

**Item No. 250.05: Application for Environment Clearance for expansion of steel manufacturing unit at Village Mullanpur Kalan, Mandi-Gobindgarh, Tehsil-Amloh District Fatehgarh Sahib, Punjab by M/s Natural Castings (SIA/PB/IND1/425225/2023).**

The industry is an existing unit and was granted consent to operate under the provisions of the Water Act 1974 and Air Act 1981 for the manufacturing of steel ingots @ 82 MTD, which are valid up to 30.09.2024.

The industry was granted Terms of References (TOR) vide letter No. SEIAA/MS/2021/4341 dated 25.06.2021 for upgradation of 01 no. existing Induction Furnace of 7TPH capacity to 10TPH capacity and addition of 01 no. new Induction Furnace of 15 TPH capacity, Ladle Refining furnace (LRF) of 20 TPH, AOD, VD, and a rolling mill at village Mullanpur Kalan, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab with total production of Steel Ingots/billets, angles, channels, round, square, TMT Bars, flats & Patra @ 1,31,250 TPA.

The industry has applied for obtaining Environmental Clearance for steel manufacturing unit and submitted Final EIA report after incorporating the compliance of the ToRs and Public Hearing. The total project cost is Rs 15.49 Crores.

The industry had deposited Rs. 39,475/- vide NEFT dated 06.04.2021 at stage of ToR. Now, the industry has deposited Rs.1,18,425/- vide UTR no.- AXISP00367807539 dated 02/03/2023. The adequacy of the fee has been verified by the supporting staff SEIAA.

Punjab Pollution Control Board vide letter No. 1101 dated 10.01.2023 send the proceedings of the public hearing conducted on 10.10.2022 of the subject cited industry. In the said letter, the status with regard to the construction work, suitability of site and adequacy of the pollution control proposals was furnished, which is reproduced as under:

***“Construction Status:***

*No construction work for the proposed expansion project has been started by the industry at site.*

***Suitability of site:***

*There are industrial unit in the vicinity of the proposed site as shown by the Project Proponent. The site of the industrial zone as per the Notified Master Plan of Mandi Gobindgarh. Hence, the site is suitable for the proposed expansion project.*

***Adequacy of Pollution control Proposals:***

*As per the draft EIA report, industry has proposed to install side suction hood and pulse jet filter with offline technology having 99% efficiency as APCD for its proposed induction furnaces.*

Further for domestic wastewater, STP of capacity 10 KLD is to be installed. The proposed pollution control scheme submitted by the industry for Air and Water Pollution are adequate in principle.

The industry has purchased additional land for the expansion of the project. It has submitted a proposal to develop a green area measuring 45600 sqft or 4236.34 sqm (i.e 33.3% of the total land area of the project i.e. 138150 sqft)."

**Deliberations during 247<sup>th</sup> meeting of SEAC held on 22.04.2023.**

The meeting was attended by the following:

- (i) Sh. Sanjeev Mangi, Partner, M/s Natural Castings (India) Ltd.
- (ii) Sh. Sital Singh, Environmental Consultant, M/s. Chandigarh Pollution Testing Laboratory.
- (iii) Sh. Sandeep Singh, Consultant, M/s. Chandigarh Pollution Testing Laboratory.

SEAC allowed the Environmental Consultant of the Promoter Company to present the reply before the Committee as under:

Sr. No.	Description	Details
<b>1</b>	<b>Basic Details</b>	
1.1	Name of Project & Project Proponent:	M/s Natural Castings (India) Ltd. Sumit Kumar Partner
1.2	Proposal:	
1.3	Location of Industry:	Village-Mullanpur Kalan, Mandi-Gobindgarh, Tehsil-Amloh, District-Fatehgarh Sahib, Punjab
1.4	Details of Land area & Built up area:	The existing land area of the project is 1.25 Acre. About 2 Acre additional land will be required for expansion. The total land area after expansion will be 3.25 acres or 12834.44 sqm. Out of which, 4236.34 sqm will be developed as greenbelt.
1.5	Category under EIA notification dated 14.09.2006	The project falls under S.No. 3(a) – Metallurgical Industries
1.6	Cost of the project	Total – Rs 15.79 Cr.
1.7	Compliance of Public Hearing Proceedings	Detailed Action Plan along with timeline and Budget allocation is given as <b>Annexure I</b> .
<b>2.</b>	<b>Site Suitability Characteristics</b>	
2.1	Whether site of the industry is suitable as per the provisions of Master Plan:	Yes, the site falls in approved existing Industrial zone
2.2	Whether supporting document submitted in	The project falls in Industrial area as per the Master Plan of Mandi Gobindgarh. To carry out the expansion the proponent has taken additional land of 2.0 acres.

	favour of statement at 2.1, details thereof: (CLU/building plan approval status)				
<b>3</b>	<b>Forest, Wildlife and Green Area</b>				
3.1	Whether the industry required clearance under the provisions of Forest Conservation Act 1980 or not:	No forest land is involved in the project. An undertaking in the prescribed format submitted.			
3.2	Whether the industry required clearance under the provisions of Punjab Land Preservation Act (PLPA) 1900:	No, the industry does not require the clearance under the provisions of Punjab Land Preservation Act (PLPA) 1900. An undertaking in the prescribed format submitted.			
3.3	Whether industry required clearance under the provisions of Wildlife Protection Act 1972 or not:	No wildlife sanctuary is involved in the vicinity or study area of the project site. An undertaking in the prescribed format submitted.			
3.5	Whether the industry falls within the influence of Eco-Sensitive Zone or not. (Specify the distance from the nearest Eco sensitive zone)	Not applicable			
3.6	Green area requirement and proposed No. of trees:	33% i.e. 4236.34 m2 of total area as per MoEF&CC stipulated norms will be developed as the green belt. A total of 636 trees will be planted.			
<b>4.</b>	<b>Machinery, Raw material and Products details as under:</b>				
	<b>S.No.</b>	<b>PARTICULARS</b>	<b>EXISTING</b>	<b>PROPOSED</b>	<b>TOTAL</b>
	<b>A.</b>	<b>PROPOSED CAPACITY OF FURNACES</b>			
	1.	Induction Furnace	1X7TPH (Upgraded)	1X10 TPH 1X15 TPH	1X10 TPH 1X15 TPH
	2.	Rolling mill	Nil	20 Ton/hr	20 TPH
	3.	Laddle Refining Furnace(LRF)	Nil	20 TPH	20 TPH
	4.	Concast	Nil	01 No.	01 No.
	5.	AOD	Nil	01 No.	01 No.
	6.	VD	Nil	01 No.	01 No.
	7.	DG Set	1X125KVA	1X125KVA	2X125KVA

	<b>B.</b>	<b>PRODUCTS (TPA)</b>			
		Steel Ingots/billets, Angles, Channels, Rounds, Square, TMT Bars, Flats, Patra (TPA)	28,700 (Steel ingots)	1,02,550	1,31,250
	<b>C.</b>	<b>RAW MATERIAL (TPA)</b>			
	1.	MS Scrap, CI, Sponge Iron, Ferro Alloys(TPA)	31,150	1,11,300	1,42,450
	<b>D.</b>	<b>GENERALS</b>			
	1.	Project Cost (Crores)	Rs. 3.79	Rs. 12	Rs. 15.79
	2.	Land (Sq.m.)	1.25 acre	2.0 acre	3.25 acre
	3.	Power (MW)	8	3	11.0
	4.	DG Set	X125KVA	1X125KVA	2X125KVA
	4.	Manpower (Nos.)	50	50	100
	5.	Working days	350 working days in year		
4.1					
4.2	Population details	Existing Manpower – 50 Additional - 50 Total- 100			
<b>5</b>	<b>Water</b>				
5.1	Total water requirement:	146.08 KLD			
5.2	Source:	Own Tube Well			
5.3	Whether Permission obtained for abstraction/supply of the fresh water from the Competent Authority (Y/N) Details thereof	PWRDA Application is submitted.			
5.4	Total water requirement for domestic purpose:	4.5 KLD			
5.4.1	Total wastewater generation:	Industrial Effluent – Nil Domestic wastewater – 3.6 KLD			
5.4.2	Treatment methodology for domestic wastewater: (STP capacity, technology & components)	No waste water is generated from the industrial operations. However, 3.6 KLD domestic waste water will be treated in STP of capacity 5 KLD and treated wastewater thereafter shall be used in landscaping and plantation.			
5.5	Total water requirement	Total Water requirement- 146 KLD			
5.5.1	Total effluent generation:	There are no generations of effluents from process.			

5.5.2	Treatment methodology for industrial wastewater: (ETP capacity, technology & components)	NA																																								
5.6	Details of utilization of treated wastewater into green area in summer, winter and rainy season	The wastewater generated from domestic will be treated through STP and will be used for plantation within premises.																																								
5.7	Cumulative Details: Water Consumption for Summer (KLD)																																									
	<table border="1"> <thead> <tr> <th>Description</th> <th>Existing (KLD)</th> <th>Proposed (KLD)</th> <th>Total (KLD)</th> </tr> </thead> <tbody> <tr> <td>Domestic</td> <td>2.25 KLD</td> <td>2.25 KLD</td> <td>4.5 KLD</td> </tr> <tr> <td>Cooling (makeup water)</td> <td>20 KLD</td> <td>121.58 KLD</td> <td>141.58 KLD</td> </tr> <tr> <td>Total</td> <td>22.25 KLD</td> <td>123.83 KLD</td> <td>146.08 KLD</td> </tr> </tbody> </table>		Description	Existing (KLD)	Proposed (KLD)	Total (KLD)	Domestic	2.25 KLD	2.25 KLD	4.5 KLD	Cooling (makeup water)	20 KLD	121.58 KLD	141.58 KLD	Total	22.25 KLD	123.83 KLD	146.08 KLD																								
Description	Existing (KLD)	Proposed (KLD)	Total (KLD)																																							
Domestic	2.25 KLD	2.25 KLD	4.5 KLD																																							
Cooling (makeup water)	20 KLD	121.58 KLD	141.58 KLD																																							
Total	22.25 KLD	123.83 KLD	146.08 KLD																																							
	Water Consumption for Winter & Rainy (KLD)																																									
	<table border="1"> <thead> <tr> <th>Description</th> <th>Existing (KLD)</th> <th>Proposed (KLD)</th> <th>Total (KLD)</th> </tr> </thead> <tbody> <tr> <td>Domestic</td> <td>2.25 KLD</td> <td>2.25 KLD</td> <td>4.5 KLD</td> </tr> <tr> <td>Cooling (makeup water)</td> <td>20 KLD</td> <td>74.16 KLD</td> <td>94.16 KLD</td> </tr> <tr> <td>Total</td> <td>22.25 KLD</td> <td>76.41 KLD</td> <td>98.66 KLD</td> </tr> </tbody> </table>		Description	Existing (KLD)	Proposed (KLD)	Total (KLD)	Domestic	2.25 KLD	2.25 KLD	4.5 KLD	Cooling (makeup water)	20 KLD	74.16 KLD	94.16 KLD	Total	22.25 KLD	76.41 KLD	98.66 KLD																								
Description	Existing (KLD)	Proposed (KLD)	Total (KLD)																																							
Domestic	2.25 KLD	2.25 KLD	4.5 KLD																																							
Cooling (makeup water)	20 KLD	74.16 KLD	94.16 KLD																																							
Total	22.25 KLD	76.41 KLD	98.66 KLD																																							
5.8	Rain water harvesting proposal:	<p><b>Outside:</b> The industrial unit has adopted one village pond for rain water harvesting. The total recharge potential will be 52,500 KL/Annum. NOC obtained from Sarpanch is submitted.</p> <p><b>Inside:</b> - A tank of 75 KLD is proposed for inside rain water harvesting using roof top of the project site.</p>																																								
<b>6</b>	<b>Air</b>																																									
6.1	Details of Air Polluting Machinery and APCDs installed are as under:																																									
	<table border="1"> <thead> <tr> <th>S.No.</th> <th>Source</th> <th>Existing</th> <th>APCD</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Induction Furnace</td> <td>1X7TPH (to be upgraded)</td> <td>Pulse jet back filter with offline technology having efficiency 99.0%</td> </tr> <tr> <td>2.</td> <td>Rolling mill</td> <td>Nil</td> <td>--</td> </tr> <tr> <td>3.</td> <td>Ladle Refining Furnace (LRF)</td> <td>Nil</td> <td>--</td> </tr> <tr> <td>4.</td> <td>Concast Machine</td> <td>Nil</td> <td>--</td> </tr> <tr> <td>5.</td> <td>AOD</td> <td>Nil</td> <td>--</td> </tr> <tr> <td>6.</td> <td>VD</td> <td>Nil</td> <td>--</td> </tr> <tr> <td>7.</td> <td>DG Set</td> <td>1X125 KVA</td> <td>Stack with adequate height</td> </tr> <tr> <td colspan="4"><b>AFTER EXPANSION</b></td> </tr> <tr> <th>S.No.</th> <th>Source</th> <th>After Expansion</th> <th>APCD</th> </tr> </tbody> </table>		S.No.	Source	Existing	APCD	1.	Induction Furnace	1X7TPH (to be upgraded)	Pulse jet back filter with offline technology having efficiency 99.0%	2.	Rolling mill	Nil	--	3.	Ladle Refining Furnace (LRF)	Nil	--	4.	Concast Machine	Nil	--	5.	AOD	Nil	--	6.	VD	Nil	--	7.	DG Set	1X125 KVA	Stack with adequate height	<b>AFTER EXPANSION</b>				S.No.	Source	After Expansion	APCD
S.No.	Source	Existing	APCD																																							
1.	Induction Furnace	1X7TPH (to be upgraded)	Pulse jet back filter with offline technology having efficiency 99.0%																																							
2.	Rolling mill	Nil	--																																							
3.	Ladle Refining Furnace (LRF)	Nil	--																																							
4.	Concast Machine	Nil	--																																							
5.	AOD	Nil	--																																							
6.	VD	Nil	--																																							
7.	DG Set	1X125 KVA	Stack with adequate height																																							
<b>AFTER EXPANSION</b>																																										
S.No.	Source	After Expansion	APCD																																							

	1.	Induction Furnace	1X10 TPH, 1X15 TPH	Pulse jet back filter with offline technology having efficiency 99.0%																									
	2.	Rolling mill	01 no	PNG																									
	3.	Ladle Refining Furnace (LRF)	1x20 TPH	Pulse jet back filter with offline technology having efficiency 99.0%																									
	4.	Concast Machine	01 No	--																									
	5.	AOD	01 No	--																									
	6.	VD	01 No																										
	7.	DG Set	2X125 KVA	Stack with adequate height																									
<b>7</b>	<b>Waste Management</b>																												
7.1	Details of management and disposal of solid waste (Mechanical Composter/Compost pits)		Disposal of Solid waste will be as per MSW rules, 2016																										
7.2	Details of management of Hazardous Waste.		<table border="1"> <thead> <tr> <th colspan="5"><b>Solid/ Hazardous Waste</b></th> </tr> <tr> <th><b>S.No.</b></th> <th><b>Waste Category</b></th> <th><b>Existing</b></th> <th><b>After Expansion</b></th> <th><b>Disposal</b></th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>35.1 Flue gas cleaning residue</td> <td>0.15 TPD</td> <td>1.26 TPD</td> <td>The dust generated from APCD is being/will be stored in impervious pit and sent to TSDf site/ Madhav alloys for final disposal. (Agreement executed with the agency submitted)</td> </tr> <tr> <td>2.</td> <td>Used Oil</td> <td>0.02 kl/annum</td> <td>0.04 kl/annum</td> <td>Will be used as lubricant within the industry</td> </tr> <tr> <td>3.</td> <td>Slag</td> <td>3.5 TPD</td> <td>21.34 TPD</td> <td>Will be sent to M/s Deep</td> </tr> </tbody> </table>		<b>Solid/ Hazardous Waste</b>					<b>S.No.</b>	<b>Waste Category</b>	<b>Existing</b>	<b>After Expansion</b>	<b>Disposal</b>	1.	35.1 Flue gas cleaning residue	0.15 TPD	1.26 TPD	The dust generated from APCD is being/will be stored in impervious pit and sent to TSDf site/ Madhav alloys for final disposal. (Agreement executed with the agency submitted)	2.	Used Oil	0.02 kl/annum	0.04 kl/annum	Will be used as lubricant within the industry	3.	Slag	3.5 TPD	21.34 TPD	Will be sent to M/s Deep
<b>Solid/ Hazardous Waste</b>																													
<b>S.No.</b>	<b>Waste Category</b>	<b>Existing</b>	<b>After Expansion</b>	<b>Disposal</b>																									
1.	35.1 Flue gas cleaning residue	0.15 TPD	1.26 TPD	The dust generated from APCD is being/will be stored in impervious pit and sent to TSDf site/ Madhav alloys for final disposal. (Agreement executed with the agency submitted)																									
2.	Used Oil	0.02 kl/annum	0.04 kl/annum	Will be used as lubricant within the industry																									
3.	Slag	3.5 TPD	21.34 TPD	Will be sent to M/s Deep																									

					Enterprises for final disposal. (Agreement executed with the agency submitted)
<b>8</b>	<b>Energy Saving &amp; EMP</b>				
8.1	Power Consumption:	Existing – 3.0 MW Additional – 8.0 MW After Expansion – 11 MW Source - Punjab State Power Corporation Limited, Punjab			
8.2	Energy saving measures:	LEDs have been proposed to be used instead of CFLs.			
9.	Additional Environmental Activities	<b>Additional Environmental activities-</b>			
		<b>S.No.</b>	<b>Activity</b>	<b>Timeline</b>	<b>Budget allocation</b>
		1.	Rejuvenation of Village Pond, Mullanpur Kalan	Within one year after grant of EC	Rs 16.0 Lakhs
10.	<b>EMP BUDGET</b>				
	<b>S. No</b>	<b>Title</b>	<b>Capital Cost Rs. Lakh</b>	<b>Recurring Cost Rs. Lakh</b>	
	1	Pollution Control during construction stage	5.0	2.0	
	2	Air Pollution Control (Installation of APCD)	180.0	10.0	
	3	Water Pollution Control/ STP up-gradation	10.0	2.0	
	4	Noise Pollution Control	3.0	0.50	
	5	Green Belt Development maintenance plan	6.40	6.40 (for Three years)	
	6	Solid Waste Management	3.0	0.25	
	7	Environment Monitoring and Management	-	0.50	
	8	Occupational Health, Safety and Risk Management	5.0	1.0	
	9	RWH	15.0	2.0	
	10.	CER Activities	16.0	-	
	11.	Energy Conservation	3.0	1.0	
		<b>TOTAL</b>	<b>246.4</b>	<b>25.65</b>	

Salient features of the queries, replies and Action plan in respect of the issues raised during the course of public hearing of the Project are as under:



Sr. No.	Name & Address of the Person	Detail of query/ statement/ information/ clarification sought by the person present	Reply of the query/statement information/clarification given by the Project Proponent	Action Plan	Time Line
1.	Sh. Raghbir Singh, Chattarpur, Mandi Gobindgarh	Sh. Raghbir Singh, Chattarpur, Mandi Gobindgarh What are the advantages and disadvantages of the new project?	The Industry's environmental consultant said the people will get employment on the basis of their educational qualifications. The consultant informed the Industry will carry out social welfare works with the help of Panchayat of the Village.	Employment based on education & skill will be given to locals. Social welfare activities will be undertaken in the buffer zone.	Employment will start with construction phase & social works after one year of satisfactory operation of plant.
2.	Sh. Harmeet Sing, Isarhel	Sh. Harmeet Sing, Isarhel asked that what arrangements shall be done by the Industry for taking care of the health of the factory workers?	The consultant of the Industry informed that the occupational survey of the workers is done. Secondly, as far as, safety issues are concerned, the workers handling raw material and sharp scrap are provided with hard head shoes, helmets, gloves and nose masks. Workers working in the nosy environment, are given ear plugs etc. Whereas, health issues are concerned, physical fitness checkup like chest, spirometry and eye checkup are being done during pre-placement of workers to ascertain that they are fit for the job or not. After Induction, medical checkups will be carried out yearly for workers of 50 years & above and	Pre-employment health check up will be done & during the course of employment periodic check up will be done.	The process will start with the employment and continue throughout the service of an employee.

			once in 5 years for workers less than 50 years age.		
3.	Sh. Manjit Singh, Village Wazirabad	Sh. Manjit Singh, Village Wazirabad asked how air & water pollution shall be reduced?	<p>The industry's environmental consultant said that water is not used in any process, only water shall be used for cooling purpose of induction coils which will be re-circulated and no chemical wastewater shall be generated. So there is no issue of water pollution in the unit. Further, for domestic effluent generated from toilets, STP shall be installed and treated effluent after STP shall be used inside the unit.</p> <p>Air pollution shall be generated from induction furnace, which shall mainly comprise of small particulate matter and metals for which latest technology of bag filter house shall be installed. The clean air after bag filter shall be released in the environment and there people will not face issue of breathing problem. APCD dust generated from the unit shall be used for metal recovery or shall be sent to TSDF Nimbuan.</p>	Whereas no water is used in the process requiring treatment of waste water & disposal, air pollution will be abated by installing APCD on the I.F. Air quality will be regularly monitored.	All these pollution control devices will be operational with the start of production.
4.	Sh. Gurpreet	Sh. Gurpreet Singh, Wazirabad asked how much expansion in power	The industry's environmental consultant said that industry is an energy		

	Singh, Wazirabad	consumption will take place after expansion of the unit?	intensive unit. The existing power load of the industry is 3 MW, since the capacity of induction furnace shall be increased 1.5 times and so will be power consumption. Therefore, additional power consumption of 8 MW is required. After expansion the total power consumption load shall be 11 MW. The industry has obtained approval of power consumption from Punjab State Power Corporation Limited.		
5.	Sh. Harjit Singh, Village Mulanpur	Sh. Harjit Singh, Village Mulanpur how many trees shall be planted by the industry?	The industry's environmental consultant said that plantation shall be carried out in 33% of the land area and about 636 plants shall be planted. Proper maintenance shall be carried out of these plants so that the survival rate is more than 90%. In case of damaged plant, the same shall be replaced within 1-year time.	Plantation will commence with the start of construction work.	Plantation will be completed with one year of grant of EC.

During meeting, the Committee observed that the industry has proposed to acquire additional land area of 2 acres for carrying out expansion and the said piece of land area shall be used for meeting the criteria of developing 33% of the green area by the industry. The Committee observed that the industry has submitted land ownership documents pertaining to 2 acres in the name of M/s Natural Concast. In this regard, the industry apprised the Committee that the management of M/s Natural Casting India Ltd and M/s Natural Concast are same. The industry has submitted an affidavit attested by Notary Public stating that the 2 acres of land area adjoining to the existing industrial premises is owned by M/s Natural Concast. Further, M/s Natural Casting is promoted by 5 partners namely Sh. Sumit Chahal, Sh. Yogesh Kumar, Sh. Ashok Kumar, Sh. Anubhav Chehal and Sh. Sanjiv Mangi, whereas, M/s

Natural Concast is promoted by 3 partners namely Sh. Sumit Chahal, Sh. Yogesh Kumar and Sh. Ashok Kumar. Therefore, 3 common partners have no objection for use of two acres of land by M/s Natural Casting for industrial purposes and M/s Natural Casting will be responsible for use of this land for only industrial purposes and development of the same as per the layout plan. The Project Proponent has submitted an undertaking furnished by M/s Natural Concast for providing 2 acres of the land area for meeting the criteria of developing 33% green area.

The industry has also mentioned in the affidavit that after filing application for obtaining Environmental Clearance, the matter was discussed with technical experts and the proposal for the installation of VD & AOD has been dropped. However, the remaining proposal and production capacity will remain as mentioned in the application proposal.

SEAC was satisfied with the presentation given by the industry and after detailed deliberations, decided to award **silver grading** to the industry and to forward the application to SEIAA with the recommendation to grant Environmental Clearance for expansion of steel manufacturing unit at Village Mullanpur Kalan, Mandi-Gobindgarh, Tehsil-Amluh District Fatehgarh Sahib, Punjab by M/s Natural Castings, subject to the following standard conditions: -

#### **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 Punjab Pollution Control Board.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority/competent authority concerned, in case of withdrawal of groundwater and also in case of use 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 the 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 project proponent shall comply with the CLU conditions imposed by the competent authority, if any.

## **II. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at the inlet as well as at the outlet (stack) of each APCD to monitor the SPM concentration with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31<sup>st</sup> March, 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> December, 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these systems 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 a system to carry out Manual Ambient Air Quality monitoring for parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> 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.
- 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 the 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, etc. regularly.
- viii. Recycle and reuse of 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 should be ensured.

- 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 and implementation of the ventilation system for adequate air changes as per the ACGIH document for all tunnels, motor houses, Oil Cellars should be ensured.

### **III. Water quality monitoring and preservation**

- i. 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.
- ii. 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.
- iii. The project proponent shall practice rainwater harvesting to the maximum possible extent. For this, 1 no. of pond at Village Mullanpur Kalan, Mandi Gobindgarh, District Fatehgarh Sahib shall be adopted to recharge the 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 into different parts, the overflow of each chamber shall be allowed to enter into another chamber which will ultimately lead to the purification of water and collected into the 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.
- iv. 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 the report in this regard shall be submitted to the 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 practice hot charging of slabs and billets/blooms as far as possible.
- ii. The project proponent shall provide solar power generation on rooftops of buildings, solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- iii. The project proponent shall provide the for LED lights in their offices and residential areas.
- iv. The Project Proponent shall practice hot charging of slabs and billets/blooms as far as possible.

**VI. Waste management**

- i. Used refractories shall be recycled as far as possible.
- ii. 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.
- iii. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- iv. Kitchen waste shall be composted or converted to biogas for further use.

**VII. Green Belt**

- i. Green belt shall be developed in an area of 4236.34 Sqm (equal to 33% of the plant area) with native tree species in accordance with SEIAA guidelines. Total 636 tall saplings (minimum 6 feet height) of indigenous species such as Neem, Drek, Kusum, Kadam, Banyan, Peepal, Amaltas, Arjun, Chakarasia etc will be planted.

**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 activities apart from CER activities and spent an amount as commuted during the public hearing as per the public hearing action plan.

## **IX. Environment Management Plan**

- i. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/ forest/ wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions to all / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- ii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of Senior Executive, who will directly report to the head of the organization.
- iii. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and will not be diverted for any other purpose. The project proponent shall spend a minimum amount of Rs 246.4 Lakhs towards the capital cost and Rs 25.65 Lakhs/annum towards recurring cost including the environmental monitoring cost for the implementation of EMP as proposed in application proposal.
- iv. Year-wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report along with the Six-Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third-party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.

## **X. Validity**

- i. This environmental clearance will be valid for a period of ten years from the date of its issue or till the completion of the project, whichever is earlier.

## **XI. 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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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 of the Ministry and PPCB, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the SEAC and SEIAA.
- x. No further expansion or modifications in the project shall be carried out other than those permitted in this EC without prior approval of SEIAA. In case of deviation or alterations in the project proposal from those submitted to the Ministry/SEIAA for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- xi. The Regional Office, MoEF&CC, Chandigarh, Punjab Pollution Control Board and SEIAA/ SEAC members nominated for the purpose shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) entrusted with this monitoring by furnishing the requisite data/information/monitoring reports..

## **XII. Additional Conditions:**

- i. The project proponent shall submit the progress of developing the green belt in the six-monthly compliance report.

- ii. The Project Proponent shall install online monitoring system at inlet as well as at the outlet of each APCD for monitoring SPM.
- iii. The Project Proponent shall submit compliance of the action plan proposed to address the public hearing issues along with the six-monthly compliance report of EC condition on Parivesh portal.

**1.0 Deliberations during 250<sup>th</sup> meeting of SEIAA held on 09.06.2023**

The case was considered by SEIAA in its 250<sup>th</sup> meeting held on 09.06.2023 which was attended by the following:

- (i) Sh. Sanjeev Mangi, Partner, M/s Natural Castings (India) Ltd.
- (ii) Sh. Sital Singh, Environmental Consultant, M/s. Chandigarh Pollution Testing Laboratory.
- (iii) Sh. Sandeep Singh, Consultant, M/s. Chandigarh Pollution Testing Laboratory.

Environmental Consultant presented the salient features of the project. A copy of the presentation submitted by project proponent was taken on record.

While considering the salient features of the project, SEIAA observed that the funds allocated for Additional Environmental Activities (AEAs) as part of EMP were, in fact, proposed to be spent on CSR activities which were unrelated to amelioration of the environment. In this regard SEIAA asked the Project Proponent to select the AEAs from the list of activities approved by SEIAA / SEAC for this purpose. To this observation, the project proponent opted to undertake the activity pertaining to raising of plantations outside project area through the state Forest Department and undertook to deposit the amount of Rs.16 lakhs for this purpose in the Government treasury through the DFO Fatehgarh Sahib under the budget head of Greening Punjab Mission as under:

<b>Demand No.</b>	<b>32- Forestry and Wildlife</b>
<b>Major Head</b>	<b>0406-Forestry and Wildlife</b>
Sub Major Head	01- Forestry
Minor Head	102- Receipts from Social and Farm Forestry
Sub Head	03- Green Punjab Mission
Detailed Head	01-Green Punjab Mission Fees

On a request from the project proponent, SEIAA allowed the project proponent to deposit the said amount of Rs.16,00,000/- in 3 instalments of Rs 5.33 Lakhs each over a period of three years.

After detailed deliberations and examination of relevant documents, SEIAA decided to accept the recommendations of SEAC and grant Environmental Clearance for Expansion in the existing steel manufacturing unit M/s "Natural Castings" at Village Mullanpur Kalan, Mandi Gobindgarh, Tehsil Amloh, District Fatehgarh Sahib, Punjab by Natural Castings as per the details mentioned in the application and subsequent presentation /clarifications made by the project proponent and his consultant with proposed measures and subject to the conditions proposed by SEAC and additional condition mentioned below:

**Additional Condition:**

No construction will be started till the first instalment of Rs 5.33 Lakhs proposed under Additional Environmental Activities is deposited in the state government treasury under Green Punjab Mission budget head of account through DFO Fatehgarh Sahib. The subsequent 2 instalments of Rs 5.33 Lakhs each will be deposited on or before 01.07.2024 and 01.07.2025 respectively.