

F. No. J-11011/70/2020-IA.II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj,  
New Delhi – 110003

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Dated: 9<sup>th</sup> March, 2021

To

Shri. Shan Mohan Sagili IAS,  
Managing Director,  
M/s. AP High Grade Steels Ltd.,  
D. No. 7-104, A Block, 1<sup>st</sup> Floor,  
Sri Anjaneya Towers, NTPS Road,  
Ibrahimpatnam, Vijayawada, Andhra Pradesh-521456.  
Email: aphighgradesteels@gmail.com; Tel: 08662429977

Subject: Proposed 3 MTPA crude steel plant and Captive power generation of 84.7 MW plant by **M/s. AP High Grade Steels Ltd** located at Sunnapurallapalli and Peddandluru villages, Jammalamadugumandal, **YSR district, Andhra Pradesh – Environment Clearance – regarding.**

Sir,

1. This refers to the online application of M/s. AP high Grade Steels Limited (APHSL) made vide proposal no. IA/AP/IND/146236/2020 dated 20/12/2020 and subsequent revised proposal dated 29/01/2021 along with copy of EIA/EMP report and Form –2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Schedule No. 3 (a) Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at the Central level.
2. The aforesaid proposal was considered in the 27<sup>th</sup> and 30<sup>th</sup> meeting of the EAC (Industry - 1) held on 30-31<sup>st</sup> December, 2020 and 10-11<sup>th</sup> February, 2021 respectively. The EAC proceedings of the said meetings are furnished as below.

**Details submitted by the project proponent**

3. The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
28/02/2020	19 <sup>th</sup> meeting of EAC (Industry-1) held on 20/05/2020	Terms of Reference	09/07/2020
10/10/2020	24 <sup>th</sup> meeting of EAC (Industry-1) held on 27/10/2020	Amendment in Terms of Reference	15/12/2020

*Environmental Clearance for “Proposed 3 MTPA crude steel plant and Captive power generation of 84.7 MW plant by M/s. AP High Grade Steels Ltd located at Sunnapurallapalli and Peddandluru villages, Jammalamadugumandal, YSR district, Andhra Pradesh.”*

4. The project of M/s. AP High Grade Steels Limited (APHSL) located in Sunnapurallapalle and Peddandluru villages, Jammalamadugu Mandal, YSR District (formerly known as Kadapa district), Andhra Pradesh is for setting up of a new integrated steel plant for production of 3.0 million MTPA and Captive power generation of 84.7 MW.

5. Environmental Site Settings

S. No.	Particulars	Details	Remarks																																		
i.	Total land	1453.49 ha or 3591.65 Acres [Private: Nil; Govt: 1453.49 ha; Agriculture: Nil; and Grazing land: Nil]	Land use: Waste/Barren																																		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Advance possession for the land to an extent of 1274.25 ha by Revenue (Lands.VI) Department, Govt of Andhra Pradesh.	Balance land is under process of alienation.																																		
iii.	Existence of habitation & involvement of R&R, if any.	Nil																																			
iv.	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>Latitude, N</th> <th>Longitude, E</th> </tr> </thead> <tbody> <tr><td>14°46'31.44"</td><td>78°25'00.84"</td></tr> <tr><td>14°44'39.99"</td><td>78°24'01.68"</td></tr> <tr><td>14°45'13.32"</td><td>78°24'35.50"</td></tr> <tr><td>14°44'13.39"</td><td>78°23'52.23"</td></tr> <tr><td>14°43'46.42"</td><td>78°25'57.51"</td></tr> <tr><td>14°44'31.87"</td><td>78°26'21.07"</td></tr> <tr><td>14°45'19.69"</td><td>78°26'49.08"</td></tr> <tr><td>14°45'30.90"</td><td>78°26'37.83"</td></tr> <tr><td>14°45'33.92"</td><td>78°26'18.65"</td></tr> <tr><td>14°45'07.05"</td><td>78°26'01.61"</td></tr> <tr><td>14°45'12.77"</td><td>78°25'45.77"</td></tr> <tr><td>14°45'23.32"</td><td>78°25'54.72"</td></tr> <tr><td>14°45'22.63"</td><td>78°26'02.33"</td></tr> <tr><td>14°45'48.96"</td><td>78°26'10.36"</td></tr> <tr><td>14°45'59.56"</td><td>78°25'43.79"</td></tr> <tr><td>14°46'02.93"</td><td>78°25'44.37"</td></tr> </tbody> </table>	Latitude, N	Longitude, E	14°46'31.44"	78°25'00.84"	14°44'39.99"	78°24'01.68"	14°45'13.32"	78°24'35.50"	14°44'13.39"	78°23'52.23"	14°43'46.42"	78°25'57.51"	14°44'31.87"	78°26'21.07"	14°45'19.69"	78°26'49.08"	14°45'30.90"	78°26'37.83"	14°45'33.92"	78°26'18.65"	14°45'07.05"	78°26'01.61"	14°45'12.77"	78°25'45.77"	14°45'23.32"	78°25'54.72"	14°45'22.63"	78°26'02.33"	14°45'48.96"	78°26'10.36"	14°45'59.56"	78°25'43.79"	14°46'02.93"	78°25'44.37"	
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v.	Elevation of the project site	172-315 m, MSL																																			
vi.	Involvement of Forest land if any.	No forest land involved	Not Applicable																																		
vii.	Water body exists within the project site as well as study area	<b>Project site:</b> Nil <b>Study area</b> Penneru (Penna) River is at a distance of 1.6 km in North direction from the project	Not Applicable																																		
viii.	Existence of SZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/	Nil																																			

S. No.	Particulars	Details	Remarks
	elephant reserve etc. if any within the study area		

6. The proposed project is a Greenfield project. CTE and CTO will be obtained after the grant of Environment Clearance for the said project.

7. The unit configuration and capacity of proposed project is given as below:

Name of the unit	No of Units / capacity of each unit	Product	Production Capacity, TPA
Coke oven and by-product plant	2 x 67 ovens, 7 m tall	Coke	1754100
Sinter plant	1 x 496 m <sup>2</sup>	Sinter	5384600
Blast furnace	4700 m <sup>3</sup> (UV)	Hot Metal	3433500
<b>Steelmaking and continuous casting shop</b>			
Basic Oxygen Furnaces (BOF)	2 x 175 t	Liquid steel	3099000
Ladle furnaces (LF)	2 x 175 t	Liquid steel	3092800
RH-Degasser	1 x 175 t	Liquid steel	
Billet casters	2 x 6 - strand	Billets	2273400
Slab caster	1 x 1 - strand	Slab	734100
<b>Rolling mills</b>			
Plate mill	668000 tons/yr	Plates	668000
Merchant mill	1200000 tons/yr	TMT rebar, Plain rounds, Equal Angles and Channels	1200000
Wire rod mill	1000000 tons/yr	Wire Rods (5.5 to 22 mm)	1000000
<b>Oxygen plant (BOO Basis)</b>	2 x 1350 TPD	Oxygen, Nitrogen and Argon	2 x 1350 TPD
<b>Calcination plant</b>			
Calcined lime plant	2 x 500 tons/day	Calcinated Lime	314100
Calcined dolo plant	1 x 500 tons/day	Calcinated Dolo	68000
Steam turbine generator (STG) at power blowing station	(3 x 15 MW) – 2 Working + 1 Standby	Electric Power	30 MW
Backpressure turbine generator (BPTG) at CDCP	1 x 12.7 MW	Electric Power	12.7 MW

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Name of the unit	No of Units / capacity of each unit	Product	Production Capacity, TPA
Top recovery turbine generator (TRT) at Blast Furnace	1 x 27 MW	Electric Power	27 MW
Waste heat recovery boiler generator (WHRB) at the Sinter Plant	1 x 15 MW	Electric Power	15 MW

### **Manufacturing Capacity**

Items	Capacity, (TPA)	Remarks, TPA
BF Coke	136100	BF Coke - 1754100, Saleable - 136100
Coke Breeze	27200	Saleable - 27200
Iron Shots	300200	Saleable - 300200
Wire Rods	1000000	Saleable -1000000
Merchant Product	1200000	Saleable -1200000
Plates	668000	Saleable -668000
Granulated Slag	978600	Saleable -978600
Oxygen Plant	891000 Nm <sup>3</sup> /hr	
<b>By-products</b>		
Coke oven gas	84360 Nm <sup>3</sup> /hr	
Crude Tar	92000	Saleable -92000
Elemental Sulphur	2500	Saleable -2500
Naphthalene	150	Saleable -150
<b>In house power generation</b>		
<b>84.7 MW</b>		
Steam turbine generator (STG) at power blowing station	(3 x 15 MW) - 2 Working + 1 Standby	
Backpressure turbine generator (BPTG) at CDCP	1 x 12.7 MW	
Top recovery turbine generator (TRT) at Blast Furnace	1 x 27 MW	
Waste heat recovery boiler generator (WHRB) at the Sinter Plant	1 x 15 MW	

8. The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

Raw material	Units	Quantity	Source & Transportation
Iron ore lump (BF grade)	TPA	1139900	Bailadila (Kirandul / Bacheli) iron ore mines around 800km, NMDC transported by wagon train
Iron ore lump (SMS grade)	TPA	37100	
Iron ore lump (total)	TPA	1177100	
Iron ore fines	TPA	3795700	
Limestone (BF grade)	TPA	411900	The Source will be in the vicinity of 240 km, transport by goods wagon train
Dolomite	TPA	540100	
Limestone	TPA	602400	Imported (middle east), through Krishnapatnam

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Raw material	Units	Quantity	Source & Transportation
(SMS Grade)			port at a distance of 190 km, transport by goods wagon train.
Dolomite (SMS grade)	TPA	139800	
Blended coking coal	TPA	2308000	Australia and then through Krishnapatnam port at a distance of 190 km, transport by goods wagon train.
Non-coking coal for CDI	TPA	515000	
Quartzite	TPA	202600	Mines within 100 km from the site, transport by trucks.
Ferroalloys	TPA	61850	Local manufacturers within 100 km from the site, transport by trucks.
Purchased DRI	TPA	151000	
Propane	TPA	4160	Local Petro product storage at a distance of 100 km, transport by bullet trucks.

9. The water requirement for the project is estimated as 2285 m<sup>3</sup>/hr, out of which 1880 m<sup>3</sup>/hr of fresh water requirement will be obtained from the Gandikota Reservoir and the remaining requirement of 405 m<sup>3</sup>/hr will be met from the recycled water. The permission for drawl of surface water is obtained from Water Resources department, Govt of Andhra Pradesh. vide G.O.MS.No. 84, dated 20/12/2019.

10. The power requirement for the project is estimated as 250.94 MW, out of which 166.24 MW will be obtained from the A.P. Southern Power Distribution Company (APSPDCL) and 84.7 MW from Captive power plant generation.

#### 11. Baseline Environmental Studies:

Period	March – June 2020
AAQ parameters at 8 locations	PM <sub>2.5</sub> = 14 to 21 µg/m <sup>3</sup> PM <sub>10</sub> = 41 to 59 µg/m <sup>3</sup> SO <sub>2</sub> = 6 to 20 µg/m <sup>3</sup> NO <sub>x</sub> = 7 to 24 µg/m <sup>3</sup> CO = 0.39 to 0.67 µg/m <sup>3</sup>
AAQ modelling	PM <sub>10</sub> = 6.61 µg/m <sup>3</sup> SO <sub>2</sub> = 6.11 µg/m <sup>3</sup> NO <sub>x</sub> = 10.3 µg/m <sup>3</sup>
Ground water quality at 8 locations	pH: 6.82 to 8.21, Total Hardness:125 to 520 mg/l, Chlorides: 42 to 317 mg/l, Fluoride: 0.22 to 0.56 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations	pH: 7.52 to 8.72 DO: 3.7 to 4.9 mg/l and BOD: 3.9 – 13 mg/l. COD from 16 to 22.8 mg/l
Noise levels	38 to 54 dBA for the day time and 31 to 38 dBA for the Night time.
Traffic assessment study findings	Proposed 4 lane road shall cater to the additional peak traffic of 584 PCU during shift change over. The additional traffic due to material transport shall be 1238 PCU/day (reflecting in approximately 354 truck trips/day) for material transport. It is proposed to storage dispatches to avoid congestion on connecting road.
Flora and fauna	The authenticated list of flora and fauna provided by the Divisional forest officer, Proddatur (WL) division, vide letter no. Rc.No.236/2020-P8, dt.30.09.2020 reporting presence of

	Schedule-I fauna in the study area. Conservation plan submitted to the Chief Wildlife Warden, Andhra Pradesh, awaiting for authentication.
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12. The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Type of Solid Waste	Unit	Quantity generated	Mode of Treatment / Disposal (Recycle / reuse / sale as new products)
Granulated BF Slag	TPA	978600	Sold to the cement plant
LD slag	TPA	440000	Send to metal recovery plant for recovery of metallics and balance used as sub base in roads, ballast for railways, sinter plants, SMS, and cement making
Iron ore fines	TPA	126700	Reused in the sinter plant
Flue dust, dust from ESP, bag filter, dedusting system,	TPA	223000	Reused in the sinter plant
Solid waste from mill scales	TPA	72700	Reused in the sinter plant
Lime fines dust	TPA	20200	Reused in the sinter plant
Tar sludge from tar decanters and muck from naphthalene plant	TPA	1720	Transported to coal handling plant for mixing with coal and used in coke oven battery.
Sludge from the ETP	TPA	1100	Mixed with the coal charge being fed to the coke ovens
Sludge from the STP	TPA	500	Used as compost
Used Batteries	no/ year	500	Sent to Authorized recyclers
Waste Oil	KL/ year	500	Sent to Authorized recyclers
Transformer Oil	KL/year	20	Sold to APTRANSCO authorized contractors.
E-waste	TPA	5	Sent to Authorized recyclers
Municipal solid waste	TPA	720	Bio degradable waste sent to Vermicompost units and reused as manure, recyclables are sent to recyclers, inerts are used for filling low lying areas.
Packing material	TPA	100	Sold to rescuers or recyclers
Biomedical medical waste	TPA	15	Sent to BMW facilities

13. Public Consultation:

Details of Advertisement given	09/10/2020
Date of Public Consultation	11/11/2020
Venue	Proposed Project site, Sunnapurallapalle and Peddandluru villages, Jammalamadugu Mandal, YSR District, AP
Presiding Officer	Joint Collector and Additional District Magistrate, YSR district
Major Issues Raised	i. Employment to locals ii. Skill development and skill development

	<ul style="list-style-type: none"> <li>center</li> <li>iii. Compensation for land acquisition</li> <li>iv. Schools in the surrounding villages</li> <li>v. Hospitals in surrounding villages</li> <li>vi. Implementation of Pollution control measures</li> <li>vii. Provision of drinking water</li> <li>viii. Treated wastewater for agriculture</li> <li>ix. More funds for Kanya theertham temple development</li> <li>x. Loss of grazing land and alternate means of lively hood</li> <li>xi. Improvement of road infrastructure</li> <li>xii. Avenue plantation in villages</li> <li>xiii. Reservations in employment</li> </ul>
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**Action plan as per MoEF&CC O.M. dated 30/09/2020: Time frame five years**

Sector	Activity & Name of the village	Quantity	Year wise breakup (Physical in numbers & Financial in Lakh Rs.)
1. Educational Programmes	i) Construction of Skill Development Centre	1 (JMM)	60.00
	ii) Training programs on skill development.	Total 18 @4 Nos. / Year	135.00
	iii) Construction of Technical Training center at Project Office, APHSL	1 (SP)	150.00
	iv) Technical training programs	Total 07 @2 Nos. / Year	85.00
	v) Construction of School Buildings	3	75.00
	vi) Transportation facility for students	2 Routes (SP e to JMM & SP to Proddatur)	50.00
	vii) Additional Infrastructure development in Govt. Schools	21 (*Existing schools spread across all 11 villages as listed in the foot note)	500.00
	<b>Subtotal-1</b>		
2. Health & Sanitation programs	i) Public Health Sub-centres	11**	275.00
	ii) Upgradation of Public Health Sub centres	2	200.00
	iii) Provision of Veterinary Hospital	2	100.00
	iv) Additional Infrastructure development in Veterinary Hospital	1 (CU)	60.00
	v) Provision of Ambulance & its operation	1 (SP)	80.00
	vi) Conducting medical camps	28 (7 Nos / Year)	28.00
	vii) Conducting Swachh Bharath	*** 12 Villages	125.00
	viii) Conducting awareness programs	*** 12 Villages	27.00
<b>Subtotal-2</b>			<b>895.00</b>
3. Enviro	i) Plantation programs in villages, schools, hospitals & other government buildings.	***12 Villages (@1000 Nos / Village)	60.00

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Sector	Activity & Name of the village	Quantity	Year wise breakup (Physical in numbers & Financial in Lakh Rs.)
	ii) Maintenance of Plantation in villages, schools, hospitals & other government buildings.	***12 Villages (@1000 Nos / Village)	15.00
	iii) Roadside Plantation programs in village roads.	30 Km (VM to CH)	300.00
	iv) Maintenance of Roadside Plantation.	30 Km (VM to CH)	90.00
	v) Rainwater harvesting structures in Villages	***12 Villages (@25-50 Nos / Village)	270.00
	vi) Desilting operations of tanks and Deepening of ponds in villages	12	165.00
	vii) Provision of covered sewers in villages	***12 Villages	340.00
	viii) Tree cover improvement in buffer zone - Southern side of plant boundary.	100 Ha	500.00
	ix) Maintenance of bufferzone - Southern side of plant boundary.	100 Ha	125.00
	x) Development & maintenance of Biodiversity park - in Buffer zone	1 (in 10 Ha)	600.00
	xi) Conducting Environmental awareness programs (1 programme / 2 villages)	***12 Villages / 6 Programs	30.00
	<b>Subtotal-3</b>		<b>2495.00</b>
4. Infrastructure Development programs	i) Construction of New roads in villages	***30 Km	1200.00
	ii) Repairs/improvements to existing roads	***40 Km	400.00
	iii) Providing Lighting to the roads & its maintenance	14.5 Km (VM to SIR)	385.00
	iv) Construction of Anganwadi centres	***12 No.	240.00
	v) Solar street Light arrangements in villages	***12 No.	270.00
	vi) Boundary wall for graveyards	10 No.	135.00
	vii) Reading rooms	4 Nos.	60.00
	viii) Community centres	4 Nos.	375.00
	ix) Bus stops	5 Nos.	40.00
		<b>Subtotal-4</b>	
<b>Grand Total</b>			<b>7550.00</b>
* Dharmapuram, Danavulapadu, Sunnapurallapalle, Peddandlur, Devagudi, Sugamanchipalle, Sirigepalle, Ambavaram, Goriganuru, Kosinepalle and Chowduru.			
** Kothaguntepalle, Dharmapuram, Danavulapadu, Peddandlur, Devagudi, Sugamanchipalle, Sirigepalle, Ambavaram, Kosinepalle, Rangasayapuram and P.Gopalapuram.			
*** Kothaguntepalle, Dharmapuram, Danavulapadu, Sunnapurallapalle, Peddandlur, Devagudi, Sugamanchipalle, Sirigepalle, Ambavaram, Chowduru, Kosinepalle and P. Gopalapuram.			
JMM- Jammalamadugu, SP- Sunnapurallapalle, RSP – Rangasayapuram, VM- Vemaguntepalle, SIR- Sirigepalle, SUGM- Sugamanchipalle, DHM- Dharmapuram, KT- Kothaguntepalle, DVP- Danavulapadu, PD- Peddandlur GVN-Guruvareddynagar, AB- Ambhavaram, DG- Devagudi, KP- Kosinepalle, PGP- P.Gopalapuram, SGM- Sugamanchipalle, AB- Ambavaram, GG- Goriganuru, KV- Kottala vantamidde, CU- Chowduru, BM- Bommepalle, TP- Tugutlapalle, CH- Chilamkur			



14. The capital cost of the project is Rs. 16986 Crores and the capital cost for environmental protection measures is proposed as Rs. 1812.61 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.52.805 Crores. The employment generation from the proposed project is 4350 Nos. The details of cost for environmental protection measures are as follows:

Description	Capital cost in Rs. Lakhs		Recurring cost in Rs. Lakhs	
	Construction Phase	Operation Phase	Construction Phase	Operation Phase
Air Pollution Control	67477	1000	100	2525
Water Pollution Control	31346	900	8	320
Rainwater harvesting structures and tank	1000	20	1	20
Check dam repairs and Management	800	80	1	10
Noise Pollution Control	1827	182	30	50
Environmental Monitoring & Management	8846	400	9.6	255.5
Energy conversation costs	35165	20	50	200
Green belt & Open area development	8000	500	50	100
Solid Waste	17000	2000	624	1500
Others - Occupational health and safety	4000	100	60	300
CER Budget to address issues raised in public hearing	5800	-	1750	-
PH concern - Development of Kanya theertham area	50	-	-	-
<b>Total</b>	<b>181261</b>	<b>5202</b>	<b>2683.6</b>	<b>5280.5</b>

15. Greenbelt will be developed in 484.18 ha which is about 33.31% of the total project area. A 50 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1210000 saplings will be planted and nurtured in 484.18 ha in 5 years.

16. The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

17. Name of the EIA consultant: M/s Team Labs and Consultants, Hyderabad [S.No. 140, List of ACOs with their Certificate / Extension Letter no. Rev. 06, Jan. 15, 2021].

#### Written submissions during the course of meeting

18. PP has submitted written clarifications on the following points during the course of meeting:

S.No.	Written submissions on	Commitment made
i.	Timelines for completing Railway Connectivity	Railway line will be commissioned by December 31st, 2023 as envisaged.
ii.	List of CER activities with Village names	Detailed village wise action plan has been submitted with physical targets and financial

S.No.	Written submissions on	Commitment made
		outlay of Rs. 7550 lakhs over a period of five years.
iii.	Choice of Technology – Justification	Justification for selection of BF-BOF route for steel making has been submitted.
iv.	Specific Water Consumption	Specific fresh makeup water consumption will be 3.96 m <sup>3</sup> /ton of finished steel.
v.	Solid Waste Storage and Disposal	Period of solid storage will vary from 15-90 days.
vi.	Sensible Heat Recovery	Sensible heat recovery is observed to be 143.1 Gcal/hr
vii.	Reduction of SO <sub>2</sub> and NO <sub>x</sub>	Major SO <sub>2</sub> and NO <sub>x</sub> emissions are from Sinter plant. It is now proposed to install MEROS technology with waste gas recycling system. In this technology the waste gas will be treated with hydrated lime whereby SO <sub>2</sub> will be absorbed. 50% of treated waste gas will be recycled back into the system and 50% will go through gas cleaning system. The net reduction in SO <sub>2</sub> will be more than 75% (50 mg/Nm <sup>3</sup> ) whereas NO <sub>x</sub> level in the waste gas will come down to < 150 mg/Nm <sup>3</sup> .
viii.	Baseline data justification with respect to water quality	The high pH level observed in sample 9 located at Goriganuru Cheruvu may be attributed to usage of washing soda by washermen at the tank and other activities of locals. Turbidity was high in sample 8, located at Kothakuntalappalli Cheruvu may be attributed to stagnant water with animal washing.
ix.	Site Management plan for construction period	Action plan submitted.

#### Observations of the Committee

19. The EAC noted the following:

- i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures. The EAC also noted that the baseline data reported and incremental GLC due to the proposed project were within NAAQ standards.
- ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.
- iii. The EAC noted that the written submissions made by the project proponent during the course of meeting are addressing the concerns of the Committee and acceded to the same.

#### Recommendations of the Committee


20. In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to stipulation of specific conditions and general conditions as

per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated steel plants based on project specific requirements.

### Decision of MoEF&CC

21. The Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1) hereby decided to grant Environment Clearance for **instant proposal** of **M/s. AP High Grade Steels Limited (APHSL)** under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated steel plants based on project specific requirements:

#### A. Specific conditions

- 
- i. Dust emission from Steel Plant stacks shall not exceed 30 mg/Nm<sup>3</sup> while from Power Plant stacks it shall not exceed 25 mg /Nm<sup>3</sup>.
  - ii. Overall emissions of PM, SO<sub>2</sub> and NO<sub>x</sub> shall not exceed the following
    - a. PM- 5.40 TPD
    - b. SO<sub>2</sub>- 6.24 TPD, and
    - c. NO<sub>x</sub> – 11.58 TPD.
  - iii. Maximum 90 days of slag storage area shall be permitted inside the plant. PP shall recycle/reuse /sell 100 % solid waste generated in the plant. Dumping of waste for any longer period would not be permitted.
  - iv. Waste Recycling Plant shall be installed to recover metal and flux from the BOF Slag.
  - v. Water consumption shall not exceed 3.96 m<sup>3</sup>/t of steel produced.
  - vi. Intermediate storage area shall be provided with stable impervious lining with garland drains connected to a settling pond.
  - vii. Tar sludge from coke ovens shall be recycled to input coal to coke ovens.
  - viii. CDQ shall be installed in coke ovens.
  - ix. Coke Oven Gas shall be desulfurized.
  - x. Sinter cooler waste heat recovery shall be installed.
  - xi. Sinter Plant will be installed based on MEROS technology to reduce emission of SO<sub>2</sub>, NO<sub>x</sub> and heavy metals.
  - xii. BF shall be equipped with TRT, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
  - xiii. Secondary fume extraction system with Dog House shall be installed on converters of SMS. BOF shall have dry gas cleaning facility.
  - xiv. 80-85% billets and slabs shall be hot charged.
  - xv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
  - xvi. Entire effluent generated from the plant shall be treated and recycled.
  - xvii. Green belt shall be developed in an area equal to 33% of the project area with a native tree species with tree density of 2500 trees per ha in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. 30 m wide dense plantation shall be provided towards the RF direction within the plant boundary.
  - xviii. Landscaping shall be done and a 50 m green belt buffer zone shall be provided

towards Kanya Theertham Temple. A 10 m high dust curtain shall be provided towards the temple side and no polluting unit shall be installed towards the temple. 3 tier buffer plantations shall be developed and maintained around Kanyathirham temple and Nallah.

- xix. Natural drainage pattern of the project site shall be maintained.
- xx. Rain water harvesting and extensive ground water recharge shall be carried out within the plant complex.
- xxi. A dedicated 4-lane approach road shall be constructed from NH 67 up to the plant.
- xxii. The railway siding shall be commissioned by December, 2023.
- xxiii. A biodiversity Park shall be developed in 10 ha area. Compliance status in this regard shall be furnished to the Regional Office of MoEFCC.
- xxiv. The project proponent shall obtain approval of Chief Wildlife Warden for Site-Specific Conservation Plan & Wildlife Management Plan. 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 to the Regional Office.

## **B. General conditions**

### **I. Statutory compliance:**

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

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

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be 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. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

- vii. 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.
- viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
- x. Land-based APC system shall be installed to control coke pushing emissions.
- xi. Monitor CO, HC and O<sub>2</sub> in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
- xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xiv. Design the ventilation system for adequate air changes as per prevailing norms 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<sup>st</sup> March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May 2008 (Sponge Iron) 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 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 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 provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31<sup>st</sup> March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May 2008 (Sponge Iron) 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 as amended from time to time;
- iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- v. 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.
- vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vii. Treated water from ETP of COBP shall not be used for coke quenching.
- viii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

### **IV. Noise monitoring and prevention**

- i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional

Officer of the Ministry as a part of six-monthly compliance report.

**V. Energy Conservation measures**

- i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative type burners on all reheating furnaces.

**VI. Waste management**

- i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
- ii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- iii. Used refractories shall be recycled as far as possible.
- iv. 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.
- v. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- vi. Kitchen waste shall be composted or converted to biogas for further use.

**VII. Green Belt**

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.

**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. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

**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 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms /

conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

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


#### **X. 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 as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project 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.
- ix. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary.

The Company in a time bound manner shall implement these conditions.


- xiii. 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.
- 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.

22. This issues with the approval of the Competent Authority.

  
(Sundar Ramanathan)  
Scientist 'E'

**Copy to:-**

1. Secretary, Department of Environment and Forests, Government of Andhra Pradesh, Secretariat, Secretariat Office, Velagapudi
2. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. Regional Officer, Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 600034.
4. Chairman, Andhra Pradesh Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010.
5. Member Secretary, Central Ground Water Authority, West Block –II, Wing -3, Sector I, R.K.Puram, New Delhi – 110086.
6. District Collector, YSR District, Odisha.
7. Guard File/Record File/Monitoring File.
8. MoEF&CC website.

  
(Sundar Ramanathan)  
Scientist 'E'