

Janki Corp. Ltd.,

Six Monthly Compliance Report

Period: October 2015 to March 2016

Project: Expansion of Sponge Iron Plant (1,80,000 to 4,00,000TPA) and Installation of Iron ore Beneficiation Plant (0.6 MTPA) at village Sidiginamola, Taluk & District Bellary, Karnataka State.

Ref: EC issued by M0EF vide Letter F. No: J-11011/ 576/2009- IA II(I) Dated 23rd January 2012.

A. Specific Conditions

Sl.No.	Specific conditions	Status of Compliance
i.	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm ³ by installing energy efficient technology.	<p>The expansion of Sponge Iron units is not yet taken up. Continuous stack monitoring will be provided to all the stacks once the expansion of Sponge Iron units is taken up.</p> <p>The emission from stacks of existing sponge Iron units, pellet plant, power plant & IOBP and Ambient Air Quality are being monitored as per CFO conditions and the reports submitted to KSPCB regularly. ESP and bag filters have been provided. Through improved Technology, action will be taken to limit emission levels 50 mg/Nm³ for new units. (Monthly abstract enclosed as Annexure-1)</p>
ii	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 should be followed.	<p>NAAQ standards are followed.</p> <p>Ambient air quality at four locations is being monitored regularly and reports submitted to KSPCB. As per the reports the levels are within the limits.(Monthly abstract enclosed as annexure-1)</p>
iii	Gaseous emissions including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30 th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	<p>Noted.</p> <p>Gaseous emission levels are monitored regularly. New standards for the sponge iron plant issued by the Ministry vide G.S.R 414 (E) dated 30th May, 2008 is followed.</p>

iv.	Dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.	Complied. Dust extraction system and Bag Filters are provided to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points. Water sprinklers have been provided.
v	Hot gases from the DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.	Complied WHRB is installed and hot gases are used in WHRB. ESPs provided to control the particulate emissions from the WHRB.
vi	Total water requirement shall not exceed 864 m ³ / day. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants.	Expansion of Sponge Iron units is not yet taken up. Beneficiation Plant has been commissioned and in operation. The water consumption for beneficiation plant is 1100 m ³ /day.
vii	Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.	Rain water harvesting arrangement is made. Air cooled condenser will be explored for Power Plant to be set up. The process effluent is collected and treated in ETP. Treated effluent conforming to the prescribed standards is utilized in process, dust suppression and green belt development purposes. Zero discharge principle is adopted. Sanitary sewage is treated in septic tank followed by soak pit.
viii	All the char from DRI plant shall be utilized in FBC boiler of power plant and no char shall be disposed off anywhere else. FBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning.	Char from DRI plant is being fully utilized in FBC boiler of captive power plant and no char is disposed anywhere else.
ix	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the	On –Site Emergency Plan approved by the Dept. of Factories and Boilers and copy already submitted to the Regional office,

	Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.	MOEF
x	As proposed, green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Complied. The total plant area is 435.23 acres. We have developed plantation in an area of 166 acres (38.3%) in consultation with DFO.
xi	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Sponge Iron Plants should be implemented.	Our expansion project is new plant with State of Art technology built in to the system and CREP recommendations are considered at the planning stage itself.. However implementation of CREP recommendations is given in Annexure-3.
Xii	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 8 th March, 2011 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.	The commitments such as providing medical facilities to the nearby villagers, drinking water facilities, school uniform and employment to the locals etc are being implemented.
xiii.	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.	We are providing financial assistance to the socio-economic developmental activities in the nearby Villages. Rs.11.00 lacs towards total expenses of CSR for the period September 2015 to March-2016
xiv	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	There are no workers residing on our premises.

B.GENERAL CONDITIONS :

Sl.No.	General Conditions	Status of compliance
i.	The project authorities must strictly adhere to the stipulations made by the Karnataka State Pollution Control Board and the State Government.	The KSPCB stipulations are being complied with and the current CFO is valid up to 30.06.2016
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted and will be followed
iii.	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 th May, 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	The stack emission is being monitored, and as per the reports the levels are within limits. Interlocking facilities have been provided
iv.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and the SPCB/CPCB once in six months.	AAQ is monitored at four locations regularly and the levels are within the limits as per the reports provided. Data on AAQ and stack emission are being submitted on a monthly basis to KSPCB and once in six months to MOEF, RO.
v.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	The process effluent is collected and treated in ETP. Treated effluent conforming to the prescribed standards is utilized in process, dust suppression and green belt development purposes.
vi.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	The noise control measures such as acoustic hoods and silencers have been provided and the noise levels are monitored on monthly basis at Ten locations. The levels are within the limits prescribed. Monthly Abstract of Noise levels are given in Annexure 2

vii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied. A first aid centre with required facilities including ambulance is available. Doctor visits five days in a week regularly. OHS is being done through the outside doctors every year and records are maintained.
viii.	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Rain water harvesting Pond is created and the water stored in the pond is utilized in the process.
ix.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programme, educational programme, drinking water supply and health care etc.	EIA/EMP recommendations are being implemented. Socio-economic development activities such as community development programme, educational development, drinking water supply and health care etc are being undertaken in surrounding villages.
x.	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.	Adequate funds are made available as necessary for environment pollution control measures. Regular maintenance of all the Pollution Control equipment facilities is being properly attended. There is no non-functioning or less effective pollution control equipment in the Plant.
xi.	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied Copy of the EC was marked /sent to local Panchayat and Copy of EC has been uploaded on the company's website.
xii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of	Action is taken to upload the monitoring data on the company's website and to display the monitoring data at the main

	<p>monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bangalore. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.</p>	<p>gate of the company.</p>
xiii.	<p>The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore / CPCB / SPCB shall monitor the stipulated conditions.</p>	<p>The six monthly compliance report is being submitted to Regional Office, MOEF, Bangalore regularly.</p>
xiv.	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bangalore by e-mail.</p>	<p>Environmental Statement in Form - V is being submitted every year to KSPCB regularly and copy being submitted to RO, MOEF. Action is being taken to put latest environmental statement and status of compliance on company's web site.</p>
xv.	<p>The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bangalore.</p>	<p>Complied.</p> <p>Paper advertisements were given in two local newspapers and the copies of the same have been submitted to RO, MOEF.</p>

xvi.	Project authorities 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 and the date of commencing the land development work.	The iron ore beneficiation plant expansion work was started in the month of April 2012 and commissioned in 2013.
9	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
10	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
11	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 Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	Noted

Monthly Air quality monitoring data

Annexure - 1

I	Ambient Locations	Oct-15				Nov-15				Dec-15				Jan -16				Feb -16				Mar -16			
		PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2
	Standards (Unit: µg/m3)	100	60	80	80	100	60	80	80	100	60	80	80	100	60	80	80	100	60	80	80	100	60	80	80
1	Near New Admin office (West)	78.8	27.4	7.9	12.6	64.0	25.4	7.7	12.0	61.8	33.3	7.6	9.7	62.8	29.1	7.1	10.5	65.8	26.8	8.1	11.3	60.9	24.3	8.3	10.9
2	Near Old Admin Office (Sponge iron plant)	70.0	23.4	7.2	11.6	75.2	30.0	7.9	11.9	56.1	29.5	8.0	10.4	66.3	27.5	7.5	11.3	70.3	25.7	8.5	10.6	66.9	26.70	8.2	10.2
3	Near Power Plant (South Direction)	90.3	34.4	7.2	10.9	78.9	32.0	8.3	12.6	63.5	36.4	8.0	11.8	68.1	34.4	8.4	12.0	71.9	28.5	7.6	11.9	67.8	26.0	7.8	11.6
4	Near Rain Harvesting Area (East Direction)	69.2	22.6	7.1	10.9	63.4	24.4	7.4	10.7	51.9	22.8	7.4	9.7	57.6	23.5	7.3	9.8	61.7	27.0	8.0	10.6	56.9	25.0	8.5	10.2
II	Fugitive Emission	SPM				SPM				SPM				SPM				SPM							
	Standard (Unit: µg/m3)	2000				2000				2000				2000				2000							
1	Raw material handling area	1545.4				1498.0				1497.0				1482.6				1455.0				1434.9			
2	Crusher area	1410.0				1375.0				1620.3				1451.5				1430.0				1419.8			
3	Cooler discharge area	1320.0				1304.4				1032.0				1181.3				1164.0				1143.9			
4	Product processing area	1488.5				1445.0				1195.3				1017.3				1004.0				1013.8			
III	Stack	PM	CO			PM	CO			PM	CO			PM	CO			PM	CO			PM	CO		
	Standards -(Unit: SPM mg/Nm3, CO %v/v)	100	1			100	1			100	1			100	1			100	1			100	1		
1	Rotary kiln – I & II	85.2	00.521			77.0	00.557			78.9	00.566			77.6	0.624			73.5	0.539			78.9	0.559		
2	Rotary kiln – III & IV	80.4	00.624			86.4	00.724			82.2	00.518			84.4	0.419			79.6	0.524			82.9	0.539		
3	Rotary kiln – V & VI	73.4	00.421			78.4	00.524			80.5	00.481			79.2	0.528			75.0	0.624			77.9	0.636		

The Values are within the permissible limits

AMBIENT NOISE LEVEL

Unit: dB(A) Leq

S. No	Location	TIME FREQUENCY	Average Result in dB(A) Leq					
			oct -15	Nov -15	Dec-15	Jan -16	Feb-16	Mar-16
1	Near New Admin office	10 am to 10.15am	58.6	53.2	56.4	57.9	56.3	58.3
2	At East direction	10.20 am to 10.35 am	63.3	58.4	59.6	56.9	58.0	67.7
3	At West direction	10.45 am to 10.55 am	66.3	59.6	49.7	56.3	49.3	68.3
4	At South direction	11 am to 11.15 am	59.0	58.7	56.6	58.9	52.9	63.6
5	AT North direction	11.20 am to 11.35 am	62.7	66.3	57.9	60.3	56.4	67.6
6	Cooler discharge area	11.40 am to 11.55 am	67.7	68.1	60.5	62.8	62.4	68.6
7	DG-Set inside	12.05 pm to 12.20 pm	70.6	69.2	58.3	59.3	60.3	64.5
8	DG-Set out side	12.25 pm to 12.40 pm	66.8	58.6	60.0	56.4	55.7	68.5
9	Main Gate	12.45 pm to 01.00 pm	58.1	63.8	59.2	60.4	56.8	65.5
10	Power Plant Boiler	01.10 pm to 1.25 pm	72.2	59.8	64.4	63.6	64.2	68.1

Permissible limit: 75 dB(A) Leq Noise levels are within the permissible limits

Plan for the Implementation of the Recommendations of CREP Guidelines for Sponge Iron Plant

Sl. No.	Items	CREP Guidelines	Compliance
1	Kiln Stack height (m)	>60	60 Mtrs as per G.S.R 414 (E) 30 th May 2008
2	Kiln-off gas de-dusting	ESP /bag filter/Wet Scrubber system	ESP provided
3	Waste heat utilization	WHRB	WHRB (15 MW) installed
4	Interlocking facility to stop plant operation in case of air pollution control equipments are not in operation	Inter locking to be provided	Interlocking facility provided.
5	De-dusting units height (m)	>30	30mtrs chimney provided with bag filters
6	SPM discharge from stacks(mg/Nm ³)	<50	<100 (existing units) Flue gases from Chimneys attached to DRI units and other De dusting units are monitored regularly twice a month. Monitoring of Stacks & AAQ is done by M/s MSV Laboratory which is recognized by CPCB & KSPCB
7	Fugitive emission (SPM) source Ambient air quality (at a distance of 10 m) (µg/ m ³)	< 2000	< 2000 with effect from 30.5.2008
8	Raw material Handling	Dust suppression to be provided	Sprinkling of water while handling
9	Crushing and screening operation	To be provided dust pollution control system	Collection system and suction followed by bag filters
10	Work area including roads status	Metallic/asphalted/concreted	most of the internal roads have been concreted.
11	Cooler discharge and product separation unit	Dust extraction followed by ESP/bag filter	Collection system and suction followed by bag filters

12	Pollution control system	Integral part of the production process	Integral part of the production process for minimum emission
13	Effluent discharge standards	pH – 5.5-9.0 Ss – 100 mg/I COD – 250 mg/I Oil & Grease – 10 mg/I	Trade effluents are treated and used in DRI plant Cooling Towers make up water / Dust suppression/ Green belt development. Zero discharge norms
14	Noise level standards	Day time (6.00 am – 10.00 pm)-75 dB(A) Night Time (10.00 pm – 6.00 am) – 70 dB (A)	Noise levels are monitored regularly and the levels are within the prescribed standards.
15	Solid Waste Management	Char in FBC	Utilized in FBC boilers
16	Kiln Accretion	Utilization is sub base materials/ land filled / road construction	Road construction usage
17	Gas Cleaning Plant (GCP) sludge	Proper utilization after ascertaining the chemical composition	Land fill
18	Flue Dust	Re-use	Being re-used in Pellet Plant.
19	Siting guidelines	-	Complied with.