & EMP as finalized by SEAC along with the additions as suggested above for Expansion of Residential Mega Township at Village Salamatpur, DhodeMajra, Rasulpur, Saini Majra and Ghandauli in Mullanpur Planning Area, District SAS Nagar (Mohali), Punjab.
- (ii)** Northern Regional Office, MOEF&CC, Chandigarh be requested to verify the compliances made by the Project Proponent w.r.t the observations raised by it during previous visit.

Item No.150.06: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for expansion of steel manufacturing unit by addition of induction furnaces at Village AmbeyMajra, Near 220 K.V Power House, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab by Jagat Metals Pvt. Ltd. (Proposal no SIA/PB/IND/23152/2018)

The SEIAA observed as under:

- Earlier, the project proponent was issued TORs vide letter no.685 dated 24.05.2018 in compliance to the decision taken by SEIAA in its 131st meeting held on 04.05.2018
- The project proponent has now submitted EIA report. Following Essential Details were sought online to which the project proponent replied as under:

Sr. No.	Observations	Reply		
1.	In the form shown on the screen, Column no. 4(a) i.e. Khasra no.'s are not filled in the form in which the project proponent is proposed to install a manufacturing unit.	Sr. No.	Details	Area (K-M)
		1.	Khasra no. 39/4	7-12
		2.	Khasra no. 145/317	12-0
		3.	Khasra no. 99/253	7-12
		4.	Khata no. 123/263 Khatoni no. 185 to 188	3-5
			Total Area	30 K 9 M or Approx. 3.81 acres
		Details of areas i.e. Khasra/khatoni no. along with areas are marked in copy of registry attached after Drawings. Due to size restriction in Column no. 4(a) i.e. details of Khasra nos. cannot be filled in the application form.		

- The case was considered by the SEAC in its 180th meeting held on 10.05.2019, which was attended by the following: -
 - i) Sh. Satish Kumar, President, on behalf of promoter company
 - ii) Sh. Deepak Gupta, Manager, on behalf of promoter company
 - iii) Sh. Sandeep Garg, EIA Co-ordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.
 - iv) Ms. Simranjit Kaur, AGM cum FAE, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.

- Sh. Satish Kumar Sharma submitted and authority letter dated 10.05.2019 wherein Sh. Joginder pal Singla (Director) of the firm has authorized Mr. Satish Kumar Sharma (President) to attend 180th meeting of SEAC, Punjab to be held on 10th May, 2019 and to sign, execute and submit required documents for the purpose of obtaining environment clearance. Any commitment made/ Statement given by him during the presentation / meetings will be binding /acceptable to the company. SEAC took the 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) Introduction

- M/s Jagat Metals (P) Ltd. is a well-established steel manufacturing industry located in "India's Steel Town" Mandi Gobindgarh, Distt. Fatehgarh Sahib, Punjab. The project falls under 3(a) Category: Metallurgical Industries (ferrous & non ferrous). The existing production capacity of the industrial unit is 72 TPD of Steel Ingots with one Induction Furnace of capacity 6 TPH. The industry has proposed expansion by addition of one more Induction Furnace of capacity 8 TPH. Thus, after expansion, production capacity of the industrial unit will become 172 TPD for manufacturing of Steel Ingots with 2 IF's of capacity 6 TPH & 8 TPH.
- M/s Eco Laboratories & Consultants Pvt. Ltd. has been accredited by QCI NABET vide Certificate No. NABET/EIA/1720/IA0032 dated 11th April, 2018. Ministry of Environment, Forest & Climate Change, Govt. of India under Environmental Protection Act, 1986 vide F.No. Q-15018/14/2016-CPQ dated 2nd August, 2017. Lab Approved by NABL in the field of Testing vide Certificate No. TC-7477 dated 22.06.2018. ISO 14001:2015, ISO 9000:2015, ISO 18001:2007. Approved by Punjab Pollution Control Board vide Letter No. Lab/32-23639 dated 06.08.2018.

2) Project at Glance

Details	Existing	Proposed	After Expansion
Project Area	3.81 acres (or 15,437.17 sq.m.)		
	Sr. No.	Land use details	Area (in sq. ft)
	1.	Covered area	62,180
	2.	Open area	12,196
	3.	Road area	25,978
	4.	Green area	56,950
	5.	Parking area (loading & in-loading)	8,800
	Total		1,66,104
Production Capacity	72 TPD	98 TPD	170 TPD

Products	Steel Ingots		
Induction Furnace	1 Induction Furnace of capacity 6 TPH	1 Induction Furnace of capacity 8 TPH	2 Induction Furnaces of capacity 6 TPH & 8 TPH
Raw Materials	i) Scrap: 80 TPD ii) Ferro Alloys: 2 TPD	i) Scrap: 105 TPD ii) Ferro Alloys: 3 TPD	i) Scrap: 185 TPD ii) Ferro Alloys: 5 TPD
Manpower	50 (both technical & non technical); No worker is residing within project premises	30 (both technical & non technical)	80 (both technical & non technical); No worker will be residing within project premises
Project Cost (in Crores)	Rs. 5.30 Crores	Rs. 3.06 Crores	Rs. 8.37 Crores
Total water demand (KLD)	18.2	23.3	41.5
Domestic water demand (KLD)	2.2	1.3	3.5
Makeup water for cooling demand (KLD)	10	-	10
Green area water demand (KLD)	6	22	28
Source of water supply	Ground water through existing Bore wells (2)		
Power Load (KVA)	3,200	3,000	6,200

Source of Power	Punjab State Power Corporation Limited (PSPCL)		
Power Back up	1 DG set of capacity 82.5 KVA	-	1 DG set of capacity 82.5 KVA

3) Project Approvals

Description	Details
CTO from PPCB	Renewal of Consent to Operate has been obtained from PPCB under Water (Prevention & Control of Pollution) Act, 1974 vide Letter No. CTOW/Renewal/FGS/2018/7662413 dated 20.06.2018; valid till 30.06.2019 and Air (Prevention & Control of Pollution) Act, 1981 vide Letter No. CTOA/Renewal/FGS/20187662328 dated 20.06.2018; valid till 30.06.2019.
Authorization for Hazardous Waste	Renewal of authorization for Hazardous waste has been obtained from PPCB vide Authorization No. HWM/FGS/2016/4478964 dated 15.09.2016 and valid till 30.06.2021.
Letter for Power load	Correspondence letter from PSPCL regarding total power load of 6200 KVA has been done vide Memo No. 4663 dated 08.01.2018.
CGWA Approval	Application has been submitted vide application No. 21-4/5372/PB/IND/2019 dated 30.04.2019.
CLU from DTP	Obtained from District Town Planner vide Memo No. 38 dated 11.01.2019 for 3.40 acres & vide Memo No. 501 dated 06.05.2019 for 0.41 acre.
Certified compliance report from RO, PPCB	Obtained from RO, PPCB vide Letter No. 68 dated 09.01.2019.
Agreement for disposal of APCD dust	Agreement made with M/s Madhav Alloys Pvt. Ltd. for disposal of APCD dust vide dated 12.03.2018.
Agreement for disposal of slag	Agreement made with M/s Bittu Ram Contractor for utilization of slag for manufacturing of ready-mix concrete.
Pond adoption for rain water recharging	NOC obtained from Sarpanch of Village Bhmarsi Jer.

4) TOR compliance

- a) Information about the project proponent

- M/s Jagat Metals Private Limited is a Private company incorporated on 16th January, 1985. However, the industry was established in 2000 and the commissioning of the industrial unit was started in 11th May, 2001.
- The current Directors of the company are Sh. Joginder Pal Singla, Sh. Mitul Singla and Sh. Raghav Singla
- All the promoters are well versed with the process involved & can handle the project efficiently.

b) Benefits of project are given below:

- Economic upliftment of suppressed class.
- Employment for the local people.
- Infrastructure development of area.
- To fulfill the demand – supply gap in the National market.

c) Cost of the Project and time of completion.

- Cost of existing project: Rs. 5.30 Cr
- Cost of proposed project: Rs. 3.07 Cr
- Total cost of project after expansion: Rs. 8.37 Cr.
- Time of Completion: As per the PERT chart, the commissioning of the project will be expected till December, 2019.

d) Adjoining land measuring 18,000 sq.ft. (or 0.41 acres) area has been purchased and is included in the total project area of 3.81 acres (or 15,437.17 sq.m).

e) List of raw materials required and their source along with mode of transportation.

Sr. No.	Description	Raw Materials	Quantity (in TPA)	Source	Mode
1.	Existing	Scrap Ferro Alloys	802	Mostly from Local Market	By road through trucks (approx. 4-5 trucks per day)
2.	After Expansion	Scrap Ferro Alloys	1855	Mostly from Local Market	By road through trucks (approx. 10 trucks per day)

f) Other chemicals and materials required with quantities and storage capacities.

- No chemicals are used in the manufacturing process. However, analytical grade chemicals/reagents are required in small quantities in the laboratory for

quality control. These chemicals don't require much storage are except a small almirah beneath the working table.

Sr. No.	Particulars	Quantity which can be stored	No. of Days for storage
1.	Raw material	39,150 T	206
2.	Products	8,100 T	48
3.	Slag	1,095 T	182
4.	APCD Dust	10 T	50

g) Details of Emission, effluents, hazardous waste generation and their management.

i) Emissions

Sr. No.	Source	Capacity	Chimney Height (m)	APCD
Existing				
1.	Induction Furnace	1 x 6 TPH	24 m	Bag filter
2.	DG sets	82.5 KVA	3.0 m	Not required
After Expansion				
3.	Induction Furnace	1 x 6 TPH 1 x 8 TPH	24 m & 18 m	i) Side Suction Hood ii) Pulse Jet Bag Filter with duct & ID fan as per the specifications
4.	DG sets	82.5 KVA	3.0 m	Not required

ii) Effluents

Sr. No.	Details	Existing	After Expansion	Remarks
1.	Industrial Effluent	Nil	Nil	No industrial effluent is generated.
2.	Domestic Effluent	1.7 KLD	2.8 KLD	Wastewater generated from the project is being treated in the Septic tank. After expansion, wastewater will be treated in proposed STP of capacity 5 KLD.

iii) Hazardous Waste

Sr. No.	Hazardous Waste Category	Existing	After Expansion	Disposal
1.	35.1 –Gas cleaning Residue	7.5 TPA	73 TPA (or 0.20 TPD)	To be sold to M/s Madhav alloys for metal recovery.
2.	5.1 – Used Oil	-	0.02 KL per annum	To be sold to Authorized Recyclers

h) Water requirement:

- Source: Ground water
- Total water requirement: 41.5 KLD.
- Application to CGWA for ground water abstraction @ 38.5 KLD has been applied vide application No. 21-4/5372/PB/IND/2019 dated 30.04.2019

Details	Existing (KLD)	Proposed (KLD)	After Expansion (KLD)
Domestic water demand	2.2	1.3	3.5
Makeup water for cooling demand	10	-	10
Green area water demand	6	22	28
Total	18.2	23.3	41.5

i) Power with source of supply: Punjab State Power Corporation Limited (PSPCL)

- Existing Power Demand: 3200 KW
- Proposed Demand: 3000 KW
- Total: 6200 KW
- Manpower requirements:
- Existing manpower: 50;
- Proposed manpower: 30;
- Total manpower after expansion: 80

j) List of machinery

Sr. No.	Machinery	Existing	Proposed	After Expansion

1.	Induction Furnace	01 (6 TPH)	01 (8 TPH)	02 (6 TPH & 8 TPH)
2.	EOT Cranes	03	03	06
3.	66 KV Grid +Transformer	01	-	01
4.	Hydraulic scrap Bundling Press Machine	02	-	02
5.	Air Compressor	01	-	01
6.	Electronic Weighing Scale	01	-	01

k) Hazard identification and details of proposed safety systems/ Risks involved in the furnace are:

Risk	Causes	Mitigation Measures
Steam Explosions	<ul style="list-style-type: none"> Moisture containing MS Scrap, alloys Heavily oxidized or rusted materials 	<ul style="list-style-type: none"> Moisture free usage of raw materials Preheating of raw materials Use of moisture free Alloys
Chemical Explosions	<ul style="list-style-type: none"> Presence of chemicals or explosive substances in the metal scrap Accidental mixing of oxidizing substances, like paints and varnishes, oil containing scrap. 	<ul style="list-style-type: none"> Effective raw material segregation and storage Using safe raw material
Fire breakouts	<ul style="list-style-type: none"> Sparking in electrical substations or cable networks Accidental ignition of oil in equipment such as transformers Infiltration of water, failure of core insulation, or exterior fault currents 	<ul style="list-style-type: none"> Taking care while designing the electrical substation Transformers shall be located away from other buildings
Noise	<ul style="list-style-type: none"> Due to noise from machinery 	<ul style="list-style-type: none"> Proper protective measures will be provided to workers.
Mechanical Hazards	<ul style="list-style-type: none"> Accidental fall of heavy equipment 	<ul style="list-style-type: none"> ➤ Personal Protective Equipment for the workers shall be provided to avoid the accidents.

		<ul style="list-style-type: none"> ➤ Proper training for the employees to use the equipment properly.
Heat Stress Heat stroke Discomfort Rashes	<ul style="list-style-type: none"> • Heat from furnace • Seasonal factors including high air temperature and relative humidity, or low air movement • Excessive or unsafe clothing 	<ul style="list-style-type: none"> • Shielding radiant heat emissions from plant • Installing spot coolers, blowers, fans or air-conditioning to relieve heat and circulation of air • Using ventilation to draw in cooler air • Automating tasks where practicable • Providing respite areas for workers
Burns Damage of skin	<ul style="list-style-type: none"> • Touching hot surfaces • Splashing of molten metal 	<ul style="list-style-type: none"> • Separating workers not directly involved in casting operation from the casting area • Automating machinery to minimize risks • Designing and controlling processes to prevent unexpected reactions occurring • Providing protective barriers to prevent exposure to heat and splashes • Providing task-specific PPE
Electrocution May cause serious burn injuries or can be fatal	<ul style="list-style-type: none"> • Exposure to electricity • 'flashover' or 'arc' can electrocute when close to a line conductor without any actual contact. • Excessive sweating • Strong electromagnetic fields which can be hazardous to people with heart pacemakers or other medical implants. 	<ul style="list-style-type: none"> • The sources of electrical risk eliminated • The machinery shall be de-energized before maintenance starts • The safety switches shall be installed and tested regularly

		<ul style="list-style-type: none"> • The damaged coils shall be replaced before the operation of the furnace. • The workers shall be provided task-specific protective clothing in the industry.
--	--	--

- l) Separate Air Pollution Control Devices Bag house filter will be installed on the proposed Induction Furnace as per the Feasibility report provided by Punjab State Council & Technology, Chandigarh.
- m) After expansion, 2.8 KLD of domestic wastewater will be generated which will be treated in proposed STP of capacity 5 KLD.
- n) There is only increase in production capacity from 72 TPD to 170 TPD. Thus, there is no need of selecting the alternative site. 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.
- o) Project location and study area is covered under Toposheet No. H43K6 & H43K2; Scale 1: 50,000 covering 10 km of the study area.
- p) Co-ordinates of all corners of the project location are:
- A: 30°37'54.73"N and 76°19'9.00"E
 - B: 30°37'54.96"N and 76°19'0.49"E
 - C: 30°37'56.62"N and 76°19'0.52"E
 - D: 30°37'56.83"N and 76°19'2.65"E
 - E: 30°38'0.68"N and 76°19'2.59"E
 - F: 30°38'0.83"N and 76°19'3.52"E
 - G: 30°37'56.75"N and 76°19'4.05"E
 - H: 30°37'56.65"N and 76°19'8.99"E
- q) Google Earth Image showing project location and its surroundings within 500 m has been shown.
- r) Layout showing existing and proposed features have been shown. Project is located within the industrial zone.
- s) The general Geological features and Geo-hydrological status of the study area is given below:
- i) Soil in the area are loamy sand at the surface and calcareous sandy loam in subsurface layers.

- ii) Sand constitutes 80% in the soil profile. Silt constitutes 11% and clay 9% in the soil.
- iii) Sub surface geological formations comprises of fine to coarse grained sand, silt, clay and kankar. Total thickness of alluvium is expected to be more than 550 m.
- iv) Sub-surface geological formations show the existence of a top layer of 10 to 15 m of clay, kankar with sand lenses. This layer is followed by granular zones of 20 to 30 m in thickness and under laid by clay bed of 10 to 20 m in thickness. At a depth of 90 to 120 m, another clay bed of 25 to 30 m in thickness exists.
- v) Depth to water level ranges between 10 to 20 m bgl. The ground water flow direction is from North - East to South - West.
- t) There is no major river situated within 1 km of site. Drainage map of the study area is provided in next slide.
- u) No R&R is required as expansion is proposed within the existing project premises only. Adjoining vacant land purchased for green belt development.
- v) No bird or wildlife sanctuary falls within 10 km of project location. However, Bir Amloh Protected Forest falls at a distance of 8.5 km from the project location.
- w) 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. During the summer season, in day the temperature sometimes goes up-to 45°C to 47°C. December and January are the coldest months when the maximum average daily temperature is around 20.2°C and minimum about 5.8°C. The yearly variation is from 5.0°C min to 41°C max.
- x) The rainfall starts in the month of July and extends up-to the end of September. The average annual rainfall is in the range of 660 mm.
- y) 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%.
- z) The wind direction in the area is mostly from North-West to South-East. During January to May, the winds are quite strong while, July to October are calm months.
- aa) Monitoring has been done as per CPCB guidelines.
 - P-98 of PM₁₀ and PM_{2.5} respectively are outside the NAAQ standards of 100 and 60 µg/m³ respectively.
 - Level of SO₂ are much below the desired limits of 80 µg/m³. P98 is 11.74 µg/m³.
 - Level of NO_x are also below the desired limits of 80 µg/m³. P98 is 27.36 µg/m³.
 - CO level at all the sampling points is less than 1.5 mg/m³.
 - Lead (Pb) level in particulate matter at all sampling points is less than 0.04 µg/m³.

- Arsenic (As) level in particulate matter at all sampling points is less than 0.01 ng/m³.
 - Nickel (Ni) in particulate matter at all sampling points is less than 10 ng/m³.
 - AERMOD MODEL is used to plot Wind Rose Diagram. Wind rose diagram shows the predominant winds are mainly flowing from North-West, with secondary wind direction being from South-East. The maximum contribution in GLC's, with units operation are 0.28 µg/m³ for PM₁₀ at 707 m NW [315°] direction from stack.
 - SO₂- The maximum incremental pollutant concentration near pollution sources and within 500 m is 1.0 µg/m³, and within 3 km decreases to 0.3 µg/m³ beyond it the pollutant rapidly disperses to 0.2 µg/m³. All values are much below the CPCB limits.
 - PM_{2.5}- The maximum incremental pollutant concentration near sources and within 300 m is 0.9 µg/m³, within 1000 m decreases to 0.5 µg/m³ and beyond which pollutant slowly settles down to the ambient value. All values are much below the CPCB limits.
 - PM₁₀- The maximum incremental pollutant concentration near sources and within 500 m is 0.5 µg/m³, within 1000 m decreases to 0.3 µg/m³ and beyond 3000 m the pollutant rapidly decreasing to ambient value. All values are much below the CPCB limits.
 - CO- The maximum incremental pollutant concentration near sources and within 500 m is 1.0 µg/m³, within 2000 m decreases to 0.5 µg/m³ and beyond 2000 m, the pollutant rapidly decreasing to 0.100, indicating no impact of CO on any sensitive receptors. All values are much below the CPCB limits.
- bb) No river is present in the study area. One surface water body has been tested from the below given locations. The result of Bhakra Canal show that BOD is less than 20 mg/l & pH is nearly 7. Similarly, for Amlah 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.
- cc) Ground water quality has been measured at 8 locations.
- pH varies from 7.14 -7.51 which is the acceptable limits for potable water.
 - Calcium varies from 44.0 to 61.0 mg/l. The highest value was observed at KhojeMajra.
 - Magnesium varies from 17 to 24 mg/l. The highest value was observed at Taksus Steels which is located at distance of about 5 km from the Project location.
 - Chloride concentration varies from 40 to 66 mg/l. It was found maximum at Village Ratanhari and minimum at Punjab steels.
 - Heavy metals like Cadmium, Chromium, Lead and Zinc were much below the permissible limit in all the samples.

- Iron varies from 0.34- 0.58 mg/l.
 - Sulphates vary from 60 to 95 mg/l.
- dd) Noise level monitoring has been measured at 8 locations. Results are within the prescribed limit as per the norms of specific zone.
- ee) Soil Samples have been collected from 8 locations and the texture of the soil in the study area is slightly alkaline in nature and sandy loam.
- ff) Traffic study has already been conducted on AmbeyMajra-Talwara road for the project namely "Vardhman Adarsh Ispat". Our project is located at a distance of 200 m from Vardhman Adarsh Ispat. Thus, same traffic study has been used for our project. Traffic study was conducted on 25th July, 2018 by team members of Eco so as to assess the impact on local transport infrastructure due to proposed increased production of Vardhman Adarsh Ispat Pvt. Ltd. and adjoining projects who have proposed expansion. As per the traffic study, the road can take the increased load of expansion.
- gg) Car parking area: 139.15 sqm
- Transport parking area: 817.84 sqm
 - Area acquired per truck: 37.5 sqm
 - Area considered per car: 18 sqm
 - Thus, no. of trucks parked: 22 Trucks
 - No. of cars parked: 8 cars
- hh) Socio economic benefits of the project are given below:
- With coming up of the expansion in project, the employment opportunities (direct as well as indirect) will increase and local people will be employed on priority basis as per their skills. Training will also be provided to the local people.
 - People will get direct opportunity in the unit. Not only the direct employment but, also the indirect employment will be created from industry related various activities.
 - The indirect employment will also be created from transportation, from mushrooming of services, shops and retails etc.
 - After getting employment, socio- economic status of people will be increased. They will be able to get basic amenities directly and indirectly from the proposed project.
 - The raw material requirement will be primarily related to metallurgical industry through the local market. Thus, it will encourage more trade in the local market and in turn will help in the development of the area.
 - Local people will be more employed. Hence, it will not cause any stress on the community infrastructure, or any social stress, due to changing patterns of social interaction.

- Increased income security will contribute to the empowerment of the most vulnerable sections of the society.
 - It is a long term project therefore; it will bring avenues for long term jobs.
 - Indirectly, the expansion in project will help the government by paying different taxes (sales tax, excise duty etc.) from time to time, which is a part of revenue and thus, will help in development of the region.
- ii) The forecasting of air pollutants (SO₂, NO_x, PM and CO) emitted from M/s Jagat metals Pvt. Ltd., post expansion were studied through AERMOD View and local meteorological data were used to predicted concentrations of major air pollutants in the vicinity of the project in order to ensure compliance with the Indian standards (CPCB, 2009) for ambient air quality. Implementing proper Environmental Management Plan along with mitigation measures like adoption of Air Pollution Control equipment's, water sprinkling, tree planting and developing ponds around the project area can further minimize the pollution and protect the environment from the adverse effects.
- jj) Approx. 4-5 no. of trucks per day are used to carry raw materials for the existing unit. After expansion. approx. 10 no. of trucks per day will be used to carry raw materials. After expansion, 14 more trucks will be added to carry products. Since, the existing road is sufficient to cater to this meager increase in transportation; therefore there will be negligible impact. Further, detailed traffic study has been submitted. Traffic analysis is basically the process of intercepting and examining the number of vehicles on the road and deducing the pattern of traffic movement. Manual counting was done so as to count the vehicles in the form of cycle, scooter, car, bus, truck, jeep etc. The safe and time efficient movement of the people and goods is dependent on Traffic flow, which is directly, connected to the traffic characteristics. For better understanding of the present status of traffic flow at the junction, traffic survey is conducted. Thereafter, value of Passenger Car Units (PCU's) is calculated for different vehicular types and accordingly value of LOS is calculated for existing scenario. In order to calculate the traffic load after expansion of project, additional traffic is assumed based on projects that are being expanded. Subsequently, modified PCUs are calculated and LOS is being checked whether it is sufficient to cater the load after expansion. The traffic data count was done at significant points starting from GT road to the road connecting the project i.e. at 3 different locations B, C & D. Traffic data was collected continuously for 24 hours by visual observation and counting of vehicles. 3 Skilled persons were deployed simultaneously at three stations i.e. point B, C & D during each shift-one person on each of the two directions for counting the traffic. At the end of each hour, fresh counting and recording was undertaken.

Existing scenario

Locations	V (Volume in PCU/day)	C (Capacity in PCU/day)*	Existing V/C ratio	LOS
B	640	1900	0.33	B
C	440	1900	0.23	B

D	136	1900	0.07	A
---	-----	------	------	---

Proposed Scenario

Locations	V (Volume in PCU/day)	C (Capacity in PCU/day)*	Existing V/C ratio	LOS
B	640 + 374 = 1,014	1900	0.53	C
C	440 + 374 = 814	1900	0.43	C
D	136+267 = 403	1900	0.21	B

Note- Even considering traffic load in peak hours from 9 to 10 am (58.5 PCU), total traffic count for a day will be 1416 PCU(58.5*24), which is well within the road carrying capacity of 1900 PCUs.

kk) No industrial wastewater is being generated from manufacturing process. However, domestic wastewater from the toilets after expansion treated in proposed STP of capacity 5 KLD & treated wastewater will be used for cooling purpose.

ll) Action Plan for Emission Control

- 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

- Trucks carrying raw materials will be checked for PUC Certificate.
- No pressure horns will be permitted to control the noise pollution.
- Green belt and greenery development around storage yards, around plants, either side of roads and around the periphery of the industry will be done.
- Water sprinkling is practiced at loading & un-loading locations.
- Face masks are provided to the people working in dust generating locations.
- Internal roads in the premise are paved.

- Speed limit of 10 km/hr. is enforced for vehicles in the plant premises to prevent road dust.
- Regular sweeping of roads will be practiced with regular sprinkling with treated water to minimize dust emissions.

mm) Measures for fugitive emission control are given below:

- Pucca roads within premises and 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.
- Internal roads in the premises shall be paved.

nn) After expansion, the quantity of slag is estimated to be 6 TPD. Out of this, approx. 3 TPD of metal will be recovered and remaining 3 TPD will be sold to Bittu Ram Contractor for manufacturing of ready mix concrete. APCD dust is being given to M/s Madhav Alloys Pvt. Ltd., where metals such as zinc & lead will be recovered.

oo) Since, there will be construction of foundation for the Induction Furnace only. Fly ash based cement i.e. Portland Pozzolana Cement (PPC) will be used for construction of foundation.

pp) The existing green area within the project premises is 631.74 sq.m and 4,665.98 sq.m is the proposed green area. Thus, total green area of the project becomes 5,297.72 sq.m (34.28%). 25 trees are existing within the industry premises of Neem, Guava, Ashoka trees etc. No. of trees required as per guidelines = $5291/80 = 67$ trees. In addition to this, 355 trees are proposed overall after expansion.

qq) Pond located in the Village BhmarsiJer, Block Sirhind, Mandi Gobindgarh has been adopted for artificial rain water.

- Area of the pond = 8,093.71 sq.m.(or 2 acres)
- Average Depth of the Pond = 3 m
- Volume/Storage capacity of Pond = 24,296.13 m³
- No. of fillings = 3 (max no. of fillings = 3)
- Total recharge in the pond (in cubic meter annually) = 72,888.39 m³
- Total quantity of water recharge is 50% of the volume of water available in the pond after de-silting i.e. 50% of 72,888.39 m³ per annum.
- Total quantity of water recharge is 36,444 m³ per annum against the annual pumpage of 13,580 m³ per annum.

- Thus, as per the CGWA Guidelines, recharging of ground water is double of the ground water withdrawal.

rr) Details of the amount to be spent on EMP after expansion 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)	40	0.5
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)	5.0	0.50
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	0.55
8.	Miscellaneous	1.0	0.5
Total		61.5	10.05

- ss) The quantity of slag is estimated to be 6 TPD after expansion of project. Out of this, approx. 3 TPD of metal will be recovered. After metal recovery, remaining 3 TPD will be sold to Bittu Ram Contractors for manufacturing of ready mix concrete. 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.
- tt) All the workers are covered under ESI. Routine health check-up of workers is being done at Bhagwati Clinic. Moreover, all the employees covered under Accidental Insurance Policy done by United India Insurance Company Limited. The medical histories of all the employees will be maintained in a standard format on regular basis. Agreement in this regard has been done with the Bhagwati Clinic.
- uu) The industry has well defined Environmental policy and the same is executed by EMC. This includes:
- Reduce waste through re-use & recycling and by purchasing recycled, recyclable or re-furbished products and materials where these alternatives are available, economical & suitable.
 - Train, educate & inform employees about environmental issues that may affect their work.
 - Relevant environmental legislation are being complied.
- vv) Environment Management Cell will be responsible to deal with all the environmental issues. Representative of Management (Head of Environment Cell).
- Process In-charge

- o In-charge Maintenance Department
 - o A representative of Environmental Consultants
- ww) Environment Management Cell will be responsible for all Environment related activities.
- xx) For implementation of public hearing action plan Rs. 4.75 Lac (Providing toilets in the Govt. Girls School located in the Village Chattarpur – Rs. 2.75 Lac and Construction of shed in cremation ground of Village AmbeyMajra – Rs. 2 Lac)
- yy) Mr. Joginder Pal Singla (Director) of M/s Jagat Metals Pvt. Ltd. will be responsible for implementation of CER (Corporate Environment Responsibility) within 6 months of time after grant of EC. Rs. 3 Lakhs has been planned to be reserved for CER. Detail is as under:-

Sr. No.	Activities	Annual Expenditure (in Rs.)	Timeline	Total expenditure in 6 months (in Rs.)
1.	Education- Maintenance of building of Govt. High School located at village AmbeyMajra& providing uniform to the poor & needy students	75,000	Within six months from grant of EC	75,000
2.	Medical check up camp in AmbeyMajra village	75,000	Within six months from grant of EC	75,000
3.	Electrification Provide & install solar street lights to Village AmbeyMajra	1,00,000	Within six months from grant of EC	1,00,000
4.	Plantation along the village ambeymajra rivulet	50,000	Within six months from grant of EC	50,000
Total		Rs. 3,00,000		Rs. 3,00,000

SEAC asked the project proponent and environmental consultant to clarify

the following observations to which they replied as under: -

Observation 1)	The industry has 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 1)	The company has also obtained CLU from District Town Planner vide Memo No. 38 dated 11.01.2019 for 3.40 acres & vide Memo No. 501 dated 06.05.2019 for 0.41 acre. Further, as per the provision of master plan, whole of the land including newly proposed part for green belt falls in the industrial zone.
Observation 2)	Proposed CER activities are not in line with the OM dated 01.05.2018.
Reply 2)	The project proponent submitted the revise CER activities along with amount to be spent, as under:

Sr. No.	CER Activities	Annual Expenditure (in Rs.)	Timeline	Total Expenditure in 6 months (in Rs.)
1.	Education- Maintenance of building of Govt. High School located at village AmbeyMajra& providing uniform to the poor & needy students	1,50,000	Within six months from grant of EC	1,50,000
2.	Electrification- Provide & install solar street lights in Village AmbeyMajra	1,00,000	Within six months from grant of EC	1,00,000
3.	Plantation along Village AmbeyMajra Rivulet	50,000	Within six months from grant of EC	50,000
	Total	Rs.3,00,000		Rs.3,00,000
Observation 3)	Further, the details of activities to be undertaken as per the commitment made during public hearing of the industry be provided.			
Reply 3)	The company has made commitment of RS. 4,75,000/- during Public Hearing and the details of same are as under:			
	Sr. No.	Expenditure on Public Hearing Action Plan	Expenditure (in Rs.)	
	1.	Providing toilets in the Govt.Girls School located in the Village Chattarpur	2,75,000/-	
	2.	Construction of shed in cremation ground of Village AmbeyMajra	2,00,000/-	
		Total	Rs.4,75,000/-	
Observation 4)	<p>a) Green belt area has been proposed on the three sides of the industry whereas in compliance to TOR condition, the industry has to provide green belt all along the periphery of the plant. As such, revised lay out plan by incorporating the green belt along the periphery be submitted.</p> <p>b) Clarify the difference in area at the time of obtaining Terms of Reference and submission of EIA report.</p> <p>c) Is Parking space adequate in the premises after expansion.</p>			
Reply 4)	a) The industry submitted that being existing industrial unit, it is not possible to develop green belt all along the periphery of the plant. However, revised layout plan showing green belt area to be developed along the periphery to the maximum extent, has been prepared and a			

	<p>copy of same has been submitted. Further, there was 0.41 acres land adjoining to the industry and same has been purchased by the promoter industry. The industry will consult his architect & process engineer to remove the unproductive construction built along the boundary wall so as to accommodate the green belt along whole of the boundary wherever possible to the maximum extent.</p> <p>b) The difference in area is due to the reason that 33% green belt area have been proposed to develop green belt in their adjoining land. On this land, only green belt shall be developed and it shall not be used for any other purpose.</p> <p>c) Even the parking area inside the premises is sufficient for parking of 22 trucks and 8 number of cars. An undertaking has been submitted in the matter.</p> <p>Further, the area details after revising the plan is as under:</p> <table border="1"> <thead> <tr> <th>Sr.no.</th> <th>Description</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Total Plot area</td> <td>15437.17 m²</td> </tr> <tr> <td>2.</td> <td>Shed Covd. Area</td> <td>5041.63 m²</td> </tr> <tr> <td>3.</td> <td>Office Covd. Area</td> <td>1375 sq ft</td> </tr> <tr> <td>3.</td> <td>Stores/Lab./Meter RM./Check Rm./ etcCovd. Area</td> <td>6557 sq ft</td> </tr> <tr> <td>4.</td> <td>Plantation Area existing</td> <td>631.97 m²</td> </tr> <tr> <td>5.</td> <td>Plantation Area proposed</td> <td>4709.10 m²</td> </tr> <tr> <td>6.</td> <td>Transporting Area</td> <td>817.84 m²</td> </tr> </tbody> </table>	Sr.no.	Description	Area	1.	Total Plot area	15437.17 m ²	2.	Shed Covd. Area	5041.63 m ²	3.	Office Covd. Area	1375 sq ft	3.	Stores/Lab./Meter RM./Check Rm./ etcCovd. Area	6557 sq ft	4.	Plantation Area existing	631.97 m ²	5.	Plantation Area proposed	4709.10 m ²	6.	Transporting Area	817.84 m ²
Sr.no.	Description	Area																							
1.	Total Plot area	15437.17 m ²																							
2.	Shed Covd. Area	5041.63 m ²																							
3.	Office Covd. Area	1375 sq ft																							
3.	Stores/Lab./Meter RM./Check Rm./ etcCovd. Area	6557 sq ft																							
4.	Plantation Area existing	631.97 m ²																							
5.	Plantation Area proposed	4709.10 m ²																							
6.	Transporting Area	817.84 m ²																							
Observation 5)	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 5)	Amloh is a notified area with area type category declared as over exploited area by the CGWA. They will obtain the necessary permission from the regulatory authority for abstraction of ground water for the project. If they will not be able to get the permission for the same then either they will utilizing surface water or treated waste water after obtaining permission from competent authority																								
Observation 6)	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 6)	Rain water harvesting shall be done outside the premises i.e. pond shall be adopted in the Village BhmarsiJer, Block Sirhind, Mandi Gobindgarh. Total quantity of water recharge is 36,444 m ³ per annum against the annual pumpage of 13,580 m ³ per annum which is double the rate of abstraction.																								
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 7)	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	Traffic Study has been carried out for one day whereas in other cases it has been decided that traffic study shall be carried out for three days. Clarify.
Reply 8)	This fact was not known to them. They requested to consider the data of one day as no. of PCU after expansion will be well below the permissible limit as per the guidelines i.e. 1400 which is well within the road carrying capacity of 1900 PCU. Further, traffic study for one day is adequate as the no. of vehicle will not increase much after expansion
Observation 9)	Whether the stack of height 22 m is sufficient with the APCD.
Reply 9)	Stack of height 30 m shall be provided with induction furnaces

SEAC took the reply and copy of presentation on record.

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 expansion of unit in the existing premises located in the revenue estate of Village AmbeyMajra, Near 220 K.V Power House, Mandi Gobindgarh, Tehsil 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 Jagat Metals Pvt. Ltd., Village AmbeyMajra, Near 220 K.V Power House, Mandi Gobindgarh, Teh. Amloh, Distt. Fatehgarh Sahib, Punjab		
2.	Nature of project (Fresh/Expansion Amendment/Others)	Expansion project		
3.	a) Category b) Activity (as per schedule appended to EIA Notification, 2006 as amended time to time.)	a) B-1 b) 3(a) Metallurgical Industries (Ferrous & Non Ferrous Alloys).		
4.	Area Details			
	Details	Existing	Additional Land	After Expansion
	Plot Area	3.40 acre	0.41 acre	3.81 acre
4.	Co-ordinates of the project site	A: 30°37'54.73"N and 76°19'9.00"E B: 30°37'54.96"N and 76°19'0.49"E C: 30°37'56.62"N and 76°19'0.52"E D: 30°37'56.83"N and 76°19'2.65"E		

		E: 30°38'0.68"N and 76°19'2.59"E F: 30°38'0.83"N and 76°19'3.52"E G: 30°37'56.75"N and 76°19'4.05"E H: 30°37'56.65"N and 76°19'8.99"E			
5.	Project Cost (After expansion)	Rs. 8.37 Crores			
6.	Raw Material requirement (After expansion)	Scrap@ 185 TPD & Ferro Alloys @5 TPD			
7.	Production Capacity (After expansion)	Steel Ingots/ Billets@ 170 TPD			
8.	Details of major productive machinery/plant (After expansion)	(i) 2 Nos Induction furnace (1 x 6 TPH, 1 x 8TPH) (ii) 02Nos Scrap Bundling Machine			
9.	Manpower(After expansion)	80 persons			
10.	Water Requirements & its source (After expansion)	Total Water Demand:41.5 KLD i) Domestic: 3.5 KLD ii) Cooling: 10 KLD 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	
	i)	Industrial Effluent	Nil	No industrial effluent generated	
	ii)	Domestic Effluent.	2.8 KLD	Wastewater generated from the project will be treated in the STP of capacity 5 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	1 x 10 TPH and 1 x 8 TPH each	30 m each	Side suction Hood followed by Bag Filter
	ii)	DG sets	82.5 KVA	3.0 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	7.5 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	0.02 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	24.5 TPD	Shall be reprocessed through M/s Bittu Ram Contractor for manufacturing of ready mix concrete.
15.	Energy Requirements(After expansion)		i) Power load 6200 KW through PSPCL. ii) Single silent DG set of capacity 82.5 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)	40	0.5
	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)	5.0	0.50
	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	0.55
	8.	Miscellaneous	1.0	0.5
Total		61.5	10.05	

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.

- viii. 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 the siting criteria, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of units.
- vii. The project proponent shall comply with conditions imposed by the District Town Planner, Fatehgarh Sahib vide Memo No. 38 dated 11.01.2019 & 501 dated 06.05.2019.

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 31st 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. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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 31.03.2012 (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. The project proponent shall practice rainwater harvesting to maximum possible extent i.e. pond in the Village BhmarsiJer, Block Sirhind, Mandi Gobindgarh shall be adopted with total quantity of water recharge @36,444 m³ per annum.
- ix. 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 in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. 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.

- ii. The additional land of 0.41 acres proposed to be added for the expansion project to fulfill the 33% requirement of green belt shall not be used for any other purpose
- iii. 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.	Providing toilets in the Govt.Girls School located in the Village Chattarpur	2,75,000/-
2.	Construction of shed in cremation ground of Village AmbeyMajra	2,00,000/-
	Total	Rs.4,75,000/-

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. 3 Lacs towards following CER activities:

Sr. No.	CER Activities	Annual Expenditure (in Rs.)	Timeline	Total Expenditure in 6 months (in Rs.)
1.	Education- Maintenance of building of Govt. High School located at village AmbeyMajra& providing	1,50,000	Within six months from grant of EC	1,50,000

	uniform to the poor & needy students			
2.	Electrification- Provide & install solar street lights in Village AmbeyMajra	1,00,000	Within six months from grant of EC	1,00,000
3.	Plantation along Village AmbeyMajra Rivulet	50,000	Within six months from grant of EC	50,000
	Total	Rs.3,00,000		Rs.3,00,000

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 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 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 61.5 Lacs towards capital cost and Rs 10.05 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

- 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

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, SO₂, NO_x (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 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 take necessary action w.r.t. the following:
 - a. Recovery of iron from slag before disposing it off.
 - b. Identify the areas for utilization of slag in scientific manner and its usage in cement / construction industry / road laying etc.
 - c. Recovery of precious metals like Zinc, lead and iron etc. from the APCD dust (Hazardous waste) through authorized re-processor.
- x. The project proponent shall obtain mandatory clearances under Pollution Control laws.

The case was considered by the SEIAA in its 150th meeting held on 08.07.2019, which was attended by the following: -

- i) Sh. Satish Kumar, President, on behalf of promoter company
- ii) Sh. Sandeep Garg, EIA Co-ordinator cum CEO, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.
- iii) Ms. Simranjit Kaur, AGM cum FAE, M/s Eco Laboratories Pvt. Ltd., Chandigarh, Environment consultant of the promoter company.

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

To queries of SEIAA, the project proponent submitted an undertaking to the effect that:

1. All the wastewater of the nearby Bhmarsi jer village which will be directed towards village pond will be first treated in the septic tank to be constructed beside pond and the over flow of the septic tank will be sent to the pond.
2. Number of trees required as per guidelines are = $15,437.17/80 = 193$, However Total No of trees to be planted after expansion will be = 364 Nos.
3. Wide canopy trees will be planted around the parking area to provide shade to the parked vehicles.

The said undertaking was taken on record by SEIAA.

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 conditions imposed by SEAC and observed that Sub condition no. viii of standard Condition III. Water quality monitoring and preservation, Sub-condition no. i of the standard condition VII. Green Belt are required to be amended by

incorporating the details proposed/agreed by the project proponent.

Therefore, the Authority decided to accept the recommendations of SEAC and grant Environmental Clearance for the expansion of steel manufacturing unit namely M/s Jagat Metals Pvt. Ltd., in the revenue estate of Village AmbeyMajra, Near 220 K.V Power House, Mandi Gobindgarh, Tehsil Amloh, Distt. Fatehgarh Sahib, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with amendments / additions as given below:

Amendment in Sub condition no. viii of standard Condition III. Water quality monitoring and preservation

- viii. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge within plant premises to avoid underground contamination due to deposition of pollutants on roof top being highly dense industrial area. As committed, the industry shall adopt village Pond having 8093.71 sqm located in the Village BhmarsiJer, Block Sirhind, Mandi Gobindgarh for harvesting of 36,444 m³ of rain water. As an additional safety measure, the stream carrying waste water of the village shall be diverted in one corner of Phytoid plants trench (designed based on the technology developed by CSIR-NEERI's) divided in different parts, the overflow of each chamber shall be allowed to enter into another chamber which will ultimately lead to purification of water and collected into pond to avoid any contamination of ground water aquifer. 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.

Amendment in Sub condition no. i of standard Condition 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 Wide 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. Wide canopy trees shall also be planted around the parking area to provide shade to the parked vehicles.

Item No. 150.07: Application for obtaining Environmental clearance under EIA notification dated 14.09.2006 for expansion in existing steel Manufacturing unit at Village Jalalpur, Amloh Road, Tehsil Amloh, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab by M/s Dashmesh Castings Pvt. Ltd. (Proposal no SIA/PB/IND/32054/2018)

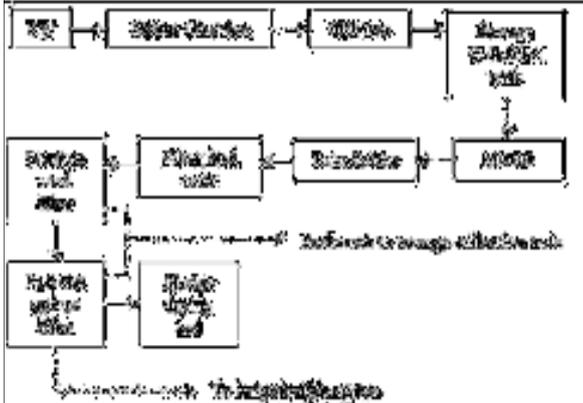
The SEIAA observed as under:

- The project proponent was issued TORs vide letter no.385 dated 21.03.2018 in compliance to the decision taken by SEIAA in its 128th meeting held on 06.03.2018
- The project proponent has now submitted EIA report. Following Essential Details were sought online to which the project proponent replied as under:

S. No.	Observations	Reply
1.	The EIA report shall be presented in the format of points of TOR compliance and be to the point.	The EIA report has been prepared following the generic structure of EIA document. However, the same shall be presented in the format of points of TOR compliance
2.	As per condition no. iii of Part D. Expansion / Modernizations proposals, the project proponent was required to obtain permission from CGWA for abstraction of ground water but the same has not been attached,	Applied to CGWA for groundwater abstraction vide application no. - 21-4/3992/PB/IND/2017 and permission awaited. Copy of application for obtaining permission has been submitted.
3.	As per condition no. v) of Part D. Expansion / Modernizations proposals, the project proponent was required to provide STP whereas in most of the pages of EIA report, Septic tank has been mentioned.	STP of 10KLD capacity will be installed within the premises instead of Septic Tank which has been inadvertently mentioned in the EIA report.
4.	SOPs of PPCB be mentioned and accordingly how the industry will ensure to follow the same, details be provided.	SOP Titled 'Air Pollution Control in the Induction Furnace unit (s)' devised by PPCB vide office order no.- GPC/Guidelines/RS/SP/F-/2018/290 dated 15.06.2018 shall be followed. During Charging & melting - Scrap will be segregated for explosives and closed containers.

		<ul style="list-style-type: none"> - The segregated scrap will be freed from oil, paint and grease by charging the same to I.F. maintained at 300°C and passing the volatile emission through bag filter via suction hood with adequate suction. - The scrap will be cut to size less than the size of crucible. - No overcharging of furnace will not be practiced and dense charge as for as practicable will be charged. <p>Air Pollution Control</p> <ul style="list-style-type: none"> - Bag filters with pulse jet filtration will be used. - Rotator air lock will be operated for collection of dust from hopper. <p>Maintenance of bag filter</p> <ul style="list-style-type: none"> - The pressure drop across the bags will be measured with U- tube manometer and maintained 3-6" (76-152mm). - Maintenance schedule shall be strictly followed. <p>Temperature</p> <ul style="list-style-type: none"> - The temperature of flue gas will be maintained between 100-120°C by proper cooling. <p>Compressor</p> <ul style="list-style-type: none"> - For pulse jet of air, a compressor capable of delivering compressed air of pressure 6-7 kg/cm² shall be provided. The air will be free of oil and moisture. Recommendation of manufacturer should be followed. <p>Fan Maintenance</p> <ul style="list-style-type: none"> - Shall be carried out as per the maintenance schedule.
5.	Is traffic study enough for one day to give representative image of the actual impact on traffic due to expansion of the industry. Clarify.	The traffic study of one day has been considered representative as the one week study is applicable for truck routes such as National Highways, Major District Roads etc.
6.	Details of CER activities be provided in compliance to the provisions of OM dated 01.05.2018.	As per item no. - 6 (iii) of OM dated 01.05.2018, the environmental issues have been addressed in EMP, the issue of employment to locals has been agreed by proponent. The details of other activities as per clause no. 6 (v) has been submitted.
7.	As per condition no.vi of Part E. Site Details, the project proponent was required to attach	The photographs of the green belt have been submitted.

	the photographs of the existing green belt and proposed green belt but the same has not been attached.	
8.	List of industries falling within 10 km radius be provided as condition no. viii of Part E. Site Details.	List of Major Industries have been submitted.
9.	Details of Areas to be identified for disposal of slag as per condition no. xiv b) of Impact Assessment and EMP	The existing slag is being used for low lying area. But after expansion, the slag will be supplied to Brick manufacturing unit. Agreement for the same has already been submitted and being attached as Annexure-IV.
10.	Layout map shall be legible clearly indicating the utilities as per condition no. v) of Part E. Site Details.	<ol style="list-style-type: none"> 1. Plot Area- 15519.267m² 2. Raw Material Store- 2109.36 m² 3. Finish Good Store- 2065.23m² 4. Area of Plantation required – 5121.37 m² 5. Area under Plantation- 4000m² Layout Map has been submitted. The illegible portion of layout is elaborated separately.
11.	Action plan as per condition no. ix and x of Part H. impact Assessment and EMP be provided.	<p>Green Belt At present 50 trees are already there. The remaining area of will be developed and trees of Jamun, Amla, Arjun, Scholar Tree, Champa & Melburry species will be planted.</p> <p>Rain Water Harvesting: Rain Water Harvesting will be done for office block.</p> <p>Maintenance:-</p> <ul style="list-style-type: none"> -The surface material will be removed during the dry season but well before the onset of rains -The mud cake will be periodically removed. -The bore well will be cleaned once in two years by mechanical means and pumping. -The roof tops contributing to RWH will be cleaned twice a year. -The filter media will be charged every rainy season.

12.	Scheme of treatment be provided as per condition no. iv of H. impact Assessment and EMP be provided.	<p>No additional waste water is generated from the manufacturing process. However, the domestic waste water will be treated in the proposed STP of 10KLD. The treated water shall be used for gardening and or Cooling tower make up. The schematic diagram of STP is</p> 
13.	Compliance of specific TORs is provided i.e. as to whether instruments were purchased and installed in the premises for continuous / real time monitoring data.	N/A. As no specific TOR is issued by the competent authority in this regard.

The case was considered by the SEAC in its 180th meeting held on 10.05.2019, which was attended by the following: -

- Sh. Naman Gupta, Director, on behalf of promoter company
- Sh. Sital Singh EIA Co-ordinator cum CEO, M/s CPTL, Chandigarh, Environment consultant of the promoter company.
- Sh. R.S.Rana and Sh. Sandeep Singh (FAE), M/s CPTL, Chandigarh, 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: -

1) Introduction

- a) M/s Dasmesh Castings Pvt. Ltd. is already manufacturing Steel ingots etc. at Village- Jalalpur, Amloh Road, Mandi Gobindgarh, District- Fatehgarh Sahib, Punjab having approved capacity of 28,700 TPA. It is proposed to install two Induction furnaces having capacity 1X10 TPH & 1X20TPH and also enhancing the capacity of Rolling Mill . The capacity of the unit after expansion will be 1,26,000TPA of Steel Ingots/Billets.
- b) Chandigarh Pollution Testing Laboratory (CPTL)-EIA Division was incorporated in 1997. The Registered office of CPTL is at Plot no. E-126, Industrial Area, Phase-

7, Mohali, Punjab. NABET Accreditation: Certificate No. NABET/EIA/1619/SA 057 dated 16th January, 2018.

2) Project at Glance

Type of the Project	Steel Manufacturing Unit		
Finished product	Steel Ingots/Billets and Round, Square, TMT/MS, Bars, Angle, Channel, Flats etc		
Raw material	MS Scrap & Ferro Alloys.		
CAPACITY (TPA)	EXISTING	PROPOSED	TOTAL
Steel Ingots/ Billets	(-) 28,700	(+) 1,26,000	1,26,000
Round, Square, TMT/MS, Bars, Angle, Channel, Flats etc	Nil	1,20,000	1,20,000
Induction Furnace	1 X 7TPH (To be replaced)	1 X 10TPH 1 X 20TPH, VD, LRF & Concast	1 X 10TPH 1 X 20TPH, VD, LRF & Concast
Rolling Mill	Nil	1 Rolling Mill	1 Rolling Mill
Land area (m ²)	9102	6417.27	15519.27
Cost of the project (Crores)	Existing	Additional	Total
	2.43	15.0	17.43
Source of Electricity	P.S.P.C.L.		
Total Load (KVA)	Existing	Additional	Total
	3999	12,000	15,999
No. of Workers	Existing	Additional	Total
	100	125	225
Quantity of Water required	Existing (KLD)	Proposed (KLD)	Total (KLD)
Domestic	3.5	7.0	10.5
Cooling	1.5	28.0	29.5
Total	5.0	35.0	40.0
Source of water	Ground water (Existing Tube well)		

3) Project Approvals

APPROVAL / PERMISSIONS	Details
------------------------	---------

CTO from PPCB	Consent to Operate has been obtained from PPCB under the Water (Prevention & Control of Pollution) Act, 1974 vide Letter No. CTOW/Varied/FGS/2017/6852003 dated 27.12.2017; valid till 30.06.2022 and the Air (Prevention & Control of Pollution) Act, 1981 vide Letter No. CTOA/varied/FGS/2017/6822741 dated 27.12.2017; valid till 30.06.2022.
Authorization for Hazardous Waste	Authorization for Hazardous waste has been obtained from PPCB vide Authorization No. HWM/Fresh/PTA/2017/6337621 dated 09.10.2017 and valid till 30.06.2022.
CGWA Approval	Application has been submitted vide application No. 21-4/3992/PB/IND/2017.
Letter from DTP	Obtained from District Town Planner vide Memo No. 292 dated 28.03.2019.
Certified compliance report from RO, PPCB	Obtained from PPCB, R.O Fatehgarh Sahib vide Letter No. 749 dated 06.03.2019.

4) TOR compliance

a) **Information about the project proponent**

- M/s Dashmesh Castings is a Private firm. The current Directors of the company are Mr. Naman Gupta, Mr. Karan Gupta and Mr. Anil Kumar.
- All the promoters are well versed with the process involved & can handle the project efficiently.

b) **Benefits of project are given below:**

- Economic upliftment of suppressed class.
- Employment for the local people.
- Infrastructure development of area.
- To fulfill the demand – supply gap in the National market.

c) **Cost of the Project and time of completion.**

- Cost of existing project: Rs. 2.43 Cr.
- Cost of proposed project: Rs. 15.00 Cr
- Total cost of project after expansion: Rs. 17.43 Cr
- Time of Completion: The proposed expansion will be completed within one year after grant of EC.

d) The expansion is proposed in the existing premises measuring 2.25 acres (~ 9102 m²). Additional 1.58 acres [land](#) has been acquired.

e) List of raw materials required and their source along with mode of transportation:

Sr. No.	Product Name	Existing (TPD)	Additional (TPD)	Total (TPD)
1.	Furnace Division: Steel Billets/Ingots	(-) 28,700	(+) 1,26,000	1,26,000
2.	Rolling Division: TMT/MS, Bars, Angles, Channels, Flats. Round, square	NIL	1,20,000	1,20,000

Sr. No.	Description	Raw Materials	Quantity (in TPA)	Source	Mode
1.	Existing	MS Scrap & Ferro Alloys	(-) 31,928 (-) 216	Mostly from Local Market	By road through trucks. No. of trucks required: 5 trucks per day
2.	After Expansion	MS Scrap & Ferro Alloys	(+)1,40,200 (+) 1050	Mostly from Local Market	By road through trucks. No. of trucks required: 40 trucks per day

f) Other chemicals and materials required with quantities and storage capacities.

- No chemicals are used in the manufacturing process. However, analytical grade chemicals/reagents are required in small quantities in the laboratory for quality control. These chemicals don't require much storage area.

g) Details of Emission, effluents, hazardous waste generation and their management.

Sr. No.	Source	Capacity	Chimney Height (m)	APCD
Existing				
1.	Induction Furnace	1 x 7 TPH	22 m	Side suction Hood with Bag house
2.	DG sets	125 KVA	2.5 m	----
After Expansion				
3.	Induction Furnace	1 x 10 TPH	30 m each	Side Suction Hood, Spark Arrestor, Bag House, ID fan
		1 x 20 TPH, LRF, VD & Concast		
4.	DG sets	125 KVA	2.5 m	----

Effluents

Sr. No	Details	Existing	After Expansion	Remarks
1.	Industrial Effluent	Nil	Nil	No industrial effluent generated
2.	Domestic Effluent	2.8 KLD	5.6 KLD	Wastewater generated from the project is being treated in the STP installed having capacity 10 KLD. After expansion, STP will be sufficient to cater load.

Hazardous Waste

Sr. No.	Hazardous Waste Category	Quantity	Disposal
1.	35.1 –Gas cleaning Residue	28.0 T/Annum	Designated TSD/Approved Vendors for recovery of metals
2.	5.1 – Used Oil	0.02 KL per annum	Authorized Recyclers/Lubricant within the Industry

h) Water requirement:

- Source: Ground water
- Total water requirement: 40 KLD.
- Application to CGWA for ground water abstraction is applied

Sr. No.	Description	Existing (KLD)	Proposed (KLD)	After expansion (KLD)
1.	Domestic Water Demand	3.5	7.0	10.5
2.	Cooling Water Demand	1.5	28.0	29.5
Total Water Demand		5.0	35.0	40

i) Power with source of supply: Punjab State Power Corporation Limited (PSPCL)

- Existing Power Demand: 3999 KVA
- Proposed Demand: 12000 KVA
- Total: 15999 KVA
- Manpower requirements:

- Existing manpower: 100;
- Proposed manpower: 125;
- Total manpower after expansion: 225

j) List of machinery

Sr. No.	Equipment / Machinery	Existing	Proposed	After Expansion
1.	Induction Furnaces	1 X 7 TPH (to be replaced)	1 X 10 TPH & 1 X 20 TPH	10TPH- 01 No. 20TPH- 01 No.
2.	LRF, VD	----	01 No., 01 No.	01 No., 01 No.
3.	Concast Machine	----	01 No.	01 No.
4.	Rolling Mill	----	01 No.	01 No.
5.	EOT Cranes	05	04	09
6.	D.G sets	125 KVA	250 KVA	02 No.- 125 KVA and 250 KVA

k) Hazard identification and details of proposed safety systems

Risks involved in the furnace are:

Risk	Causes	Mitigation Measures
Steam Explosions	<ul style="list-style-type: none"> ➤ Moisture containing MS Scrap, alloys ➤ Heavily oxidized or rusted materials 	<ul style="list-style-type: none"> ➤ Moisture free usage of raw materials ➤ Preheating of raw materials ➤ Use of moisture free Alloys
Chemical Explosions	<ul style="list-style-type: none"> ➤ Presence of chemicals or explosive substances in the metal scrap ➤ Accidental mixing of oxidizing substances, like paints and varnishes, oil containing scrap. 	<ul style="list-style-type: none"> ➤ Effective raw material segregation and storage ➤ Using safe raw material
Fire breakouts	<ul style="list-style-type: none"> ➤ Sparking in electrical substations or cable networks ➤ Accidental ignition of oil in equipment such as transformers ➤ Infiltration of water, failure of core insulation, or exterior fault currents 	<ul style="list-style-type: none"> ➤ Taking care while designing the electrical substation ➤ Transformers shall be located away from other buildings

Noise	<ul style="list-style-type: none"> ➤ Due to noise from machinery 	<ul style="list-style-type: none"> ➤ Proper protective measures will be provided to workers.
Mechanical Hazards	<ul style="list-style-type: none"> ➤ Accidental fall of heavy equipment 	<ul style="list-style-type: none"> ➤ Personal Protective Equipment for the workers shall be provided to avoid the accidents. ➤ Proper training for the employees to use the equipment properly.
Heat Stress Heat stroke Discomfort Rashes	<ul style="list-style-type: none"> ➤ Heat from furnace ➤ Seasonal factors including high air temperature and relative humidity, or low air movement ➤ Excessive or unsafe clothing 	<ul style="list-style-type: none"> ➤ Shielding radiant heat emissions from plant ➤ Installing spot coolers, blowers, fans or air-conditioning to relieve heat and circulation of air ➤ Using ventilation to draw in cooler air ➤ Automating tasks where practicable ➤ Providing respite areas for workers
Burns Damage of skin	<ul style="list-style-type: none"> ➤ Touching hot surfaces ➤ Splashing of molten metal 	<ul style="list-style-type: none"> ➤ Separating workers not directly involved in casting operation from the casting area ➤ Automating machinery to minimize risks ➤ Designing and controlling processes to prevent unexpected reactions occurring ➤ Providing protective barriers to prevent exposure to heat and splashes ➤ Providing task-specific PPE
Electrocution May cause serious burn injuries or can be fatal	<ul style="list-style-type: none"> ➤ Exposure to electricity ➤ 'flashover' or 'arc' can electrocute when close to a line conductor without any actual contact. ➤ Excessive sweating ➤ Strong electromagnetic fields which can be hazardous to people with heart pacemakers or other medical implants. 	<ul style="list-style-type: none"> ➤ The sources of electrical risk eliminated ➤ The machinery shall be de-energized before maintenance starts ➤ The safety switches shall be installed and tested regularly ➤ The damaged coils shall be replaced before the operation of the furnace.

		<ul style="list-style-type: none"> ➤ The workers shall be provided task-specific protective clothing in the industry.
--	--	--

- l) The application for the permission from CGWA for abstraction of ground water has been submitted.
- m) Separate Suction Hoods shall be provided with Ladle Furnace and the Vacuum Degasser and the same will be routed to Bag Filter House.
- n) With the increase in manpower the existing Septic Tank will be dispensed with and the waste water will be treated through STP of 10 KLD capacity within the premises.
- o) The project site covered under Toposheet No. 53B/2 & 53 B/6; Scale 1: 50,000 covering 10 km of the study area.
- p) Co-ordinates of the project location are:
A: 30°38'18.68"N and 76°15'58.40"E; B: 30°38'13.16"N and 76°16'01.44"E
- q) Google Earth Image showing project location and its surroundings within 500 m has been shown.
- r) Layout showing existing and proposed features have been shown. Project is located within the industrial zone.
- s) The general Geological features and Geo-hydrological status of the study area is given below:
 - Sub surface geological formation comprises of fine to coarse grained sand, silt, clay & kankar.
 - Soils in the area are sandy loam at the surface.
 - Sub surface geological formation shows the existence of top layer of 10-15m of clay, kankar with sand lenses. This layer is followed by granular zones of 20 to 30m in thickness. At a depth of 90 to 120m another clay bed of 25 to 30m in thickness exists.
 - Depth to water level ranges between 10-20m bgl. The ground water flows from North East to South West direction.

- Total thickness of alluvium is expected to be more than 550m as bed rock has not been encountered upto that depth
- t) There is no major river situated within 1 km of site. Drainage map of the study area is provided in next slide.
- u) The area of the project is 9102.0 sqm However, in addition to this, area of 6417.27 sqm has been acquired.
- v) The project doesn't involve any displacement of population and subsequent Rehabilitation & Resettlement.
- w) No forest land is involved, hence no forest clearance required.
- x) The project site is located in sub -tropical region characterized by four seasons:
 - Winter: November to February
 - Summer: March to June
 - Monsoon: July to Mid September
 - Post Monsoon: Mid September to Mid November
 - May & June are the hottest months, daily maximum & minimum temperature in the region 38.6°C & 23.1°C respectively. December & January are the coldest months with maximum & minimum temperature 20.4°C & 6.1°C respectively
 - The annual average rainfall in the region is 654 mm
 - The maximum-minimum temperature at site are observed as 36.3°C & 10.2°C
 - The RH(%) at site varies from 42 to 88
 - The maximum/minimum wind speed at site is 18 & 0 m/sec
 - The dominant wind direction at site is observed as NW-SE.
- y) Monitoring has been done as per CPCB guidelines.
 - P-98 of PM₁₀ is 106.8µg/m³ and it is just above the NAAQ standards of 100µg/m³, as the project site is located in Industrial Area.
 - P-98 of PM_{2.5} is 46.8µg/m³ which is well within the NAAQ standards.
 - The levels of SO₂ are much below the desired limits of 80µg/m³ P98 is 16.9µg/m³.
 - The levels of NO_x are also below the desired limits of 80µg/m³ P98 is 45.8µg/m³.
 - The level of CO are also below the desires limits of 4.0mg/m³ P98 is 0.66 mg/m³.
 - The overall AQI lies between (51-100) which is satisfactory for health.
- z) Pavanaarekh has been used to plot Wind Rose Diagram. The wind rose diagram shows the predominant winds are mainly flowing from North- West to South-East.
- aa) The maximum contribution in GLC's, with units operation are 0.31µg/m³ for PM10 at 706 m NW [315°] direction from stack.

- bb) The site does not fall near to polluted stretch of river identified by the CPCB/MoEF& CC. One surface water body has been tested from nearby Bhakra Canal. Results of Bhakra Canal shows that BOD is <10 mg/l & pH is nearly 7. Other parameters like Magnesium, Chloride and Sulphate are also present, but in less quantity.
- cc) Ground water quality has been measured at 8 locations. All the above parameters at the various locations in the study area are within permissible and tolerable limits for drinking purpose. The underground water in the area satisfy the drinking water standards w.r.t the tested parameters. In the study area since the samples have been collected from different sites at isolated places, the level of concentration of different elements vary quite considerably which may be due to small aquifers. However, the levels of the various constituents are within permissible norms for drinking water. The parameters of surface water are also within permissible norms for drinking water except e-coli. So, it is not potable but can be useful for other purposes.
- dd) Noise level monitoring has been measured at 8 locations Highest noise level was observed at project location.
- ee) Soil Samples have been collected from 8 locations and the texture of the soil is sandy loam having light brown to dark brown colour.
- ff) Adequate parking for 40 trucks has been provided within the project premises. Traffic study has been conducted on 2 points. Detailed traffic study is shown and increase in traffic due to proposed project shall be taken care by acquiring additional land .Traffic study measurement was performed at two points: Near the turning point from Amlah Road to the factory as well as Near Radha Swami Satsang Bhawan Beas to assess the impact on local transport infrastructure due to the expansion of the project M/s Dasmesh Castings Pvt. Ltd. located at Jalalpur, Amlah Road, Mandigobindgarh, District- Fatehgarh Sahib, Punjab. Most of the material will be transported via either Gobindgarh side or Amlah side of Gobindgarh Amlah Road which is 3.75m wide road with good quality shoulders. Traffic study was done on for Three days. The traffic study was conducted at two points 'A'- Near the turning point from Amlah Road to the factory and 'B'- Near Radha Swami Satsang Bhawan Beas.
- From the traffic analysis, it has been observed that due to additional transportation of raw materials & products, the LOS will be insignificantly affected as the LOS on the studied stretch of road will remain the same.
 - However, this stretch of road has structurally failed and is full of pot holes throughout its entire length and breath, a problem to be addressed by the concerned authorities.

gg) Parking Area Details

- Parking Area = 654.41 m²
- No. of trucks which can be parked inside the premises = $654.41 / 37.5 = 17.4$
- Trucks per hour = $17.4 / 8 = 2.2$ trucks say 2 Trucks

- hh) There is no reserve or protected forest in the area and vegetation is restricted along road side and other open areas only. The vegetation in the area is mixed type and in the canal banks and gullies, the vegetation is evergreen and semi-evergreen type. No rare & endangered plant species were observed.
- ii) The salient observations recorded during socio economic survey in the study areas are depicted below:
- Livelihood of the villagers is primarily based on agriculture sector. Majority of main workforce are engaged as cultivators or agriculture labourers.
 - Most of the villages have Primary School (PS) while in some villages it is extended up to Middle School (MS). For higher education reputed educational institutes are available in 20- 25 km stretch of project area.
 - The main source of drinking water supply is through hand pumps and bore wells in addition to the Government water supply.
 - The Government medical facilities in the form of primary health sub- center and private medical practitioners are available in the villages. Villagers expressed satisfactory opinion regarding the facilities are available at the center. ANM (Auxiliary Nurse Midwife) frequently visits all the villages and regular vaccination and health checkups camps are organized by the health center.
 - Two wheelers, auto rickshaws & bus facility are the main mode of transportation used by natives in the study area.
 - Power supply was available in all the villages in study area. Street lights are also available in all villages but frequent power cut/ load shedding problem is experienced by the people in the area LPG is a major fuel used for cooking purpose. Post office and banking facilities are available in the study area.
 - Majority of surveyed population opened positively regarding the proposed project as most of the local population will be given preference in employment and the activity will help in development.
 - The people were optimistic about the employment opportunity in Government sector and other welfare schemes to be implemented by the state Government.
 - There was complete communal harmony and none reported violation of human rights.
 - The agricultural operations in the study area were mostly mechanized. No migrant labour is employed.
- jj) For predicting the impacts of proposed expansion, the contribution to the existing air quality from the ongoing operation of industry has been taken into account by monitoring the stack emission. Post expansion forecasting has been done using the AERMOD view & the local meteorology to ensure the compliance of the air quality standards. Based on the perusal of modeling results, it is seen that the resultant PM10 concentration after the implementation of project will be 97.31 µg/m³ at 706m (NW) from project site. Due to the implementation of adequate & appropriate control measures like pollution control devices, tree plantation & dust suppression, and the adverse impacts are likely to be insignificant.

- kk) As estimated 30-40 trucks @ 20 ton/truck will be used daily for the transportation of RM, finished products & slag. Based on the traffic study, this increase will not affect the existing carrying capacity of concerned road and the LOS.
- ll) No waste water is generated from the industrial operations. However, 8.4 KLD domestic waste water will be treated in 10 KLD STP and used in landscaping and plantation.
- mm) Action Plan for Emission Control
- Specific Measures:
- The I.F's shall be provided with APCS comprising side suction hood, spark arrestor, bag filter & ID fan will be provided.
 - The APCS will be operated and monitored as per SOP prescribed by the board.
 - Dispersal of gases & particulate through adequate stack height.
 - Fugitive emission during process operation will be controlled by ventilation system.
 - Heat dissipation in work zone will be effected by exhaust ventilation
- General Mitigation Measures
- Regular sweeping and sprinkling of roads.
 - Speed level for vehicles.
 - Unnecessary blowing of horns and idling of vehicles will be prohibited.
 - Vehicles meeting the vehicular emission norms will be employed.
 - All internal roads are paved.
- nn) For fugitive emissions during furnace charging side suction hood have been provided. Fugitive emission like smoke, gas and heat around the furnace will be taken care of by proper exhaust ventilation.
- oo) With the proposed implementation there will be 02 no. furnaces 1X10 TPH & 1X20 TPH. The H.W. in the form of gas cleaning residue will be 0.08 TPD. The same shall be collected in HDPE bags & stored in covered shed having pucca floor before disposal to approved vendors for metal recovery. About 20 TPD of slag which is not a H.W will be generated and the same after recovering of iron will be supplied to manufacturers of cement concrete blocks, pavers & tiles under proper agreement. 20 liters/annum of used oil from D.G. sets will be collected in drums and stored in covered pucca flooring and sold to authorized recyclers/used as lubricant within the industry. Slag lifting agreement has been submitted.
- pp) No fly ash is either generated in the unit no it will be generated after expansion. However, during construction, wherever required fly ash based cement and other products such as blocks, pavers, bricks & tiles will be used.
- qq) Out of 9102 m² area of project, 3004 m² has been earmarked for Green Belt, out of which about 15% is already developed of Green Belt. Plantation will be done as per CPCB norms and PPCB guidelines. The species planted/to be planted are: Amaltas, Arjun, Jamun, Mulberry, Mango, Amla & Poplar.

rr) The R.W available for harvesting:

- from covered area = $2540 \times 0.90 \times 0.692 = 1582 \text{ cum}$
- from road area = $3559 \times 0.60 \times 0.692 = 1478 \text{ cum}$
- from green area = $3004 \times 0.3 \times 0.692 = 624 \text{ cum}$
- Total = 3684 cum/annum
- The same will be recharged through 1 no. RWH pit as per design of CGWA.
- Total water requirement/annum = 14000 cum @40KLD
- Extent of water conservation = 26.3%

ss) Details of the amount to be spent on EMP after expansion is given below:

Sr. No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1.	Pollution Control during construction stage	2.0	---
2.	Air Pollution Control (Installation of APCD)	20.0	5.0
3.	Water Pollution Control / septic tank upgradation	5.0	0.5
4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	3.0	2.5
5.	Solid Waste Management	2.0	0.5
6.	Environment Monitoring and Management	3.0	0.5
7.	Occupational Health, Safety and Risk Management	2.0	0.5
8.	RWH	2.0	0.5
9.	Miscellaneous	1.0	---
	Total	40.0	10.0

tt) The slag is crushed and iron is recovered magnetically before its disposal. Presently, slag is being disposed off in low lying areas within the premises. However, with coming into being of proposed expansion, the same shall be utilized in making cement concrete blocks, pavers & tiles by supplying the same to such facility under proper MOU/agreement.

uu) An amount of Rs. 2.0 lacs have been provided for the occupational health & safety of workers. This includes Routine health check-up of workers which is being carried out at Nirmal Hospital. The medical histories of all the employees will be maintained in a standard format.

Frequency of Periodical Examination will be done as per below:

For employees <30 Years, once in five years
 Between 31-50 Years, once in four years
 Between 41-50 Years, once in two years
 Above >50 years once a year

- vv) The industry has well defined Environmental policy and the same is executed by EMC. The main objections of policy are:
 - o Waste minimization, recycling, energy conservation and use of alternative material which are practicable and cost effective.
 - o Training, education and information to employees.
 - o Compliance of provisions of applicable environmental laws.
- ww) Environment Management Cell will be responsible to deal with all the environmental issues:
- xx) Representative of Management (Head of Environment Cell).
 - d) Process In-charge
 - e) In-charge Maintenance Department
 - f) A representative of Environmental Consultants
- yy) Environment Management Cell will be responsible for all Environment related activities.
- zz) Workers, casual labour and truck drivers have already been provided basic amenities like toilets, drinking water, canteen and the restroom/change room and the same will be available for construction workers.
- aaa) An amount of Rs. 15.0 Lakhs has been earmarked for CER. The details of the activities proposed to be covered under CER are given on next slide.

Sr. No	Activity	Environmental Aspects	Capital Cost (Rs. Lac)	Recurring Cost (Rs. Lac /annum)	Time line
1.	Providing Solar lights in Village- Jalalpur 20 No. @ Rs.15000/- each	Energy saving	3.0	0.05	Within one year of Grant of EC
2.	Providing Bio-Composting plant in Village Jalalpur	Sanitation & Health	5.0	0.20	Within one year of Grant of EC

3.	Education, training & supply of bio fertilizers to farmers in Village Jalalpur	Crop yield & Soil fertility	4.0	0.05	Continuing for five years
4.	Tree plantation along the village link road & common land of Village Jalalpur	Aesthetics & Pollution Control	3.0	0.10	Within one year of Grant of EC
Total			15.0	0.40	

bbb) As per layout plan, the area details are as under: -

Description	Area Details (Sq.m)
Total Area of Plot	15519.27
Raw Material Store	1857.13
Finished Goods Store	1055.03
Area of Plantation	5240
Truck Parking Shed	231.70
Truck Parking Area	422.71
Proposed Rolling Mill Area	495.64
Hazardous Waste Area	11.15
Slag Area	139.35
Proposed 66kVA	297.29
Employee Parking Area	76.65

ccc) The existing unit is disposing APCD dust to TSDF at DeraBassi. However, in future the same shall be supplied to M/s Madhav Alloys for recovery of Zinc. The used oil is partly used as lubricant within the industry & the balance sold to authorized recyclers.

ddd) As per CPCB slag is not a hazardous waste. It will be used in the manufacturing of cement, concrete blocks, pavers & tiles under proper MOU/Agreement.

eee) Baseline data has been collected for the Post- Monsoon season i.e. February to April, 2018.

fff) Action Plan to address the issues raised in the Public Hearing:

Sr. No.	Action Plan
1.	The employment is a continuous process and will start with the construction work and continue through the working of the industry. Local people are/will be employed except the tradesman not available local.
2.	The upgraded version of APCD as designed by PSCST will be provided and operated as per SOP revised by PPCB. The system will be operational with the commissioning of plant.
3.	To check the adverse effect on health of children of nearby Govt. School, health checkup will be organized once a year and it will commence six month of operation of facility and continue throughout.
4.	Through the operation, the APCS is interlinked with the process and the electricity meter reading is taken. The life span of bag filter is affected by quality of cloth, pressure and the temperature of the flue gas. Bag filter of good quality will be provided and sufficient number will be kept for replacement of ruptured bags. PPE equipment are/will be provided and their use while on duty be enforced through safety management and education. Safety will be observed all the time

ggg) Common monitoring was carried out in the buffer zone and separate monitoring was carried out in the core zone for the purpose of collecting baseline data to prepare EIA report of both the industries MsSalasar Castings, Village-Mullanpur Kalan, Tehsil-Sirhind, District-Fatehgarh Sahib, Punjab & M/s Bhawani Castings Pvt. Ltd., Village AmbeyMajra, Tehsil-Sirhind, District Fatehgarh Sahib, Punjab.

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

Observation 1)	As to whether separate bag house filter shall be installed on induction furnace and ladle refining furnace or common APCD for the proposed machinery?
Reply 1)	A separate bag filter house as an APCD shall be installed on induction furnace and ladle refining furnace.
Observation 2)	a) 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. b) Whether permission to abstract groundwater for industrial use has been obtained from CGWA.
Reply 2)	a) Amlon is a notified area with area type category declared as over exploited area by the CGWA. They will obtain the necessary permission from the regulatory authority for abstraction of ground water for the project. If they will not be able to get the permission for the same then industrial water requirement will be met by sourcing it from the STP of

	<p>Municipal Council, Mandi Gobindgarh and permission will be taken from District Advisory Committee for domestic and plantation purpose.</p> <p>b) The application for obtaining permission to abstract groundwater for industrial use has been submitted online to CGWA and the same is under process.</p>																														
Observation 3)	Proposed CER activities are not in line with the OM dated 01.05.2018. Submit the revised activities along with amount to be spent.																														
Reply 3)	<p>Details of revised CER activities and activities to be done are given below:</p> <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Activity</th> <th>Environmental Aspects</th> <th>Cost (Rs. Lac)</th> <th>Time line</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Providing Solar lights in Village- Jalalpur 20 No. @ Rs.15000/- each</td> <td>Energy saving</td> <td>3.0</td> <td>November 2019</td> </tr> <tr> <td>2.</td> <td>Providing Bio-Composting plant in Village Jalalpur</td> <td>Sanitation & Health</td> <td>5.0</td> <td>February, 2020</td> </tr> <tr> <td>3.</td> <td>Provide separate toilets for boys and girls in school of Village Jalalpur</td> <td>Sanitation</td> <td>4.0</td> <td>April 2020</td> </tr> <tr> <td>4.</td> <td>Providing 02 no. of R.O. & water cooler in the school of Village Jalalpur</td> <td>Promotion of health</td> <td>3.0</td> <td>June 2020</td> </tr> <tr> <td colspan="3" style="text-align: center;">Total</td> <td>15.0</td> <td></td> </tr> </tbody> </table>	Sr. No	Activity	Environmental Aspects	Cost (Rs. Lac)	Time line	1.	Providing Solar lights in Village- Jalalpur 20 No. @ Rs.15000/- each	Energy saving	3.0	November 2019	2.	Providing Bio-Composting plant in Village Jalalpur	Sanitation & Health	5.0	February, 2020	3.	Provide separate toilets for boys and girls in school of Village Jalalpur	Sanitation	4.0	April 2020	4.	Providing 02 no. of R.O. & water cooler in the school of Village Jalalpur	Promotion of health	3.0	June 2020	Total			15.0	
Sr. No	Activity	Environmental Aspects	Cost (Rs. Lac)	Time line																											
1.	Providing Solar lights in Village- Jalalpur 20 No. @ Rs.15000/- each	Energy saving	3.0	November 2019																											
2.	Providing Bio-Composting plant in Village Jalalpur	Sanitation & Health	5.0	February, 2020																											
3.	Provide separate toilets for boys and girls in school of Village Jalalpur	Sanitation	4.0	April 2020																											
4.	Providing 02 no. of R.O. & water cooler in the school of Village Jalalpur	Promotion of health	3.0	June 2020																											
Total			15.0																												
Observation 4)	Details of activities to be undertaken as per the commitment made during public hearing of the industry be provided.																														
Reply 4)	<p>The company has made a commitment of Rs.50 Lacs during Public hearing and details of same are as under:</p> <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Activity</th> <th>Name of Village</th> <th>Amount in (Rs. Lac)</th> <th>Action Plan (Time line)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Development of crematorium, boundary wall, shed, hand pump, benches and tree plantation</td> <td>Village LadpurTuran</td> <td>10.0</td> <td>Work already started and will be completed in November 2019</td> </tr> <tr> <td>2.</td> <td>Welfare of schedule caste & OBC by providing sewing machines</td> <td>Jalalpur & Village LadpurTuran</td> <td>5.0</td> <td>March, 2020</td> </tr> <tr> <td>3.</td> <td>Development and repairing of Anganwadi centre</td> <td>Village Jalalpur</td> <td>15.0</td> <td>September 2021</td> </tr> <tr> <td>5.</td> <td>Development of boundary and plantation of Govt. Primary School</td> <td>Jalalpur</td> <td>10.0</td> <td>Every alternate year @Rs.2.0 lac beginning 2021</td> </tr> <tr> <td>6.</td> <td>Development and repair of building of Dispensary</td> <td>Khumna</td> <td>10.0</td> <td>Every alternate year @Rs.2.0 lac beginning 2021</td> </tr> </tbody> </table>	Sr. No	Activity	Name of Village	Amount in (Rs. Lac)	Action Plan (Time line)	1.	Development of crematorium, boundary wall, shed, hand pump, benches and tree plantation	Village LadpurTuran	10.0	Work already started and will be completed in November 2019	2.	Welfare of schedule caste & OBC by providing sewing machines	Jalalpur & Village LadpurTuran	5.0	March, 2020	3.	Development and repairing of Anganwadi centre	Village Jalalpur	15.0	September 2021	5.	Development of boundary and plantation of Govt. Primary School	Jalalpur	10.0	Every alternate year @Rs.2.0 lac beginning 2021	6.	Development and repair of building of Dispensary	Khumna	10.0	Every alternate year @Rs.2.0 lac beginning 2021
Sr. No	Activity	Name of Village	Amount in (Rs. Lac)	Action Plan (Time line)																											
1.	Development of crematorium, boundary wall, shed, hand pump, benches and tree plantation	Village LadpurTuran	10.0	Work already started and will be completed in November 2019																											
2.	Welfare of schedule caste & OBC by providing sewing machines	Jalalpur & Village LadpurTuran	5.0	March, 2020																											
3.	Development and repairing of Anganwadi centre	Village Jalalpur	15.0	September 2021																											
5.	Development of boundary and plantation of Govt. Primary School	Jalalpur	10.0	Every alternate year @Rs.2.0 lac beginning 2021																											
6.	Development and repair of building of Dispensary	Khumna	10.0	Every alternate year @Rs.2.0 lac beginning 2021																											

	Total	50.0																						
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 5)	<ul style="list-style-type: none"> i) Roof top rain water contribution (1985 cum), green area contribution (496 cum) and open area contribution (256 cum) and recharge to ground water within factory premises= 2737 m³/ year ii) Recharge to ground water from the pond at Village Jalalpur = 73894 m³/year iii) Total = i) +ii) =76631 m³/yr iv) 76631 m³ /year will be recharged / saved against ground water withdrawal of 14,400 m³/yr, which is more than 200% of the withdrawal being over exploited block v) NOC from the Sarpanch of Village Gram Panchayat Jalalpur has been submitted by the industry wherein the industry has been allowed to adopt the pond in the village and for improving the same by implementing rain water harvesting. vi) The industry has also submitted an undertaking to the effect that they will ensure to recharge the ground water at the rate of twice the amount of ground water abstracted for industrial use. 																							
Observation 6)	<ul style="list-style-type: none"> a) Green belt area as been proposed on the three sides of the industry whereas in compliance to TOR condition, the industry has to provide green belt all along the periphery of the plant. As such, revised lay out plan by incorporating the green belt along the periphery be submitted. b) Is Parking space adequate in the premises after expansion. 																							
Reply 6)	<ul style="list-style-type: none"> a) The industry submitted that the additional land (6417 sqm) has been owned by them. As per the Master Plan of the area, the whole of the land including newly proposed additional land falls in the industrial zone. The industry shall develop 33% of the total area(5240 sqm) as a green belt. A revised layout plan showing green belt area to be developed along the periphery to the maximum extent has been prepared and a copy of same has been submitted. The industry will consult his architect & process engineer to remove the unproductive construction built along the boundary wall so as to accommodate the green belt along whole of the boundary wherever possible to the maximum extent. b) The parking area inside the premises is sufficient for parking of 40 trucks. Undertaking has been submitted in the matter. Further, the area details after revising the plan is given below: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sr.no.</th> <th>DESCRIPTION</th> <th>AREA (m²)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Total Plot area</td> <td>15519.27</td> </tr> <tr> <td>2.</td> <td>Raw Material storage area</td> <td>1857.13</td> </tr> <tr> <td>3.</td> <td>Finish Goods storage area</td> <td>1055.03</td> </tr> <tr> <td>4.</td> <td>Plantation Area</td> <td>5240</td> </tr> <tr> <td>5.</td> <td>Truck parking shed</td> <td>231.70</td> </tr> <tr> <td>6.</td> <td>Truck parking area</td> <td>422.71</td> </tr> </tbody> </table>			Sr.no.	DESCRIPTION	AREA (m²)	1.	Total Plot area	15519.27	2.	Raw Material storage area	1857.13	3.	Finish Goods storage area	1055.03	4.	Plantation Area	5240	5.	Truck parking shed	231.70	6.	Truck parking area	422.71
Sr.no.	DESCRIPTION	AREA (m²)																						
1.	Total Plot area	15519.27																						
2.	Raw Material storage area	1857.13																						
3.	Finish Goods storage area	1055.03																						
4.	Plantation Area	5240																						
5.	Truck parking shed	231.70																						
6.	Truck parking area	422.71																						

	7.	Hazardous waste area	11.15
	8.	Slag area	139.35
	9.	Proposed transformer	297.29
	10.	Employee Parking area	76.65
Observation 7)	Whether the stack of height 22 m is sufficient with the APCD. Further, what kind of APCD shall be provided with induction furnace and LRF and as to whether common stack shall be provided or separate stack shall be provided with the induction furnace and LRF.		
Reply 7)	Common Stack of height 30 m shall be provided with induction furnace and LRF. Common APCD i.e. Bag filter shall be provided with induction furnace as well as LRF but with separate suction system..		

SEAC took the reply and copy of presentation on record.

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 expansion of unit in the existing premises located in the revenue estate of Village- Jalalpur, Amlah Road, Mandi Gobindgarh, District- 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 Dashmesh Castings Pvt. Ltd. Village Jalalpur, Amlah Road, Tehsil Amlah, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab		
2.	Nature of project (Fresh/Expansion Amendment/Others)	Expansion project		
3.	a) Category b) Activity (as per schedule appended to EIA Notification, 2006 as amended time to time.)	a) B-1 b) 3(a) Metallurgical Industries (Ferrous & Non Ferrous Alloys).		
4.	Area Details	Existing	Additional Land	After Expansion

	Plot Area	9102 sqm	6417.27sqm	15519.27 sqm	
4.	Co-ordinates of the project site	Latitude: - 30°38'18.53"N, 30°38'17.79"N , 30°38'13.87"N, 30°38'13.01"N, 30°38'14.02"N, 30°38'18.36"N Longitude:- 76°16'00.48"E, 76°16'02.47"E, 76°16'02.56"E, 76°16'01.48" E, 76°15'58.15" E, 76°15'58.33" E			
5.	Project Cost (After expansion)	Rs. 17.43 Crores			
6.	Raw Material requirement (After expansion)	Scrap@ 1,40,200 TPA & Ferro Alloys @1050 TPA			
7.	Production Capacity (After expansion)	Steel Ingots/ Billets@ 1,26,000 TPA TMT/ MS Bars, Round squares, Channels, Angles, flats @1,20,000 TPA			
8	Details of major productive machinery/plant (After expansion)	(i) 2 Nos induction furnaces (1 x 10 TPH, 1 x 20 TPH) (ii) 01 Nos VD (iii) 01 LRF & 01Concast (iv) 01 Rolling Mill of capacity 1,20,000 TPA			
9.	Manpower (After expansion)	225 persons			
10	Water Requirements & its source(After expansion)	Total Water Demand: 40KLD i) Domestic: 10.5 KLD ii) Cooling: 29.5 KLD 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	
	i)	Industrial Effluent	Nil	No industrial effluent generated	
	ii)	Domestic Effluent.	5.6 KLD	Wastewater generated from the project will be treated in the STP of capacity 10 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	1 x 10 TPH and 1 x 20 TPH each	30 m each	Side suction Hood spark arrestor followed by Bag Filter
	ii)	DG sets	125 KVA	2.5 m	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	28 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	0.02 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	20.0 TPD	Shall be reprocessed through M/s New Brick kiln after recovery of metals for manufacturing of bricks
15.	Energy Requirements (After expansion)	i) Power load 15,999 KVA through PSPCL. ii) Single silent DG set of capacity 125 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	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
	1.	Pollution Control during construction stage	2.0	---
	2.	Air Pollution Control (Installation of APCD)	20.0	5.0
	3.	Water Pollution Control / septic tank upgradation	5.0	0.5
	4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	3.0	2.5
	5.	Solid Waste Management	2.0	0.5
	6.	Environment Monitoring and Management	3.0	0.5
	7.	Occupational Health, Safety and Risk Management	2.0	0.5

8.	RWH	2.0	0.5
9.	Miscellaneous	1.0	---
	Total	40.0	10.0

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.
- ix. 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 the siting criteria, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of units.
- vii. The project proponent shall comply with the conditions imposed by District Town Planner vide Memo No. 292 dated 28.03.2019.

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 31st 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. PM10 and PM25 in reference to PM emission, and SO2 and NOx in reference to SO2 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 7thDecember 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) 31stMarch 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. The project proponent shall practice rainwater harvesting to maximum possible extent i.e. pond in the Village Jalapur, Amloh Road, Tehsil Amloh, Mandi Gobindgarh shall be adopted with rain water recharging@ 76631 m³/yr.
- ix. 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 in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. 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.
- ii) The additional land of 6417 sqm proposed to be added for the expansion project to fulfill the 33% requirement of green belt shall not be used for any other purpose
- iii) 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	Activity	Name of Village	Amount in (Rs. Lac)	Action Plan (Time line)

1.	Development of crematorium, boundary wall, shed, hand pump, benches and tree plantation	Village Ladpur Turan	10.0	Work already started and will be completed in November 2019
2.	Welfare of schedule caste & OBC by providing sewing machines	Jalalpur & Village Ladpur Turan	5.0	March, 2020
3.	Development and repairing of Anganwadi centre	Village Jalalpur	15.0	September 2021
5.	Development of boundary and plantation of Govt. Primary School	Jalalpur	10.0	Every alternate year @Rs.2.0 lac beginning 2021
6.	Development and repair of building of Dispensary	Khumna	10.0	Every alternate year @Rs.2.0 lac beginning 2021
Total			50.0	

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. 15 Lacs towards following CER activities:

Sr. No	Activity	Environmental Aspects	Cost (Rs. Lac)	Time line
1.	Providing Solar lights in Village- Jalalpur 20 No. @ Rs.15000/- each	Energy saving	3.0	November 2019
2.	Providing Bio-Composting plant in Village Jalalpur	Sanitation & Health	5.0	February, 2020
3.	Provide separate toilets for boys and girls in school of Village Jalalpur	Sanitation	4.0	April 2020
4.	Providing 02 no. of R.O. & water cooler in the school of Village Jalalpur	Promotion of health	3.0	June 2020
Total			15.0	

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 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 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 80 Lacs towards capital cost and Rs 10 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.

XV. 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

XVI. 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, SO₂, NO_x (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 minimize the water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
- ii. 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.
- iii. 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.
- iv. The project proponent shall reserve 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.
- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. The project proponent shall use natural gas (if available) as substitute fuel wherever possible in the existing industry/ for expansion project.
- x. The project proponent shall take necessary action w.r.t. the following:-
 - a) Recovery of iron from slag before disposing it off.
 - b) Identify the areas for utilization of slag in scientific manner and its usage in cement / construction industry / road laying etc.
 - c) Recovery of precious metals like Zinc, lead and iron etc. from the APCD dust (Hazardous waste) through authorized re-processor.
- xi. The project proponent shall obtain mandatory clearances under Pollution Control laws.

The case was considered by the SEIAA in its 150th meeting held on 08.07.2019, which was attended by the following: -

- Sh. Naman Gupta, Director, on behalf of promoter company
- Sh. Sital Singh EIA Co-ordinator cum CEO, M/s CPTL, Chandigarh, Environment consultant of the promoter company.
- Sh. R.S. Rana and Sh. Sandeep Singh (FAE), M/s CPTL, Chandigarh, Environment consultant of the promoter company.

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

To query of SEIAA, the project proponent submitted revised calculations of total area and revised landscape plan which were taken on record by SEIAA. The revised area details are given below:

Sr. No.	Description	Area (sqm)
1.	Shed covered area	5654.27
2.	Office Block covered area	155.48
3.	Labour quarters / Toilet Block/ Metre Room & Hazardous Waste room covered area	552.50
4.	Plantation area	5016.588
5.	Passage & Moving area	1527.76
6.	Transporting parking open area	724.16
7.	Transporting parking covered area	231.78
8.	Staff parking area	20.07 sqm
9.	Cycle parking covered area	78.67
10.	Car parking covered area	33.57

11.	Proposed grid area	297.39
12.	Proposed shed covered area	495.81
	Total	14788.10

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 conditions imposed by SEAC and observed that Sub condition no. viii of standard Condition III. Water quality monitoring and preservation and Sub Condition i & ii. of Standard Condition no. VII Green Belt are required to be amended by incorporating the details of revised area as well as other details proposed/agreed by the project proponent.

Therefore, the Authority decided to accept the recommendations of SEAC and grant Environmental Clearance for the expansion of steel manufacturing unit namely M/s Dashmesh Castings located in the revenue estate of Village Jalalpur, Amloh Road, Tehsil Amloh, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab subject to the conditions as proposed by the SEAC in addition to the proposed measures with amendments / additions as given below:

Amendment in Sub condition no. viii of standard Condition III. Water quality monitoring and preservation

- viii. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge within plant premises to avoid underground contamination due to deposition of pollutants on roof top being highly dense industrial area. As committed, the industry shall adopt Pond having 8983 sqm located in the Village Jalalpur, Amloh Road, Tehsil Amloh, Mandi Gobindgarh, District Fatehgarh Sahib for harvesting of 76631 KL rain water. As an additional safety measure, the stream carrying waste water of the village shall be diverted in one corner of Phytoid plants trench (designed based on the technology developed by CSIR-NEERI's) divided in different parts, the overflow of each chamber shall be allowed to enter into another chamber which will ultimately lead to purification of water and collected into pond to avoid any contamination of ground water aquifer. 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.

Amendment in Sub condition no. i & ii of standard Condition 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 Wide 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. Wide canopy trees shall also be planted around the parking area to provide shade to the parked vehicles.
- ii. The additional land of 5686 sqm proposed to be added for the expansion project to fulfill the 33% requirement of green belt, shall not be used for any other purpose.

Item No.150.08: Application for obtaining environmental clearance under EIA notification dated 14.09.2006 for expansion of steel manufacturing unit by replacing existing induction furnace and adding one rolling mill in Village- Alour, Bhadla Road, Khanna, Ludhiana, Punjab by M/s Chopra Alloys(Proposal no SIA/PB/IND2/29834/ 2018)

The SEIAA observed as under:

- The project proponent was issued TORs vide letter no.360 dated 21.03.2018 in compliance to the decision taken by SEIAA in its 128th meeting held on 06.03.2018
- The project proponent has now submitted EIA report. Following Essential Details were sought online to which the project proponent replied as under:

Sr. No.	EDS	REPLY
1.	Details of Emission, effluents, hazardous waste generation and their management.	The main source of emission will be from the Induction Furnace. This source of emission is fugitive emission from material handling, gases and particulate from vehicular movement & the D.G. set. No effluent will be generated from process. The H.W is generated as dust from Bag Filters and used oil from the D.G. set. The emission from the I.F. are collected in bag house and deposited off at T.S.D.F. Alternatively, the hazardous waste is proposed to be given to M/s Madhav Alloys for Zinc recovery. The used oil is being disposed off to authorized recyclers. Fugitive dust from material handling controlled through water sprinklers and that from I.F. by side suction hood. The gases and particulates from D.G. sets are vented

		<p>through stack of adequate height. The emission from vehicles are controlled through PUC certificate, speed control, staggered movement, no unnecessary idling and blowing of horns. Green belt will take care of aesthetic and pollution control. All process will comply with applicable, emission & stack height norms. Regular monitoring of emission & air quality to be covered as per norms.</p> <p>The APCS will comprise a swiveling type suction hood near the mouth of furnace, a duct for carrying dust larder gas, the gases are cooled to below 150°C before being fed to pulse jet bag filters. An ID fan will finally discharge cleaned gas to atmosphere. For secondary fugitive emission near furnace tapping, the gases are fed to bag filters system to third swiveling hood. The collected dust (1.2 TPD) from bag house is removed by pulse jet and slaved in HDPE bags before disposal. The treated waste water from STP will be used for plantation.</p>
2.	Permission from CGWA for abstraction of ground water shall be submitted during submission of its EIA report.	Copy of complete application along with acknowledgement has been submitted
3.	STP shall be provided inside the premises for treatment of domestic waste water instead of proposed septic tank as manpower will increase significantly after expansion.	With increased manpower 8 KLD waste water will be treated in 10 KLD capacity STP based on MBBR + oxidation point technology.
4.	<p>Site Details</p> <p>Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered. Copy of Master Plan indicating a land use pattern of the site is in conformity of proposal of Master Plan shall be attached with EIA report.</p>	<p>The project is located at Village- Alour, Bhadla Road, Tehsil- Khanna, District- Ludhiana, Punjab.</p> <p>Copy of Master has been submitted. Since, the proposed expansion shall be carried out within the existing facility having all the infrastructure facilities available, alternative site has not been explored.</p>
5.	Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. if located within an Industrial Area indicating location of unit within the Industrial Area/Estate.	The layout map indicating all the requirements has been submitted.

6.	Land use break-up of total land of the project site (identified and acquired), government/private, agricultural, forest, wasteland, water bodies, settlements, etc shall be included (not required for industrial area).	The land use at the project site is industrial.																											
7.	A note on treatment recycling and reuse of wastewater from different plant operations, extent for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under EPA rules.	<p>It is a zero liquid discharge unit. No process related waste water is generated. The cooling water is recycled and only makes up water equivalent to evaporation loss and blow down is required. The makeup water after removal of turbidity/suspended solids will be conditioned by imparting Zn-polyphosphonates treatment to control deposition, fouling and corrosion. The blow down from cooling tower will be treated in STP. The domestic waste water after treatment by Moving Bed Biofilm Reactor (MBBR) technology in STP will be used for plantation within the premises. The characteristics of untreated & treated domestic waste water shall be :</p> <table border="1"> <thead> <tr> <th></th> <th>Untreated</th> <th>After treatment</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>6.8-8.0</td> <td>6.5-9.0</td> </tr> <tr> <td>Suspended Solids</td> <td>100-250mg/L</td> <td>≤ 10</td> </tr> <tr> <td>BOD</td> <td>100-250 mg/L</td> <td>≤ 10</td> </tr> <tr> <td>COD</td> <td>250-5000 mg/L</td> <td>≤ 50</td> </tr> <tr> <td>N-Total</td> <td>25-60</td> <td>≤ 10</td> </tr> <tr> <td>PO₄^{''} (as P)</td> <td>4-10</td> <td>≤ 2</td> </tr> <tr> <td>O/G</td> <td>20-25mg/l</td> <td>≤ 10</td> </tr> <tr> <td>Fecal Coliform No./100ml</td> <td>10⁴-10⁶</td> <td>≤ 230</td> </tr> </tbody> </table>		Untreated	After treatment	pH	6.8-8.0	6.5-9.0	Suspended Solids	100-250mg/L	≤ 10	BOD	100-250 mg/L	≤ 10	COD	250-5000 mg/L	≤ 50	N-Total	25-60	≤ 10	PO ₄ ^{''} (as P)	4-10	≤ 2	O/G	20-25mg/l	≤ 10	Fecal Coliform No./100ml	10 ⁴ -10 ⁶	≤ 230
	Untreated	After treatment																											
pH	6.8-8.0	6.5-9.0																											
Suspended Solids	100-250mg/L	≤ 10																											
BOD	100-250 mg/L	≤ 10																											
COD	250-5000 mg/L	≤ 50																											
N-Total	25-60	≤ 10																											
PO ₄ ^{''} (as P)	4-10	≤ 2																											
O/G	20-25mg/l	≤ 10																											
Fecal Coliform No./100ml	10 ⁴ -10 ⁶	≤ 230																											
8.	Details of stack emission and action plan for control of emissions to meet standards.	<p>The details of stack emission before and after APCD are:</p> <table border="1"> <thead> <tr> <th></th> <th>Before APCD</th> <th>After APCD</th> </tr> </thead> <tbody> <tr> <td>Stack height</td> <td>30m</td> <td>30m</td> </tr> <tr> <td>Stack Diameter</td> <td>0.75m</td> <td>0.75m</td> </tr> <tr> <td>Temperature of stack gas</td> <td>---</td> <td>105°C</td> </tr> <tr> <td>Velocity of flue gas</td> <td>---</td> <td>15-20m/sec</td> </tr> <tr> <td>PM concentration</td> <td>500-700</td> <td><50mg/Nm³</td> </tr> </tbody> </table>		Before APCD	After APCD	Stack height	30m	30m	Stack Diameter	0.75m	0.75m	Temperature of stack gas	---	105°C	Velocity of flue gas	---	15-20m/sec	PM concentration	500-700	<50mg/Nm ³									
	Before APCD	After APCD																											
Stack height	30m	30m																											
Stack Diameter	0.75m	0.75m																											
Temperature of stack gas	---	105°C																											
Velocity of flue gas	---	15-20m/sec																											
PM concentration	500-700	<50mg/Nm ³																											

		<p>The action plan includes the following:</p> <p>Suction hood on I.F: a swiveling type suction hood of adequate capacity will be provided to suck the total volume of gases & vapors generated from I.F. and metal tapping in ladles.</p> <p>Spark arrestor: is an involutes cyclone which will be used to remove live particles from the flue gas streams.</p> <p>Bag Filters/House: bag house remove fine particulate before the gases are fed to stack through a blower. The dust is separated from bags by pulse jet of air. The removed dust is packed in HDPE bags & stored in covered shed before periodic disposal to TSDF/dust processing unit.</p> <p>ID Fan: for efficient suction of gases.</p> <p>Stack/Chimney: of adequate height for effective release of cleaned gases.</p>
9.	<p>Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation and natural resource conservation.</p>	<p>Copies of MOU regarding utilization of solid and hazardous are attached as Annexure-IV</p>
10.	<p>Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.</p>	<p>An amount of Rs.7.0 Lac including miscellaneous expenditure has been allocated for the execution of occupational health and safety of workers. This includes provision of Personnel Protection Equipment to workers, safety devices on moving parts of machinery, ensuring safe work environment, periodic health check up of workers, safety audit, first aid and medical facilities, clean drinking water, change room/rest rooms, good house keeping and study of risks & hazards.</p> <p>Occupational Health Plan:</p> <ul style="list-style-type: none"> - During pre-placement the workers are examined by a qualified doctor for physical fitness for specific job. - During the course of employment the workers are periodically examined based on their age for such examination as

		<p>Chest, X-ray, Vision, Audiometry, Spirometry & ECG</p> <p>- The examination is conducted by a qualified doctor in the occupational health Centre & records are maintained and made available to workers as well as inspectorate of factories. The format of medical examination is given below:</p> <table border="1"> <tr> <td>Name of Employee</td> <td></td> </tr> <tr> <td>Age</td> <td></td> </tr> <tr> <td>Dept</td> <td></td> </tr> <tr> <td>General physical condition</td> <td></td> </tr> <tr> <td>Eye sight</td> <td></td> </tr> <tr> <td>Color recognition</td> <td></td> </tr> <tr> <td>ECG</td> <td></td> </tr> <tr> <td>Chest X-ray</td> <td></td> </tr> <tr> <td>Audiometry</td> <td></td> </tr> <tr> <td>Spirometry</td> <td></td> </tr> <tr> <td>Any other observation</td> <td></td> </tr> <tr> <td>Suitability for work</td> <td></td> </tr> </table> <p>Remarks by the Doctor Signature of Doctor</p> <p>Frequency of Occupational Audit: Once a year & self certification as introduced by Directorate of Punjab. However, statutory compliance clarified by external agencies is employed.</p>	Name of Employee		Age		Dept		General physical condition		Eye sight		Color recognition		ECG		Chest X-ray		Audiometry		Spirometry		Any other observation		Suitability for work	
Name of Employee																										
Age																										
Dept																										
General physical condition																										
Eye sight																										
Color recognition																										
ECG																										
Chest X-ray																										
Audiometry																										
Spirometry																										
Any other observation																										
Suitability for work																										
11.	Details of proposed layout clearly demarcating various units within the plant.	In view of (5) above, attached as Annexure-III																								
12.	Details on environmentally sound technologies for recycling of hazardous materials as per CPCB Guidelines may be mentioned in case of handling scrap and other recycled materials.	<p>In handling scrap for recycling, a fair and programmatic approach taking into considerations strategic environmental benefits of recycling shall be adopted as below:</p> <ul style="list-style-type: none"> • Pre sorted metal scrap/products will be fed via a conveyer belt into a shredder (hammer mill). • During shredding, the light material sticking to metal is removed by an air blower. • Foam, fabric, rubber and cloth etc are removed. • The shredded material is then cut into size before being fed to furnace. 																								

The case was considered by the SEAC in its 180th meeting held on 10.05.2019, which was attended by the following: -

- Sh. Deepak Chopra and Sh. Pankaj Chopra, Directors, on behalf of promoter company
- Sh. Sital Singh EIA Co-ordinator cum CEO, M/s CPTL, Chandigarh, Environment consultant of the promoter company.
- Sh. R.S.Rana and Sh. Sandeep Singh (FAE), M/s CPTL, Chandigarh, 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: -

1) Introduction

- M/s Chopra Alloys is already manufacturing Steel Ingots/Billets at Village- Alour, Bhadla Road, Tehsil- Khanna, District- Ludhiana, Punjab having approved capacity of 29,520 TPA. It is proposed to install three Induction furnaces having capacity 1X10 TPH and 2X20TPH each. The capacity of the unit after expansion will be 2,52,000TPA of Steel Ingots/Billets.
- Chandigarh Pollution Testing Laboratory (CPTL)-EIA Division was incorporated in 1997. The Registered office of CPTL is at Plot no. E-126, Industrial Area, Phase-7, Mohali, Punjab. NABET Accreditation: Certificate No. NABET/EIA/1619/SA 057 dated 16th January, 2018.

2) Project at Glance

Type of the Project	Steel Manufacturing Unit		
Finished product	Steel Ingots/Billets		
Raw material	MS Scrap & Ferro Alloys.		
Capacity (TPA)	EXISTING	PROPOSED	TOTAL
Steel Ingots/ Billets	(-)29,520	(+)2,52,000	2,52,000
Induction Furnace	1X7TPH (To be replaced)	1X10TPH 2X20TPH, VD, LRF & Concast	1X10TPH 2X20TPH, VD, LRF & Concast
Land area (m ²)	12132	67.34	12199.34
Cost of the project (Crores)	4.53	26.00	30.53
Source of Electricity	P.S.P.C.L.		
Total Load (KW)	Existing	Additional	Total
	4000	18,000	22,000

No. of Workers	Existing	Additional	Total
	100	100	200
Quantity of Water required	Existing (KLD)	Proposed (KLD)	Total (KLD)
	Domestic	2.5	7.5
Cooling	2.0	68.0	70.0
Total	4.5	75.5	80.0
Source of water	Ground water (Existing Tube well)		

3) Project Approvals

APPROVAL / PERMISSIONS	Details
CTO from PPCB	Consent to Operate has been obtained from PPCB under the Water (Prevention & Control of Pollution) Act, 1974 vide Letter No. CTOW/Varied/LDH2/2017/6230171 dated 06.11.2017; valid till 30.09.2022 and the Air (Prevention & Control of Pollution) Act, 1981 vide Letter No. CTOA/varied/LDH2/2017/6532953 dated 06.11.2017; valid till 30.09.2022.
Authorization for Hazardous Waste	Authorization for Hazardous waste has been obtained from PPCB vide Authorization No. HWM/Fresh/LDH2/2017/5580609 dated 15.06.2017 and valid till 30.06.2021.
CGWA Approval	Application has been submitted vide application No. 21-4/4418/PB/IND/2018 dated 16.08.2018 and is in process.
Letter from DTP	Obtained from District Town Planner vide Memo No. 766 dated 05.04.2016
Certified compliance report from RO, PPCB	Obtained from PPCB, R.O. Fatehgarh Sahib vide Letter No. 838 dated 15.03.2019.

4) TOR compliance

a) **Information about the project proponent**

- M/s Chopra Alloys is a Private firm. The current Directors of the company are Mr. Baldev Raj Chopra, Mr. Pankaj Chopra, Mr. Deepak Chopra and Mr. Aman Chopra
- All the promoters are well versed with the process involved & can handle the project efficiently.

b) **Benefits of project are given below:**

- Economic upliftment of suppressed class.

- Employment for the local people.
- Infrastructure development of area.
- To fulfill the demand – supply gap in the National market.

c) **Cost of the Project and time of completion.**

- Cost of existing project: Rs. 4.53 Cr.
- Cost of proposed project: Rs. 26.00 Cr
- Total cost of project after expansion: Rs. 30.53 Cr
- Time of Completion: The proposed expansion will be completed within one year after grant of EC.

d) The expansion is proposed in the existing premises measuring 2.99 acres (12132 m²). Additional 67.34m² land has been acquired for Green belt development & parking

e) List of raw materials required and their source along with mode of transportation:

Product Name	Existing (TPD)	Additional (TPD)	Total (TPD)
Steel Ingots/ Billets	(-) 29,520	(+) 2,52,000	2,52,000

Sr. No.	Description	Raw Materials	Quantity (in TPA)	Source	Mode
1.	Existing	MS Scrap & Ferro Alloys	31,492 188	Mostly from Local Market	By road through trucks. No. of trucks required: 5 trucks per day
2.	After Expansion	MS Scrap & Ferro Alloys	2,82,350 1150	Mostly from Local Market	By road through trucks. No. of trucks required: 40 trucks per day

f) Other chemicals and materials required with quantities and storage capacities.

- No chemicals are used in the manufacturing process. However, analytical grade chemicals/reagents are required in small quantities in the laboratory for quality control. These chemicals don't require much storage area.

g) Details of Emission, effluents, hazardous waste generation and their management.

Sr. No.	Source	Capacity	Chimney Height (m)	APCD
Existing				
1.	Induction Furnace	1 x 7 TPH	22 m	Wet Scrubber

2.	DG sets	125 KVA	2.5 m	Stack of adequate height
After Expansion				
3.	Induction Furnace	1 x 10 TPH	22 m each	Side suction hood, Spark arrestor, Bag House, ID fan
		2 x 20 TPH		
4.	DG sets	125 KVA	2.5 m	Stack of adequate height

Effluents

Sr. No	Details	Existing	After Expansion	Remarks
1.	Industrial Effluent	Nil	Nil	No industrial effluent generated
2.	Domestic Effluent	2.0 KLD	8.0 KLD	Wastewater generated from the project is being treated in the STP installed having capacity 10 KLD. After expansion, STP will be sufficient to cater load.

Hazardous Waste

Sr. No.	Hazardous Waste Category	Existing (TPD)	After expansion (TPD)	Disposal
1.	35.1 –Gas cleaning Residue	2.6 MT/year	31.5 T/year	Designated TSDF / Approved Vendors for recovery of metals
2.	5.1 – Used Oil	0.02 KL/year	0.02 KL/year	Authorized Recyclers /Lubricant within the Industry

h) Water requirement:

- Source: Ground water
- Total water requirement: 80 KLD.
- Application to CGWA for ground water abstraction is applied

Sr. No.	Description	Existing (KLD)	Proposed (KLD)	After expansion (KLD)
1.	Domestic Water Demand	2.5	7.5	10.0

2.	Cooling Water Demand	2.0	68.0	70.0
Total Water Demand		5.0	4.5	75.5

i) Power with source of supply: Punjab State Power Corporation Limited (PSPCL)

- o Existing Power Demand: 4000 KW
- o Proposed Demand: 18000 KW
- o Total: 22000 KW
- o Manpower requirements:
- o Existing manpower: 100;
- o Proposed manpower: 100;
- o Total manpower after expansion: 200

j) List of machinery

Sr. No.	Equipment / Machinery	Existing	Proposed	After Expansion
1.	Induction Furnaces	1 X 7 TPH (to be replaced)	1 X 10 TPH & 2 X 20 TPH	10TPH- 01 No. 20TPH- 02 No.
2.	LRF, VD	----	01 No., 01 No.	01 No., 01 No.
3.	Concast Machine	----	01 No.	01 No.
5.	EOT Cranes	04	03	07
6.	D.G sets	125 KVA	350 KVA	02 No.- 125 KVA and 350 KVA

k) Hazard identification and details of proposed safety systems / Risks involved in the furnace are:

Risk	Causes	Mitigation Measures
Steam Explosions	<ul style="list-style-type: none"> ➤ Moisture containing MS Scrap, alloys ➤ Heavily oxidized or rusted materials 	<ul style="list-style-type: none"> ➤ Moisture free usage of raw materials ➤ Preheating of raw materials ➤ Use of moisture free Alloys

Chemical Explosions	<ul style="list-style-type: none"> ➤ Presence of chemicals or explosive substances in the metal scrap ➤ Accidental mixing of oxidizing substances, like paints and varnishes, oil containing scrap. 	<ul style="list-style-type: none"> ➤ Effective raw material segregation and storage ➤ Using safe raw material
Fire breakouts	<ul style="list-style-type: none"> ➤ Sparking in electrical substations or cable networks ➤ Accidental ignition of oil in equipment such as transformers ➤ Infiltration of water, failure of core insulation, or exterior fault currents 	<ul style="list-style-type: none"> ➤ Taking care while designing the electrical substation ➤ Transformers shall be located away from other buildings
Noise	<ul style="list-style-type: none"> ➤ Due to noise from machinery 	<ul style="list-style-type: none"> ➤ Proper protective measures will be provided to workers.
Mechanical Hazards	<ul style="list-style-type: none"> ➤ Accidental fall of heavy equipment 	<ul style="list-style-type: none"> ➤ Personal Protective Equipment for the workers shall be provided to avoid the accidents. ➤ Proper training for the employees to use the equipment properly.
Heat Stress Heat stroke Discomfort Rashes	<ul style="list-style-type: none"> ➤ Heat from furnace ➤ Seasonal factors including high air temperature and relative humidity, or low air movement ➤ Excessive or unsafe clothing 	<ul style="list-style-type: none"> ➤ Shielding radiant heat emissions from plant ➤ Installing spot coolers, blowers, fans or air-conditioning to relieve heat and circulation of air ➤ Using ventilation to draw in cooler air ➤ Automating tasks where practicable ➤ Providing respite areas for workers

<p>Burns Damage of skin</p>	<ul style="list-style-type: none"> ➤ Touching hot surfaces ➤ Splashing of molten metal 	<ul style="list-style-type: none"> ➤ Separating workers not directly involved in casting operation from the casting area ➤ Automating machinery to minimize risks ➤ Designing and controlling processes to prevent unexpected reactions occurring ➤ Providing protective barriers to prevent exposure to heat and splashes ➤ Providing task-specific PPE
<p>Electrocution May cause serious burn injuries or can be fatal</p>	<ul style="list-style-type: none"> ➤ Exposure to electricity ➤ 'flashover' or 'arc' can electrocute when close to a line conductor without any actual contact. ➤ Excessive sweating ➤ Strong electromagnetic fields which can be hazardous to people with heart pacemakers or other medical implants. 	<ul style="list-style-type: none"> ➤ The sources of electrical risk eliminated ➤ The machinery shall be de-energized before maintenance starts ➤ The safety switches shall be installed and tested regularly ➤ The damaged coils shall be replaced before the operation of the furnace. ➤ The workers shall be provided task-specific protective clothing in the industry.

- l) The application for the permission from CGWA for abstraction of ground water has been submitted.
- m) Separate Suction Hoods shall be provided with Ladle Furnace and the Vacuum Degasser and the same will be routed to Bag Filter House.
- n) With the increase in manpower the existing Septic Tank will be dispensed with and the waste water will be treated through STP of 10 KLD capacity within the premises.
- o) The project site covered under Toposheet No. 53 B/6; Scale 1: 50,000 covering 10 km of the study area.
- p) Co-ordinates of the project location are: 30°40'53.34"N 76°16'15.96"E
- q) Google Earth Image showing project location and its surroundings within 500 m has been shown.

- r) Layout showing existing and proposed features have been shown. Project is located within the industrial zone.
- s) The general Geological features and Geo-hydrological status of the study area is given below:
- Sub surface geological formation comprises of fine to coarse grained sand, silt, clay & kankar.
 - Soils in the area are sandy loam at the surface.
 - Sub surface geological formation shows the existence of top layer of 10-15m of clay, kankar with sand lenses. This layer is followed by granular zones of 20 to 30m in thickness. At a depth of 90 to 120m another clay bed of 25 to 30m in thickness exists.
 - Depth to water level ranges between 10-20m bgl. The ground water flows from North East to South West direction.
 - Total thickness of alluvium is expected to be more than 550m as bed rock has not been encountered upto that depth
- t) There is no major river situated within 1 km of site. Drainage map of the study area is provided in next slide.
- u) The area of the project is 12132 sq.m. Additional 67m² land has been acquired for Green belt development & parking area.
- v) The project doesn't involve any displacement of population and subsequent Rehabilitation & Resettlement.
- w) No forest land is involved, hence no forest clearance required.
- x) The project site is located in sub -tropical region characterized by four seasons:
- Winter: November to February
 - Summer: March to June
 - Monsoon: July to Mid-September
 - Post Monsoon: Mid-September to Mid-November
 - May & June are the hottest months, daily maximum & minimum temperature in the region 38.6°C & 23.1°C respectively. December & January are the coldest months with maximum & minimum temperature 20.4°C & 6.1°C respectively
 - The annual average rainfall in the region is 654 mm
 - The maximum-minimum temperature at site are observed as 36.3°C & 10.2°C
 - The RH(%) at site varies from 42 to 88
 - The maximum/minimum wind speed at site is 18 & 0 m/sec
 - The dominant wind direction at site is observed as NW-SE.
- y) Study Period: Feb. to April, 2018. Monitoring has been done as per CPCB guidelines.

- P-98 of PM₁₀ is 96.8µg/m³ and is well within the NAAQ standards of 100µg/m³.
 - P-98 of PM_{2.5} is 54.5µg/m³ which is well within the NAAQ standards.
 - The levels of SO₂ are much below the desired limits of 80µg/m³ P98 is 17.7µg/m³.
 - The levels of NO_x are also below the desired limits of 80µg/m³ P98 is 48.4µg/m³.
 - The levels of CO are as below the desired limits of 4.0mg/m³ P98 is 0.66mg/m³.
 - The overall AQI w.r.t. criteria pollutant for all the stations lies between (51-100) which is satisfactory
- z) Pavanaarekh has been used to plot Wind Rose Diagram. The wind rose diagram shows the predominant winds are mainly flowing from North- West to South-East.
- aa) The maximum contribution in GLC's, with units operation are 1.20 µg/m³ for PM₁₀ at 99 m W direction from stack.
- bb) The site does not fall near to polluted stretch of river identified by the CPCB/ MoEF& CC. One surface water body has been tested from nearby Bhakra Canal. Results of Bhakra Canal shows that BOD is <10 mg/l & pH is nearly 7. Other parameters like Magnesium, Chloride and Sulphate are also present, but in less quantity.
- cc) Ground water quality has been measured at 8 locations. All the above parameters at the various locations in the study area are within permissible and tolerable limits for drinking purpose. The underground water in the area satisfy the drinking water standards w.r.t the tested parameters. In the study area since the samples have been collected from different sites at isolated places, the level of concentration of different elements vary quite considerably which may be due to small aquifers. However, the levels of the various constituents are within permissible norms for drinking water. The parameters of surface water are also within permissible norms for drinking water except e-coli. So, it is not potable but can be useful for other purposes.
- dd) Noise level monitoring has been measured at 8 locations Highest noise level was observed at project location.
- ee) Soil Samples have been collected from 8 locations and the texture of the soil is sandy loam having light brown to dark brown colour.
- ff) Adequate parking for 38 trucks has been provided within the project premises. Traffic study has been conducted on 2 points. Detailed traffic study is shown and increase in traffic due to proposed project shall be taken care by acquiring additional land. Traffic study measurement was performed at two points: Below the Over bridge as well as Turning point from Bhadla road to Industries to assess the impact on local transport infrastructure due to the expansion of the project M/s Chopra Alloys located at Village- Alour, Bhadla Road, Tehsil- Khanna, District- Ludhiana, Punjab. The project is connected to NH-44 (Delhi-Amritsar). Traffic study was done on for Three days. From the traffic analysis, it has been observed

that due to additional transportation of raw materials & products, the LOS will be insignificantly affected as the LOS on the studied stretch of road will remain the same. However, this stretch of road has structurally failed and is full of pot holes throughout its entire length and breadth, a problem to be addressed by the concerned authorities.

gg) Parking Area Details

- Parking Area = 882.24 m²
- No. of trucks which can be parked inside the premises = $882.24 / 37.5 = 23$
- Trucks per hour = $23/8 = 2.87$ trucks say 3 Trucks

hh) There is no reserve or protected forest in the area and vegetation is restricted along road side and other open areas only. The vegetation in the area is mixed type and in the canal banks and gullies, the vegetation is evergreen and semi-evergreen type. No rare & endangered plant species were observed.

ii) The salient observations recorded during socio economic survey in the study areas are depicted below:

- Livelihood of the villagers is primarily based on agriculture sector. Majority of main workforce are engaged as cultivators or agriculture labourers.
- Most of the villages have Primary School (PS) while in some villages it is extended up to Middle School (MS). For higher education reputed educational institutes are available in 20- 25 km stretch of project area.
- The main source of drinking water supply is through hand pumps and bore wells in addition to the Government water supply.
- The Government medical facilities in the form of primary health sub- center and private medical practitioners are available in the villages. Villagers expressed satisfactory opinion regarding the facilities are available at the center. ANM (Auxiliary Nurse Midwife) frequently visits all the villages and regular vaccination and health checkups camps are organized by the health center.
- Two wheelers, auto rickshaws & bus facility are the main mode of transportation used by natives in the study area.
- Power supply was available in all the villages in study area. Street lights are also available in all villages but frequent power cut/ load shedding problem is experienced by the people in the area LPG is a major fuel used for cooking purpose. Post office and banking facilities are available in the study area.
- Majority of surveyed population opened positively regarding the proposed project as most of the local population will be given preference in employment and the activity will help in development.
- The people were optimistic about the employment opportunity in Government sector and other welfare schemes to be implemented by the state Government.

- There was complete communal harmony and none reported violation of human rights.
 - The agricultural operations in the study area were mostly mechanized. No migrant labour is employed.
- jj) For predicting the impacts of proposed expansion, the contribution to the existing air quality from the ongoing operation of industry has been taken into account by monitoring the stack emission. Post expansion forecasting has been done using the AERMOD view & the local meteorology to ensure the compliance of the air quality standards. Based on the perusal of modeling results, it is seen that the resultant PM10 concentration after the implementation of project will be 98.98µg/m³ at 99m (W) from project site. Due to the implementation of adequate & appropriate control measures like pollution control devices, tree plantation & dust suppression, and the adverse impacts are likely to be insignificant.
- kk) As 38 trucks @ 20 ton/truck will be used daily for the transportation of RM, finished products & slag. Based on the traffic study, this increase will not affect the existing carrying capacity of concerned road and the LOS.
- ll) No waste water is generated from the industrial operations. However, 8 KLD domestic waste water will be treated in 10 KLD STP and used in landscaping and plantation.
- mm) Action Plan for Emission Control
- Specific Measures:
- The I.F's shall be provided with APCS comprising side suction hood, spark arrestor, bag filter & ID fan will be provided.
 - The APCS will be operated and monitored as per SOP prescribed by the board.
 - Dispersal of gases & particulate through adequate stack height.
 - Fugitive emission during process operation will be controlled by ventilation system.
 - Heat dissipation in work zone will be effected by exhaust ventilation
- General Mitigation Measures
- Regular sweeping and sprinkling of roads.
 - Speed level for vehicles.
 - Unnecessary blowing of horns and idling of vehicles will be prohibited.
 - Vehicles meeting the vehicular emission norms will be employed.
 - All internal roads are paved.
- nn) For fugitive emissions during furnace charging side suction hood have been provided. Fugitive emission like smoke, gas and heat around the furnace will be taken care of by proper exhaust ventilation.
- oo) No fly ash is either generated in the unit no it will be generated after expansion. However, during construction, wherever required fly ash based cement and other products such as blocks, pavers, bricks & tiles will be used.

pp) The total Green Area within the project premises is approx. 3804.37 Sq.m (33%) An estimated 100 No. of trees will be planted. The tree species Jamun, Arjun, Mulberry, Poplar, Shisham, Kikkar will be planted.

qq) Recharging will be done through Village Pond. Details are given below: -

Sr. No.	Village	Area of pond (sq. m)	Enhanced depth or depth of pond (m3)	Volume of the pond (m3)	No. of fillings	Total water to be filled in the pond
1.	Alour	6069	3.5	21241	3	63723
Total						63723

rr) Details of the amount to be spent on EMP after expansion is given below:

Sr.No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1.	Pollution Control during construction stage	2.0	10.0
2.	Air Pollution Control (Installation of APCD)	30.0	
3.	Water Pollution Control/ septic tank upgradation	5.0	
4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	4.0	
5.	Solid Waste Management	2.0	
6.	Environment Monitoring and Management	4.0	
7.	Occupational Health, Safety and Risk Management	2.0	
8.	RWH	6.0	
9.	Miscellaneous	5.0	
	Total	60.0	10.0

ss) Around 48.91TPD of slag will be generated daily which obtain about 60% iron. The slag will be grinded and the iron recovered magnetically will be recycled. The slag after iron recovery will be disposed off to manufacturer of cement concrete blocks, pavers & tiles under proper agreement.

tt) An amount of Rs. 2.0 lacs have been provided for the occupational health & safety of workers. This includes Routine health check-up of workers which is being carried out at Kaushal Nursing Home. The medical histories of all the employees will be maintained in a standard format.

Frequency of Periodical Examination will be done as per below:

For employees <30 Years, once in five years

Between 31-50 Years, once in four years

Between 41-50 Years, once in two years

Above >50 years once a year

- uu) The industry has well defined Environmental policy and the same is executed by EMC. The main objections of policy are:
 - o Waste minimization, recycling, energy conservation and use of alternative material which are practicable and cost effective.
 - o Training, education and information to employees.
 - o Compliance of provisions of applicable environmental laws.
- vv) Environment Management Cell will be responsible to deal with all the environmental issues:
- ww) Representative of Management (Head of Environment Cell).
 - a) Process In-charge
 - b) In-charge Maintenance Department
 - c) A representative of Environmental Consultants
- xx) Environment Management Cell will be responsible for all Environment related activities.
- yy) Workers, casual labour and truck drivers have already been provided basic amenities like toilets, drinking water, canteen and the restroom/change room and the same will be available for construction workers.
- zz) An amount of Rs. 15.0 Lakhs has been earmarked for CER. The details of the activities proposed to be covered under CER are given as under:

Sr. No	Activity	Environmental Aspects	Capital Cost (Rs. Lac)	Recurring Cost (Rs. Lac /annum)	Time line
1.	Solar Lights in Village-Alaur 30 No's	Energy saving/Resource Conservation	4.5	0.20	One year
2.	Development of Crematorium and tree plantation in Village-Alaur	Aesthetic & Pollution Control	5.0	0.10	One year
3.	Education, training and supply of bio-fertilizer to farmers of Village- Alaur	Soil moisture conservation & enrichment	10.5	8.0	Continuing program for 5 years
Total			19.0	8.30	

aaa) As per layout plan, the area details are as under: -

Details of Area		
Description	Area	
	sqm	%
Total Area	12199.34	
Shed Covd. Area	1759.29	14.42
Office Block Covd. Area	162.17	1.32
Labour QRS/Toilet Block Time RM. & Meter RM. etcCovd. Area	82.52	0.67
Plantation Area	4028.81	33.02
Road Area	2416.35	19.80
Transporting Parking Area	692.37	7.23
Staff Parking Area	31.59	
Cycle Parking Area	158.71	
Total Parking Area	882.24	
Open Area	51.985	0.42
Proposed Shed Covd. Area	2732.30	22.39
Proposed Stores/Worker Resi. Room Covered Area	83.64	0.68

bbb) The existing unit is disposing APCD dust to TSDf at DeraBassi. However, in future the same shall be supplied to M/s Madhav Alloys for recovery of Zinc. The used oil is partly used as lubricant within the industry & the balance sold to authorized recyclers.

ccc) As per CPCB slag is not a hazardous waste. It will be used in the manufacturing of cement, concrete blocks, pavers & tiles under proper MOU/Agreement.

ddd) Action Plan to address the issues raised in the Public Hearing:

Sr. No.	Action Plan
1.	As the proposal is of zero liquid discharge, no water pollution will be there. The APCD will always be interlinked with the process and commencing from commissioning it will be operational throughout.

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

Observation 1)	As to whether separate bag house filter shall be installed on induction furnace and ladle refining furnace or common APCD for the proposed machinery?
Reply 1)	A separate bag filter house as an APCD shall be installed on induction furnace and ladle refining furnace.
Observation 2)	a) 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 b) Whether permission to abstract groundwater for industrial use has been obtained from CGWA.
Reply 2)	a) Khanna is notified area with area type category declared as over exploited area by the CGWA. They will obtain the necessary permission from the regulatory authority for abstraction of ground water for the project. If they will not be able to get the permission for the same then industrial water requirement will be met by sourcing it from the STP of Municipal Council, Khanna and permission will be taken from District Advisory Committee for domestic and plantation purpose. b) The application for obtaining permission to abstract groundwater for industrial use has been submitted online to CGWA and the same is under process.
Observation 3)	a) Clarify as to whether the industry has purchased adjoining land or taken on lease to fulfil the condition of green belt criteria of 33%. b) As to whether this additional land also confirms to the provision of Master Plan.
Reply 3)	a) The adjoining land belongs to their cousins only. Accordingly, they have purchased the land@5000 sqm out of which 67.34 sqm is required only for developing 33% green belt i.e.4028.81 sqm. They have entered into a legal agreement wherein it has been mentioned that the seller is desirous to sell and herein 5000 m2 and the parties will complete the sale transaction & execute the sale deed at a mutually agreed time and date. A copy of the agreement was submitted. b) As per the provision of master plan, whole of the land including newly proposed part for green belt falls in the industrial zone.
Observation 4)	For how many days, traffic study has been carried out?
Reply4)	Traffic study have been carried out for three days and details have already been mentioned in the presentation.
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 5)	i) Roof top, green area & open area Rain water harvesting and recharge to ground water within factory premises= 2393 m3/ yr ii) Recharge to ground water from the pond at Village Alour and Bhadla= 75215 m3/yr iii) Total = 77608 m3/yr

	<p>iv) 77608 m³ /year will be recharged / saved against ground water withdrawal of 28,800 m³/yr(more than 200% of the withdrawal being over exploited block)</p> <p>v) NOC from the Sarpanch of Village Gram Panchayat Alour and Bhadla has been submitted by the industry wherein the industry has been allowed to adopt the pond in the villages and for improving the same by implementing rain water harvesting.</p> <p>vi) The industry has also submitted an undertaking to the effect that they will ensure to recharge the ground water at the rate of twice the amount of ground water abstracted for industrial use.</p>																												
Observation 6)	<p>a) Green belt area as been proposed on the three sides of the industry whereas in compliance to TOR condition, the industry has to provide green belt all along the periphery of the plant. As such, revised lay out plan by incorporating the green belt along the periphery be submitted.</p> <p>b) Is Parking space adequate in the premises after expansion.</p>																												
Reply 6)	<p>a) The industry submitted that being existing industrial unit, it is not possible to develop green belt all along the periphery of the plant. However, revised layout plan showing green belt area to be developed along the periphery to the maximum extent has been prepared and a copy of same has been submitted. The industry will consult his architect & process engineer to remove the unproductive construction built along the boundary wall so as to accommodate the green belt along whole of the boundary wherever possible to the maximum extent.</p> <p>b) The parking area inside the premises is sufficient for parking of 38 trucks. An undertaking has been submitted in the matter. Further, the area details after revising the plan is given below:</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Area (sqm)</th> </tr> </thead> <tbody> <tr> <td>Total Area</td> <td>12199.34</td> </tr> <tr> <td>Shed Cvd. Area</td> <td>1759.29</td> </tr> <tr> <td>Office Block Cvd. Area</td> <td>162.17</td> </tr> <tr> <td>Labour QRS/Toilet Block Time RM. & Meter RM. EtcCvd. Area</td> <td>82.52</td> </tr> <tr> <td>Plantation Area</td> <td>4028.81 (33.02%)</td> </tr> <tr> <td>Road Area</td> <td>2416.35</td> </tr> <tr> <td>Transporting Parking Area</td> <td>692.37</td> </tr> <tr> <td>Staff Parking Area</td> <td>31.59</td> </tr> <tr> <td>Cycle Parking Area</td> <td>158.71</td> </tr> <tr> <td>Total Parking Area</td> <td>882.24</td> </tr> <tr> <td>Open Area</td> <td>51.985</td> </tr> <tr> <td>Proposed Shed Cvd. Area</td> <td>2732.30</td> </tr> <tr> <td>Proposed Stores/Worker Resi. Room Cvd. Area</td> <td>83.64</td> </tr> </tbody> </table>	Description	Area (sqm)	Total Area	12199.34	Shed Cvd. Area	1759.29	Office Block Cvd. Area	162.17	Labour QRS/Toilet Block Time RM. & Meter RM. EtcCvd. Area	82.52	Plantation Area	4028.81 (33.02%)	Road Area	2416.35	Transporting Parking Area	692.37	Staff Parking Area	31.59	Cycle Parking Area	158.71	Total Parking Area	882.24	Open Area	51.985	Proposed Shed Cvd. Area	2732.30	Proposed Stores/Worker Resi. Room Cvd. Area	83.64
Description	Area (sqm)																												
Total Area	12199.34																												
Shed Cvd. Area	1759.29																												
Office Block Cvd. Area	162.17																												
Labour QRS/Toilet Block Time RM. & Meter RM. EtcCvd. Area	82.52																												
Plantation Area	4028.81 (33.02%)																												
Road Area	2416.35																												
Transporting Parking Area	692.37																												
Staff Parking Area	31.59																												
Cycle Parking Area	158.71																												
Total Parking Area	882.24																												
Open Area	51.985																												
Proposed Shed Cvd. Area	2732.30																												
Proposed Stores/Worker Resi. Room Cvd. Area	83.64																												
Observation 7)	Proposed CER activities are not in line with the OM dated 01.05.2018. Submit the revise activities alongwith amount to be spent.																												
Reply 7)	<p>Details of revised CER activities are given below:</p> <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Activity</th> <th>Environmental Aspects</th> <th>Cost (Rs. Lac)</th> <th>Time line</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Providing Solar lights in Village- Alour 30 No.</td> <td>Energy saving / Resource Conservation</td> <td>4.5</td> <td>October 2019</td> </tr> </tbody> </table>	Sr. No	Activity	Environmental Aspects	Cost (Rs. Lac)	Time line	1.	Providing Solar lights in Village- Alour 30 No.	Energy saving / Resource Conservation	4.5	October 2019																		
Sr. No	Activity	Environmental Aspects	Cost (Rs. Lac)	Time line																									
1.	Providing Solar lights in Village- Alour 30 No.	Energy saving / Resource Conservation	4.5	October 2019																									

	2.	Development (constructing boundary wall, toilets, benches and Hand Pumps) of crematorium and tree plantation in Village Alour	Aesthetic & Pollution Control	8.0	February, 2020
	3.	Provide Ambulance to District Red Cross Society, Ludhiana	Promotion of health	13.5	April 2020
	Total			26.0	
Observation 8)	Whether the stack of height 22 m is sufficient with the APCD. Further, what kind of APCD shall be provided with induction furnace and LRF and as to whether common stack shall be provided or separate stack shall be provided with the induction furnace and LRF.				
Reply 8)	Common Stack of height 30 m shall be provided with induction furnace and LRF. Common APCD i.e. Bag filter shall be provided with induction furnace as well as LRF but with separate suction system..				

SEAC took the reply and copy of presentation on record.

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 expansion of unit in the existing premises located in the revenue estate of Village- Jalalpur, Amloh Road, Mandi Gobindgarh, District- 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 Chopra Alloys, Village- Alour, Bhadla Road, Khanna, Ludhiana, Punjab		
2	Nature of project (Fresh/Expansion Amendment/Others)	Expansion project		
3.	a) Category b) Activity (as per schedule appended to EIA Notification, 2006 as amended time to time.)	a) B-1 b) 3(a) Metallurgical Industries (Ferrous & Non Ferrous Alloys).		
4.	Area Details			
	Details	Existing	Additional Land	After Expansion
	Plqt Area	12132 sqm	67.34 sqm	12199.34 sqm

4.	Co-ordinates of the project site	Latitude: - 30°40'50.69"N, 30°40'52.62"N, 30°40'54.68"N, 30°40'53.24"N, 30°40'48.99"N, 30°40'48.96"N, Longitude:- 76°16'13.21" E, 76°16'13.20" E, 76°16'16.31" E, 76°16'16.14" E, 76°16'14.92" E, 76°16'14.76" E			
5.	Project Cost (After expansion)	Rs. 30.53 Crores			
6.	Raw Material requirement (After expansion)	Scrap@ 2,82,350 TPA & Ferro Alloys @1150 TPA			
7.	Production Capacity (After expansion)	Steel Ingots/ Billets@ 2,52,000 TPA			
8	Details of major productive machinery/plant (After expansion)	(i) 03 Induction furnaces (1 x 10 TPH, 2 x 20 TPH each) (ii) 01 Nos VD (iii) 01 Nos LRF& 01 Nos concast			
9.	Manpower(After expansion)	200 persons			
10	Water Requirements & its source(After expansion)	Total Water Demand: 80 KLD i) Domestic: 10 KLD ii) Cooling: 70 KLD 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 Effluents (After expansion)				
	Sr. No.	Details	Quantity (After Expansion)	Remarks	
	i)	Industrial Effluent	Nil	No industrial effluent generated	
	ii)	Domestic Effluent.	8.0 KLD	Wastewater generated from the project will be treated in the STP of capacity 10 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	1 x 10 TPH and 2 x 20 TPH each	30 m each	Side suction Hood spark arrestor followed by Bag Filter
	ii)	DG sets	125 KVA	2.5 m	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	31.5 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	0.02 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	48.91 TPD	Shall be reprocessed through M/s Vohra Industries for manufacturing of building material like cement tiles, block, brick etc.																																				
15.	Energy Requirements (After expansion)	(After expansion)	i) Power load 22000 KW through PSPCL. ii) Single silent DG set of capacity 125 KVA as stand-by arrangement.																																				
16.	<p>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:-</p> <table border="1"> <thead> <tr> <th>Sr.No</th> <th>Title</th> <th>Capital Cost Rs. Lakh</th> <th>Recurring Cost Rs. Lakh</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Pollution Control during construction stage</td> <td>2.0</td> <td rowspan="9">10.0</td> </tr> <tr> <td>2.</td> <td>Air Pollution Control (Installation of APCD)</td> <td>30.0</td> </tr> <tr> <td>3.</td> <td>Water Pollution Control/ septic tank upgradation</td> <td>5.0</td> </tr> <tr> <td>4.</td> <td>Noise Pollution Control (Including cost of Landscaping, Green Belt)</td> <td>4.0</td> </tr> <tr> <td>5.</td> <td>Solid Waste Management</td> <td>2.0</td> </tr> <tr> <td>6.</td> <td>Environment Monitoring and Management</td> <td>4.0</td> </tr> <tr> <td>7.</td> <td>Occupational Health, Safety and Risk Management</td> <td>2.0</td> </tr> <tr> <td>8.</td> <td>RWH</td> <td>6.0</td> </tr> <tr> <td>9.</td> <td>Miscellaneous</td> <td>5.0</td> </tr> <tr> <td colspan="2">Total</td> <td>60.0</td> <td>10.0</td> </tr> </tbody> </table>			Sr.No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh	1.	Pollution Control during construction stage	2.0	10.0	2.	Air Pollution Control (Installation of APCD)	30.0	3.	Water Pollution Control/ septic tank upgradation	5.0	4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	4.0	5.	Solid Waste Management	2.0	6.	Environment Monitoring and Management	4.0	7.	Occupational Health, Safety and Risk Management	2.0	8.	RWH	6.0	9.	Miscellaneous	5.0	Total		60.0	10.0
Sr.No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh																																				
1.	Pollution Control during construction stage	2.0	10.0																																				
2.	Air Pollution Control (Installation of APCD)	30.0																																					
3.	Water Pollution Control/ septic tank upgradation	5.0																																					
4.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	4.0																																					
5.	Solid Waste Management	2.0																																					
6.	Environment Monitoring and Management	4.0																																					
7.	Occupational Health, Safety and Risk Management	2.0																																					
8.	RWH	6.0																																					
9.	Miscellaneous	5.0																																					
Total		60.0	10.0																																				

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.
- x. 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 the siting criteria, standard operating practices, code of practice and guidelines if any prescribed by the SPCB/CPCB/MoEF&CC for such type of units.
- vii. The project proponent shall comply with the condition imposed by the District Town Planner, Ludhiana vide Memo No. 766 dated 05.04.2016.

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 31st 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. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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. The project proponent shall practice rainwater harvesting to maximum possible extent i.e. pond in the Village Alour & Bhadla, Khanna shall be adopted with rain water recharging @ 77608 m³/yr.
- ix. 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 in accordance with CPCB guidelines. The greenbelt shall inter alia cover

the entire periphery of the plant. 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.

- ii) The additional land of 67.34 sqm proposed to be added for the expansion project to fulfill the 33% requirement of green belt shall not be used for any other purpose.
- iii) 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.

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 at least minimum amount of Rs. 26 Lacs towards following CER activities:

Sr. No	Activity	Environmental Aspects	Cost (Rs. Lac)	Time line
1.	Providing Solar lights in Village- Alour 30 No.	Energy saving / Resource Conservation	4.5	October 2019
2.	Development (constructing boundary wall, toilets, benches and Hand Pumps) of crematorium and tree plantation in Village Alour	Aesthetic & Pollution Control	8.0	February, 2020
3.	Provide Ambulance to District Red Cross Society, Ludhiana	Promotion of health	13.5	April 2020

Total	26.0	
--------------	-------------	--

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 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 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 80 Lacs towards capital cost and Rs 10 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.

XVII. 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

XVIII. 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, SO₂, NO_x (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 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 take necessary action w.r.t. the following:-

- a) Recovery of iron from slag before disposing it off.
 - b) Identify the areas for utilization of slag in scientific manner and its usage in cement / construction industry / road laying etc.
 - c) Recovery of precious metals like Zinc, lead and iron etc. from the APCD dust (Hazardous waste) through authorized re-processor.
- x. The project proponent shall obtain mandatory clearances under Pollution Control laws.

The case was considered by the SEIAA in its 150th meeting held on 08.07.2019, which was attended by the following: -

- Sh. Pankaj chopra, Director, on behalf of promoter company
- Sh. Sital Singh EIA Co-ordinator cum CEO, M/s CPTL, Chandigarh, Environment consultant of the promoter company.
- Sh. R.S. Rana and Sh. Sandeep Singh (FAE), M/s CPTL, Chandigarh, Environment consultant of the promoter company.

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

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 conditions imposed by SEAC and observed that Sub condition no. viii of standard Condition III. Water quality monitoring and preservation, and Sub Condition i) of Standard Condition no. VII Green Belt are required to be amended by incorporating the details proposed/agreed by the project proponent.

Therefore, the Authority decided to accept the recommendations of SEAC and grant Environmental Clearance for the expansion of steel manufacturing unit namely M/s Chopra Alloys located in the revenue estate of Village- Alour, Bhadla Road, Khanna, Ludhiana, Punjab, subject to the conditions as proposed by the SEAC in addition to the proposed measures with amendments / additions as given below:

Amendment in Sub condition no. viii of standard Condition III. Water quality monitoring and preservation

- viii. The project proponent shall practice rainwater harvesting to maximum possible extent. The project proponent shall not adopt ground water recharge within

plant premises to avoid underground contamination due to deposition of pollutants on roof top being highly dense industrial area. As committed, the industry shall adopt two Ponds having 6069 & 5870 sqm located in the Village Alour & Bhadla, Khanna for harvesting of total rain water @ 77608 KL. As an additional safety measure, the stream carrying waste water of the village shall be diverted in one corner of Phytoid plants trench (designed based on the technology developed by CSIR-NEERI's) divided in different parts, the overflow of each chamber shall be allowed to enter into another chamber which will ultimately lead to purification of water and collected into pond to avoid any contamination of ground water aquifer. 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.

Amendment in Sub condition no. i of standard Condition 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 Wide 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. Wide canopy trees shall also be planted around the parking area to provide shade to the parked vehicles.

Meeting ended with vote of thanks to the chair.
