F. No. J-11011/110/2016-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 7th August, 2018

To

Chief Operating Officer,
M/s Jai Raj IspatLimited (JRIL),
Plot No.8, Phase III, IDA, Jeedimetla, Hyderabad 500055.
e-mail: admin.jdm@jairajispat.com.

Subject: Proposed Integrated Steel Plant (0.7 MTPA) at Orvakal Mega Industrial Hub of APIIC, Government of A.P. at Guttapadu Village, Orvakal Mandal, Kurnool District, Andhra Pradesh by **M/s Jai Raj Ispat Limited (JRIL) –Environmental Clearance under the provisions of EIA Notification, 2006 - Regarding**.

Sir,

This has reference to your application vide online proposal no. **IA/AP/IND/52609/2016**, dated **4th May 2018** along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 and your letter No. JRIL/MoEF/ISP-1.0/2018 dated 12th June 2018for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level as Category "A".

2.0 The proposed 0.70 MTPA Integrated Steel Plant of M/s. Jai Raj Ispat Limited (JRIL) located in Guttapadu Village, Orvakal Tehsil, Kurnool District, Andhra Pradesh State was initially received online on 07.04.2016 vide Application no. IA/AP/IND/52609/2016. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 6th meeting of EAC May, 2016 and prescribed Terms of Reference (ToR) to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on J-1101/110/2016-IA.II(I) dated 22.06.2016.

3.0 Subsequently, JRIL has filed application online on 13.01.2017 vide application no. IA/AP/IND/52609/2017 for amendment of TOR for increase the production capacity from 0.5 to 0.7 MTPA. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 15th meeting of EAC in February, 2017 for ToR amendment and accordingly the Ministry of Environment, Forest and Climate Change had issued TOR amendment for 0.7 MTPA Integrated steel plant vide J-11011/110/2016-IAII(I) dated 11.05.2017.

4.0 The project of M/s. Jai Raj Ispat Limited will be located in Guttapadu Village, Orvakal Tehsil, Kurnool District, Andhra Pradesh State for setting up of a new Integrated Steel Plant for production of 0.7 million tones per annum (million TPA). The proposed capacity for different products are as below:

Sl. No.	Description of plant	Daily Production Capacity (T)	Annual Production Capacity
PRODUCTS			
1	TMT Rebars	1666	5,50,000 T
2	Alloy Steel Bars	212	70,000 T
3	Pig Iron	60	20,000 T
4	Structural Steel	181	60,000 T
PRODUCTION UNITS			
5	Sinter Plant	2421	7,98,990 T Sinter
6	Blast Furnace	1730	5,96,750 T Hot Metal
7	Steel Melting Shop comprising: Oxygen Furnace - 1 Ladle Furnace - 1 Ladle Furnace - 2 Vacuum Degasser -1 CCM and Rolling mill for direct rolling of TMT Rebars CCM and Rolling Mill for rolling of Alloy Steel Bars	1687	5,56,700 T of Billets
6	Power Plant – 18 MW, (Using gases of Blast Furnace Gas and Oxygen Furnace)	18 MW	-
7	Air Separation Plant (Oxygen/Nitrogen/Argon)	320	105600 T
8	Lime Calcination Plant	300	99,000 T Lime

5.0 The project will be in an area of 400 acres allotted by APIIC in the Orvakal Mega Industrial Hub in Kurnool district of Andhra Pradesh (A.P). It may be mentioned that APIIC had allotted about Acres 370.39 cts to JRIL. Further the balance assigned land of Acs 46.57 cts is not with APIIC for which APIIC filed requisition proposals and land acquisition is under process. No forestland involved. No River passes through the project area. No perennial water bodies are present which needs modification/diversion.

6.0 The topography of the area is plain and reported to lie between 15°40'42.30" to 15°38'58.27"N Latitude and 78° 7'59.77" - 78° 9'45.61"E Longitude in Survey of India topo sheet No. 57/I/2, at an elevation of 350 m above msl. The ground water table reported to range between 2-5 m below the land surface during the post-monsoon season and 5-10 m below the land surface during the pre-monsoon season. No ground water will be used for the plant. The ground water study estimates show that the area falls in the Safe Category with scope of further development of Resource Potential available.

7.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The nearest Reserved forest is Gani RF (dry deciduous forest) at 8.3 km in the SSE direction. The area also does not report to form corridor for Schedule-I fauna.

8.0 The project is based on All Hot Charge Route with 'Sinter Plant ➔ Blast Furnace ➔ De-sulphurization➔ Oxygen Furnace (EOF/OBV/BOF) ➔ Ladle Refining Furnace ➔ Endless Continuous Casting and Rolling facility' as the manufacturing route. Manufacturing process comprises inter alia including Sinter Plant to produce inputs for Blast Furnace; Blast Furnace (BF) with 75% Sinter, Iron Ore Lumps, Coke and Fluxes to produce Hot Metal; Refining of Hot Metal (HM) from BF in an Oxygen Furnace (EOF/OBV/BOF) to produce Liquid Steel; Further refining of Liquid Steel in a Ladle Refining Furnace (LRF); Casting of Refined Steel to Billets in a suitable Caster (CCM); and Rolling of Hot Billets directly from the Caster(CCM) to TMT Rebars.

9.0 The targeted production capacity of the proposed project is 0.7 million TPA. The ore for the plant would be procured from Mines in Karnataka, Odhisa, Chhattisgarh, Andhra Pradesh and Imports. The ore transportation will be done through By Road / By Rail in future/By ship upto port. Raw material requirement is as given below:

Raw Materials	**Quantity (TPA)**	
Iron Ore fines (0-10mm)	6,39,192	By Road / By Rail in future/ By ship up to port.
Iron Ore Lump (10-40mm)	3,05,613	By Road / By Rail in future
Low Ash Mettalargical (LAM) Coke	2,72,869	By Road / By Rail in future/By ship up to port
Coke Breeze	51,935	By Road / By Rail in future/ By ship up to port.
Pulverised coal (PCI)	72,765	By Road / By Rail in future/ By ship up to port
Lime Stone Dolomite	2,16,679	By Road, By ship up to port.
Ferro Alloys	7,505	By Road / By ship up to port.
Scrap	83,825	By Road / By ship up to port.
Direct Reduced Iron (DRI)	31,110	By Road / (By Rail in future)

10.0 Total fresh water requirement is estimated at 9600 m^3/day and the same will be supplied by APIIC. APIIC has planned to lift water from the Srisailam foreshore (at Muchumarri village) to Meedivemula Reservoir. Water requirement of Orvakal Mega Industrial Hub will be sourced from Meedivemula Reservoir.

11.0 The power requirement of the project is estimated as 54.45 MW which will be sourced from APCPDCL Grid & 18 MW Captive power plant.

12.0 Baseline Environmental Studies were conducted during Post monsoon season i.e. from

October 2016 to December 2016, Ambient air quality monitoring has been carried out at 8 locations during October 2016 to December 2016 and the data submitted indicated: PM10 (50.5 $\mu g/m^3$ to 60.6 $\mu g/m^3$), PM2.5 (25.6 to 28.1 $\mu g/m^3$), SO_2 (11.8 to 15.3 $\mu g/m^3$) and NO_x (12.3 to 16.1 $\mu g/m^3$). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 9.12 $\mu g/m^3$ with respect to the PM10, 8.12 $\mu g/m^3$ with respect to the SO_2 and 6.13 $\mu g/m^3$ with respect to the NO_x.

13.0 Ground water quality has been monitored in nine locations in the study area and analysed. pH: 6.78 to 7.36, Total Hardness: 262 to 546 mg/l, Chlorides: 50 to 294 mg/l, Fluoride: 0.9 to 1.2 mg/l. Heavy metals are within the limits. Surface water sample was analysed in one location. pH: 8.04; Total Hardness 99mg/l, Chlorides: 33 mg/l, Fluoride: 0.6 mg/l. Heavy metals are within the limits.

14.0 Noise levels are in the range of 51.7 to 54.4 dBA for daytime and 41.6 to 44.8 dBA for nighttime.

15.0 It has been reported that there are no people in the core zone of the project. No R&R is involved.

16.0 It has been reported that the following waste will be generated due to the project.

Item	**Description**	**Quantity TPY**	**Facility for Control/ Utilization**
Sinter Plant & RMHS			
Sinter Fines (-5mm)	Return after screening (15%)	92,610	Charged back in blend mix for sinter production
Bag filter dust	RMHS bag filters (0.5kg/T)	310	Charged back in blend mix
Blast Furnace			
Primary gas cleaning dust	Dust Catcher & GCP (15kg/THM)	6,247	Used in Sinter Plant
Bag Filter Dust	Cast House & stock house Bag Filters	210	Bag Filter dust to be used in Sinter Plant
Granulated Slag	Slag Granulation Plant (320 kg/THM)	1,33,280	Sold for cement manufacture
Iron skull scrap	Runners & ladles	-	Used in SMS charge
Steel Melting Shop & Slag Crusher			
Bag Filter Dust (EOF, LF, FAFA etc.)	FES Bag Filters (1.25kg/T)	650	Bag Filter dust to be used in Sinter Plant
Slag	Oxygen Furnace (120kg/T)	62,420	After crushing Mixed in sinter plant blend 3,000 T metal recovered for recycle.
Steel skull	Ladles &Tundish	-	Used with scrap as charge
Rolling Mill			
Mill Scale	CCM & RM Scale	7,500	Iron bearing scale for sinter

Item	Description	Quantity TPY	Facility for Control/ Utilization
	Pits, settling tank &filter back wash (15 kg/T)		Plant
Recovered oily waste	Scale pit skimmer	20 kL	Chain lubrication/sold to Authorised recyclers.
Miscellaneous wastes like Cotton wastes, replacement parts of rubber and metal parts, and hardware used refractories	Maintenance of Plant units	-	To be collected on a daily basis through a Contractor, who takes such waste outside the plant for further recycling.
Lime Kiln			
Lime stone dust & fines	Screens & bag filters	3,000	Used in Sinter Plant
Lime dust & fines	Lime screening & bag house	1,500	Sinter Plant and in PCM mould coating after making lime milk (Hydration)

17.0 The Public hearing of the project was held on 26.10.2017 at proposed site under the chairmanship of the Collector & District Magistate Sri S. Satyanarayana, IAS for setting up of 0.7 MTPA integrated steel plant. The issues raised during public hearing along with action plan and budget allotment are addressed in Revised final EIA report. The issues raised in the public hearing inter alia include construction of rain water harvesting pits; development of additional green belt; laying of separate road for raw material; community development; skill development; employment to the local people, etc.

18.0 An amount of Rs 16.20 crores for three years in accordance to the MoEFCC's Office Memorandum No.F.No. 22-65/2017-IA.III dated 01.05.2018 based on public hearing issues towards capital expenditure for Corporate Environment Responsibility (CER) as follows:

S.No	DESCRIPTION	Budget in Rs. Lakhs (for 3 years)
1	Village Infrastructure Development	1334
2	Sustainable Livelihood Training/Skill Development	120
3	Provision of Medical Facilities	105
4	Provision of Additional Infrastructure for Schools	17
5	Support for Agricultural Sector	44
	Total	**1620**

DETAIL BREAKUP OF BUDGET TOWARDS CER ALONG WITH ACTIVITIES

1. VILLAGE INFRASTRUCTURE DEVELOPMENT

S.No	Description of Activity	1st Year	2nd Year	3rd Year

S.No	Description of Activity	1st Year	2nd Year	3rd Year
1	Provision of bore wells/overhead tank, building for housing RO plant in 7 villages (@ 3.0 lakhs/borewell and RO plant unit) considering 5 borewells/ village (on an average)	30	35	40
2	Repair/Construction of internal village roads (Avg 3-5 km of internal roads per village @ Rs 20 lakhs/km) - Initially in 7 villages in 5 KM radius	200	250	250
3	Repair/construction of existing school buildings (Rs 8 lacs per school in 7 villages)	10	20	22
4	Repairs/construction of compound wall of school buildings (Guttapadu, Puricherla, Nannanuru) 3xRs 10 lacs per school	10	10	10
5	Construction of separate toilets for girls and boys with overhead water tank facility(Gramalaya design-school sanitary complex Model 2) 7 villages x Rs 60000/- village	14	14	14
6	Development of playground with necessary facilities 18 villages @Rs1.0 lac	6	6	6
7	Construction of buildings for Anganwadis in 4 villages namely Hussainapuram, Puricherla, Sekunala, Kalva) @Rs8.0 lakhs per unit	10	10	12
8	Construction of toilets (20% of the households in the four villages namely Guttapadu, Konthalapadu, Orvakal and Uppalapadu) about 200 households @25000 per toilet	10	20	20
9	Construction of Bus shelters in 3 villages namely Guttapadu, Konthalapadu and Orvakal (Rs1.0 lakh per bus shelter)	1	1	1
10	Providing LED street lighting with solar panels at suitable places in Guttapadu, Konthalapadu, Orvakal and Uppalapaduvillages.(50 nos/village@Rs25000/-)	15	15	20
11	Repair or Construction of Burial grounds/ small repairs of drainage Guttapadu, Puricherla, Nannaru villages.	10	10	10
12	Construction of small bridge across Peddavagu near Guttapadu village (500 m length and width of 5 m)	60	60	0
13	Distribution of fruit bearing saplings, tree plantation programmes like Vanamahosthavam in the study area	7	15	20
14	Desilting of 6 ponds in the study Area/ strengthening of the banks	10	10	10

S.No	Description of Activity	1st Year	2nd Year	3rd Year
15	Construction of Rain Water Harvesting Pits in Villages/Community Centres/Panchayat offices Buildings etc., in 7 villages	10	10	10
	Total (Rs in lakhs)	403	486	445
2	SUSTAINABLE LIVELIHOOD TRAINING/SKILL DEVELOPMENT			
1	Establishment of Skill development center along with necessary infrastructure	10	15	20
2	Organising vocational training programs for employment generation in association with National Academy of Construction (masonry, carpentry, barbending, plumbing, welding, fitter, electrical, soft skills like computer programs etc)	10	15	15
3	Providing training for educated unemployed youth by ex-defence personnel for qualifying in Police, Para-military, Defence services including creating necessary infrastructure for the same. (Rs 20 lakhs for infrastructure like sheds consisting training hall, dining hall, bunker accommodation and Rs 3 lakhs for two sessions per year)	5	25	5
	Total (Rs in lakhs)	25	55	40
3	PROVISION OF MEDICAL FACILITITES			
1	Repair of existing PHC building and constructing additional Rooms/ centres along with associated hospital infrastructure and providing one Ambulance for emergency use	20	25	30
2	Mobile veterinary Clinic	5	10	15
	Total (Rs in lakhs)	25	35	45
	PROVISION OF ADDITIONAL INFRASTRUCTURE FOR SCHOOLS			
1	Providing computers to ZP High Schools and Primary schools in study area (12 systems with UPS, furniture etc @ 60,000/- per system)	2	2	3
2	Science lab equipment to 4 ZP High Schools in Nannanuru/Husainapuram etc. (Rs 2.5 lacs per school)	2.5	2.5	5
	Total (Rs in lakhs)	4.5	4.5	8
	SUPPORT FOR AGRICULURAL SECTOR			
1	Provision of Agri clinics for providing advice/guidance to the farmers, with the help of Graduates in Agriculture	5	5	10
2	Taking up a project for improving the productivity of the soil and crop which would include Soil Enrichment, Providing advance training in Agriculture to local farmers, procurement of good quality seeds from Agricultural	8	8	8

S.No	Description of Activity	1st Year	2nd Year	3rd Year
	University/Horticultural Department, GoAP etc., and giving them free of cost to the needy farmers. (2 lakhs per village)			
	Total (Rs in lakhs)	13	13	18

19.0 The capital cost of the project is Rs. 1657 Crores and the capital cost for environmental protection measures is proposed as Rs. 21.25 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.1.52 Crores. The detailed CER plan has been provided in the EMP in its page No. 266 to270. The employment generation from the proposed project is 1113 Direct & 6000 Indirect.

S. No	Item	Capital cost	Recurring Cost per annum
1	Air pollution Control (Bag Filter, ESP, Dust Suppression, Dust Extraction)	10.00	0.35
2	Continuous Ambient air quality stations (3 nos)	1.80	0.20
3	CEMS (Stack online analyser)	0.30	0.05
4	Effluent Treatment Plant and Sewage Treatment plant along with OEMS	0.75	0.10
	ETP & STP manual monitoring	-	0.10
5	Solid Waste Management	4.00	0.20
6	Liner for Raw material storage areas	2.00	0.10
7	Occupational health	1.00	0.12
8	Green belt development	1.30	0.08
9	Rainwater Harvesting system	0.10	0.02
10	CREP Monitoring and Return Filing	-	0.20
	Total	**21.25**	**1.52**

20.0 Greenbelt will be developed in an area of 52 Ha (33 % of the plant area). A thick green belt all along the roads and plant will be developed under afforestation program. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1,30,000 saplings will be planted and nurtured in 52 hectares in 5 years.

21.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

22.0 It was confirmed by the PP that that all the fine generated will be extracted through pneumatic conveying system and utilized in the balling drum for agglomeration to be used for sinter plant. The PP also informed to expedite the railway siding.

23.0 EIA Consultant: M/s BS Envirotech, Hyderabad.

24.0 After detailed deliberations, the committee recommended for grant of environmental clearance subject to the following specific and general conditions.

A. Specific conditions:

1. No ground water shall be extracted for the project as the project is located in the water scarcity area.

2. The project proponent shall explore the possibility of transportation of the raw material through the captive / common railway siding upto the plant. Meanwhile, the PP shall limit the road transportation to the nearest railhead.

3. The PP shall reuse the treated waste water in the process to the maximum extent possible and reduce the specific water consumption.

B. General Conditions:

1. An amount of Rs. 16.20 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.

2. Green belt shall be developed in an area of 52 Ha 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.

3. The Capital cost Rs. 21.25 Crores and annual recurring cost Rs.1.52 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

4. The project proponent shall (Air Quality Monitoring):

    a. 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(Integrated iron & Steel) 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.

    b. monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.

    c. Install system carryout to Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 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;

d. 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.

5. The project proponent shall (Water Quality Monitoring):

a) 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 (Integrated iron & Steel) and 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 recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

b) 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; and

c) 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.

6. The project proponent shall (Air Pollution Control):

a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards;

b) provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags;

c) provide secondary emission control system at SMS Converters;

d) provide pollution control system in the steel plant as per the CREP Guidelines of CPCB;

e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;

f) 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;

g) use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin;

h) provide wind shelter fence and chemical spraying on the raw material stock piles; and

i) design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

7. The project proponent shall (Water Pollution Control):

a) provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel)as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;

b) adhere to 'zero liquid discharge';

c) provide Sewage Treatment Plant for domestic wastewater;

d) provide garland drains and collection pits 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;

e) provide tyre washing facilities at the entrance of the plant gates;

f) introduce CO_2 injection in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning; and

8. The project proponent shall (Water conservation):

a) practice rainwater harvesting to maximum possible extent;

b) provide water meters at the inlet to all unit processes in the steel plants; and

c) make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

9. The project proponent shall (Energy Conservation):

a) provide TRTs to recover energy from top gases of Blast Furnaces;

b) practice waste heat recovery from Sinter Plants coolers and Sinter Machines;

c) use torpedo ladle for hot metal transfer as far as possible. If not use ladles covers for open top ladles;

d) use hot charging of slabs and billets/blooms as far as possible;

e) provide waste heat recovery systems in all units where the flue gas or process gas exceeds 300°C;

f) explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed;

g) restrict Gas flaring to < 1%;

h) 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;

i) provide LED lights in their offices and residential areas; and

j) ensure installation of regenerative type burners on all reheating furnaces.

10. The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter.

11. 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.

12. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

13. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.

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

15. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.

16. 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

17. 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.

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

19. 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.

20. The project proponent shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.

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

22. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.

23. 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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

25. 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).

26. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management &Transboundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens.

27. 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

28. 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.

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

30. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.

31. Kitchen waste shall be composted or converted to biogas for further use.

32. The project proponent shall (Post-EC monitoring):

a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;

b. put on the clearance letter on the web site of the company for access to the public.

c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in.

d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;

e. monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;

f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;

g. 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;

h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

25.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant environmental clearance for the proposedIntegrated Steel Plant (0.7 MTPA) at Orvakal Mega Industrial Hub of APIIC, Government of A.P. at Guttapadu Village, Orvakal Mandal, Kurnool District, Andhra Pradesh by **M/s Jai Raj IspatLimited (JRIL)**under the provisions of EIA Notification, 14th September, 2006, as amended, subject to strict compliance of the above conditions.

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

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

27.0 The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the Expert Appraisal Committee. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent

28.0 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.

29.0 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.

This issues with the approval of competent Authority.

7/8/18

(Sharath Kumar Pallerla)
Scientist 'F' / Director

Copy to:-

1. **The Secretary**, Department of Environment, Forest and Science and Technology, Government of Andhra Pradesh, Secretariat, Velagapudi, Andhra Pradesh.

2. **The Additional Principal Chief Conservator of Forests**(C), 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.

3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.

4. **The Member Secretary**, Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, ChalamvariStreet,Kasturibaipet, Vijayawada – 520 010; Ph: 0866-2463200

5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.

6. **The District Collector**, KurnoolDistrict, Andhra Pradesh.

7. **Guard File / Record file / Monitoring file.**

8. **MOEF&CC Website.**

7/8/18

(Sharath Kumar Pallerla)
Scientist 'F'/Director