

F. No. J-11011/365/2006-IA. II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 14th March, 2022

To

Shri. Sunil Agarwal,
Director,
M/s. Jindal Steel Odisha Limited
GA PL No. 3, REV PL No. 1163N1164, Forest Park,
Bhubaneswar, Odisha - 751009.
Email: nagaraj.nb@jspodisha.com; Tel: 7042874468

Subject: Integrated Steel Plant (6.0 MTPA) – Partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Rolling mill (Hot strip mill) [IA/OR/IND/243532/2021] from **M/s. Jindal Steel & Power Limited to M/s. Jindal Steel Odisha Limited** located at Village Kerjang, Sankerjang, Tehsil Chhendipada, District Angul, Odisha - **Partial transfer of Environment Clearance – regarding.**

Sir,

Reference is invited to the Environment Clearance accorded by this Ministry to M/s. Jindal Steel and Power Limited (JSPL) vide letter of even number dated 22/02/2007 for setting up of 6 MTPA Integrated Steel Plant at Angul, Odisha. The said EC was accorded for manufacturing of different products inter-alia including 5 MTPA pellet plant and 3.1 MTPA hot strip mill. The present proposal under consideration is for part transfer of facilities namely 5 MTPA pellet plant and 3.1 MTPA hot strip mill envisaged under the EC dated 22/02/2007 in the name of M/s. Jindal Steel Odisha Limited (JSOL). In this regard, JSPL vide proposal no. IA/OR/IND/243520/2021 sought for amendment in the EC dated 22/02/2007 and M/s. JSOL vide proposal no. IA/OR/IND/243532/2021 sought for part transfer of the said facilities.

2. The proposal for EC amendment and part transfer of facilities was considered in the 50th meeting of the Re-constituted EAC (Industry-I) held on 29th December, 2021. The proceeding of the said meeting is given as below.

Details submitted by the project proponent

3. M/s. Jindal Steel and Power Limited was originally accorded environmental clearance vide letter no. J-11011/365/2006 dated 22/02/2007 and amended on 14/11/2008, 08/02/2017, 26/06/2018, 22/01/2019 and 18/01/2021. As per the said EC and its subsequent amendments, following is the product capacities of various process units.

S.No.	Name of the facility	Configuration	Capacity
1.	Coal Gasification Plant	4000 Million Nm ³ /year	4000 Million Nm ³ /year
2.	DRI Plant	2x2 MTPA	4 MTPA
3.	Coke Oven	4x72 ovens	2 MTPA
4.	Sinter Plant	1x490 m ²	5 MTPA



S.No.	Name of the facility	Configuration	Capacity
5.	Blast Furnace	1x4554 m ³	4.25 MTPA
6.	EAF	1x250 T	3 MTPA
7.	BoF	1x250 T	3 MTPA
8.	Plate Mill	1x1.5 MTPA	1.5 MTPA
9.	Bar Mill	1x1.4 MTPA	1.4 MTPA
10.	Hot Rolling Mill	1x3.1 MTPA	3.1 MTPA
11.	Calcination Plant	2x600 TPD, 2x500 TPD, 2x400 TPD	3000 TPD
12.	Oxygen Plant	2x1200 TPD, 3x200 TPD, 1x1710 TPD, 3x200 TPD	5310
13.	Power Plant	6x135 MW	810 MW (coal based)
14.	Process gas/ pressure recovery turbine	MW	62
15.	Ferro Alloy Plant	3x24 MVA	0.08 MTPA
16.	Pellet Plant	1x5 MTPA	5 MTPA

4. As per the EC amendment letter dated 08/02/2017 accorded to the project proponent, MoEF&CC clarified that validity of aforementioned EC refers to start of production by the project/activity, it does not say start of full production as per the sanctioned environment clearance capacity. In view of this, the environment clearance gets completed if the project starts the production within the validity period.

5. Detail of Consent to Establishment/ Consent to Operate:

Date	Details
30/07/2011	Consent to Establish for Integrated Steel Plant of 6 MTPA along with 1080 MW power plant was issued by State Pollution Control Board, Odisha (OPCB).
19/03/2021	Consent to Operate renewal for Integrated Steel Plant of 6 MTPA along with 810 MW Power Plant issued by OPCB and valid up to 31/03/2022.

6. The implementation status of the EC dated 22/02/2007 and its subsequent amendments is furnished as below.

S No	Plant Equipment/ Facility	As per EC dated 22/02/2007 and its subsequent amendments (A = A1+A2)*						
		Total (A)		Implemented (A1) as on 30/11/2021		Un-implemented (A2)		As per CTO
		Configura-tion	Capacity	Configu-ration	Capacity	Configu-ration	Capacity	Capacity
1.	Coal Gasification Plant	4000 Million Nm ³ /year	4000 Million Nm ³ /year	2100 Million Nm ³ /year	2100 Million Nm ³ /year	1900 Million Nm ³ /year	1900 Million Nm ³ /year	1260 Million Nm ³ /year
2.	DRI Plant	2x2 MTPA	4 MTPA	1x2 MTPA	2 MTPA	1x2 MTPA	2 MTPA	1.8
3.	Coke Oven	4x72 ovens	2 MTPA	4x72 ovens	2 MTPA	-	-	2.0
4.	Sinter Plant	1x490 m ²	5 MTPA	1x490 m ²	5 MTPA	-	-	5.0
5.	Blast Furnace	1x4554 m ³	4.25 MTPA	1x4554 m ³	4.25 MTPA	-	-	4.25
6.	EAF	1x250 T	3 MTPA	1x250 T	3 MTPA	-	-	4.5
7.	BoF	1x250 T	3 MTPA	1x250 T	3 MTPA	-	-	
8.	Plate Mill	1x1.5	1.5 MTPA	1x1.5	1.5 MTPA	-	-	2.6

S No	Plant Equipment/ Facility	As per EC dated 22/02/2007 and its subsequent amendments (A = A1+A2)*						As per CTO	
		Total (A)		Implemented (A1) as on 30/11/2021		Un-implemented (A2)			
		Configu- ration	Capacity	Configu- ration	Capacity	Configu- ration	Capacity		
		MTPA		MTPA					
9.	Bar Mill	1x1.4 MTPA	1.4 MTPA	1x1.4 MTPA	1.4 MTPA	-	-		
10.	Hot Rolling Mill	1x3.1 MTPA	3.1 MTPA	-	-	1x3.1 MTPA	3.1 MTPA	-	
11.	Calcination Plant	2x600 TPD, 2x500 TPD, 2x400 TPD	3000 TPD	2x600 TPD, 2x500 TPD	2200 TPD	2x400 TPD	800 TPD	1000 TPD	
12.	Oxygen Plant	2x1200 TPD, 3x200 TPD, 1x1710 TPD, 3x200 TPD	5310	2x1200 TPD, 3x200 TPD, 1x1710 TPD, 3x200 TPD	5310	-	-	5310	
13.	Power Plant	6x135 MW	810 MW (coal based)	6x135 MW	810 MW (coal based)	-	-	810	
14.	Process gas/ pressure recovery turbine	Nil	62 MW	Nil	30.5 MW	Nil	31.5 MW	30.5 MW	
15.	Ferro Alloy Plant	3x24 MVA	0.08 MTPA	-	-	3x24 MVA	0.08 MTPA	-	
16.	Pellet Plant	1x5 MTPA	5 MTPA	-	-	1x5 MTPA	5 MTPA	-	

Reasons for Transfer of the EC:

M/s. Jindal Steel & Power Limited is intending to partially transfer the facility i.e. Pellet Plant of 5.0 MTPA and Rolling Mill (Hot Strip Mill) of 3.1 MTPA from EC dated 22/02/2007 to M/s. Jindal Steel Odisha Limited as per memorandum of understanding (MOU) made between M/s. Jindal Steel and Power Limited and M/s. Jindal Steel Odisha Limited dated 09/12/2021 board of resolution passed by the corporate management committee of the board of directors of M/s. Jindal Steel and Power Limited in its meeting held on 24th June, 2021

S No	Name of Company	CIN No
1	M/s. Jindal Steel and Power Limited	L27105HR1979PLC009913
2	M/s. Jindal Steel Odisha Limited	U27320OR2021PLC036237

7. Documents submitted for part EC transfer:

- Form no 7 for transfer of Environment Clearance.
- No objection for transfer of Environment clearance has submitted by M/s Jindal Steel and Power Limited in the form of non-judicial stamp paper dated 08/12/2021.
- Undertaking dated 08/12/2021 of M/s. Jindal Steel Odisha Limited in a non-judicial stamp paper stating that they will be comply with all the applicable conditions as stipulated in the Environment Clearance dated 22/02/2007.
- M/s. Jindal Steel Odisha Limited submitted the MOU executed between M/s Jindal Steel

and Power Limited and M/s. Jindal Steel Odisha Limited dated 09/12/2021 for partially transfer of the facilities from EC dated 22/02/2007 namely 5.0 MTPA Pellet plant and 3.1 MTPA Rolling mill (Hot strip mill).

- Board of resolution passed by the corporate management committee of the board of directors of M/s. Jindal Steel and Power Limited in its meeting held on 24th June, 2021 for partially transfer of the facilities from EC dated 22/02/2007 namely 5.0 MTPA Pellet plant and 3.1 MTPA Rolling mill (Hot strip mill).
- Facility matrix showing devolution of production facilities between JSPL and JSOL.
- Matrix of applicability of stipulations of EC and subsequent amendments between JSPL and JSOL.
- The addendum EIA report inter-alia including process details, emission levels, solid and hazardous waste management, raw material and fuel requirement, the Environmental Management Plan (EMP), etc. for the Pellet Plant and the Rolling Mill (Hot Strip mill).

8. The EAC examined the aforementioned documents and noted that following are the changes arising out of the EC amendment followed by the part transfer of the facilities:

S.No.	Item	Existing EC and amendments thereof, in favour of M/s JSPL	Facilities/utilities after rename of EC accorded units to M/s. JSPL and M/s. JSOL																																																	
			M/s JSPL	M/s JSOL																																																
A	Title of the project	Integrated Steel plant (6.0 MTPA) and Captive Power Plant (810 MW) at Kerjang, Angul, Odisha	Integrated Steel plant (6.0 MTPA) and Captive Power Plant (810 MW) at Kerjang, Angul, Odisha	5 MTPA Pellet plant and 3.1 MTPA Rolling mill (Hot strip mill) of JSOL at Angul, Odisha																																																
B	Location	Villages Kaliakata, Kaliakata jungle, Kaliakata jungle, Badudevpur, Bhubanpur, Krushnachandrpur, Paripara, Jarada, Badakerjang jungle, Sankerjang, Sankerjang jungle, Panapur, Ramadihi, Jamunda Jungle, Tehsil-Chhendipada, District-Angul, Odisha	Villages Kaliakata, Kaliakata jungle, Badudevpur, Bhubanpur, Krushnachandrpur, Paripara, Jarada, Badakerjang jungle, Sankerjang, Sankerjang jungle, Panapur, Ramadihi, Jamunda Jungle, Tehsil-Chhendipada, District-Angul, Odisha	Villages Kaliakata, Kaliakata jungle, Sankerjang, Sankerjang jungle, Panapur, Tehsil-Chhendipada, District- Angul, Odisha																																																
<table border="1"> <thead> <tr> <th>Pt.</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>F</td> <td>20°52'17"N</td> <td>84°59'25"E</td> </tr> <tr> <td>G</td> <td>20°52'8"N</td> <td>84°59'15"E</td> </tr> <tr> <td>H</td> <td>20°52'1"N</td> <td>84°59'13"E</td> </tr> <tr> <td>I</td> <td>20°52'2"N</td> <td>84°59'25"E</td> </tr> <tr> <td colspan="3">Pellet plant</td></tr> <tr> <td>A</td> <td>20°53'24"N</td> <td>84°55'27"E</td> </tr> <tr> <td>B</td> <td>20°52'N</td> <td>84°56'6"E</td> </tr> <tr> <td>C</td> <td>20°53'44"N</td> <td>84°57'27"E</td> </tr> <tr> <td>D</td> <td>20°51'44"N</td> <td>84°59'59"E</td> </tr> <tr> <td>E</td> <td>20°54'1"N</td> <td>84°59'58"E</td> </tr> <tr> <td colspan="3">Rolling mill (Hot strip mill)</td></tr> <tr> <td>J</td> <td>20°53'16"N</td> <td>84°59'04"E</td> </tr> <tr> <td>K</td> <td>20°53'6"N</td> <td>84°59'04"E</td> </tr> <tr> <td>L</td> <td>20°53'6"N</td> <td>84°59'48"E</td> </tr> <tr> <td>M</td> <td>20°53'16"N</td> <td>84°59'48"E</td> </tr> </tbody> </table>					Pt.	Latitude	Longitude	F	20°52'17"N	84°59'25"E	G	20°52'8"N	84°59'15"E	H	20°52'1"N	84°59'13"E	I	20°52'2"N	84°59'25"E	Pellet plant			A	20°53'24"N	84°55'27"E	B	20°52'N	84°56'6"E	C	20°53'44"N	84°57'27"E	D	20°51'44"N	84°59'59"E	E	20°54'1"N	84°59'58"E	Rolling mill (Hot strip mill)			J	20°53'16"N	84°59'04"E	K	20°53'6"N	84°59'04"E	L	20°53'6"N	84°59'48"E	M	20°53'16"N	84°59'48"E
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C	Facilities																																																			
S.No.	Name of the facility	Capacity	S.No.	Name of the facility	Capacity	S.No.	Name of the facility	Capacity																																												
1.	Coal Gasification Plant	4000 Million Nm ³ /year	1.	Coal Gasification Plant	4000 Million Nm ³ /year	1.	Hot Rolling Mill	3.1 MTPA																																												
2.	DRI Plant	4 MTPA	2.	DRI Plant	4 MTPA	2.	Pellet Plant	5 MTPA																																												
3.	Coke Oven	2 MTPA	3.	Coke Oven	2 MTPA																																															
4.	Sinter Plant	5 MTPA	4.	Sinter Plant	5 MTPA																																															
5.	Blast Furnace	4.25 MTPA	5.	Blast Furnace	4.25 MTPA																																															
6.	EAF	3 MTPA	6.	EAF	3 MTPA																																															
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8.	Plate Mill	1.5 MTPA	8.	Plate Mill	1.5 MTPA																																															
9.	Bar Mill	1.4 MTPA	9.	Bar Mill	1.4																																															
10.	Hot Rolling Mill	3.1 MTPA																																																		
11.	Calcination Plant	3000 TPD																																																		
12.	Oxygen Plant	5310																																																		

S.No.	Item	Existing EC and amendments thereof, in favour of M/s JSPL	Facilities/utilities after rename of EC accorded units to M/s. JSPL and M/s. JSOL			
			M/s JSPL		M/s JSOL	
13.	Power Plant	810 MW (coal based)		10.	Calcination Plant	3000 TPD
14.	Process gas/ pressure recovery turbine	62		11.	Oxygen Plant	5310
15.	Ferro Alloy Plant	0.08 MTPA		12.	Power Plant	810 MW (coal based)
16.	Pellet Plant	5 MTPA		13.	Process gas/ pressure recovery turbine	62
				14.	Ferro Alloy Plant	0.08 MTPA
D	Products	Crude Steel – 6 MTPA Plates- 1.5 MTPA TMT Re-bars- 1.4 MTPA HR coils & sheets- 3.1 MTPA Pellets- 5 MTPA	Crude Steel – 6 MTPA Plates- 1.5 MTPA TMT Re-bars- 1.4 MTPA	HR coils & sheets- 3.1 MTPA Pellets- 5 MTPA		
E	Process description		1. Coking coal is carbonized in Coke oven to produce coke which is further used in Blast Furnace 2. Fines and dust from plant is processed in sinter plant to make sinters 3. Iron ore, sinter and pellets received are reduced to iron through DRI & Blast furnace. DRI is produced from vertical shaft kiln using synthetic gas produces in the coal gasification plant. 4. Liquid steel is produced in EAF & BOF from the molten iron from BF and from Direct reduced iron in DRI. 5. Liquid steel is cast in to slabs and billet through casters which are further rolled in the rolling mills to produce plates and re-bars.	1. Iron ore fines along with limestone are ground in ball mill together and fed to the mixer along with ground bentonite. 2. The mixed material will be fed to balling disc for green pellet formation, which are then fed to indurating furnace for heat hardening. 3. The semi-finished product from casters will be re-heated and will be rolled in hot strip mill to make finished product. Fuel for the Rolling mill will be mixed gas i.e. coke oven gas and syn-gas which will be supplied by JSPL, Angul.		
F	Raw Materials Requirement in MTPA	Non-Coking coal- 9.235 Coking coal- 2.99 Iron Ore fines- 8.455 Limestone- 1.46 Dolomite- 1.33 Bentonite- 0.05 Quartz- 0.21 PCI- 0.95 Lumps- 0.52	Non coking coal- 9.16 Coking coal-2.99 Iron ore fines- 3.42 Limestone- 1.40 Dolomite- 1.28 Quartz- 0.21 PCI- 0.95 Lumps- 0.52 Pellet- 2.66	Iron ore fines- 5.035 Coal- 0.075 Bentonite-0.05 Limestone-0.06 Dolomite- 0.05 Slab- 3.16		
G	Land	2300 acres	2213 acres	86.68 acres		
H	Project Cost	25754 Crores	21754 crores	4000 Crores		
I	Water Requirement	5600 m ³ /hr	4500 m ³ /hr	1095 m ³ /hr		
J	Manpower	10000	9400	600		
K	Air Pollution	Sinter Plant Process-	Sinter Plant Process- ESP	Pellet plant	Induration	

S.No.	Item	Existing EC and amendments thereof, in favour of M/s JSPL		Facilities/utilities after rename of EC accorded units to M/s. JSPL and M/s. JSOL					
		M/s JSPL			M/s JSOL				
Q. No. 2	Control Device details		ESP Dedusting- Bag filters		Dedusting- filters	Bag filters		furnace- ESP Dedusting- Bag filters	
		Coke Oven (recovery-type)	Bag filters	Coke Oven (recovery-type) Blast furnace	Bag filters Bag filters Venturi Scrubbers Cyclone				
		Blast furnace	Bag filters Venturi Scrubbers Cyclone						
		Pellet Plant	Induration furnace- ESP Dedusting- Bag filters	DRI (Gas-based)	Scrubbers, Bag filters				
		DRI (Gas-based)	Scrubbers, Bag filters	Coal Gasification plant	Bag filter				
		Coal Gasification plant	Bag filter	EAF	Bag filter				
		EAF	Bag filter	BoF	ESP, Bag filter				
		BoF	ESP, Bag filter	LDP	Bag filters				
		LDP	Bag filters	Ferro Alloy plant	Bag filters				
		Ferro Alloy plant	Bag filters	Coal based Power plant	ESP				
		Coal based Power plant	ESP						
L	Solid Waste	Qty. (TPA)	Management	Solid waste	Qty. (TPA)	Manag.	Solid waste	Qty. (TPA)	Manag.
	Fly Ash	3564000	Reuse in brick making, LWA making, low land development, dyke making, road making, Unutilized ash disposed in ash pond.	Fly Ash	3564000	Reuse in brick making, LWA making, low land development, dyke making, road making, Unutilized ash disposed in ash pond.	Dust	200000	To be used in the pellet plant process
	Bottom Ash	646632		Bottom Ash	646632				
	Dust from APC Devices	1376467		Dust from APC Devices	1376467		Mill scales	36000	To be sent to JSPL for use in Sinter plant or to be sold
	BF Slag	1700000		BF Slag	1700000				
	EAF slag	750000		EAF slag	750000	Reuse in road making, low land development.	Rejects	27000	To be sent to JSPL for use in SMS or to be sold
	LF slag	33408		LF slag	33408				
	BOF slag	600000	Reuse in Sinter Plant, road making & land development	BOF slag	600000	Reuse in Sinter Plant, road making & land development			

S.No.	Item	Existing EC and amendments thereof, in favour of M/s JSPL		Facilities/utilities after rename of EC accorded units to M/s. JSPL and M/s. JSOL			
				M/s JSPL		M/s JSOL	
	FeCr slag	35700	Road making & low land development.	FeCr slag	35700	Road making & low land development.	
	Plate Mill scale	30000	Reuse in Sinter Plant	Plate Mill scale	30000	Reuse in Sinter Plant	
	Plate Mill sludge	5616		Plate Mill sludge	5616		
	Bar Mill scale	14004		Bar Mill scale	14004		
	Bar Mill sludge	144		Bar Mill sludge	144		
	Plate Mill rejects	12000	Reuse in EAF	Plate Mill rejects	12000	Reuse in EAF	
	Bar Mill rejects	14000		Bar Mill rejects	14000		
	Pellet plant dust	200000	Reuse in pellet plant	CGP ash	777600	Reuse in road making, low land development.	
	HSM scales	36000	Resue in Sinter plant				
	HSM Rejects	27000	Reuse in EAF				
	CGP ash	777600	Reuse in road making, low land development.				
M	Power Requirement	700 MW		515 MW		185 MW	

EC compliance matrix

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
A. SPECIFIC CONDITIONS			
i)	<p>The gaseous emissions from various process units shall confirm to the load/ mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On line continuous stack emission monitoring for all the major stacks will be carried out and reports submitted to the OSPCB & CPCB. The emission levels from all the sources shall be kept below 100 mg/Nm³. Interlocking facility shall be provided so that process can automatically stopped in case</p>	<p>The gaseous emissions from various process units shall confirm to the load/ mass-based standards notified by this Ministry on 31st March 2012 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On line continuous stack emission monitoring for all the major stacks will be carried out and reports submitted to the OSPCB & CPCB. The emission levels from all the sources shall be kept below 30 mg/Nm³. Interlocking facility shall be provided so that process can be automatically stopped in case emission level exceeds the limit.</p>	<p>The gaseous emissions from Pellet plant and the Rolling mill shall confirm to the load/mass-based standards notified by this Ministry vide notification no. G.S.R. 277(E) dated 31st March, 2012 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On line continuous stack emission monitoring for all the major stacks will be carried out and reports submitted to the OSPCB & CPCB. The emission levels from all the sources shall be kept below 30 mg/Nm³. Interlocking facility shall be provided so that process can be automatically stopped in case emission level exceeds the limit.</p>

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	emission level exceeds the limit.	kept below 50 mg/Nm ³ . Interlocking facility shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	
ii)	Continuous online ambient air quality monitoring stations shall be setup at three locations around the project site and reports submitted to the OSPCB	Continuous online ambient air quality monitoring stations shall be setup at three locations around the project site and reports submitted to the OSPCB	Continuous online ambient air quality monitoring stations shall be setup at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site) and reports
iii)	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fume and dust extraction system with bag filters shall be provided in steel melting shop, Electric Arc Furnace and Ladle Refining Furnace. Coke oven (non-recovery type) shall be operated at negative pressure with no fugitive emissions. Bag filters shall be provided to Pellet plant, DRI plant, Lime kiln, Power plant, SMS, SAF, Cast house, raw material stock house of BF, raw material mixing section of SMS and material transfer points of lime dolomite plant. ESP shall be provided to DRI kilns and lime dolomite plant. Gas cleaning plant shall be provided to BF. Cyclone followed by venturi scrubber shall be provided to the BF. Further, specific measures like water sprinkling shall be carried out at the coal yard, wagon tippler and truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained.	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Bag filters/ESP shall be provided to Pellet plant. Further, specific measures like water sprinkling shall be carried out at the raw material yard, wagon tippler/ truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained.	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Bag filters/ESP shall be provided to Pellet plant. Further, specific measures like water sprinkling shall be carried out at the raw material yard, wagon tippler/ truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained.
iv)	The power plant Installed shall be based on conventional pulverized fuel technology. Coal shall be sourced from captive coal mines and prior environmental clearance from the Ministry shall be obtained. ESP shall be installed to keep SPM levels below 100 mg/Nm ³ . Wastewater generated from cooling tower blow down shall be used for ash handling and disposal. Fly ash shall be backfilled in captive coal mines.	The power plant installed shall be based on conventional pulverized fuel technology. Coal shall be sourced from captive coal mines and prior environmental clearance from the Ministry shall be obtained. The Particulate matter, SO ₂ , NO _x and Hg emissions from Power Plant shall conform to the norms specified in MoEFCC notification SO.3305(E) dated December 07.2015	Not applicable

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
		Wastewater generated from cooling tower blow down shall be used for ash handling and disposal. Fly ash shall be backfilled in captive coal mines. Fly ash shall be utilized in accordance with Ash Utilization notification of MoEF&CC.	
v)	Total requirement of the water River Brahmani / Samal Barrage shall not exceed 14,700 M ³ /hr. 'Permission' has been accorded for the drawl of 7000 m ³ /hr water for Phase I by the Department of Water Resources. Govt. of Orissa vide letter dated 11 th Dec 2008 and 'Permission' for phase-II shall be obtained. The wastewater from scrubbers in DR Plant and Blast furnace shall be treated in ETP and reused for dust scrubbing. However, wastewater from SMS and Oxygen plant shall be used for slag granulation; from Billet and Slab caster. Soft water plant, DM water plant etc. in pellet making and Cooling water for re-circulation. The wastewater from power plant shall be used for ash slicing and coal dust suppression. All the treated wastewater shall be recycled & reused either in the Process or for green belt development. No effluent shall be discharged outside the premises and 'Zero' discharge shall be adopted. Domestic wastes shall be treated In Sewage Treatment Plant (STP)	Total requirement of the water from River Brahmani / Samal Barrage shall not exceed 14,700 m ³ /hr. 'Permission' has been accorded for the drawl of 7000 m ³ /hr water for Phase I by the Department of Water Resources. Govt. of Orissa vide letter dated 11 th Dec 2008 and 'Permission' for phase-II shall be obtained. The wastewater from scrubbers in DR Plant and Blast furnace shall be treated in ETP and reused for dust scrubbing. However, wastewater from SMS and Oxygen plant shall be used for slag granulation; from Billet and Slab caster. Soft water plant, DM water plant etc. in cooling water for re-circulation. The wastewater from power plant shall be used for ash slicing and coal dust suppression. All the treated wastewater shall be recycled & reused either in the Process or for green belt development. No effluent shall be discharged outside the premises and 'Zero' discharge shall be adopted. Domestic waste shall be treated In Sewage Treatment Plant (STP)	Water requirement for Pellet plant and HSM shall not exceed 1095 m ³ /hr. Water for the JSOL plant shall be made available by JSPL. Wastewater from the HSM shall be treated in effluent recycling system and 100% treated water shall be recirculated. No effluent shall be discharged outside the premises and 'Zero' discharge shall be adopted. Domestic waste shall be treated in Sewage Treatment Plant (STP).
vi)	Groundwater monitoring around the solid waste disposal site / secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneshwar, CPCB and OPCB.	Groundwater monitoring around the solid waste disposal site / secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneshwar, CPCB and OPCB.	Groundwater monitoring around the pellet plant and hot strip mill shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneshwar, CPCB and OPCB
vii)	Dust from pellet plant in Pellet plant; from Lime dolomite plant in ladle coating and wastewater treatment; from BF & SMS, sludge from GCP of BF, ETP sludge of DRI plant, coal ash from power plant, coal ash from gasifier, sludge from ETP etc for backfilling captive coal mines. SMS slag and slag dust from ferro-alloy	Dust from Lime dolomite plant shall be used in ladle coating and wastewater treatment; from BF & SMS, sludge from GCP of BF, ETP sludge of DRI plant, coal ash from power plant, coal ash from gasifier, sludge from ETP etc shall be used for	Dust from the pellet plant shall be reused within the pellet plant. Mill scales shall be sent to pellet plant for reuse. Sludge from ETP of HSM shall be sold to steel plant. Oil and grease recovered from HSM ETP shall be given to registered recyclers.

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	plant shall be used for road making. BF slag shall be sold to cement manufacturers. Mill scales of casting machine and rolling mill shall be sold to steel plants. Fly ash and granulated slag shall be used in cement plants. No char and accretions will be generated. Used oil shall be sold to recyclers and preprocessors.	backfilling coal mines. SMS slag and slag dust from ferro-alloy plant shall be used for road making. BF slag shall be sold to cement manufacturers. Mill scales of casting machine and rolling mill shall be sold to steel plants. Fly ash and granulated slag shall be used in cement plants. No char and accretions will be generated. Used oil shall be sold to recyclers and preprocessors.	
viii)	Possibilities shall be explored regarding use of coal ash by the cement manufacturing units. Bottom ash shall be disposed of in a suitably designed landfill as per CPCB guidelines to prevent leaching to the sub-soil and underground aquifer.	Possibilities shall be explored regarding use of coal ash by the cement manufacturing units. Bottom ash shall be disposed of in a suitably designed landfill as per CPCB guidelines to prevent leaching to the sub-soil and underground aquifer.	Not applicable
ix)	The company shall develop rain water harvesting structure harvest the rain water for utilization in the lean season besides recharging the ground water table.	The company shall develop rain water harvesting structure to harvest the rain water for utilization in the lean season besides recharging the ground water table.	The company shall develop rain water harvesting structure to harvest the rain water for utilization in the lean season besides recharging the ground water table.
x)	Green belt shall be developed in at least 33 % area within and around the plant premises as per the CPCB guidelines in consultation with DFO	Green belt shall be developed in 33 % of total area within the plant premises as per the CPCB guidelines in consultation with DFO	Green belt shall be developed in 33 % of total area within the plant premises as per the CPCB guidelines in consultation with DFO
xi)	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
xii)	Recommendations made in the CREP guidelines issued for the Steel plants shall be implemented.	Recommendations made in the CREP guidelines issued for the Steel plants shall be implemented.	Recommendations made in the CREP guidelines issued for the Steel plants shall be implemented.
xiii)	No commencement or operation of the cement Plant shall be carried out without obtaining prior environmental clearance for the captive coal mine from the Ministry.	No commencement or operation of the cement Plant shall be carried out without obtaining prior environmental clearance for the captive coal mine from the Ministry.	Not applicable
xiv)	Comments and recommendations of the Chief Wildlife Warden (CWLW), Govt. of Orissa regarding impact of the proposed plant on the nearby and protected forests shall be obtained and suggestions if any shall be implemented in a time bound manner.	Comments and recommendations of the Chief Wildlife Warden (CWLW), Govt. of Orissa regarding impact of the proposed plant on the nearby and protected forests shall be obtained and suggestions if any shall be implemented in a time bound manner.	Not applicable.
xv)	All the affected persons shall be	All the affected persons shall	Not applicable

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	suitably compensated and rehabilitated as per the norms and guidelines issued by the State Government in collaboration with State Government,	be suitably compensated and rehabilitated as per the norms and guidelines issued by the State Government in collaboration with State Government.	
xvi)	No construction activity at the project site shall be initiated till the approval for the 168.232 ha forest land is obtained under the Forest (Conservation) Act, 1980 & subsequent amendments from the State/Central Government.	No construction activity at the project site shall be initiated till the approval for the 168.232 ha forest land is obtained under the Forest (Conservation) Act, 1980 & subsequent amendments from the State/Central Government.	Not applicable.

Additional Specific Conditions stipulated in EC Amendment dated 14.11.2008

i)	Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emission within 50 mg /Nm ³ and reports for ambient air, stack emission and fugitive emissions submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.	Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emission within 50 mg /Nm ³ and reports for ambient air, stack emission and fugitive emissions submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.	Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emission within 30 mg /Nm ³ and reports for ambient air, stack emission and fugitive emissions submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.
ii)	The emission standards issued by the Ministry in May, 2008 for the sponge plants shall be followed.	The emission standards issued by the Ministry in May, 2008 for the sponge iron plants shall be followed.	Not applicable
iii)	Total requirement of the River Brahmani/ Samal Barrage shall not exceed 14,700 m ³ /hr and prior 'Permission' should be obtained from the concerned department and a copy submitted to the Ministry's Regional Office at Bhubaneswar within 3 months of issue of this letter.	Total requirement of the River Brahmani/ Samal Barrage shall not exceed 14,700 m ³ /hr and prior 'Permission' should be obtained from the concerned department and a copy submitted to the Ministry's Regional Office at Bhubaneswar within 3 months of issue of this letter. No ground water extraction is permitted.	Water requirement for Pellet plant and HSM shall not exceed 1095 m ³ /hr. Water for the JSOL plant shall be made available by JSPL. No ground water extraction is permitted.
iv)	Proper and full utilization of coke oven gases in power plant using heat recovery steam generator (WHRB) shall be ensured and no flue gas shall be discharged into the air. Tar, NH ₃ should be cleaned in the process and H ₂ S recovery from the coke oven shall be ensured. Coal tar, elemental sulphur and crude benzol shall be recovered from coke oven gas.	Proper and full utilization of coke oven gases in power plant using heat recovery steam generator (WHRB) shall be ensured and no flue gas shall be discharged into the air. Tar, NH ₃ should be cleaned in the process and H ₂ S recovery from the coke oven shall be ensured. Coal tar, elemental sulphur and crude benzol shall be recovered from coke oven gas.	Not applicable
v)	Wet quenching shall be adopted within one year of installation of coke oven and all the treated wastewater shall be used for wet quenching.	Wet quenching shall be adopted within one year of installation of coke oven and all the treated wastewater shall	Not applicable

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	be used for wet quenching.		
vi)	The prescribed emission standards for coke oven plants as notified vide notification no. GSR 46 (E) dated 3 rd February, 2006 shall be complied with.	The prescribed emission standards for coke oven plants as notified vide notification no. GSR 277 (E) dated 31/03/2012 shall be complied with.	Not applicable
vii)	Biochemical treatment of phenolic wastewater shall be treated in BOD plant and used for quenching of hot coke to control emissions, dust suppression and green belt development. Cyanides as CN shall be controlled within 0.2 mg/l and ammonical nitrogen within 50 mg/l as per standards notified under the E (P) Act. Effluent analysis reports shall be submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.	Biochemical treatment of phenolic wastewater shall be treated in BOD plant and used for quenching of hot coke to control emissions, dust suppression and green belt development. Cyanides as CN shall be controlled within 0.2 mg/l and ammonical nitrogen within 50 mg/l as per standards notified under the E (P) Act. Effluent analysis reports shall be submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.	Not applicable
viii)	Coal and coke fines shall be recycled and reused in the process.	Coal and coke fines shall be recycled and reused in the process.	Not applicable
ix)	All the recommendations made in the Charter of Corporate Responsibility for Environment Protection (CREP) for the coke oven plants shall be implemented.	All the recommendations made in the Charter of Corporate Responsibility for Environment Protection (CREP) for the coke oven plants shall be implemented.	Not applicable
x)	'Consent to Establishment' for the revised integrated steel plant (6 MTPA) & captive power plant (1156 MW) shall be obtained from the Orissa State Pollution Control Board and a copy submitted to the Ministry's Regional Office at Bhubaneswar.	'Consent to Establishment' for the integrated steel plant (6 MTPA) & captive power plant (810 MW) shall be obtained from the Orissa State Pollution Control Board and a copy submitted to the Ministry's Regional Office at Bhubaneswar.	'Consent to Establishment' for the Pellet plant (5 MTPA) and Hot Strip Mill (3.1 MTPA) shall be obtained/transferred from 6.0 MTPA JSPL Steel Plant CTE from the Orissa State Pollution Control Board and a copy submitted to the Ministry's Regional Office at Bhubaneswar.

Additional conditions in letter dated 10.02.2011

i)	M/s JSPL shall install the coal gasification technology using non-coking coal for the coke oven plant. The company shall adopt the dry quenching of coke to conserve water and mitigate pollution.	M/s JSPL shall install the coal gasification technology using non-coking coal. The company shall adopt the dry quenching of coke to conserve water and mitigate pollution.	Not applicable
ii)	The fly ash generated from various activities shall be used in the cement manufacturing and in back filling of mined out area after ascertaining its suitability through a scientific study. The company shall not use the fly ash in filling of low laying area as proposed in the information submitted.	The fly ash generated from various activities shall be used in the cement manufacturing and in back filling of mined out area after ascertaining its suitability through a scientific study. The company shall not use the fly ash in filling of low laying area as proposed in the information submitted.	Not applicable
iii)	While also implementing CSR related programs during the	While also implementing CSR related programs during the	Not applicable

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	construction phase, the company shall earmark 2% of the net profit as CSR budget towards corporate social responsibility. Item-wise details of expenditure proposed on specific need based program identified towards this end with time bound execution schedules shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar.	construction phase, the company shall earmark 2% of the net profit as CSR budget towards corporate social responsibility. Item-wise details of expenditure proposed on specific need based program identified towards this end with time bound execution schedules shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar.	
iv)	The company shall undertake continuous monitoring of ambient air quality and stack emission in respect of PM10, SO2, NOx and mercury. The monitored data shall be displayed on the company's website as well as important public places.	The company shall undertake continuous monitoring of ambient air quality and stack emission in respect of PM10, SO2, NOx and mercury. The monitored data shall be displayed on the company's website as well as important public places.	The company shall undertake continuous monitoring of ambient air quality and stack emissions. The monitored data shall be displayed on the company's website as well as important public places.
v)	The water conservation measures shall be adopted in the steel plant as well as the captive power plant by increasing the COC of 5.2. The drawl of water from the Derjang dam shall be avoided and rain water harvesting measures shall be undertaken to recharge the ground water as well as use of rain water harvested by constructing a water reservoir.	The water conservation measures shall be adopted in the steel plant as well as the captive power plant by increasing the COC of 5.2. The drawl of water from the Derjang dam shall be avoided and rain water harvesting measures shall be undertaken to recharge the ground water as well as use of rain water harvested by constructing a water reservoir.	Water conservation measures will be undertaken by recycling and reusing the industrial wastewater from the pellet plant and hot strip mill.
vi)	The energy conservation measures for integrated steel plant should be introduced with available best international practices and with details may be submitted to the Ministry in this regard.	The energy conservation measures for integrated steel plant should be introduced with available best international practices and with details may be submitted to the Ministry in this regard.	The energy conservation measures for the Pellet Plant and Hot Strip Mill should be introduced with available best international practices and with details may be submitted to the Ministry in this regard.

Stipulations of EC Amendment dated 08.02.2017

i)	Use of wet quenching system in Coke Oven batteries shall be permitted upto 31 st December 2018.	Use of wet quenching system in Coke Oven batteries shall be permitted upto 31 st December 2018.	Not applicable
ii)	Wet quenching to be kept as standby for emergency operation and also to be used during annual shutdown for the CDQ boiler.	Wet quenching to be kept as standby for emergency operation and also to be used during annual shutdown for the CDQ boiler.	Not applicable
iii)	Bifurcation of 6 MTPA Steel Melting Shop (SMS) to Electric Arc Furnace (EAF) route (3 MTPA) and Basic Oxygen Furnace (BOF) route (3 MTPA) has been permitted.	Bifurcation of 6 MTPA Steel Melting Shop (SMS) to Electric Arc Furnace (EAF) route (3 MTPA) and Basic Oxygen Furnace (BOF) route (3 MTPA) has been permitted.	Not applicable

Conditions stipulated in EC Amendment dated 26.06.2018

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
i)	Enhancement of production of existing Blast Furnace from 3.2 MTPA to 4.25 MTPA and Sinter Plant from 4 MTPA to 5 MTPA with following specific conditions: a) Upgradation of existing APCD / prevent the additional pollution due to increase in the capacity. b) 100% utilization of BF slag / dust. c) Upgradation of gas cleaning plant of Blast Furnace to control additional effluent.	Enhancement of production of existing Blast Furnace from 3.2 MTPA to 4.25 MTPA and Sinter Plant from 4 MTPA to 5 MTPA with following specific conditions: a) Upgradation of existing APCD / prevent the additional pollution due to increase in the capacity. b) 100% utilization of BF slag / dust. c) Upgradation of gas cleaning plant of Blast Furnace to control additional effluent.	Not applicable
ii)	Use of wet quenching system in coke oven batteries shall be permitted up to 31 st December, 2020.	Use of wet quenching system in coke oven batteries shall be permitted up to 31 st December, 2020.	Not applicable
iii)	Wet quenching to be kept as standby for emergency operation and also to be used during annual shutdown of CDQ boiler.	Wet quenching to be kept as standby for emergency operation and also to be used during annual shutdown of CDQ boiler.	Not applicable
iv)	Deletion of 2X135 MW captive power plant i.e. change capacity of captive power plant from 1080 MW (8X135 MW) to 810 MW (6X135 MW).	Deletion of 2X135 MW captive power plant i.e. change capacity of captive power plant from 1080 MW (8X135 MW) to 810 MW (6X135 MW).	Not applicable
v)	Shift of location of ash dyke with reduction in extent of the dyke area from 350 Ac to 280 Ac subject to following specific condition: a) 70 Ac will be used for development of greenbelt with native tree species.	Shift of location of ash dyke with reduction in extent of the dyke area from 350 Ac to 280 Ac subject to following specific condition: a) 70 Ac will be used for development of greenbelt with native tree species.	Not applicable
Additional conditions stipulated in EC Amendment dated 22.01.2019			
i)	Shift of ash dyke as proposed within the boundary of steel plant.	Shift of ash dyke as proposed within the boundary of steel plant.	Not applicable
ii)	All the old fly ash stock shall be utilized within two years.	All the old fly ash stock shall be utilized within two years.	Not applicable
iii)	All the new fly ash generated shall be utilized as per the provisions contained in the fly ash notification dated 14/09/1999 and its amendments issued from time to time and the orders of the Hon'ble NGT dated 21/03/2014.	All the new fly ash generated shall be utilized as per the provisions contained in the fly ash notification dated 14/09/1999 and its amendments issued from time to time and the orders of the Hon'ble NGT dated 21/03/2014.	Not applicable
iv)	With respect to amendment of EC	With respect to amendment of	Not applicable

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	condition pertaining to BOD plant, the coke oven plant effluent shall be treated in the existing Bio-ETP to the desired norms and entire treated effluent shall be utilized in the plant to achieve zero discharge.	EC condition pertaining to BOD plant, the coke oven plant effluent shall be treated in the existing Bio-ETP to the desired norms and entire treated effluent shall be utilized in the plant to achieve zero discharge.	
Additional condition modified as per EC amendment dated 19.01.2021			
(i)	Use of wet quenching system in coke oven batteries shall be permitted up to 31/12/2021. Extension of time for installation of CDQ is hereby given for another 12 months i.e. till 31.12.2021. No further extension of time will be granted to the project proponent in this regard. If the proponent fails to install CDQ by December, 2021, Ministry shall initiate action against the project proponent under the relevant provisions of Environment Protection Act, 1986.	Use of wet quenching system in coke oven batteries shall be permitted up to 31/12/2021. Extension of time for installation of CDQ is hereby given for another 12 months i.e. till 31.12.2021. No further extension of time will be granted to the project proponent in this regard. If the proponent fails to install CDQ by December, 2021, Ministry shall initiate action against the project proponent under the relevant provisions of Environment Protection Act, 1986.	Not applicable
B. GENERAL CONDITIONS:			
i)	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OSPCB) and the State Government	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OSPCB) and the State Government	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OSPCB) and the State Government
ii)	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
iii)	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with the OSPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB/CPCB once in six months.	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with the OSPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB/CPCB once in six months.	Data on stack emissions from the pellet plant and HSM shall be submitted to RO, MoEF&CC and OSPCB once in six months. At least 02 continuous ambient air quality stations shall be established in consultation with the OSPCB (01 at the pellet plant site and 01 at the HSM site) Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB/CPCB once in six months.
iv)	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December 1993 or as amended from time to time. The	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under G.S.R 277 (E) 31st March 2012 or as amended from time to time.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under G.S.R 277 (E) 31st March 2012 or as amended from time to time. The treated wastewater shall be recycled/reused.

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	treated wastewater shall be utilized for plantation purpose.	The treated wastewater shall be utilized for plantation purpose.	
v)	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime.) and 70 dBA (nighttime).	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime.) and 70 dBA (nighttime).	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime.) and 70 dBA (nighttime).
vi)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	The project proponent shall also comply with all the environmental protection measures and safeguards as per addendum EIA/ EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
vii)	As mentioned in the EIA/EMP, Rs. 2,000.00 Crores and Rs 100.00 Crores earmarked towards the capital cost and recurring cost/annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose	As mentioned in the EIA/EMP, Rs. 2,000.00 Crores and Rs 100.00 Crores earmarked towards the capital cost and recurring cost/annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Approximately Rs. 340.00 Crores and Rs 17.00 Crores earmarked towards the capital cost and recurring cost/annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
viii)	The Regional Office of this Ministry at Bhubaneswar / CPCB/ OSPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	The Regional Office of this Ministry at Bhubaneswar / CPCB/ OSPCB will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	The Regional Office of this Ministry at Bhubaneswar / CPCB/ OSPCB will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
ix)	The project proponent shall inform that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the	The project proponent shall inform that the project has been accorded environmental clearance by the Ministry and	Not Applicable

S. No.	Stipulations	Parent Company (JSPL)	New Company (JSOL)
	OSPCB/Committee and may also be seen in Website of the Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised 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 of the locality concerned and a copy of the same shall be forwarded to the Regional office.	copies of the clearance letter are available with the OSPCB/Committee and may also be seen in Website of the Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised 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 of the locality concerned and a copy of the same shall be forwarded to the Regional office.	
x)	Project authorities should 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.	Project authorities should 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.	Project authorities should 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.

Observations of the Committee

9. The Committee noted the following:

- i. The proponent has originally obtained EC on 22/02/2007 for setting up of 6 MTPA Integrated Steel Plant Village Kerjang, Tehsil Chhendipada, District Angul, Odisha.
- ii. During 8/02/2017, MoEF&CC clarified in the aforementioned project that validity of EC for the instant proposal under consideration refers to start of production by the project/activity, it does not say start of full production as per the sanctioned environment clearance capacity. In view of this, the environment clearance gets completed if the project starts the production within the validity period.
- iii. As per the implementation schedule, some of the units have been commissioned, some units are under partly implementation. Besides, the units such as pellet plant, hot rolling mill and ferro alloys plant are yet to be implemented.
- iv. Instant proposal is for seeking partly transfer of 5 MTPA pellet plant and 3.1 MTPA Hot rolling mill in the name of M/s. Jindal Steel Odisha Limited.

Recommendations of the Committee

10. In view of the foregoing and after deliberations, the Committee recommended for the part transfer of facilities 5 MTPA pellet plant and 3.1 MTPA hot rolling mill in the name of the M/s. Jindal Steel Odisha Limited by issuing a part transfer EC letter along with prescription of specific as well as general conditions as per the compliance matrix given above at para no. 9. All the other terms and conditions stipulated in environmental clearance vide letter no. J-11011/365/2006-I A.II(I) dated 22/02/2007 and its subsequent amendments shall remain unchanged.

Decision of MoEF&CC

11. The undersigned is directed to inform that 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 partly transfer the facilities namely 5 MTPA Pellet plant and 3.1 MTPA hot rolling mill mentioned in the EC letter dated 22/02/2007 (amended on 14/11/2008, 08/02/2017, 26/06/2018, 22/01/2019 and 18/01/2021) in the name of **M/s. Jindal Steel Odisha Limited** subject to strict compliance of following specific and general conditions:

A. Specific conditions

- i. The gaseous emissions from Pellet plant and the Rolling mill shall confirm to the load/mass-based standards notified by this Ministry vide notification no. G.S.R. 277(E) dated 31st March, 2012 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On line continuous stack emission monitoring for all the major stacks will be carried out and reports submitted to the OSPCB & CPCB. The emission levels from all the sources shall be kept below 30 mg/Nm³. Interlocking facility shall be provided so that process can be automatically stopped in case emission level exceeds the limit.
- ii. Continuous online ambient air quality monitoring stations shall be setup at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site) and reports
- iii. In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Bag filters/ESP shall be provided to Pellet plant. Further, specific measures like water sprinkling shall be carried out at the raw material yard, wagon tippler/ truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained.
- iv. Water requirement for Pellet plant and HSM shall not exceed 1095 m³/hr. Water for the JSOL plant shall be made available by JSPL. Wastewater from the HSM shall be treated in effluent recycling system and 100% treated water shall be recirculated. No effluent shall be discharged outside the premises and 'Zero' discharge shall be adopted. Domestic waste shall be treated in Sewage Treatment Plant (STP).
- v. Groundwater monitoring around the pellet plant and hot strip mill shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneshwar, CPCB and OPCB
- vi. Dust from the pellet plant shall be reused within the pellet plant. Mill scales shall be sent to pellet plant for re-use. Sludge from ETP of HSM shall be sold to steel plant. Oil and grease recovered from HSM ETP shall be given to registered recyclers.
- vii. The company shall develop rain water harvesting structure to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. Green belt shall be developed in 33 % of total area within the plant premises as per the CPCB guidelines in consultation with DFO
- ix. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- x. Recommendations made in the CREP guidelines issued for the Steel plants shall be implemented.
- xi. Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emission within 30 mg /Nm³ and reports for ambient air, stack emission and fugitive emissions submitted to the Ministry's Regional Office at Bhubaneshwar, OSPCB & CPCB regularly.
- xii. 'Consent to Establishment' for the Pellet plant (5 MTPA) and Hot Strip Mill (3.1

MTPA) shall be obtained/ transferred from 6.0 MTPA JSPL Steel Plant CTE from the Orissa State Pollution Control Board and a copy submitted to the Ministry's Regional Office at Bhubaneswar.

- xiii. The company shall undertake continuous monitoring of ambient air quality and stack emissions. The monitored data shall be displayed on the company's website as well as important public places.
- xiv. Water conservation measures will be undertaken by recycling and reusing the industrial wastewater from the pellet plant and hot strip mill.
- xv. The energy conservation measures for the Pellet Plant and Hot Strip Mill should be introduced with available best international practices and with details may be submitted to the Ministry in this regard.

B. General conditions

- i. The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OSPCB) and the State Government.
- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
- iii. Data on stack emissions from the pellet plant and HSM shall be submitted to RO, MoEF&CC and OSPCB once in six months. At least 02 continuous ambient air quality stations shall be established in consultation with the OSPCB (01 at the pellet plant site and 01 at the HSM site) Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB/CPCB once In six months.
- iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under G.S.R 277 (E) 31st March 2012 or as amended from time to time. The treated wastewater shall be recycled/reused.
- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime.) and 70 dBA (nighttime).
- vi. The project proponent shall also comply with all the environmental protection measures and safeguards as per addendum EIA/ EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- vii. Approximately Rs. 340.00 Crores and Rs 17.00 Crores earmarked towards the capital cost and recurring cost/annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- viii. The Regional Office of this Ministry at Bhubaneswar / CPCB/ OSPCB will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
- ix. Project authorities should 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.

12. M/s. Jindal Steel Odisha Limited shall abide by all the commitments and recommendations made in the EIA/EMP report, presentation made before the EAC and commitments made during the Public hearing.

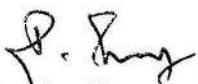
13. The project proponent shall ensure no change in the pollution load and no conflict in sharing in common facilities in day to day operations.

14. 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.

15. All the other terms and conditions stipulated in environmental clearance vide letter no. J-11011/365/2006-IA.II(I) dated 22/02/2007 and subsequent amendment dated 14/11/2008, 08/02/2017, 26/06/2018, 22/01/2019 and 18/01/2021 will remain unchanged.

16. The project proponent shall obtain fresh environmental clearance in case of change in scope of the project, if any.

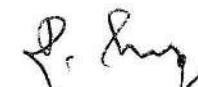
17. This issues with the approval of the Competent Authority.



(Sundar Ramanathan)
Scientist 'E'

Copy to:-

1. Secretary, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
2. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, A/3, Chandersekharpur, Bhubaneswar – 751023.
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. Chairman, Odisha State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneshwar-751012.
5. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. District Collector, Angul District, Odisha.
7. Guard File/Record File/Monitoring File.
8. MoEF&CC Website



(Sundar Ramanathan)
Scientist 'E'