



File No: J-11011/489/2009-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Date 25/07/2024



To,

M/s. JSW Steel Limited
P.O. Vidyanagar, Village Toranagallu, Taluk Sandur District Bellary- 583 275, Karnataka. P.O.
Vidyanagar, Village Toranagallu, Taluk Sandur District Bellary- 583 275, Karnataka.
Email: sanjay.handur@jsw.in

Ref: **Environmental Clearance granted to JSW Steel Ltd vide no. IA-J-11011/489/2009-IA-II (INDI) dated 29/11/2021**

Subject: **Proposal for Splitting of existing EC of M/s JSW Steel Ltd, Vijayanagar works of 18 MTPA Steel plant, 1490 MW CPP along with 2.2 MTPA Slag cement between M/s JSWSL, M/s JVML and M/s JSWCL, with a final configuration of 13 MTPA Steel, 1490 MW of CPP and 0.2 MTPA Slag cement unit will remain for M/s JSW STEEL LTD, Transfer of 5 MTPA Steel to M/s JVML and Transfer of 2 MTPA Slag Grinding Unit to Existing 4 MTPA Slag cement plant of M/s JSWCL, located at Vijayanagar works, Toranagallu, Ballari, Karnataka - Splitting of EC-regarding.**

Sir/Madam,

This refers to your proposal no **IA/KA/IND1/459265/2024** dated **20.01.2024** along with copy of Addendum EIA report, Form – 12 [Application for Splitting of Environmental Clearance] and certified compliance report seeking splitting of existing EC of JSW Steel Ltd, Vijayanagar works of 18 MTPA Steel plant, 1490 MW CPP along with 2.2 MTPA Slag cement between JSWSL, JVML and JSWCL, with a final configuration of 13 MTPA Steel, 1490 MW of CPP and 0.2 MTPA Slag cement unit to remain with JSW STEEL LTD, Transfer of 5 MTPA Steel to JVML and Transfer of 2 MTPA Slag Grinding Unit to Existing 4 MTPA Slag cement plant of JSWCL at Vijayanagar works, Toranagallu, Ballari, Karnataka under the provisions of the EIA Notification, 2006 for the project mentioned above. Further, the PP has uploaded the information on portal on 10.06.2024.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A1001KA5580178S
(ii) File No.	J-11011/489/2009-IA.II(I)
(iii) Clearance Type	Splitting of EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous)

(vi) Sector

IND1

Proposal for Split of existing EC of JSW Steel Ltd, Vijayanagar works of 18 MTPA Steel plant, 1490 MW CPP along with 2.2 MTPA Slag cement between JSWSL, JVML and JSWCL, With a final configuration of 13 MTPA Steel, 1490 MW of CPP and 0.2 MTPA Slag cement unit will remain for JSW STEEL LTD, Transfer of 5 MTPA Steel to JVML and Transfer of 2 MTPA Slag Grinding Unit to Existing 4 MTPA Slag cement plant of JSWCL at Vijayanagar works, Toranagallu, Ballari, Karnataka

(vii) Name of Project

(viii) Name of Company/Organization

M/s. JSW Steel Limited

(ix) Location of Project (District, State)

Ballari, Karnataka

(x) Issuing Authority

MOEF&CC

3. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity listed at S. No. 3(a) Metallurgical industries (ferrous and non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

4. The proposal is considered in the 56th meeting of the EAC for Industry-I sector held during 14th –15th March, 2024, wherein the Committee, after detailed deliberations, recommended the proposal. 60.15.3 The proposal was processed in the Ministry wherein the Ministry raised queries on some aspects related to the layout plan of the main plant and placement of other two split units, mechanism by which the splitting will be accomplished, and the and the relative apportionment of pollution load between the split Units. Accordingly, the proposal was again placed before the EAC in its 60th meeting of the EAC for Industry-I sector held on 11th -12th June, 2024 wherein the EAC after detailed deliberations, recommended the proposal. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

5. The details of the proposal are as per the EIA/EMP report submitted by the proponent. The Unit configuration and capacity after splitting are given at Annexure I. Project Information, EC Responsibility and Environmental Liability Matrix are given at Annexure II.

6. The EAC, in its meeting held during 14th to 15th March, 2024, inter-alia, deliberated the following:

i. M/s JSW Steel Limited (JSWSL) was accorded environmental clearance vide Ir.no. EC21A008KA165146 dated 29/11/2021 for enhancement of production capacity of its Integrated Steel Plant from 16 MTPA to 18 MTPA located in Toranagallu Village Ballari District, Karnataka.

ii. The PP has not implemented some of the facilities as envisaged in the EC dated 29.11.2021 as detailed at relevant para above. Consent to Establish for said expansion project was accorded by KSPCB vide Consent order no CTE-332802 dated 17/08/2022.

iii. The instant proposal is for seeking splitting of existing EC of JSW Steel Ltd, Vijayanagar works dated 29.11.2021 between JSW Steel Limited (JSWSL), JSW Vijayanagar Metallica Limited (JVML) and JSW Cement Limited (JSWCL), with a final configuration of 13 MTPA Steel, 1490 MW of CPP and 0.2 MTPA Slag cement unit to remain with JSWSL, Transfer of 5 MTPA Steel to JVML and Transfer of 2 MTPA Slag Grinding Unit to JSWCL (in addition to existing 4 MTPA Slag cement plant) at Vijayanagar works, Toranagallu, Ballari, Karnataka due to restructuring of partnership arrangements as detailed in the relevant para above.

iv. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in

various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

v. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

vi. The EAC also took into consideration the drone survey of the project site and kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH and made following deliberations accordingly.

vii. The EAC also took into consideration the site visit undertaken by sub-committee of EAC (Industry-1) from 30.11.2023 to 02.12.2023 and the observations and recommendations made by the sub-committee in its report.

viii. The Committee also took into consideration the issues addressed by the project proponent based on the queries raised by EAC during the appraisal of previous applications which were returned in present form due to technical shortcomings and appraised the instant application accordingly.

ix. The EAC deliberated on the Certified Compliance Report (CCR) issued by IRO, MoEF&CC vide letter dated 16.11.2022 based on the site inspection carried out and noted that PP has not implemented the complete facilities as envisaged in the expansion project. The EAC also deliberated on the observations of IRO pertaining to partial/non-compliance of some of the EC conditions followed by the ATR submitted by the PP and the updated compliance along with the action plan and timelines for the CCR report submitted to EAC (Industry-1) during the 56th EAC meeting and is of the opinion that PP shall strictly comply with the conditions as per the action plan and within the timeframe as committed. No more extension of time period with respect to the non-complied specific conditions will be granted further.

x. The EAC noted that PP has submitted the requisite documents required for appraising the proposal for splitting of EC under the provisions of EIA Notification, 2006 and found that the proposal is in order.

xi. The EAC deliberated on the detailed addendum to EIA/EMP Report submitted by the PP including the salient features that will arise out of splitting arrangement such as project information matrix, raw material requirement, environment management plan, waste management, EC condition compliance matrix, environmental liability matrix etc. among the three entities along with the Environmental Appraisal Report submitted by the transferee entities i.e. JVML and JSWCL and found it satisfactory.

xii. The EAC deliberated on the comparative statement pertaining to pollution load assessment after the proposed change post splitting of EC and found it satisfactory.

xiii. The EAC deliberated on the budget spent to address the PH issues / socio-economic development presented before the EAC and found it satisfactory.

xiv. The EAC deliberated on the EC condition responsibility Matrix of JSWSL, JVML and JSWCL with respect to the EC conditions after splitting of existing EC and an undertaking submitted by M/s. JSWSL to comply with all the conditions stipulated in EC dated 29.11.2021, being a principal lessor and found it satisfactory.

xv. The EAC deliberated on the note submitted by PP outlining the operational status of the airport including the chronology of the permissions obtained and is of the view that PP shall ensure to operate the facility only after valid and requisite permissions required to operate the same.

xvi. The EAC opined that install the requisite number of CAAQMS linked with CPCB server at designated places as discussed during the meeting.

xvii. The EAC noted that JSWSL complex covers an area of 3234.2 hectares of land which is also mentioned in the EC dated 29.11.2021. However, considering several subsidiary companies operating within the complex for which PP has provided an area statement for all such subsidiaries, including a list and associated permissions, the EAC opined that the

area of JSWSL shall be updated excluding all such subsidiaries and post splitting balance area and the EC shall be accorded accordingly with updated area details. Also, the EAC advised PP that they need to ensure that all such subsidiaries shall have relevant permissions related to land, EC/FC/CTE/CTO and associated permissions required to operate such facilities along with separate entry/exit gates.

xviii. The EAC advised PP to ensure that there shall be sign boards at prominent locations covering name, capacity and area of the operating units within the JSW Complex along with EC/CFO details.

xix. The EAC opined that as committed, PP shall comply with the condition for development and maintenance of greenbelt in at least 33% area of the JSW complex as principal lessor.

xx. The EAC also advised PP to widely publicize the executive summary of the EC split proposal and publish the split ECs in local newspapers.

xxi. The EAC also deliberated on the ADS reply of the project proponent and found it satisfactory.

xxii. The EAC noted that the Integrated Site Specific Wildlife Conservation plan (ISSWLCP) has been prepared for the whole JSW complex by JSW Steel Limited and this shall be applicable to all the Auxiliary companies. In this regard, the EAC is of the view that PP shall strictly comply with the directions of State Forest Department, obtain approval and implement the conservation plan as per the timelines.

xxiii. The EAC is of the opinion that all the three entities i.e. JSWSL, JVML and JSWCL shall undertake Village Adoption programme as committed.

xxiv. The EAC deliberated on the written submission of the project proponent and found it satisfactory.

7. The EAC, in its 56th meeting of Expert Appraisal Committee (Industry-1 Sector) held during 14th–15th March, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the instant proposal for splitting of existing EC of JSW Steel Ltd, Vijayanagar works dated 29.11.2021 between JSW Steel Limited (JSWSL), JSW Vijayanagar Metalics Limited (JVML) and JSW Cement Limited (JSWCL), as per the details mentioned in the summary of the proposal above, subject to additional specific conditions.

8. The proposal was processed in the Ministry wherein the Ministry raised queries on some aspects accordingly, the proposal was again placed before the EAC in its 60th meeting of the EAC for Industry-I sector held on 11th -12th June, 2024. In the meeting, inter-alia, deliberated the following:

i. The instant proposal was considered during the 56th meeting of the EAC for Industry-I sector held on 14th – 15th March 2024 wherein the EAC recommended the proposal for splitting of existing EC of JSW Steel Ltd, Vijayanagar works dated 29.11.2021 between JSW Steel Limited (JSWSL), JSW Vijayanagar Metalics Limited (JVML) and JSW Cement Limited (JSWCL).

ii. The EAC deliberated in detail on the reasons and justification provided by PP/Consultant (as detailed in relevant para above) for retaining 0.2 MTPA cement plant with JSWSL and discussed the location of this 0.2 MTPA cement grinding unit on layout and found it satisfactory.

iii. The Committee deliberated in detail and found the clarification provided by the Project Proponent (PP) regarding the air pollution control devices between the split units satisfactory. Additionally, the responsibilities transferring between the split units are addressed adequately. The Committee directs the PP to ensure effective implementation of these measures, including regular monitoring and reporting of the performance of the air pollution control devices, as well as timely updates on the progress of the responsibilities transfer between the split unit

iv. The Committee finds the clarification provided by the Project Proponent on the water treatment facilities satisfactory. Additionally, the Committee acknowledges the adequate addressing of the responsibilities transferring between the split units. The Committee directs the PP to ensure effective implementation of these measures and to regularly monitor and

report the performance of the water treatment facilities.

v. The Committee deliberated on the clarification provided by the Project Proponent on the fugitive emission component and found it satisfactory, including the relative apportionment of pollution load between the split units. The Committee directs the PP to ensure effective implementation of the targetted measures, with regular monitoring and reporting to ensure compliance and effectiveness in managing fugitive emissions.

vi. The EAC deliberated in detail on the submission of the Project Proponent on the interdependency of the raw materials and their transportation between the split units and found it satisfactory.

vii. The EAC reviewed the revised proposed split EC conditions and additional EC conditions, focusing on ensuring that mitigation measures are comprehensive and effective. PP emphasized the clear distribution of responsibilities among the split units to prevent overlaps and ensure proper implementation. The EAC highlighted the need for robust compliance and monitoring frameworks, continuous stakeholder engagement, and effective risk management strategies. Additionally, PP advised to consider cumulative impacts of the units, encourage sustainable practices, and ensure compliance with legal and regulatory frameworks. Finally, EAC recommended adaptive management approaches to continually improve mitigation measures based on monitoring results and new data.

viii. The PP is advised to implement the 'Ek Ped Maa Ke Naam' Campaign which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development.

9. The EAC, in its 60th meeting after detailed deliberations, recommended that the details provided in the ADS, as outlined in the relevant paragraph above, may be updated or supplemented with information from the minutes of the 56th EAC meeting (Industry-1) held on 14th – 15th March 2024 subject to uploading of ADS submission on Parivesh portal, and based on the information/clarification furnished by the project proponent, the EAC recommended the proposal for splitting of existing EC of JSW Steel Ltd, Vijayanagar works dated 29.11.2021 between JSW Steel Limited (JSWSL), JSW Vijayanagar Metalics Limited (JVML) and JSW Cement Limited (JSWCL). The other specific conditions and general conditions stipulated in the minutes of 56th meeting of the EAC for Industry-I sector held on 14th – 15th March 2024 shall remain the same.

10. The MoEF&CC 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 Sector) hereby decided to splitting of existing EC of JSW Steel Ltd, Vijayanagar works dated 29.11.2021 between JSW Steel Limited (JSWSL), JSW Vijayanagar Metalics Limited (JVML) and JSW Cement Limited (JSWCL), as per the details mentioned in the summary of the proposal above under the provisions of EIA Notification, 2006 subject to specific conditions and general conditions at Annexure III.

11. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

12. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

13. Any appeal against this environmental clearance 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.

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 and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

15. This issues with approval of the competent authority.

(Dinesh Runiwal)
Scientist 'F'/ Director
Tel: 011-20819289
Email - d.runiwal@gov.in

Copy To

1. The Secretary, Department of Forest, Environment & Ecology, Government of Karnataka, Room No. 708, Gate 2, Multi Storey Building, Dr. Ambedkar Veedhi, Bangalore -560 001.
2. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi
3. The Member Secretary, Karnataka State Pollution Control Board, No. 25, 6- 9th Floor, Public Utility Building, M.G. Road, Bangalore – 560 001.
4. The Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034
5. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
6. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
7. The Chief Wildlife Warden, Govt. of Karnataka, Aranya Bhawan, 18th Cross, Malleswaram, Bangalore-560003
8. District Collector, Bellary, District, Karnataka.
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
10. M/s JVML - For information please.
11. M/s JSWCL - for information please.
12. Guard File/Monitoring File/Website/Record File/Parivesh Portal.

(Dinesh Runiwal)
Scientist 'F'/ Director

Annexure 1

Specific EC Conditions for (Metallurgical Industries (ferrous and non ferrous))

1. Specific

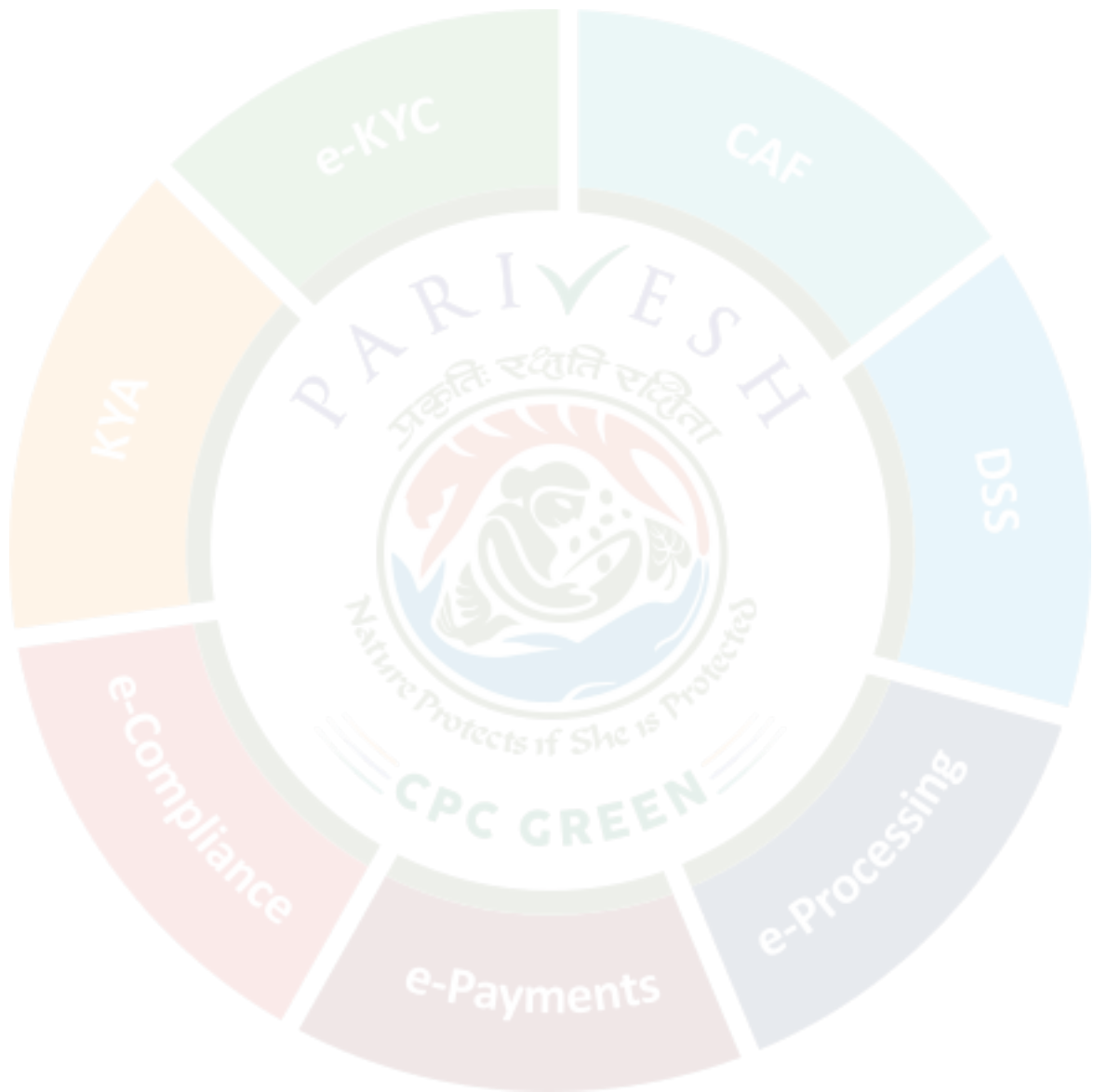
S. No	EC Conditions
1.1	

Additional EC Conditions

1. This EC is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

2. This EC is granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to

be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.



Splitting of existing EC of JSW Steel Ltd, Vijayanagar works dated 29.11.2021 between JSW Steel Limited (JSWSL), JSW Vijayanagar Metalics Limited (JVML) and JSW Cement Limited (JSWCL), Unit configuration and capacity as detailed below

Sl. N o.	Facility	Units	As per Existing EC		After Present Proposal of Splitting of EC						Remarks
			Unit Cap	Total	Units under JSWSL		Transfer to JVML		Transfer to JSWCL		
					Unit Cap.	Total	Unit Cap.	Total	Unit Cap.	Total	
1.	Ore beneficia tion Plant	OBP-1	(OBP-1 will be relocated to OBP-2)	19.5 MTPA	-	19.5 MTPA	-	-	-	-	No change
		OBP-2	1X 2.5 MTPA 1X 5.0 MTPA 1 X 7.5 MTPA 1 X 4.5 MTPA		1X 2.5 MTPA 1X 5.0 MTPA 1 X 7.5 MTPA 1 X 4.5 MTPA		-	-	-	-	
2.	Sinter Plants	SP1	2.3 MTPA	14.95 MTPA	2.3 MTPA	12.65 MTPA	-	2.3 MT PA	-	-	SP5 transfer to JVML
		SP2	2.3 MTPA		2.3 MTPA	-	-		-		
		SP3	5.75 MTPA		5.75 MTPA	-	-		-		
		SP4	2.3 MTPA		2.3 MTPA	-	-		-		
		SP5	2.3 MTPA		-	2.3 MTPA	-		-		
3.	Pellet Plants	PP1	5 MTPA	16.8 MTPA	5 MTPA	16.8 MTPA	-	-	-	-	No change
		PP2	5 MTPA		5 MTPA	-	-	-			
		PP3	6.8 MTPA		6.8 MTPA	-	-	-			
4.	Coke Ovens	CO3	1.5 MTPA	8 MTPA	1.5 MTPA	8 MTPA	-	-	-	-	No change
		CO4	2 MTPA		2 MTPA	-	-	-			
		CO5	3 MTPA		3 MTPA	-	-	-			
		CO6	1.5 MTPA		1.5 MTPA	-	-	-			
5.	Hot Metal-COREX	COREX 1	0.8 MTPA	1.6 MTPA	0.8 MTPA	1.6 MTPA	-	-	-	-	No change
		COREX 2	0.8 MTPA		0.8 MTPA	-	-	-			
6.	Hot Metal-Blast Furnace	BF1	2.5 MTPA	16.57 MTPA	2.5 MTPA	12.07 MTPA	-	4.5 MT PA	-	-	4.5 MTPA BF5 transfer to JVML
		BF2	2.17 MTPA		2.17 MTPA	-	-		-		
		BF3	4.4 MTPA		4.4 MTPA	-	-		-		
		BF4	3 MTPA		3 MTPA	-	-		-		
		BF5	4.5 MTPA		-	4.5 MTPA	-		-		
7.	Pig Caster (MGP)	-	1 x 1200 TPD	17000 TPD	1 x 1200 TPD	12000 TPD	-	5000	-	-	5000 TPD MGP transfer to JVML
		-	3 x 3600 TPD		3 x 3600 TPD	-	-		-		

Sl. N o.	Facility	Units	As per Existing EC		After Present Proposal of Splitting of EC						Remarks
			Unit Cap	Total	Units under JSWSL		Transfer to JVML		Transfer to JSWCL		
					Unit Cap.	Total	Unit Cap.	Total	Unit Cap.	Total	
			1 x 5000 TPD		-		1 x 5000 TPD	TP D	-		
8.	Crude steel	SMS1	3.8 MTPA	18 MTPA	3.8 MTPA	13.2 MTPA	-	4.8 MT PA	-	-	SMS4 of 4.8 MTPA transfer to JVML
		SMS2	6.4 MTPA		6.4 MTPA		-		-		
		SMS3	1.5 MTPA EAF 1.5 MTPA ZPF		1.5 MTPA EAF 1.5 MTPA ZPF		-		-		
		SMS4	4.8 MTPA BOF		-		4.8 MTPA BOF		-		
9.	Lime Kilns	LCP1	4X300 TPD	7200 TPD	4X300 TPD	5400 TPD	-	180 0 TP D	-	-	Transfer of 3X600 TPD Lime kilns to JVML
		LCP2	4X300 TPD + 3X600 TPD		4X300 TPD + 3X600 TPD		-		-		
		LCP3	2X600 TPD		2X600 TPD		-		-		
		LCP4	3X600 TPD		-		3X600 TPD		-		
10.	Casters	Slab Caster 1	3.2 MTPA	20.7 MTPA	3.2 MTPA	15.7 MTPA	-	5.0 MT PA	-	-	5.0 MTPA Slab Caster 4 transfer to JVML
		Slab Caster 2	6.4 MTPA		6.4 MTPA		-		-		
		Slab Caster 3	1.6 MTPA		1.6 MTPA		-		-		
		Slab Caster 4	5.0 MTPA		-		5.0 MTPA		-		
		Billet Caster 1	1.5 MTPA		1.5 MTPA		-		-		
		Billet Caster 2	3.0 MTPA		3.0 MTPA		-		-		
11.	Hot Strip Mills	HSM1	4.0 MTPA	14.2 MTPA	4.0 MTPA	9.2 MTPA	-	5.0 MT PA	-	-	5.0 MTPA HSM3 transfer to JVML
		HSM2	5.2 MTPA		5.2 MTPA		-		-		
		HSM3	5.0 MTPA		-		5.0 MTPA		-		
12.	Pipe Mill	-	1x0.4 MTPA	0.4 MTPA	1x0.4 MTPA	0.4 MTPA	-	-	-	-	No change
13.	Wire Rod Mill	WRM1	0.6 MTPA	1.8 MTPA	0.6 MTPA	1.8 MTPA	-		-	-	No change
		WRM2	1.2 MTPA		1.2 MTPA		-		-		
14.	Rebar & Section Mills	BRM1	1.0 MTPA	2.2 MTPA	1.0 MTPA	2.2 MTPA	-		-	-	No change
		BRM2	1.2 MTPA		1.2 MTPA		-		-		
15.		CRM1	1.8 MTPA	6.4 MTPA	1.8 MTPA	6.4 MTPA	-	-	-	-	No change

Sl. N o.	Facility	Units	As per Existing EC		After Present Proposal of Splitting of EC						Remarks
			Unit Cap	Total	Units under JSWSL		Transfer to JVML		Transfer to JSWCL		
					Unit Cap.	Total	Unit Cap.	Total	Unit Cap.	Total	
	Cold Rolling Mills	CRM2	2.3 MTPA		2.3 MTPA		-		-	-	
		CRM3	2.3 MTPA		2.3 MTPA		-		-	-	
16.	Galvanizing Lines	CGL1	4X0.25 MTPA	1.9 MTPA	4X0.25 MTPA	1.9 MTPA	-	-	-	-	No change
		CGL2	2X0.45 MTPA		2X0.45 MTPA		-		-	-	
17.	Colour Coating Line	-	0.5 MTPA	0.5 MTPA	0.5 MTPA	0.5 MTPA	-	-	-	-	No change
18.	Captive Power Plants	CPP1 – Gas based	100 MW	1490 MW	100 MW	1490 MW	-	-	-	-	No change
		CPP2 – Gas based	130 MW		130 MW		-		-		
		CPP3 – Coal + Gas	300 MW		300 MW		-		-		
		CPP4 – Coal + Gas	300 MW		300 MW		-		-		
		CPP5- Coal	660 MW		660 MW		-		-		
19.	Incinerator	-	1000 kg/h	1000 kg/h	1000 kg/h	1000 kg/h	-	-	-	-	No change
20.	Slag Grinding and mixing unit	CP1	0.2 MTPA	2.2 MTPA	0.2 MTPA	0.2 MTPA	-	-	-	2.0 MTPA	2.0 MTPA CP2 transfer to JSWCL
		CP2	2.0 MTPA		-		-		2.0 MTPA		
21.	Oxygen Plant	-	1X2500 TPD 4X1800 TPD 1X900 TPD 1X2060 TPD 1X2200 TPD	14860 TPD	1X2500 TPD 4X1800 TPD 1X900 TPD 1X2060 TPD 1X2200 TPD	14860 TPD	-	-	-	-	No change

Project Information, EC Responsibility and Environmental Liability Matrix

I. Project Information Matrix including raw material, Environment Management Plan and waste generation

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
1	Ore beneficiation Plant – 19.5 MTPA (Product) OBP1 - 1X2.5 MTPA (To be relocated to OBP2) OBP2 - 1X5.0 MTPA + 1X7.5 MTPA + 1X4.5 MTPA	Ore beneficiation Plant – 19.5 MTPA (Product) OBP1 - 1X2.5 MTPA (To be relocated to OBP2) OBP2 - 1X5.0 MTPA + 1X7.5 MTPA + 1X4.5 MTPA	Nil	Nil
2	Sinter Plants – 14.95 MTPA (Total) SP1 - 2.3 MTPA SP2 - 2.3 MTPA SP3 - 5.75 MTPA SP4 - 2.3 MTPA SP5 - 2.3 MTPA SP-5 Co-ordinates: Latitudes (North) – From 15°10'46.77" N- 15°10'56.82"N Longitudes (East) – From 76°37'55.13"E - 76°38'11.27"E	Sinter Plants – 12.65 MTPA (Total) SP1 - 2.3 MTPA SP2 - 2.3 MTPA SP3 - 5.75 MTPA SP4 - 2.3 MTPA	Sinter Plants – 2.3 MTPA (Total) SP5 - 2.3 MTPA (After relocation) SP-5 Co-ordinates: Latitudes (North) – From 15°10'18" N- 15°10'28"N Longitudes (East) – From 76°41'28"E - 76°41'45"E	Nil
3	Pellet Plants – 16.8 MTPA (Total) PP1 – 5 MTPA PP2 – 5 MTPA PP3 – 6.8 MTPA	Pellet Plants – 16.8 MTPA (Total) PP1 – 5 MTPA PP2 – 5 MTPA PP3 – 6.8 MTPA	Nil	Nil
4	Coke Ovens – 8 MTPA (Total) CO3 – 1.5 MTPA CO4 – 2 MTPA	Coke Ovens – 8 MTPA (Total) CO3 – 1.5 MTPA	Nil	Nil

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	CO5 – 3 MTPA CO6 – 1.5 MTPA	CO4 – 2 MTPA CO5 – 3 MTPA CO6 – 1.5 MTPA		
5	Hot Metal COREX – 1.6 MTPA (Total) COREX1 – 0.8 MTPA COREX2 – 0.8 MTPA	Hot Metal COREX – 1.6 MTPA (Total) COREX1 – 0.8 MTPA COREX2 – 0.8 MTPA	Nil	Nil
6	Hot Metal- Blast Furnace – 16.57 MTPA (Total) BF1 - 2.5 MTPA BF2 - 2.17 MTPA BF3 - 4.4 MTPA BF4 - 3 MTPA BF5 - 4.5 MTPA	Hot Metal- Blast Furnace – 12.07 MTPA (Total) BF1 - 2.5 MTPA BF2 - 2.17 MTPA BF3 - 4.4 MTPA BF4 - 3 MTPA	Hot Metal- Blast Furnace – 4.5 MTPA (Total) BF5 - 4.5 MTPA	Nil
7	Pig Casters + Metal Granulation Plant (MGP) – 17000 TPD (Total) Pig Caster - 1 x 1200 TPD + 3 x 3600 TPD MGP - 1 x 5000 TPD	Pig Casters + Metal Granulation Plant (MGP) – 12000 TPD (Total) Pig Caster - 1 x 1200 TPD + 2 x 3600 TPD Metal Granulation Plant (MGP) – 3600 TPD	Metal Granulation Plant (MGP) – 5000 TPD (Total) MGP - 1 x 5000 TPD	Nil
8	Steel Melting Shops (SMS) – 18 MTPA (Total) SMS1 - 3.8 MTPA BOF SMS2 - 6.4 MTPA BOF SMS3 - 1.5 MTPA EAF + 1.5 MTPA ZPF SMS4 - 4.8 MTPA BOF	Steel Melting Shops (SMS) – 13.2 MTPA (Total) SMS1 - 3.8 MTPA BOF SMS2 - 6.4 MTPA BOF SMS3 - 1.5 MTPA EAF + 1.5 MTPA ZPF	Steel Melting Shops (SMS) – 4.8 MTPA (Total) SMS4 - 4.8 MTPA BOF	Nil
9	Lime Kilns – 7200 TPD (Total) LCP1 - 4X300 TPD LCP2 - 4X300 TPD + 3X600 TPD LCP3 - 2X600 TPD	Lime Kilns – 5400 TPD (Total) LCP1 - 4X300 TPD LCP2 - 4X300 TPD + 3X600 TPD LCP3 - 2X600 TPD	Lime Kilns – 1800 TPD (Total) LCP4 - 3X600 TPD	Nil

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	LCP4 - 3X600 TPD			
10	Continuous Casters – 20.7 MTPA (Total) Slab Caster 1 - 3.2 MTPA Slab Caster 2 - 6.4 MTPA Slab Caster 3 - 1.6 MTPA Slab Caster 4 - 5.0 MTPA Billet Caster 1 - 1.5 MTPA Billet Caster 2 - 3.0 MTPA	Continuous Casters – 15.7 MTPA (Total) Slab Caster 1 - 3.2 MTPA Slab Caster 2 - 6.4 MTPA Slab Caster 3 - 1.6 MTPA Billet Caster 1 - 1.5 MTPA Billet Caster 2 - 3.0 MTPA	Continuous Casters – 5.0 MTPA (Total) Slab Caster 4 - 5.0 MTPA	Nil
11	Hot Strip Mills – 14.2 MTPA (Total) HSM1 - 4.0 MTPA HSM2 - 5.2 MTPA HSM3 - 5.0 MTPA	Hot Strip Mills – 9.2 MTPA (Total) HSM1 - 4.0 MTPA HSM2 - 5.2 MTPA	Hot Strip Mills – 5.0 MTPA (Total) HSM3 - 5.0 MTPA	Nil
12	Pipe Mill - 1 X 0.4 MTPA	Pipe Mill - 1 X 0.4 MTPA	Nil	Nil
13	Wire Rod Mill – 1.8 MTPA (Total) WRM1 - 0.6 MTPA WRM2 - 1.2 MTPA	Wire Rod Mill – 1.8 MTPA (Total) WRM1 - 0.6 MTPA WRM2 - 1.2 MTPA	Nil	Nil
14	Rebar & Section Mills – 2.2 MTPA (Total) BRM1 - 1.0 MTPA BRM2 - 1.2 MTPA	Rebar & Section Mills – 2.2 MTPA (Total) BRM1 - 1.0 MTPA BRM2 - 1.2 MTPA	Nil	Nil
15	Cold Rolling Mills – 6.4 MTPA (Total) CRM1 - 1.8 MTPA CRM2 - 2.3 MTPA CRM3 - 2.3 MTPA	Cold Rolling Mills – 6.4 MTPA (Total) CRM1 - 1.8 MTPA CRM2 - 2.3 MTPA CRM3 - 2.3 MTPA	Nil	Nil
16	Galvanizing Lines – 1.9 MTPA (Total) CGL1 - 4X0.25 MTPA CGL2 - 2X0.45 MTPA	Galvanizing Lines – 1.9 MTPA (Total) CGL1 - 4X0.25 MTPA CGL2 - 2X0.45 MTPA	Nil	Nil
17	Colour Coating Line – 0.5 MTPA	Colour Coating Line – 0.5 MTPA	Nil	Nil

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
18	Captive Power Plants – 1490 MW (Total) CPP1 (Gas based) - 100 MW CPP2 (Gas based) - 130 MW CPP3 (Coal + Gas based) - 300 MW CPP4 (Coal + Gas based) - 300 MW CPP5 (Coal based) - 660 MW	Captive Power Plants – 1490 MW (Total) CPP1 (Gas based) - 100 MW CPP2 (Gas based) - 130 MW CPP3 (Coal + Gas based) - 300 MW CPP4 (Coal + Gas based) - 300 MW CPP5 (Coal based) - 660 MW	Nil	Nil
19	Incinerator – 1000 kg/hr	Incinerator – 1000 kg/hr	Nil	Nil
20	Slag Grinding and mixing unit – 2.2 MTPA (Total) CP1 - 1X0.2 MTPA CP2 - 1X2.0 MTPA	Slag Grinding and mixing unit – 0.2 MTPA (Total) CP1 - 1X0.2 MTPA	Nil	Slag Grinding and mixing unit – 6 MTPA (Total) Existing - 2X2.0 MTPA CP2 - 1X2.0 MTPA (Expansion of Existing Cement Plant of JSW Cement from 4 MTPA to 6 MTPA)
21	Oxygen Plant – 14860 TPD (Total) 1X2500 TPD 4X1800 TPD 1X900 TPD 1X2060 TPD 1X2200 TPD	Oxygen Plant – 14860 TPD (Total) 1X2500 TPD 4X1800 TPD 1X900 TPD 1X2060 TPD 1X2200 TPD	Nil	Nil
22	Plant Capacity Crude Steel - 18 MTPA Captive Power - 1490 MW Slag Cement - 2.2 MTPA	Plant Capacity Crude Steel - 13 MTPA Captive Power - 1490 MW Slag Cement - 0.2 MTPA	Plant Capacity Crude Steel - 5.0 MTPA	Plant Capacity Slag Cement - 6 MTPA Slag Cement Plant (4.0 MTPA Existing +2.0 MTPA after EC Splitting)
23	Final Products - <ul style="list-style-type: none"> HR Coils CR Coils MG/Slabs Wire Rods Rebars 	Final Products - <ul style="list-style-type: none"> HR Coils CR Coils MG/Slabs Wire Rods Rebars 	Final Products - <ul style="list-style-type: none"> HR Coils MG Slabs 	Final Products - <ul style="list-style-type: none"> Slag based cement products

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	<ul style="list-style-type: none"> Beams Billets Slabs Slag Cement 	<ul style="list-style-type: none"> Beams Billets Slabs Slag Cement 		
24	Land Details <ul style="list-style-type: none"> Total Area - 3234.2 ha Greenbelt Area - 1068 ha <p>Note: The total area includes 60.7 ha which is sub leased to JSW CEMENT LIMITED and 205.78 ha which is sub leased to other JSW group companies located inside the complex.</p>	Land Details <ul style="list-style-type: none"> Total Area - 2630.6 ha Greenbelt Area - 870 ha <p>Note: The revised total area is excluding the following</p> <p>(i) 60.7 ha which is sub leased to JSW CEMENT LIMITED.</p> <p>(ii) 205.78 ha which is sub leased to other JSW group companies located inside the complex.</p> <p>(iii) 337.1 ha proposed to sub lease to JSW VIJAYANAGAR METALLICS LIMITED.</p>	Land Details <ul style="list-style-type: none"> Total Area - 337.1 ha Greenbelt Area - 111 ha 	Land Details <ul style="list-style-type: none"> Total Area - 60.7 ha (Existing) Greenbelt Area - 20 ha
	Co-ordinates <p>Latitudes (North) – From 15°9'21.31"N- 15°12'7.68"N</p> <p>Longitudes (East) – From 76°37'4.75" - 76°44'1.93"E</p>	Co-ordinates <p>Latitudes (North) – From 15°9'21.31"N- 15°12'7.68"N</p> <p>Longitudes (East) – From 76°37'4.75" - 76°44'1.93"E</p>	Co-ordinates <p>Latitudes (North) – From 15°10'32.84"N - 15°11'14.70"N</p> <p>Longitudes (East) – From 76°41'19.91"E - 76°42'19.85"E</p>	Co-ordinates <p>Latitudes (North) – From 15°10'17.43"N - 15°11'3.07"N</p> <p>Longitudes (East) – From 76°41'40.53"E - 76°42'11.94"E</p>
25	Raw Material <ul style="list-style-type: none"> Iron ore fines - 2,43,87,500 Iron ore lumps - 14,10,000 Coking coal - 1,08,00,000 COREX coal - 11,20,000 PCI coal - 33,14,000 Anthracite coal - 4,30,000 Limestone LCP - 45,17,623 Limestone Agg - 958236 	Raw Material <ul style="list-style-type: none"> Iron ore fines - 2,43,87,500 Iron ore lumps - 10,27,500 Coking coal - 1,08,00,000 COREX coal - 11,20,000 PCI coal - 26,39,000 Anthracite coal - 4,30,000 Limestone LCP - 34,57,511 Limestone Agg - 9,58,236 	Raw Material <ul style="list-style-type: none"> Iron ore lumps - 3,82,500 PCI coal - 6,75,000 Lime/dolo stone LCP - 14,25,019 Dolomite Agg - 2,58,492 Ind Dolomite - 1,01,080 Ind. quartz - 22,357 	Raw Material <ul style="list-style-type: none"> Slag - 49,62,889 Dry Fly Ash - 80,000 Clinker - 11,37,004 Gypsum - 69,752 Coal - 62,000

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	<ul style="list-style-type: none"> Dolomite Agg - 7,28,347 Ind. limestone - 34336 Ind. dolomite - 11,15,426 Dolomite LCP - 1877987 Ind. quartz - 7,46,953 Bentonite - 1,00,000 Thermal Coal - 47,50,000 	<ul style="list-style-type: none"> Dolomite Agg - 4,69,855 Ind. limestone - 34,336 Ind. dolomite - 10,14,346 Dolomite LCP - 15,13,081 Ind. quartz - 7,24,596 Bentonite - 1,00,000 Thermal Coal - 47,50,000 	<ul style="list-style-type: none"> Beneficiated Iron ore fines - 15,27,715 Pellet - 51,67,500 Coke - 15,75,000 Coke breeze - 1,27,061 Purchased scrap - 3,00,000 Purchased Slabs - 2,66,327 	
25(a)	Raw Material Interdependence	Raw Material Interdependence JSWSL Procures Raw material for both JSWSL and JVML, for making Steel. <ul style="list-style-type: none"> The beneficiation is done inside the Beneficiation plant of JSWSL and is transferred to JVML The material transfer from JSWSL to JVML is through either Conveyors/ Wagons. The conveyors/ Wagons are managed and owned by JSWSL. 	Raw Material Interdependence <ul style="list-style-type: none"> The Materials required for preparation of Steel is sourced from JSWSL. JVML has resource sharing agreement with JSWSL 	Raw Material Interdependence <ul style="list-style-type: none"> JSWCL procures the raw material like Clinker & Gypsum from outside for Cement making. The BF Granulated slag and fine coal is sourced from JSWSL and transportation is through wagons/Bulkers SWCL has resource sharing agreement
26	Water Requirement : Total -3,01,000 m ³ /day ISP – 144,465 m ³ /day	Water Requirement : Total - 2,78,076 m ³ /day ISP - 1,21,541 m ³ /day	Water Requirement : JVML- 22,824 m ³ /day	Water Requirement : JSWCL-100 m ³ /day
27	Power Requirement : 1434 MW	Power Requirement : 1186 MW	Power Requirement : 235 MW	Power Requirement : 13 MW (Additional)
28	Fuel Requirement <ul style="list-style-type: none"> Coke Oven gas (COG) – 347 K Nm³/hr BF Gas (BFG) – 2740 K Nm³/hr 	Fuel Requirement <ul style="list-style-type: none"> Coke Oven gas (COG) – 279 K Nm³/hr 	Fuel Requirement <ul style="list-style-type: none"> Coke Oven gas (COG) – 68 K Nm³/hr 	Nil

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	<ul style="list-style-type: none"> COREX Gas – 315 K Nm³/hr DRI Gas – 200 K Nm³/hr LD Gas – 184 K Nm³/hr 	<ul style="list-style-type: none"> BF Gas (BFG) – 1914 K Nm³/hr COREX Gas – 315 K Nm³/hr DRI Gas – 200 K Nm³/hr LD Gas – 128 K Nm³/hr 	<ul style="list-style-type: none"> BF Gas (BFG) – 826 K Nm³/hr LD Gas – 56 K Nm³/hr 	
29	Total Pollutant Load a) Stack emission <ul style="list-style-type: none"> PM – 774.5 g/s PM2.5 – 240.6 g/s SO₂ – 1912.8 g/s NO_x – 1689.8 g/s b) Fugitive Emission PM10 – 1.787 g/s PM2.5 – 0.7 g/s b) Transport PM10 – 1 g/s	Pollutant Load a) Stack emission <ul style="list-style-type: none"> PM – 676.3 g/s PM2.5 – 181.3 g/s SO₂ – 1817.4 g/s NO_x – 1610.5 g/s b) Fugitive Emission PM10 – 1.787 g/s PM2.5 – 0.7 g/s b) Transport PM10 – 1 g/s	Pollutant Load a) Stack emission <ul style="list-style-type: none"> PM – 96.6 g/s PM2.5 – 58.6 g/s SO₂ – 95.5 g/s NO_x – 79.3 g/s b) Fugitive Emission All the raw materials are being handled by JSWSL b) Transport All the raw materials are being handled by JSWSL	Pollutant Load a) Stack emission <ul style="list-style-type: none"> PM – 6.5 (Existing) g/s + 1.6 (New) g/s b) Fugitive Emission Covered shed are used b) Transport Insignificant
29(a)	Air pollution control Devices <ul style="list-style-type: none"> Bag filter-78 ESP -12 Scrubber-31 Dispersion stacks- 37 	Air pollution control Devices <ul style="list-style-type: none"> Bag filter-69 ESP -11 Scrubber-30 Dispersion stacks-33 	Air pollution control Devices <ul style="list-style-type: none"> Bag filter-8 ESP -1 Scrubber-1 Dispersion stacks-4 	Air pollution control Devices <ul style="list-style-type: none"> Bag filter-1 ESP -0 Scrubber-0 Dispersion stacks-0
Environmental Management Plan				
30	Air Pollution Control Measures <ul style="list-style-type: none"> Design limit for dust emission from RMHS bag filters < 30 mg/nm³ 	Air Pollution Control Measures <ul style="list-style-type: none"> Design limit for dust emission from bag filters < 30 mg/nm³ 	Air Pollution Control Measures <ul style="list-style-type: none"> Design limit for dust emission from 	Air Pollution Control Measures <ul style="list-style-type: none"> Bag Filter based Dust Extraction systems

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	<ul style="list-style-type: none"> Additional high-performance bag filters in all sinter plants, with emission limit of < 10 mg/nm³ High efficiency ESPs along with bag filters in pellet plant to limit dust to < 10 mg/nm³ Charging emission control by SOPRECO Emission reduction via MEROS in Sinter Plant Dry fogging and bag filter based Dust Extraction system in material handling Charging and pushing Emission control in coke ovens Low NO_x stage combustion burners 	<ul style="list-style-type: none"> Additional high-performance bag filters in all sinter plants, with emission limit of < 10 mg/nm³ High efficiency ESPs along with bag filters in pellet plant to limit dust to < 10 mg/nm³ Charging emission control by SOPRECO Emission reduction via MEROS in Sinter Plant Dry fogging and bag filter based Dust Extraction system in material handling Charging and pushing Emission control in coke ovens Low NO_x stage combustion burners in under-firing Low NO_x stage combustion burners in HSM 	<ul style="list-style-type: none"> bag filters < 30 mg/nm³ Emission reduction via high performance ESP in Sinter Plant. PM emission <10mg/Nm³ Dry fogging and bag filter based Dust Extraction system in material handling Waste gas recycling for energy efficiency improvement. Dog house for primary extraction and Secondary dedusting system with bag filters Low NO_x stage combustion burners in HSM 	
31	Noise Pollution Control Measures <ul style="list-style-type: none"> Plugging leakages in high-pressure gas/air pipelines. Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps. Design of absorber system for the shift office and pulpit operator's cabin. Noise absorber systems in pump houses. 	Noise Pollution Control Measures <ul style="list-style-type: none"> Plugging leakages in high-pressure gas/air pipelines. Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps. Design of absorber system for the shift office and pulpit operator's cabin. Noise absorber systems in pump houses. 	Noise Pollution Control Measures <ul style="list-style-type: none"> Plugging leakages in high-pressure gas/air pipelines. Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps. 	Noise Pollution Control Measures <ul style="list-style-type: none"> Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps. Noise level at 1m from equipment will be limited to 85 dB (A). The fans and ductwork will be designed for minimum vibration.

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	<ul style="list-style-type: none"> Noise level at 1m from equipment will be limited to 85 dB (A). The fans and ductwork will be designed for minimum vibration. All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). Periodical monitoring of work zone noise and outside plant premises. Un-manned high noise zone will be marked as "High Noise Zone". In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. Workers exposed to noisy work place shall be provided with rotational duties. All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty. 	<ul style="list-style-type: none"> Noise level at 1m from equipment will be limited to 85 dB (A). The fans and ductwork will be designed for minimum vibration. All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). Periodical monitoring of work zone noise and outside plant premises. Un-manned high noise zone will be marked as "High Noise Zone". In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. Workers exposed to noisy work place shall be provided with rotational duties. All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty. 	<ul style="list-style-type: none"> Design of absorber system for the shift office and pulpit operator's cabin. Noise absorber systems in pump houses. Noise level at 1m from equipment will be limited to 85 dB (A). The fans and ductwork will be designed for minimum vibration. All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). Periodical monitoring of work zone noise and outside plant premises. Un-manned high noise zone will be marked as "High Noise Zone". In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. 	<ul style="list-style-type: none"> All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). Periodical monitoring of work zone noise and outside plant premises. Un-manned high noise zone will be marked as "High Noise Zone". In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. Workers exposed to noisy work place shall be provided with rotational duties. All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
			<ul style="list-style-type: none"> Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. Workers exposed to noisy work place shall be provided with rotational duties. All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty. 	
32	Effluents Generation And Management Measures <ul style="list-style-type: none"> Zero Liquid Discharge outside plant boundary Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the CETP for further treatment and reuse as make-up water. 	Effluents Generation And Management Measures <ul style="list-style-type: none"> Zero Liquid Discharge outside plant boundary Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the 	Effluents Generation And Management Measures <ul style="list-style-type: none"> Zero Liquid Discharge outside plant boundary Cooling tower blow downs would be taken to the CETP for further treatment and reuse as make-up water. Waste Water generated in Wet GCP, CCM and 	Effluents Generation And Management Measures <ul style="list-style-type: none"> Zero Liquid Discharge outside plant boundary Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level.

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	<ul style="list-style-type: none"> Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level. 	<p>CETP for further treatment and reuse as make-up water.</p> <ul style="list-style-type: none"> Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level. 	<p>HSM will be treated in dedicated Effluent Treatment Plants and treated water will be recycled back in plant process.</p> <ul style="list-style-type: none"> Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level. 	
32(a)	Water treating facilities <ul style="list-style-type: none"> ETP-11 STP-7 	Water treating facilities <ul style="list-style-type: none"> ETP-9 STP-5 	Water treating facilities <ul style="list-style-type: none"> ETP-2 STP-1 	Water treating facilities <ul style="list-style-type: none"> ETP-0 STP-1
33	Solid and Hazardous Wastes Management Measures <ul style="list-style-type: none"> All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. BF/BOF Slag shall be utilized in house or sold to cement manufacturers or used for road construction. Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge. All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for 	Solid and Hazardous Wastes Management Measures <ul style="list-style-type: none"> All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. BF/BOF Slag shall be utilized in house or sold to cement manufacturers or used for road construction. Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge. All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers 	Solid and Hazardous Wastes Management Measures <ul style="list-style-type: none"> All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. BF/BOF Slag shall be utilized in house or sold to cement manufacturers or used for road construction. All other hazardous 	Solid and Hazardous Wastes Management Measures <ul style="list-style-type: none"> All non-hazardous solid wastes shall be utilized inhouse. All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms.

SN	JSWSL at 18 MTPA	JSWSL at 13 MTPA	JVML at 5 MTPA	JSWCL
	Facility / activity granted Prior EC along with configuration and capacity of parent EC (E.g.: Configuration, Capacity, Area, Raw Materials, etc.)	Facility / activity granted Prior EC proposed to transfer to JSWSL along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JVML along with configuration and capacity	Facility / activity granted Prior EC proposed to transfer to JSWCL along with configuration and capacity
	disposal as per statutory norms.	for disposal as per statutory norms.	wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms.	

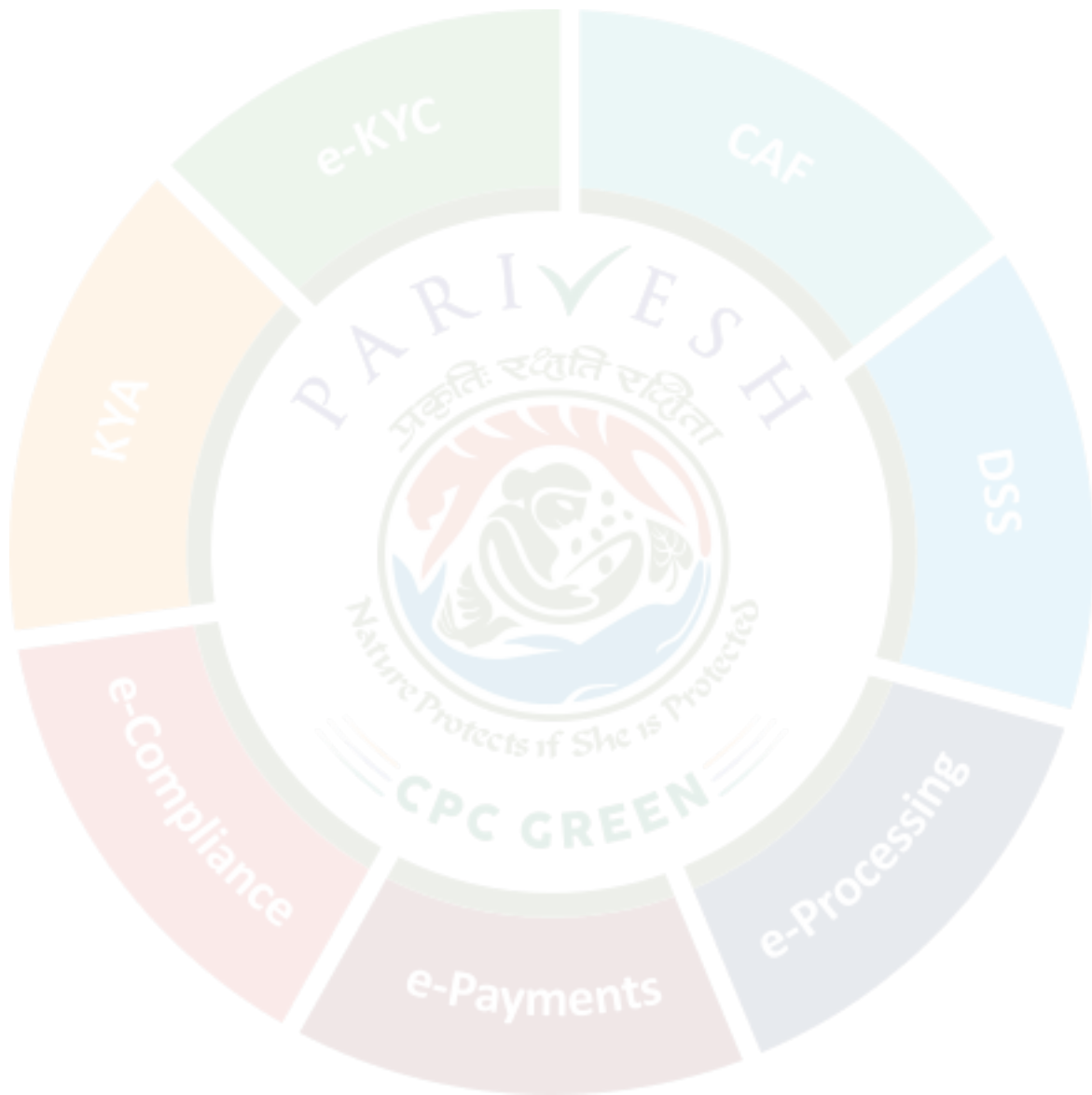
II. Environmental Liability Matrix

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
1. Compliance Obligations				
1.	EC Compliance	Timely submission of Compliance to EC Conditions for the 13 MTPA Plant shall be the responsibility of JSWSL	Timely submission of Compliance to EC Conditions for the proposed 5 MTPA Plant shall be the responsibility of JVML	Timely submission of Compliance to EC Conditions for the existing 4 MTPA Cement plant along with the proposed 2 MTPA Unit shall be the responsibility of JSWCL
2.	CTE Compliance	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
3.	CTO Compliance	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
4.	Compliance to Hazardous waste mgmt. rules	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
5.	Compliance to Plastic waste mgmt. rules	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
6.	Compliance to E waste mgmt. rules	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
7.	Compliance to Bio medical mgmt. rules	Applicable for Medical wastes of JSW Sanjeevani Hospital and in plant Health Centres	Applicable for Medical wastes of and in plant Health Centres	Applicable for Medical wastes of and in plant Health Centres
2. Remediation/Mitigation obligations				
8.	EMP Measures	CAPEX and OPEX expenditure towards implementation of EMP Measures for	CAPEX and OPEX expenditure towards implementation of EMP Measures for	CAPEX and OPEX expenditure towards implementation of EMP Measures for

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
		the 13 MTPA Steel Plant shall be the responsibility of JSWSL	the proposed 5 MTPA Steel Plant shall be the responsibility of JVML	the proposed expanded 6 MTPA Cement Plant shall be the responsibility of JSWCL
9.	Greenbelt Development	Development of minimum 33% of GB of the total project area of 7149 Acres shall be the responsibility of JSWSL	Development of minimum 33% of GB of the total project area of 833 Acres shall be the responsibility of JVML	Development of minimum 33% of GB of the total project area of 150 Acres shall be the responsibility of JSWCL
10	Remediation Plan (If Applicable)	In case of Violation of EC for the 13 MTPA Steel Plant, Expenditure towards mitigative measures for the Remediation Plan shall be the responsibility of JSWSL	In case of Violation of EC for the proposed 5 MTPA Steel Plant, Expenditure towards mitigative measures for the Remediation Plan shall be the responsibility of JVML	In case of Violation of EC for the proposed expanded 6 MTPA Cement Plant, Expenditure towards mitigative measures for the Remediation Plan shall be the responsibility of JSWCL
11	Natural and Community Resource Augmentation Plan (if applicable)	In case of Violation of EC for the 13 MTPA Steel Plant, Expenditure towards mitigative measures for the Natural and Community Resource Augmentation Plan shall be the responsibility of JSWSL	In case of Violation of EC for the proposed 5 MTPA Steel Plant, Expenditure towards mitigative measures for the Natural and Community Resource Augmentation Plan shall be the responsibility of JVML	In case of Violation of EC for the proposed expanded 6 MTPA Cement Plant, Expenditure towards mitigative measures for the Natural and Community Resource Augmentation Plan shall be the responsibility of JSWCL
3. Fines and penalties				
12	Liability towards reply to Show cause Notices	In case of issuance of Show Cause Notice regarding any Environmental Issues related to the 13 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of Show Cause Notice regarding any Environmental Issues related to the proposed 5 MTPA Steel Plant, JVML shall be liable.	In case of issuance of Show Cause Notice regarding any Environmental Issues related to the proposed expanded 6 MTPA Cement Plant, JSWCL shall be liable.
13	Directions issued by CPCB SPCB	In case of issuance of Directions under The Water	In case of issuance of Directions under The Water	In case of issuance of Directions under The Water

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
		(Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 or The Environment (Protection) Act, 1986 related to the 13 MTPA Steel Plant, JSWSL shall be liable.	(Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 or The Environment (Protection) Act, 1986 related to the proposed 5 MTPA Steel Plant, JVML shall be liable.	(Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 or The Environment (Protection) Act, 1986 related to the proposed expanded 6 MTPA Cement Plant, JSWCL shall be liable.
14	Penalty due to EIA Violation	In case of violation of EIA Notification, 2006 by the 13 MTPA Steel Plant, payment towards any penalty as applicable shall be the responsibility of JSWSL	In case of violation of EIA Notification, 2006 by the proposed 5 MTPA Steel Plant, payment towards any penalty as applicable shall be the responsibility of JVML	In case of violation of EIA Notification, 2006 by the proposed expanded 6 MTPA Cement Plant, payment towards any penalty as applicable shall be the responsibility of JSWCL
15	Penalty due to failure in Compliance to Directions	In case of failure in Compliance to Directions by the 13 MTPA Steel Plant, payment towards any penalty or any other punishment as applicable shall be the responsibility of JSWSL	In case of failure in Compliance to Directions by the proposed 5 MTPA Steel Plant, payment towards any penalty or any other punishment as applicable shall be the responsibility of JVML	In case of failure in Compliance to Directions by the proposed expanded 6 MTPA Cement Plant, payment towards any penalty or any other punishment as applicable shall be the responsibility of JSWCL
4. Compensation obligations/Punitive Damages				
16	Due to Fines & Penalties	In case of issuance of any Fines or Penalties to the 13 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of any Fines or Penalties to the proposed 5 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of any Fines or Penalties to the proposed expanded 6 MTPA Cement Plant, JSWSL shall be liable.
5. Rehabilitation Obligations				
17	R&R (If applicable)	Applicable in case of any future expansion of the project area	Not Applicable	Not Applicable

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
		involving R&R		



EC conditions compliance matrix (Specific and General EC conditions) after splitting

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
A. Specific Conditions		
i.	Green belt shall be developed in an area of 1068 ha all along the periphery of the project site by September, 2024 as committed with a tree density of 2500 trees per hectare.	<p>Revised EC Condition - Green belt shall be developed in 33% (870 ha) of the revised plant area (2630.66 ha) all along the periphery of the project site by September 2024 with a tree density of 2500 trees per hectare.</p> <p>Compliance: In the revised plant area, the present GB cover is 799.78 ha (30.4 %). Remaining GB area shall be developed by September 2024. In addition to above, JSW executed MoU's with Karnataka Forest department total amounting to Rs 10.0 crores towards development of greenbelt in and around Toranagallu Revenue Forest area, Daroji Reserve forest area and development of public park at Ballari. The greenbelt development work at SASAN VAN has also been initiated.</p> <p>Remarks: Additionally, there are 10 no of other JSW Group companies located within the plant boundary with a total area of 205.78 ha. All the companies have developed minimum 33% (Total – 66.7 ha) of their respective plant areas under green cover, However as a principal lessor JSWSL will be held responsible for the development of greenbelt over an area of 66.7 ha.</p>
ii.	Project proponent shall install covered sheds for coal storage in an area of 32325 sqm by June 2022 as committed.	<p>Revised EC Condition - Project proponent shall install covered sheds for coal storage in an area of 32325 sqm by 30-06-2024.</p> <p>Compliance: Presently the coal stock piles are covered with tarpaulin sheets for immediate control. Design of Cover sheds has been completed. Windshields of 0.8 are also provided all around the coal yards. The installation of covered sheds in ongoing and shall be completed by 30.06.2024.</p> <p>Remarks: None</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
iii.	84 km long pipe conveyor shall be installed by 31/03/2024 as committed.	<p>Revised EC Condition - 84 km long pipe conveyor shall be installed by 31/03/2028 as committed.</p> <p>Compliance: 37.5 KM* length of Pipe conveyor having 25 MTPA capacity is under operation.</p> <p>Remarks: 84 km Pipe Conveyor shall be installed by JSWSL and utilized for transportation of Iron ore from nearby mines both for JSWSL and JVML Plant operations. Further, the pipe conveyor is facing delay in statutory approvals i.e. forest clearance and right of way are at various stages.</p>
iv.	Ambient air quality shall be improved by adopting measures like pipe conveyor, use of by product gas in place of coal and covered shed. Noise levels shall be controlled by decrease in truck traffic after completion of the pipe conveyor.	<p>Revised EC Condition - Ambient air quality shall be improved by adopting measures like pipe conveyor, use of by product gas in place of coal and covered shed. Noise levels shall be controlled by decrease in truck traffic after completion of the pipe conveyor.</p> <p>Compliance: To improve the ambient air quality the following measures have been implemented by project proponent</p> <ol style="list-style-type: none"> Implemented the 25 MTPA capacity pipe conveyor of 37.5km length, which is operational. By product gases like BF gas, COREX Gas, Coke oven gases are used as fuel in the process (Blast furnace stove, under firing of coke oven batteries, reheating furnace etc) and also for power generation, thereby reducing the significant coal consumption. Coal heaps are covered with tarpaulin sheets and 0.8km length wind curtain walls are developed around the stock yard. <p>Remarks: Presently the coal stock piles are covered with tarpaulin sheets for immediate control. Design of Cover sheds has been completed. Windshields of 0.8 are also provided all around the coal yards. The installation of covered sheds in ongoing and shall be completed by 30.06.2024.</p>
v.	Environment Clearance for the township project shall be obtained from the concerned competent authority.	Revised EC Condition - Environment Clearance for the new township project shall be obtained from the concerned competent authority.

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
		<p>Compliance: Project proponent are in the process of obtaining the environmental clearance for the township of 500 dwellings for labour colony.</p> <p>Remarks: None</p>
vi.	PP shall control rooftop emissions from SMS 1 &2 shall be eliminated by 31/03/2022 and that from SMS 2 by installation of primary De-dusting system by 31/10/2022 as committed.	<p>Revised EC Condition – PP shall ensure Control of rooftop emissions from SMS 1 &2 and Install primary De-dusting system in SMS 2 by 31/03/2025.</p> <p>Compliance: In SMS-1 Augmentation of Primary and Secondary dedusting system is completed. In SMS-2 Augmentation of Secondary dedusting system is completed. Mill scale briquettes are being used as a coolant instead of Iron ore fines in SMS-1 & 2 Convertors for significant reduction in emissions. Gas cleaning Assistant for dedusting is completed. For Augmentation of Primary dedusting system in SMS-2, all Equipment's and spares have been received and installation is under progress and will be completed by March 2025.</p> <p>Remarks: SMS-2 has 4 Convertors, The Shutdown of SMS-2 converters are being taken one after other and the shutdown of each converter is of 3 months. The parts have been received at site, and the work is already under progress. This will be completed by March 2025.</p>
vii.	Junction houses in raw material handling area requiring repair and overhauling to control fugitive emissions shall be modified by March 2022.	<p>Revised EC Condition – PP shall ensure regular monitoring and maintenance of Junction houses in raw material handling area to control fugitive emissions.</p> <p>Compliance: Repair and overhauling of 5 no's junction houses are completed on 31/03/2022. The junction houses are being maintained periodically so that fugitive emissions are under control.</p> <p>Remarks: None</p>
viii.	Desulfurization of Coke Oven Gas, use of low Sulphur coal, Flue Gas Desulphurization in captive power plant shall be adopted to control SO ₂ emissions.	<p>Revised EC Condition - Desulfurization of Coke Oven Gas, use of low Sulphur coal, Flue Gas Desulphurization in captive power plant shall be adopted to control SO₂ emissions.</p> <p>Compliance: De-sulfurization of coke oven gas was implemented in coke oven 3&4. Similarly, the system is being implemented in coke oven 5. Imported Australian coal having low sulphur content about 0.5 to 0.6% is being utilized. In CPP 3&4, BF/Mixed gas from steel plant will be utilized by 2027. Further, cleaned by-product waste gases like</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL) BF gas, BOF gas, COREX gas etc are being utilized as fuel which has less sulphur content of 0.5 to 0.6% as compared to fossil fuels. Desulphurisation of coke oven gas will also be implemented in Coke Oven 5. Remarks: None
ix.	Project proponent shall install 2 additional Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in addition to already installed 4 CAAQMS.	Revised EC Condition - Project proponent shall install 6 Continuous Ambient Air Quality Monitoring Stations (CAAQMS). Compliance: Six nos. of CAAQMS stations have been already installed, CAAQMS-1 at Vidyanagar, CAAQMS-2 at Vaddu village, CAAQMS-3 at Shankar hill town, CAAQMS-4 at 10 MTPA gate, CAAQMS-5 at Sultanpur and CAAQMS-6 more at VV Nagar township. Remarks: None.
x.	Following Cleaner technologies shall be adopted by PP as committed: a) MEROS in Sinter plants to control emissions b) Sinter cooler waste heat recovery to generate power c) Dry gas cleaning in BF and BOF converters d) TRT and Stove waste gas heat recovery system in BF e) Secondary Fume Extraction system in BOF with dog houses f) Independent FE for LRF. g) Pipe conveyor to transport iron ore from various mines h) 3.5 km wind curtains in coal yard i) WHRB for EAF waste heat recovery j) Installation of Zero Power Furnace. k) CO2 injection for pH control in SMS. l) Single oven pressure control in Coke Ovens to control	Revised EC Condition - Following Cleaner technologies shall be adopted by PP as committed: a) MEROS in Sinter plants to control emissions b) Sinter cooler waste heat recovery to generate power/steam c) TRT and Stove waste gas heat recovery system in BF d) Secondary Fume Extraction system in BOF with dog houses e) Pipe conveyor to transport iron ore from various mines f) 3.5 km wind curtains in coal yard g) WHRB for ZPF waste heat recovery h) Installation of Zero Power Furnace. i) CO2 injection for pH control in SMS. j) Single oven pressure control in Coke Ovens to control Charging Emissions along with CGT car and HPLA Compliance: a. In Sinter Plants, stipulated emission norm of 50 mg/Nm ³ is being complied at present. In order to further reduce emissions, measures like MEROS and high efficiency Bag filters are being implemented. MEROS system has already been installed in SP4 and High efficiency Bag filters

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
	Charging Emissions along with CGT car and HPLA system.	<p>Parent Company (JSWSL)</p> <p>are provided in SP1 & SP2. Further, Installation of High efficiency Bag Filter in SP 3 plant is under progress and shall be completed by September 2024.</p> <p>b. Sinter cooler waste heat recovery system have been provided in existing SP-2, SP-3 & SP-4.</p> <p>c. TRT and stove waste gas recovery have been provided in existing BF1-4.</p> <p>d. Secondary de-dusting system has been installed in LHF of SMS1 & 2.</p> <p>e. 37.5 km length of Pipe conveyor having 25 MTPA capacity is under operation.</p> <p>f. Wind curtain has been installed in coal yard and Iron ore yards of length 3.5 km.</p> <p>g. Installed EAF in SMS3 has been provided with WHRB for waste recovery.</p> <p>h. ZPF has been installed in SMS3.</p> <p>i. CO₂ injection system has been installed in SMS-1 & 2 Thickeners.</p> <p>j. Dedusting cars have been provided in all Coke Oven batteries to control charging emissions. Single oven pressure control system is provided in two batteries of Coke Oven 3 & 4, to control charging emissions. In balance 6 batteries it will be implemented in phase wise by 31.03.2025. In CO5, two batteries are operational and are equipped with HPALA (High pressure Ammonia liquor Aspiration system with CGT Charging gas transfer car). The remaining two batteries will be equipped with the same system along with the project.</p> <p>Remarks:</p> <ul style="list-style-type: none"> • Dry GCP shall be provided in SMS-4 of JVML. • FES with dog house system shall be provided in BOF of SMS-4 of JVML. • Independent FES for LRF of SMS4 of JVML. • The Zero Power Furnace being installed in place of EAF shall be provided with WHRS.
xi.	100% solid waste utilization by means of following state-of-the-art technologies for recovery and recycling various wastes generated within the plant	Revised EC Condition - 100% solid waste utilization by means of following state-of-the-art technologies for recovery and recycling various wastes generated within the plant premises shall be adopted.

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
	<p>premises shall be adopted.</p> <ol style="list-style-type: none"> Slag sand plant for surplus granulated BF slag Micro-pellet plant (2050 TPD) for the dust & sludge collected from air and water pollution control equipment. Mill scale briquetting plant (600 TPD) for high Fe containing sludge & dust from Mills. Waste-to-wealth plant (600 TPD) for the Dust & sludge of low Fe values through beneficiation Steam Box technology for SMS slag ageing to make it suitable for use as aggregate in road making. Slag sand plant (17000 TPD) is proposed for converting steel slag to sand for sale. LHF slag briquetting plant (300 TPD) for production of briquettes to replace imported synthetic slag. Powder steel slag fines for use in land reclamation and soil conditioning Carbon recovery plant - Carbon recovery shall be done from BF dust, BF GCP slurry and COREX Furnace GCP slurry recycled back into pellet plant 	Parent Company (JSWSL)
		<ol style="list-style-type: none"> Slag sand plant for surplus granulated BF slag Micro-pellet plant (2050 TPD) for the dust & sludge collected from air and water pollution control equipment. Mill scale briquetting plant (600 TPD) for high Fe containing sludge & dust from Mills. Waste-to-wealth plant (600 TPD) for the Dust & sludge of low Fe values through beneficiation Steam Box technology for SMS slag ageing to make it suitable for use as aggregate in road making. Slag sand plant (17000 TPD) is proposed for converting steel slag to sand for sale. LHF slag briquetting plant (300 TPD) for production of briquettes to replace imported synthetic slag Powder steel slag fines for use in land reclamation and soil conditioning Carbon recovery plant - Carbon recovery shall be done from BF dust, BF GCP slurry and COREX Furnace GCP slurry recycled back into utilization. <p>Compliance: 100 % of solid wastes generated in the plant are being utilized through various state-of-the-art technologies micro pelleting, Mill scale briquetting, waste to wealth plant, artificial sand etc.</p> <ol style="list-style-type: none"> 1x40 TPH & 2x 125 TPH slag sand plant has been installed. Further complete granulation units will be implemented along with projects. Micro Pellet Plant of 2050 TPD has been installed and is in operation. Mill Scale Briquetting (MSB) plant of 600 TPD has been installed for utilizing high iron containing dust & sludge from mills. Waste to Wealth (WTW) plant of 600 TPD has been installed for utilizing dust, sludge of low iron value. R&D studies have been conducted on a 100 TPD pilot plant for Steam Box Technology. It has been concluded that BOF slag to sand plant is the better suited for the existing plant. Accordingly, a 100 TPD BOF steel to slag plant has been installed and is in operation.

Sl. No	EC Conditions vide letter dated 29/11/2021	<p>Revised EC Condition after Proposed Partial Transfer of EC</p> <p>Parent Company (JSWSL)</p>
		<p>vi. A 17000 TPD BOF steel to slag plant is installed. Trial and commissioning of the plant is in progress.</p> <p>vii. A 300 TPD LFH slag Briquetting plant has been installed and is in operation.</p> <p>viii. The powdered steel slag generated from the BOF steel to slag plant will be used for cement making in JSW cement unit.</p> <p>ix. A 500 TPD carbon recovery plant has been installed and is in operation.</p> <p>Remarks: None</p>
kii.	<p>The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC</p>	<p>Revised EC Condition - The recommendations of the approved Integrated Site-Specific Wild life Conservation Plan/ Wildlife Management Plan for revising schedule-I species and the plan covering JSW complex area and shall implement in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.</p> <p>Compliance: JSWSL has already been contributed towards implementation of the wild life management plan prepared by the Karnataka State Forest Department. The status report is regularly sent to RO MoEF&CC along with six monthly EC compliance report.</p> <p>Remarks: None</p>
i.	<p>The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project</p>	<p>Revised EC Condition - The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project</p> <p>Compliance: Noted and agreed</p> <p>Remarks: None</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
Parent Company (JSWSL)		
i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	<p>Revised EC Condition - The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 06 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.</p> <p>Compliance: JSWSL has already installed 6 Continuous Ambient Air Quality Monitoring Stations (CAAQMS), Six nos. of CAAQMS stations have been already installed, CAAQMS-1 at Vidyanagar, CAAQMS-2 at Vaddu village, CAAQMS-3 at Shankar hill town, CAAQMS-4 at 10 MTPA gate, CAAQMS-5 at Sultanpur and CAAQMS-6 more at VV nagar township. Additionally, 71 no's CEMS have been installed. All the CAAQMS & CEMS are connected to CPCB & KSPCB servers.</p> <p>Remarks: None</p>
ii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories	<p>Revised EC Condition - The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.</p> <p>Compliance: Fugitive emissions are being regularly monitored through NABL accredited laboratory.</p> <p>a) Fugitive Emission</p> <ul style="list-style-type: none"> • PM10 – 1.787 g/s • PM2.5 – 0.7 g/s <p>Remarks: None</p>
iii.	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB	Revised EC Condition - Sampling facility at process stacks and at quenching towers shall be

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	guidelines for manual monitoring of emissions	provided as per CPCB guidelines for manual monitoring of emissions. Compliance: Noted and agreed. Sampling facilities are provided as per CPCB guideline. Remarks: None
iv.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards	Revised EC Condition - Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards. Compliance: Following APC system have been provided- <ul style="list-style-type: none"> • Bag filter – 250 Nos (Process Bag filters- 69 Nos) • Scrubber/cyclone – 30 Nos • ESP – 11 Nos • Dust suppression system – 180 Nos • Wind curtain – 3.5 km length in iron ore yard. Stack emission & fugitive emissions are being maintained within standard limits Remarks: None
v.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags	Revised EC Condition - The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags. Compliance: Noted and being complied. Remarks: None
vi.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly	Revised EC Condition - Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly. Compliance: Noted and being complied, There are 10 Nos of vacuum cleaners deployed at JSWSL for fugitive emission control. Remarks: None

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
vii.	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/agglomeration.	<p>Revised EC Condition - 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.</p> <p>Compliance: Noted and being complied. Iron ore fines, Coal and coke fines, lime fines and such other fines are used Micro-pelletizing, Mill scale briquetting, waste to wealth plant, artificial sand etc.</p> <p>Remarks: None</p>
iii.	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin	<p>Revised EC Condition - The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.</p> <p>Compliance: Noted and being complied. Tarpaulin covers are provided to coal & iron ore trucks.</p> <p>Remarks: None</p>
ix.	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).	<p>Revised EC Condition - Facilities for spillage collection shall be maintained, monitored for the effectiveness for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility)</p> <p>Compliance: Necessary facilities for spillage collection have been provided they are being monitored for effectiveness for coal and coke on wharf of Coke oven batteries(Chain Conveyors, Land based industrial cleaning facility).</p> <p>Remarks: None</p>
x.	Land-based APC system shall be installed to control coke pushing emissions	<p>Revised EC Condition - Land-based APC system shall be installed to control coke pushing emissions.</p> <p>Compliance: Noted and being complied. 2 no ground based de-dusting system have been provided for Coke 3 & 4.</p> <p>Remarks: None</p>
xi.	Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and	<p>Revised EC Condition - Monitor CO, HC and O2 in flue gases of the coke oven battery to detect</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	cross leakages in the combustion chamber.	combustion efficiency and cross leakages in the combustion chamber. Compliance: Noted and being complied. The flue gas is being analysed using portable flue gas analyser. Remarks: None
xii.	Vapor absorption system shall be provided in place of vapor compression system for cooling of coke oven gas in case of recovery type coke ovens.	Revised EC Condition - Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens. Compliance: Noted and being complied. Vapour absorption system have been provided in coke oven 3,4 & 5. Remarks: None
iii.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Revised EC Condition - Wind shelter fence and chemical spraying shall be provided on the raw material stock piles. Compliance: Noted and being complied. A wind curtain wall of 3.5 km length has been provided in iron ore yard and in coal yard. Further, chemical spraying system has been provided for stock piles. Remarks: None
iv.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars	Revised EC Condition - Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars. Compliance: Ventilation system shall be provided with adequate air changes as per the prevailing norms for all tunnels, motor houses and oil cellars. Remarks: None
i.	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and	Revised EC Condition - The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) 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

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	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.	(Protection) Act, 1986 or NABL accredited laboratories. Compliance: Noted and being complied. 6 no of online effluent quality monitoring systems have been provided in the existing plant which are also connected to CPCB & KSPCB. The equipment are calibrated periodically as per CPCB standard. Remarks: None
ii.	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Revised EC Condition - The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories. Compliance: Noted and being complied. The environmental quality of ground water is being monitored through MoEF&CC accredited laboratory M/s Eco green solutions and reports are being submitted regularly. Remarks: None
iii.	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 4 14 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 201 5 (Thermal Power Plants) as amended from time to time as amended from time to time;	Revised EC Condition - The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 4 14 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 201 5 (Thermal Power Plants) as amended from time to time as amended from time to time; Compliance: Noted and being complied. BOD plants and ZLD systems have been installed to treat the coke oven plant effluents. • JSWSL at 13 MTPA shall operate 9 ETPs to treat effluent of different characteristics of various units: ETP-1 at Hot strip mill, ETP-2 at Coke oven 3 & 4, ETP-3 at Direct reduced iron plant, ETP-4 at Cold rolled mill-1, ETP-5 at Cold rolled mill-2, ETP-6 at Bar rod mill, ETP-7 at Wire rod mill, ETP-8 at captive power plant, ETP-9 at Coke oven 5.

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
		<p>• 5 STPs at, 1 at Vidyanagar, 1 VV nagar, 1 at Shankar hill town, 1 at Hill side township and 1 at Sun rise colony.</p> <p>Remarks: None</p>
iv.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards	<p>Revised EC Condition - Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.</p> <p>Compliance: Noted and being complied, 5 (Five) nos. of STPs have been installed by JSWSL which are located 1 at Vidyanagar, 1 VV nagar, 1 at Shankar hill town, 1 at Hill side township and 1 at Sun rise colony.</p> <p>Remarks: None</p>
v.	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	<p>Revised EC Condition - Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.</p> <p>Compliance: Garland drains and collection pits have been provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.</p> <p>Remarks: None</p>
vi.	Tyre washing facilities shall be provided at the entrance of the plant gates.	<p>Revised EC Condition - Tyre washing facilities shall be maintained at the entrance of the plant gates.</p> <p>Compliance: Tyre washing facilities have been provided at the entrance of the plant gates.</p> <p>Remarks: None</p>
vii.	Treated water from ETP of COBP shall not be used for coke quenching	<p>Revised EC Condition - Treated water from ETP of COBP shall not be used for coke quenching.</p> <p>Compliance: Noted and being complied. Complete ZLD systems have been provided for coke oven 3,4 & 5 and treated water is used for quenching.</p> <p>Remarks: None</p>
viii.	Water meters shall be provided at the inlet to all unit processes in the steel plants	<p>Revised EC Condition - Water meters shall be provided at the inlet to all unit processes in the steel plants.</p> <p>Compliance: Noted and being complied. Water meters have been provided at the inlet to all unit processes in the steel plants.</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
		Remarks: None
i.	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report	<p>Revised EC Condition - Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.</p> <p>Compliance: Noted and being complied. Noise levels are being monitored regularly. The report are submitted along with six month EC compliance report regularly.</p> <p>Remarks: None</p>
i.	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.	<p>Revised EC Condition - Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.</p> <p>Compliance: Noted and being complied. Torpedo ladles have been deployed.</p> <p>Remarks: None</p>
ii.	Restrict Gas flaring to < 1%.	<p>Revised EC Condition - Restrict Gas flaring to < 1%.</p> <p>Compliance: Noted and being complied. Presently the flaring is being maintained to less than 1%.</p> <p>Remarks: None</p>
iii.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;	<p>Revised EC Condition - 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.</p> <p>Compliance: Noted and being complied. A 225 MW solar power plant has been installed. Additionally 70 KW roof top solar power generation is provided at Sanjeevani Hospital.</p> <p>Remarks: None</p>
iv.	Provide LED lights in their offices and residential areas	<p>Revised EC Condition - Provide LED lights in their offices and residential areas.</p> <p>Compliance: Noted and being complied. LED lights are being used in offices and colonies.</p> <p>Remarks: None</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
Parent Company (JSWSL)		
v.	Ensure installation of regenerative/recuperative type burners on all reheating furnaces	<p>Revised EC Condition - Ensure installation of regenerative/ recuperative type burners on all reheating furnaces.</p> <p>Compliance: Noted and being complied. Recuperative type burners have been provided in all the reheating furnaces.</p> <p>Remarks: None</p>
VI Waste management		
i.	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.	<p>Revised EC Condition - 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.</p> <p>Compliance: Noted and being complied. Oil collection pits have been provided in Mills area and collection trays are provided in CRM area.</p> <p>Remarks: None</p>
ii.	Kitchen waste shall be composted or converted to biogas for further use	<p>Revised EC Condition - Kitchen waste shall be composted or converted to biogas for further use.</p> <p>Compliance: Noted and being complied. A 1 TPD biogas plant has been installed.</p> <p>Remarks: None</p>
VII Green Belt		
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.	<p>Revised EC Condition - The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.</p> <p>Compliance: Noted and being complied. GHG emission inventory has been prepared and carbon sequestration potential of plantations has been assessed.</p> <p>Remarks: None</p>
i.	Emergency preparedness plan based on the Hazard identification and Risk	Revised EC Condition - Emergency preparedness plan based on the Hazard identification and Risk

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	Assessment (HIRA) and Disaster Management Plan shall be implemented.	Assessment (HIRA) and Disaster Management Plan shall be implemented. Compliance: Noted and being complied. An onsite emergency plan has been prepared and approved by Karnataka State Dept. of Factories & Boilers. And Management plan has been implemented. Remarks: None
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.	Revised EC Condition - 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. Compliance: Noted and being complied. The heat stress analysis of workers working in heat zone area has been conducted. Remarks: None
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained	Revised EC Condition - Occupational health surveillance of the workers shall be done on a regular basis and records maintained. Compliance: Noted and being complied. Periodical health check-ups of workers are being conducted as stipulated and records are being maintained. Remarks: None
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/20 17-IA.III dated 30/09/2020	Revised EC Condition - The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/20 17-IA.III dated 30/09/2020. Compliance: JSWSL complies to the provisions contained in this Ministry's OM vide F. No. 22-65/20 17-IA.III dated 30/09/2020. Remarks: None
ii.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/	Revised EC Condition - The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation /violation of the environmental / forest / wildlife norms / conditions

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	forest/ wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation /violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report. Compliance: JSWSL has well laid out Environmental policy, which is duly approved by the board of directors. Remarks: None
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization	Revised EC Condition - A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will report directly to the head of the organization. Compliance: Separate environmental cell both at the plant and at company head quarter level with qualified personnel have been setup under the control of senior executive. Remarks: None
X Miscellaneous		
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Revised EC Condition - The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently. Compliance: Noted, agreed and complied, JSWSL has already published in two local newspapers. Remarks: None
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal	Revised EC Condition - The copies of the environmental clearance along with salient features of the project shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	<p>offices of the Government who in turn has to display the same for 30 days from the date of receipt.</p> <p>Compliance: The copies of EC along with Salient features of the project has already been submitted to the Heads of local bodies, panchayats in addition to the relevant offices of the government.</p> <p>Remarks: None</p>
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis	<p>Revised EC Condition - The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.</p> <p>Compliance: Noted and agreed, the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website with updating the same on half-yearly basis by JSWSL.</p> <p>Remarks: None</p>
iv.	The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	<p>Revised EC Condition - The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.</p> <p>Compliance: Noted and agreed</p> <p>a) Stack Emission</p> <ul style="list-style-type: none"> • PM₁₀ – 676.3 g/s • PM_{2.5} – 181.3 g/s • SO₂ – 1817.4 g/s • NO_x – 1610.5 g/s <p>Remarks: None</p>
v.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest	<p>Revised EC Condition - The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
	and Climate Change at environment clearance portal.	<p>Compliance: Noted and agreed, JSWSL is submitting the six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.</p> <p>Remarks: None</p>
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	<p>Revised EC Condition - The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.</p> <p>Compliance: Noted and agreed, Environmental statement in Form V is being submitted every year to the SPCB.</p> <p>Remarks: None</p>
vii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	<p>Revised EC Condition - The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.</p> <p>Compliance: Noted and agreed, Date of financial closure and final approval of the project being communicated to the RO as well as Ministry.</p> <p>Remarks: None</p>
viii.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	<p>Revised EC Condition - The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and addendum to EIA report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.</p> <p>Compliance: Noted and agreed, JSWSL has already implemented all the commitments and recommendations made in the EIA/EMP report. Other commitments made before the EAC shall be complied.</p> <p>Remarks: None</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
ix.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	<p>Revised EC Condition - 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).</p> <p>Compliance: Noted and agreed, Without prior approval JSWSL will not carry out expansion or modification in the plant.</p> <p>Remarks: None</p>
x.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	<p>Revised EC Condition - Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.</p> <p>Compliance: Noted and agreed, JSWSL agrees the condition and will not conceal factual data or submission of false/ fabricated data, it also agrees that it may lead to revocation of the EC.</p> <p>Remarks: None</p>
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	<p>Revised EC Condition - The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.</p> <p>Compliance: Noted and agreed, that Ministry may revoke or suspend the clearance if implementation of any one of the above condition is not satisfactory.</p> <p>Remarks: None</p>
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	<p>Revised EC Condition - The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.</p> <p>Compliance: Noted and agreed, JSWSL will implement additional specific conditions in a time bound manner.</p> <p>Remarks: None</p>
xiii.	The RO of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports	<p>Revised EC Condition - The RO of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports.</p> <p>Compliance: Noted and agreed, Full cooperation shall be extended to the RO of this ministry for monitoring and requisite</p>

Sl. No	EC Conditions vide letter dated 29/11/2021	Revised EC Condition after Proposed Partial Transfer of EC
		Parent Company (JSWSL)
		data/information/monitoring reports shall be furnished. Remarks: None
xiv.	Any Appeal against the 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.	Revised EC Condition - Any Appeal against the 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. Compliance: Noted and agreed that any appeal against the EC shall lie with the National Green Tribunal. Remarks: None

Additional Specific Condition:

Applicability of Additional specific Conditions for JSWSL/Compliance of Additional Specific Conditions of JSWSL

Sl. No.	Additional Specific Condition	Compliance
i.	The PP shall strictly comply with the conditions as per the submitted action plan and within the timeframe as committed with respect to the partially/non-complied conditions as reported by IRO. No further extension of time period with respect to the non-complied specific conditions will be granted.	• JSWSL noted that the submitted action plan for the partially complied conditions shall be complied fully within the timeframe committed.
ii	M/s. JSWSL, being principal lessor shall be held responsible for compliance of all the conditions stipulated in EC dated 29.11.2021.	• JSWSL being a principal lessor commits that JSWSL shall be responsible for compliance of all the conditions stipulated in EC dated 29.11.2021.
iii	The PP shall ensure to operate the airport facility only after valid and	• JSWSL is operating the airport with all the necessary clearances & permissions from the concerned regulatory authorities.

Sl. No.	Additional Specific Condition	Compliance														
	requisite permissions required to operate the same.	<ul style="list-style-type: none">• JSWSL shall renew the Consents/permissions as and when required.• JSWSL shall obtain necessary valid and requisite permissions from concerned regulatory authorities, as and when there is any expansion/modernization.														
iv	The PP shall install the requisite number of CAAQMS linked with CPCB server at designated places.	<ul style="list-style-type: none">• Six nos. of CAAQMS stations have been already installed, CAAQMS-1 at Vidyanagar , CAAQMS-2 at Vaddu village, CAAQMS-3 at Shankar hill town, CAAQMS-4 at 10 MTPA gate, CAAQMS-5 at Sultanpur and CAAQMS-6 more at VV nagar township.														
v	The PP shall ensure that all the subsidiaries within JSW Complex shall have relevant permissions related to land, EC/FC/CTE/CTO and associated permissions required to operate such facilities along with separate entry/exit gates.	<ul style="list-style-type: none">• All the necessary JSWSL and other subsidiary companies land, EC/CFE/CFO along with separate entry and exit gates.														
vi	The PP shall ensure that there shall be sign boards at prominent locations covering name, capacity and area of the operating units within the JSW Complex along with EC/CFO details.	<ul style="list-style-type: none">• Complied, Signboards have been installed at prominent locations covering name, capacity and area of the operating units within the JSW Complex along with EC/ CFO details.														
vii	The PP shall comply with the condition for development and maintenance of greenbelt in at least 33% area of the JSW complex as principal lessor.	<ul style="list-style-type: none">• Being Complied with. Greenbelt in JSWSL: 951.22 ha (i.e. 29.4 %).• Work on balance 116.78 ha is under progress, expected to be completed by September 2024. <table><tr><th>Particular</th><th>Quantity</th></tr><tr><td>Total Area of JSW Complex</td><td>3234.2 ha</td></tr><tr><td>Required Greenbelt area.</td><td>1068 ha</td></tr><tr><td>Greenbelt and plantation already developed</td><td>951.22 ha</td></tr><tr><td>No. Of Trees planted</td><td>19,60,597 Nos.</td></tr><tr><td>Greenbelt area further being developed.</td><td>116.78 ha</td></tr><tr><td>Expected completion date.</td><td>September 2024</td></tr></table>	Particular	Quantity	Total Area of JSW Complex	3234.2 ha	Required Greenbelt area.	1068 ha	Greenbelt and plantation already developed	951.22 ha	No. Of Trees planted	19,60,597 Nos.	Greenbelt area further being developed.	116.78 ha	Expected completion date.	September 2024
Particular	Quantity															
Total Area of JSW Complex	3234.2 ha															
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No. Of Trees planted	19,60,597 Nos.															
Greenbelt area further being developed.	116.78 ha															
Expected completion date.	September 2024															
viii	The PP shall widely publicize the executive summary of the EC split proposal and publish the	<ul style="list-style-type: none">• After granting the Split of EC, the Executive summary of the EC split shall be published in local newspapers by Project Proponent.														

Sl. No.	Additional Specific Condition	Compliance
	split ECs in local newspapers.	
ix	The PP shall strictly comply with the directions of State Forest Department, obtain approval and implement the Integrated Site Specific Wildlife Conservation plan (ISSWLCP) as per the defined timelines.	<ul style="list-style-type: none"> ISSWLCP submitted to DCF, Ballari vide letter Ref. No. JSWSL/ VJNR/2023-24/01, Dated 16th Feb 2024. JSWSL shall comply with the provisions in the approved ISSWLCP.
x	All the three entities i.e. JSWSL, JVML and JSWCL shall undertake Village Adoption programme as committed.	<ul style="list-style-type: none"> Village Adoption programme shall be undertaken by Project Proponent and approx. Rs. 15 Cr. has been budgeted for the same by JSWSL, JVML and JSWCL. 10 Villages of Core Zone which will be adopted are : - Nagalapura, Anathapura, Chikantapura, Kodalu, Basapura, Talur, Madapura, Daroji, Joga, Lingadahalli. 4 villages will be adopted by JSWSL, another 4 villages by JVML and remaining 2 villages by JSWCL.
xi	All the other terms and conditions stipulated in environmental clearance vide letter no vide Ir.no. EC21A008KA165146 dated 29/11/2021 shall remain unchanged.	<ul style="list-style-type: none"> All the other terms and conditions stipulated in environmental clearance dated 29/11/2021 shall be remain unchanged and shall be complied.
xii	In the case of conflicts between any of the group companies that are splitted from JSWSL, JSWSL shall be responsible for the conditions stipulated in EC dated 29.11.2021.	<ul style="list-style-type: none"> JSWSL shall be responsible for the conditions stipulated in EC dt. 29.11.2021, in case there are any conflict.
xiii	PP shall ensure no conflicts in sharing common facilities in day-to-day operation.	<ul style="list-style-type: none"> JSWSL shall ensure there will be no conflicts in sharing common facilities in day to day operation.